

TOPS[®] Pro Package Design and Pallet Software

User's Guide

Version 6.8
July 2017 Print Version



TOPS Software Corporation

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TOPS® Software Corporation

1301 Central Expy South, Suite 200
Allen, Texas 75013 USA

Telephone:	(972) 739-8677
Facsimile:	(972) 739-9478
Information:	info@topseng.com
Technical Support:	tech@topseng.com
Sales:	sales@topseng.com
MVP	mvp@topseng.com
Web Site:	www.topseng.com

Table of Contents

Preface	ii
About TOPS Pro.....	ii
How the User Guide is Organized	iii
Chapter 1: Getting Started	1
System Requirements/Specifications.....	1
Installing TOPS Pro	2
Starting & Setting Up TOPS Pro.....	6
Setting Up Client Machines for Network Install	7
Upgrading to TOPS Pro V6.8xx - Data Migration	7
Export data (from Current version).....	7
Import data (to new version).....	8
TOPS Pro Program Icon Group	9
Uninstall and Move TOPS Pro	10
Contact Information.....	10
Chapter 2: The Basics	11
Control Panel	12
Menu Bar	13
Windows Toolbar	14
Template Toolbar	15
Button-Style Menus	16
Right Click Menu	17
Customize the Control Screen Background.....	17
Package Design Sequence.....	18
Shortcut Buttons.....	18
Perform a Simple Analysis.....	19
Define the Package Design Sequence	19
Save the Package Design Sequence as a Template	19
Define Shipcase and Pallet Parameters.....	20
Revise Parameters for an Analysis (if necessary)	22
Analysis View	23
Solution View Pane	24
Solution View Menu	26
Statistics View Pane	27
Solution List Pane.....	28
Solution List - Tab View.....	29
UnitLoad Layer Parameters.....	30
Unitload Drawing Options	32
Function Buttons.....	33
Options Button	34
Print the Analysis	34
Define Print Parameters.....	35

Add Text, Lines, or Images to Printed Output	38
Change the Company Logo in Printed Output	41
Setup Default Printers and Printer Pen Width	41
Copy TOPS Graphics to Other Programs	42
Copy a Single Graphic	42
Paste Special	43
Save the Analysis.....	45
Direct Email From TOPS Pro	46
Email Analyses as Graphics Reports.....	46
Email Analyses as Text Files	47
Email Stacking Strength Results.....	47
Direct Export to PDF.....	47
Chapter 3: Advanced Features	49
Exercise #1: Fixed Carton-New Shipcase-Pallet Analysis.....	50
Exercise #2: New Carton-New Shipcase-Pallet.....	55
Exercise #3: Shipcase Consolidation Analysis (Database Function)	60
Exercise #4: Knockdown Analysis	63
Paste-On Graphics.....	70
Export.....	73
Export a Graphic	73
Export a Product Report	74
Export a Shipcase	74
Export a Carton.....	75
Export an Analysis.....	75
Export to a Robotic Palletizer.....	76
From Artios to TOPS: Box Data for Palletization	78
Setting Defaults in Artios CAD.....	78
Launching TOPS Pro	79
From TOPS to Artios: Box and Pallet information	81
Quick Print Template System	82
Combined Report.....	82
Control of Displayed Statistics.....	82
Shipcase Database Option	82
Chapter 4: Publishing an Analysis	85
Viewing the Published Analyses.....	88
Chapter 5: Package Pattern and Divider Editor.....	89
This chapter discusses the following editing functions in TOPS Pro:	89
Using the Pallet Pattern Editor	89
Move Boxes on the Pattern.....	93
Select Multiple Boxes.....	93
Rubber-Banding	93
Align Left/Right/Up/Down Buttons.....	94
Spread Horizontal/Vertical Buttons	94
Center Horizontal/Vertical Buttons.....	95
Flush Up/Down/Left/Right Buttons	95
Remove Boxes from the Pattern	96
Add New Boxes to the Pattern.....	96

Add a Box Using the Horizontal/Vertical Option.....	97
Using the Vehicle Pattern Editor	97
Using the Interactive Shipcase Sizing Editor	99
Move Cartons Inside the Shipcase.....	101
Rotate the Cartons.....	102
Add a New Carton.....	102
Resize the Shipcase.....	102
Defining Custom Dividers.....	104
Chapter 6: MixPro Mixed Pallet Editor	109
MixPro Pallet Editor	109
Create a Mixed Pallet Manually	110
Create a Mixed Pallet Using Layers	115
Layer Manipulations	117
MixPro Auto Load Generator	118
Direct Email from MixPro Pallet.....	121
Tips for Working with Cases on a Pallet	122
Loading MixPro Pallets into Trucks	123
Chapter 7: MixPro Mixed Tray Editor	125
MixPro Tray Editor	125
Create a New Shipcase/Tray	126
Create A New Package	128
Add Packages to the Shipcase/Tray.....	129
Save the Mixed Tray.....	131
Use the Mixed Tray in Mixed Pallet.....	131
Direct Email From MixPro Tray.....	133
Tips for Working with Packages on a Tray	134
Using MixPro Tray in the Design Sequence.....	135
Chapter 8: Create A Shape Yourself (CASYS).....	137
CASYS Primary Package	137
Edit View Work Area	138
Edit View Display Area	138
Other Primary Package Shape Functions.....	144
CASYS Shipcase/Tray.....	145
Chapter 9: Stacking Strength	151
The McKee Formula	151
Edge Crush Test.....	152
Ring Crush Test.....	152
Calculate Stacking Strength.....	153
Environment Factors Dialog Box	155
Stacking Strength Results.....	155
Stacking Strength Results – Menu Options.....	158
Sort Menu	158
Tools Menu	159
Email Stacking Strength Combo Board List	159
Define Stacking Strength Factor for a Non-RSC Box.....	160
Configuration Default Settings.....	160

QStrength: Quick Strength Reports.....	161
QStrength Report.....	162
Chapter 10: Package Profile	165
Create a Package Profile.....	165
Add a Product to the Package Profile.....	167
Edit a Product in the Package Profile	171
Remove a Product from the Package Profile.....	172
Chapter 11: Reports and Printing.....	173
Print Preview – Analysis	173
Define Print Parameters.....	174
Print Preview – Package Profile.....	178
Annotate a Printout with Text.....	180
Insert Arrows or Lines on a Printout	181
Annotate a Printout with External Graphics	182
Quick Print	183
Pallet Report	184
Pallet Report - Smart View.....	184
Pallet Report - Enhanced View.....	185
Combined Report: Compare Solution	186
Combined Report: Compare Analysis	189
Combined Report for Knocked-Down and Erected Boxes.....	190
Printer Width	191
Chapter 12: Designing Box Styles.....	193
General Guidelines.....	193
Understand the assumed caliper of flutes.....	193
Calculate thicknesses for a standard box style.	194
Calculate thicknesses for a non-standard container.....	194
Calculate thicknesses for a non-corrugated material.	194
Select a drawing style.	194
Box Style Drawing Parameters	195
Common Footprint Standard	195
Display Case	196
Display Tray	196
HSC.....	197
HSC with Top.....	197
Octagonal.....	197
RSC.....	198
Shrinkwrap.....	198
Shroud.....	199
Solid	199
Strap Bundle	200
Tear Out	200
Tray	200
Tray/HSC	201
Tuck.....	201
Wrap Around	202

Chapter 13: Designing Divider Styles	203
General Guidelines.....	203
2-Way Divider	204
2-Way Air Cell	204
Z Partition	205
U Partition	206
U Simple.....	207
Zig Zag.....	208
Other Partitions	208
U Over.....	209
Custom.....	210
Create a Custom Divider	211
Chapter 14: TOPS Pro Config Program File	215
File Menu	216
User Login	216
User List	216
Import	217
Export	217
Exit	217
Define Menu	218
Configuration	218
Language.....	218
Defaults.....	218
Environment Factors	219
Box Design Factors	219
Board Combinations	219
Paper.....	219
Flutes	219
Supervisor Menu.....	220
Login/Logout.....	220
Global Configuration.....	220
Maintenance Control	220
Check and Fix Database	221
Chapter 15: Supervisor Functions	223
Login/Logout.....	223
Change Password.....	224
Logoff a User	224
Add a User to the System.....	225
Delete a User from the System	226
Rename a User in the System	227
Approve an Analysis.....	227
Deny Approval of an Analysis.....	228
Transfer Other Users' Analyses	229
Transfer Analyses Using Move Owner.....	229
Set Up an Analysis Template	230
Delete an Analysis Template	231
Set Up a Quick Print Template	232
Delete a Quick Print Template	234

Global Configuration	235
Set Up Statistics	236
Set License	237
Chapter 16: RFID Analysis	239
Sort by RFID	240
RFID Analysis	241
Chapter 17: Eco Savings Report	243
Create the Analysis	243
Set up Cost Factors.....	243
Select the Solutions	244
Chapter 18: Send to MS Office	249
MS Office Templates	249
Export to MS Word	249
Export to MS Excel	251
Create a Custom Word Template	252
Copy Blank.dot to MyTemplate.dot	252
Format the Template	253
Add Tops Bookmarks.....	255
Tips on Using Bookmarks in MS Word	259
Create a Custom Excel Template	260
Create & Format a New Worksheet in Excel Template	260
Assign New Cell References	262
Tips on Using TOPS Templates in MS Excel	266
New Custom Export Template	266
Chapter 19: TOPS Pro Enterprise Client Version	269
Benefits	270
Who can Benefit from TOPS Enterprise Client Version	270
Additional Functionalities	270
System Requirements	272
Appendix A: Frequently Asked Questions	273
Appendix B: Dialog Boxes	281
Common Features.....	281
Graphic Online Display (g.o.d.) Feature	281
Bulge Factor	281
Positive Bulge.....	282
Negative Bulge	282
Printing Bulge Data	282
Common Buttons and Functions	282
About TOPS Pro.....	283
Additional Costing Data	284
Analysis Save As (Template)	284
Analysis Search	285
Assign Graphics	287

Auto Recover.....	288
Bag Options.....	288
Headspace	289
Bag Parameters	290
Primary Pack vs. Shipcase Bag Parameters	290
Bags Shaped Like Cartons	291
Blister Pack Options	293
Blister Pack Parameters.....	293
Board Combinations	295
Bottle Options.....	296
Bottle Parameters	297
Box Design Factors	299
Bucket Options.....	300
Bucket Parameters	300
Bundle Parameters.....	303
Calculate MixPal.....	304
Can Options	305
Can Parameters.....	305
Designing Soda Cans.....	306
Carton Options.....	306
Headspace	306
Carton Parameters	307
Case Styles	309
Color Selection.....	312
Combined Report Parameters.....	312
Configuration	313
General Tab	313
Results Tab	314
Reports Tab	315
Dimensions Tab.....	316
Numeric Tab.....	317
Statistics Tab	317
Global Tab	318
Container Diagram Spec.....	320
Container Pattern.....	321
Costing Data.....	322
Defaults (Button Menu Styles).....	323
Defaults (Carton/Bag Sizing)	324
Defaults (Intermediate Pack View).....	325
Defaults (Intermediate Sizing).....	326
Defaults (Pallet).....	327
Defaults (Pallet Spec)	328
Defaults (Primary Package)	329
Defaults (Print).....	330
Defaults (Shipcase).....	331
Defaults (Shipcase Patterns)	332
Defaults (Shipcase Sizing).....	333
Defaults (Stack Strength)	334
Defaults (Transit Vehicle Patterns)	335
Defaults (UnitLoad Patterns).....	336

Defaults (UnitLoad Sizing).....	337
Defaults (Vehicle Load Sizing)	338
Define Bag.....	340
Define Bottle.....	341
Define Can / Drum	342
Define Carton.....	342
Define Dividers.....	343
Define Film.....	345
Define Flute.....	346
Define Milk Carton.....	347
Define Package Info (MixPro).....	348
Define Pallet.....	349
Define Pallet Accessories	351
Define Paper	352
Define Product	353
Define Shipcase & Add Contents (MixPro Mixed Pallet Editor)	354
Define Shipping Case	355
Define Tub.....	356
Define Vehicle	357
Dividers	358
Drum Options	359
Drum Parameters.....	360
Easy Import	361
EcoSavings Report (ESR) - Analysis.....	362
EcoSavings Report (ESR) - Configuration.....	363
Environment Factors.....	364
ESR (Eco Savings Report) Analysis.....	365
Export Analysis.....	365
Export Analysis (2)	366
Export Base Data.....	367
Export Robotic Palletizer.....	368
Export to ASCII	369
Fixed Pack Parameters	370
Import From ASCII.....	371
Intermediate Pack Options	372
Sizing.....	372
Intermediate Pack Parameters.....	373
Knockdown Options.....	376
Layer Parameters (Options)	377
Layer Parameters	378
Basic Tab (Unitload)	378
Advanced Tab (Unitload).....	380
Load Plan.....	381
Milk Carton Options.....	382
Headspace	382
Milk Carton Parameters	383
New User	384
Open (XML).....	385
Open Analysis	386
Open Analysis (New via Template).....	388

Open Archived Analysis.....	389
Open Request for Approval.....	390
Package Instruction.....	391
Package Profile.....	392
Pallet Parameters (MixPro)	393
Preview Pallet report	394
Primary Pack Products	394
Print Parameters	395
Print Setup	397
Product Export	398
Product Parameters	399
Publisher	400
Quick Print	401
Rename Analysis	402
Save As (Analysis).....	402
Save As (External File).....	404
Select Items.....	405
Select Pallet Accessories	406
Select ShipCase	407
Select template to export	408
Select User	410
Move analyses for the currently login user:	410
Move all analyses among any users:.....	410
Send to ArtiosCAD.....	411
Set TOPS License	412
Shipcase Layer Parameters	413
Basic Tab	413
Advanced Tab.....	414
Shipcase Options.....	415
Sizing.....	415
Shipcase Parameters.....	416
Specification Products.....	420
Stacking Strength	421
Stacking Strength Filter	423
Stacking Strength Options.....	424
Supervisor Login	425
Text Modification	426
Tub Options.....	427
Tub Parameters	428
UL Label Parameters	430
UnitLoad (Pallet-Vehicle Analysis).....	431
UnitLoad Options	432
UnitLoad Parameters	434
User List	437
User Login	438
Vehicle Layer Parameters.....	439
Basic Tab	439
Advanced Tab.....	440
Options	440
Vehicle Options	441

Vehicle Parameters	443
Appendix C: Menu Options.....	445
File Menu	445
New.....	445
Open	445
New via Template	445
Save.....	445
Save As.....	445
Save As Template	446
Save As XML.....	446
Publish Analysis	446
Open Archive	446
Open XML	446
Print	446
Print Preview.....	447
Print Databases.....	447
Page Setup	447
Printer Setup.....	447
User Login	447
Package Profile.....	448
Analysis Details	448
Container Diagram	448
Request Approval.....	448
Email Analysis	448
Exit	448
Edit Menu	448
Copy to Clipboard Color.....	448
Copy to Clipboard B+W.....	448
Layer Parameters	448
Package Instruction.....	448
Modify Pattern.....	449
Select as Secondary Pattern.....	449
Go to Secondary Pattern.....	449
View Menu	449
3-Dimension.....	449
Plan	449
Front	449
Side	449
Text	449
Divider 3D	449
Divider Plan.....	449
Show/Hide Dims	450
Show Contents.....	450
Transparent Boxes.....	450
Show Graphics/C.A.S.Y.	450
Show Graphics	450
Show ShrinkWrapped	450
Show Strapped.....	450
Split Screen	451

Quad Screen.....	451
Tri Screen	452
Tri With Stat Screen	452
Hex Screen	453
Single Stack	453
Pop Top	453
Double Stack.....	453
Assembly.....	453
Exploded	453
Define Menu	454
Product	454
Carton	454
Can	454
Tub	454
Bottle	454
Film Bag	454
Milk Carton	454
Shipping Case.....	454
Pallet	455
Vehicle	455
Box Styles.....	455
Dividers	455
Pallet Accessories.....	455
Film	455
Bag Costing	455
C.A.S.Y. Primary Style	455
C.A.S.Y. Tray Style	455
Tools Menu	456
Configuration	456
Language.....	456
Stacking Strength	456
Search	456
User List	456
Color Selection.....	456
MixPro.....	456
MixTray	456
ESR	456
Recover Analyses	457
Import Menu.....	457
Import TOPS Data	457
Easy Import	457
Impact CAD	457
Export Menu	458
BMP (Color).....	458
BMP (B+W)	458
EPS	458
TIFF	458
PCX.....	458
JPEG	458
HTML.....	458

PNG.....	458
PDF.....	458
WMF	458
Product Report.....	459
Case	459
Carton	459
Analysis	459
Analysis Summary	459
Sarbrook – WinSPEX	459
Design Axis – PKG.....	459
Robotic Palletizer	459
Interface.....	459
Send to MS Office	460
Send to Impact.....	460
Base Data	460
Supervisor Menu.....	460
Login/Logout.....	460
Open Request	460
Approve	460
Deny Approval.....	460
Template Setup.....	460
QPrint Template	461
Revert From Last Approved	461
Set License	461
Launch Config.exe	461
Help Menu	461
Contents and Index.....	461
About	461
Email Problem Definition	461
Appendix D: Pallet Patterns.....	463
Appendix E: Box Styles	465
Appendix F: Divider Styles	469
Appendix G: TOPS Pro Bookmarks & Defined Names	471
Appendix H: Importing to TOPS Pro	479
Shipcase Database	479
Carton (Primary Pack) Import Format.....	480
Pallet Database	482
Product Database.....	483
Easy Import (Analysis) Format	484
Units for Import	485
Appendix I: Glossary.....	487



Preface

About TOPS Pro

Congratulations on purchasing TOPS Pro. You're now the owner of the most advanced packaging software in the world. TOPS Pro is extremely powerful and has proven to save millions of dollars for thousands of companies due to the efficiencies you'll realize in your business. We're confident that TOPS Pro will provide the same benefit to your company, regardless of your product, package or volume.

We've engineered TOPS Pro to meet the needs of the packaging professional. The software allows you to conduct a comprehensive range of analyses based on your product, package requirements, equipment and operations. You'll be able to perform operations that were never before possible without a quality software system.

Over the years, we've maintained a steady effort to simplify our software so that you, the end user, are able to conduct your packaging analysis quickly and efficiently. Just in case you have a problem, we've written this *User Guide* to assist you with every possible issue or question you might have.

If this User Guide does not answer your questions, or if you experience problems while using the TOPS Pro software, please call TOPS Technical Support or your TOPS sales representative at (972) 739-8677 or email us at tech@topseng.com.

How the User Guide is Organized

This User Guide comes with your purchase of TOPS Pro software and its smaller modules, PackStak and LoadStak. You will find some functionalities described here will not be available in your PackStak or LoadStak programs including MixPro Pallet, MixPro Tray, CASY and some stages in the Package Design Sequence.

This User Guide is organized into 18 chapters and seven appendices, as follows:

Chapter 1, **Getting Started**, discusses system requirements necessary to run TOPS Pro and instructions on how to install the TOPS Pro software.

Chapter 2, **The Basics**, presents the basic features and functions of the TOPS Pro system, such as the Control Panel, performing a simple analysis, the Analysis View and printing an analysis.

Chapter 3, **Advanced Features**, walks you through some of the more complex exercises, such as performing analyses with both fixed and newly designed containers, shipcase consolidation and performing a knockdown analysis.

Chapter 4, **Publishing an Analysis**, explains how to convert an analysis to an HTML page and publish it to a web site or network location.

Chapter 5, **Package Pattern and Divider Editor**, explains how to reconfigure cartons inside shipper, boxes on a pallet, or pallet inside a vehicle by moving individual items to different positions. You can also remove or add items inside a shipper, on the pallet or inside vehicle. This chapter also shows you how to create a custom divider using a graphic editor.

Chapter 6, **MixPro Mixed Pallet Editor**, discusses how to design a pallet for display with any number of different size boxes. The MixPro Pallet system allows you to easily load and place all types of shipcases onto a pallet. Use MixPro Pallet to create mixed pallets for display.

Chapter 7, **MixPro Mixed Tray Editor**, discusses how to design a tray for display with any number of different size items. The MixPro Tray system allows you to easily load and place all types of items onto a tray. Use MixPro Tray to create mixed trays for display.

Chapter 8, **Create A Shape Yourself (CASY)**, explains how to design custom-shaped bottles, cans, shipcases and trays for more realistic displays.

Chapter 9, **Stacking Strength**, discusses how to calculate the stacking strength of your shipcases, how to analyze stacking strength results and the technical formulas TOPS Pro uses in its calculations.

Chapter 10, **Package Profile**, explains how to create a package profile, which contains a number of products that use the same packaging; for example, several brands of cereal that use the same type of cereal box.

Chapter 11, **Reports and Printing**, walks you through all of TOPS reports and the system's printing functions, including how to define print parameters, add text and graphics to a print preview, the Quick Print feature and the new Combined Report feature.

Chapter 12, **Designing Box Styles**, presents the basic box drawing styles used in the TOPS Pro system

and provides guidelines for designing box drawing styles tailored to your own needs.

Chapter 13, **Designing Divider Styles**, presents the basic divider drawing styles used in the TOPS Pro system and provides guidelines for designing divider drawing styles tailored to your own needs.

Chapter 14, **TOPS Pro Config Program**, discusses the functions provided by the TOPS Configuration program, which is a separate program that allows you to customize TOPS Pro to meet your needs in a number of ways. For example, the TOPS Configuration program allows you to define a range of default settings – environment factors, box design factors, board combinations, paper, flutes, etc. – that TOPS Pro uses to perform everyday analyses.

Chapter 15, **Supervisor Functions**, explains how a supervisor can add, delete and rename users in the system; approve or deny an analysis; and set up an analysis or Quick Print template.

Chapter 16, **RFID Analysis**, gives a preview of the upcoming new feature, RFID Location Optimizer and explains how TOPS Pro can help determine placement of RFID tags for optimal readability on shipcases.

Chapter 17, **Eco Savings Report**, explains how to configure cost data and create ESRs to compare data on corrugated use/wastage and carbon emissions across different solutions.

Chapter 18, **Send to MS Office**, explains how to export TOPS analysis into MS Word and Excel. It also illustrates how to create custom TOPS templates for these MS Office tools using bookmarks and field names.

Appendix A, **Frequently Asked Questions**, outlines a comprehensive range of questions posed by TOPS Pro users.

Appendix B, **Dialog Boxes**, presents all the dialog boxes used in both the TOPS Pro system and the TOPS Configuration program, including the function of the dialog box, a screen shot of the dialog box, how to access the dialog box, and field descriptions and instructions.

Appendix C, **Menu Options**, outlines the eight menus that comprise the TOPS Pro menu bar – File, Edit, View, Definitions, Tools, Export, Supervisor and Help – and describes the options included in each menu.

Appendix D, **Pallet Patterns**, presents the 13 primary pallet patterns used in the TOPS Pro system.

Appendix E, **Box Styles**, presents the available box styles defined in the TOPS Pro database.

Appendix F, **Divider Styles**, presents the available divider styles defined in the TOPS Pro database.

Appendix G, **Tops Bookmarks**, provides a list of all bookmarks and corresponding TOPS images and statistics which you can include in any Word documents.

Appendix H, **Importing to TOPS**, provides the different format for importing shipcase and carton data into TOPS.

Appendix I, **Glossary**, provides definitions for a range of terms used in the TOPS Pro system and the packaging industry.

1

Getting Started

This chapter covers the following topics to help you get started with the TOPS Pro system:

- System requirements/specifications necessary to run TOPS Pro
- Instructions on how to install stand-alone and network versions of TOPS Pro software
- Guidance on how to setup the TOPS license
- Contact information if you need assistance

System Requirements/Specifications

To install and run the TOPS Pro software, your system needs to meet the following requirements:

Platform Client:	Windows XP, Vista, 7, 8 and 10
Platform Server:	Any, it only requires file shared
Network:	TCP/IP
Processor Client:	x86 or x64 (1GHz or higher)
Hard Disk Space:	500 MB or more
RAM Required:	1GB or more
Video Required:	1024 x 768 or higher at 16-bit color or higher
Database:	Standard version: no external database (DB) required for standard version. SQL/Oracle version: MS SQL or Oracle required (Express versions also supported)
Virtual Servers:	Supported
Direct X:	Version 6.0 or above. No additional component required for MS SQL Server. Oracle client full installation is required to setup the Oracle OLEDB provider if the database server is Oracle.


Network Information: TOPS Pro is installed from a client machine to the network file share. After the install, all work is done on the client(s). TOPS Pro and DirectX usually do not take more than 100 MB of space on the network, depending on the database size. DirectX is copied to the network file server for install on client(s) that do not have a working copy of DirectX.

The TOPS Pro software uses 32-bit code. For import/export of data, TOPS Pro uses ASCII comma delimited text files compatible with most document management systems, spreadsheets, databases and mainframes, including Excel, Access, Paradox, AS400 and UNIX platforms.

Installing TOPS Pro

Please refer to the Installation Instructions inside your software CD packet or download them from our web site at www.topseng.com. Before you begin the installation, please:


- Make sure you have sufficient rights (including read, write, modify and execute) to install to the local machine you will be using. For network version, you will also need the same rights to install the software to the network allocated for the application.


 **Note:** Contact your IT department if you are not sure about access rights.

- If you are installing a network license, please start from a client machine that will be using the software. You will have the option to point to the network location during installation.
- You **MUST** contact TOPS via phone or email to complete the license setup.

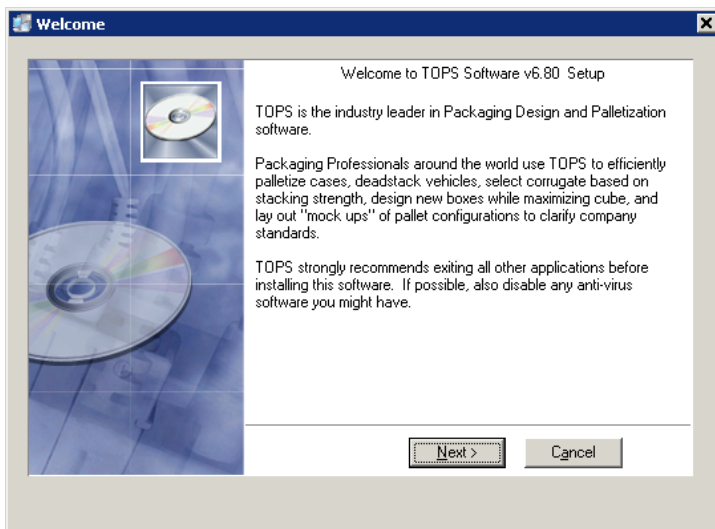
To start installation, follow these instructions:

1. Close all other programs.
2. Insert the installation CD into the CD-ROM drive. The TOPS Pro installation program launches automatically. Click on **Install TOP Pro**.

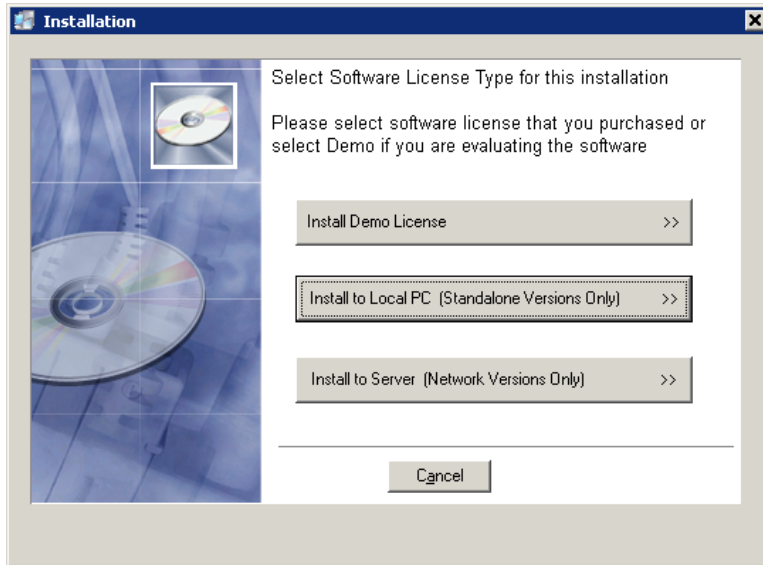
 **Note:** If the installation does not automatically start, use the Start/Run D:\setup command, where D: is your CD-ROM drive.

 **Note:** If you received the program via an electronic link to install the software, please unzip the files and click on TOPS_Setup.EXE to start installation.

3. Installation will start with the TOPS Pro software welcome screen and a reminder to close all Windows programs. Continue installation by clicking on the Next button.




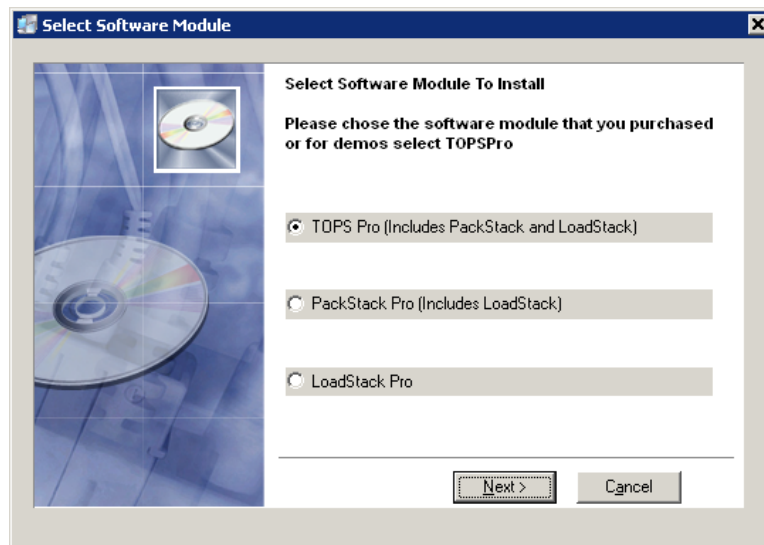
4. At the Installation dialog box as shown below, select the type of license that you purchased (Stand-Alone or Network):



- The **Standalone Version** should be installed to a Local PC (the CD cover will indicate the type of license you purchased). There can only be one single install for each stand-alone license.
 - The **Network Version** should be installed to a network share or file server (the CD cover will indicate network configuration). Be sure you start the installation from a client machine. If you are not, click the Cancel button and abort the setup process. Restart installation from a client machine that is connected to a network file location where TOPS will be installed.
5. Based on the Purchase License Information on the CD cover, select the TOPS software module you have purchased for installation and click on Next to continue.

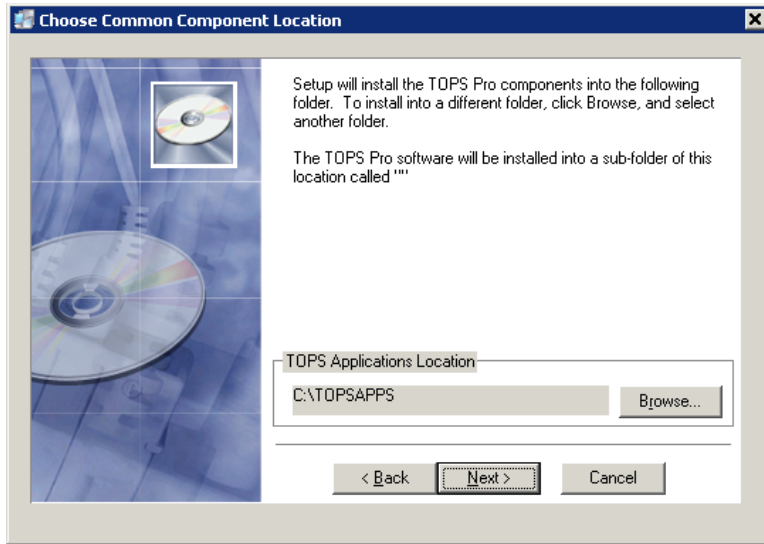
 **Note:** Refer to the section **Setting up Client Machines for Network Install** after license has been installed.

 **Note:** Contact TOPS if you are unsure which software module you have purchased. Have the serial number handy before you call. The serial number should be marked on the CD or in the email sent to you for electronic download.



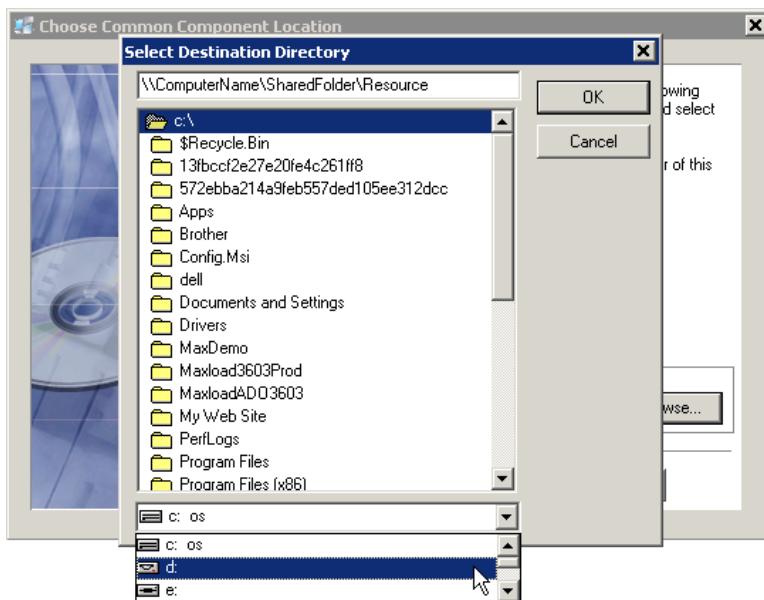
6. Choose Common Component Location of where the software will be installed to.

Stand-alone Install: We recommend using the default location of C:\TOPSAPPS. To use a different location, click Browse to specify an alternate location for the install.

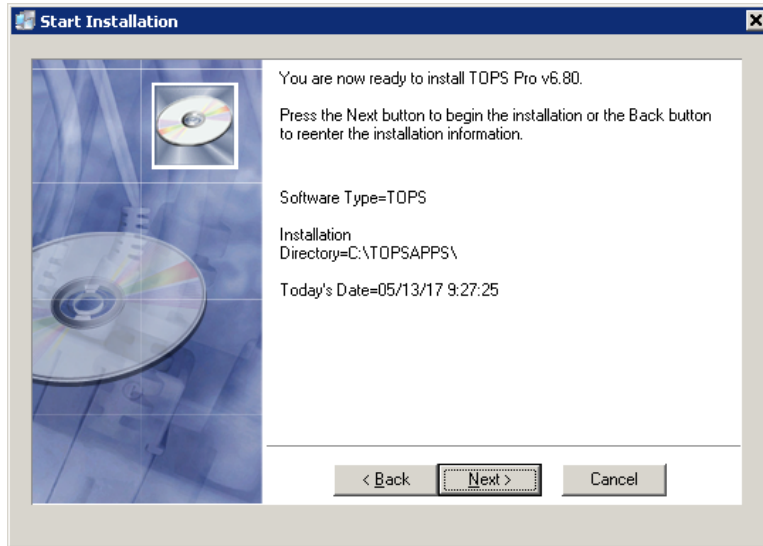


Network Install: We recommend using a UNC path for the software install but the option of selecting a mapped drive from the drop-down is still available.

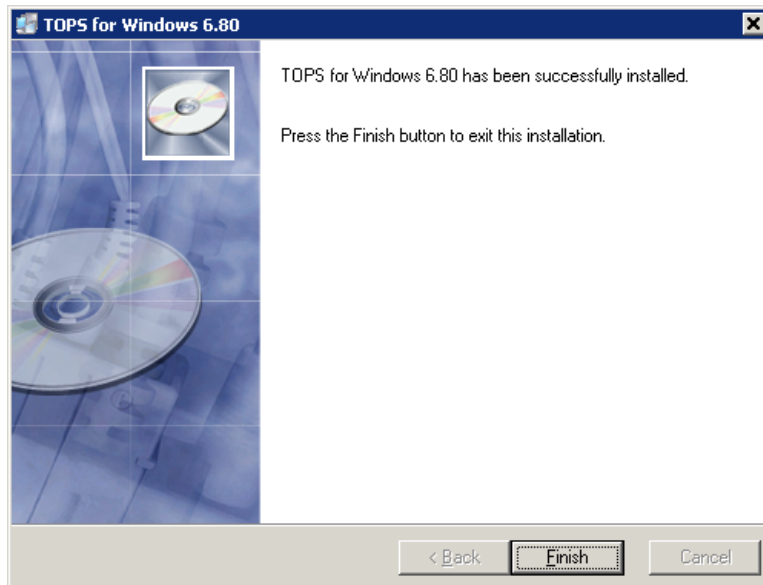
If you are installing your network license on Citrix or a Terminal Server, please stop at the install at this point and contact our tech support team for more details and options on installing to these environments.



7. Click Next to proceed.
8. TOPS will confirm the installation path. Click Next to start installation.

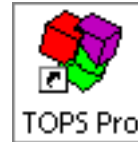


9. From this point on, you will see a series of dialog boxes indicating the progress of installation. When the process is complete, you will see the following screen. Click Finish to exit TOPS Set



Starting & Setting Up TOPS Pro

Once TOPS is successfully installed, a shortcut will appear on your windows desktop. When you launch TOPS for the first time using the shortcut, you will see the Set TOPS License dialog box.



To setup the license, have the following information ready and call TOPS at 972-739-8677 or email tech@topseng.com and ask for "New License Setup." This information is required in order to provide a valid Verification Code.

A screenshot of the "Set TOPS License" dialog box. The title bar reads "Set TOPS License". The main area is titled "TOPS Pro Version - 6.805 (Apr 25 2017)". It contains several input fields: "Company Name" with the value "TOPS Customer"; "Serial Number" with five boxes containing "0001007", "2001010", "0444333", "0624315", and "00"; "Key" with the value "296203293-0"; and an empty "Verification Code" field. Below these are four buttons: "Apply", "Exit", "EMAIL", and "Help". A "License Information" section is expanded, showing a table with fields: "Number of Users" (N/A), "Network / Standalone" (N/A), "Functionality" (S - T), and "Customization" (None). To the right of this table, a message states: "The program does not have a valid license. Status Code: 2247. Please contact TOPS Support to set license." At the bottom, there are two sections: "Default Language" with a dropdown menu set to "American", and "Def Units" with radio buttons for "English" (selected) and "Metric".

- **Company Name:** The name you would like to appear in all reports from TOPS.
- **Serial Number:** This number is on the CD used for the installation or in the download link or literature sent with the purchase of your license, NOT the generic serial number already populated in this dialog box.
- The **Key** from the Set TOPS License dialog box. This number will be unique to the machine where the install took place.
- **Verification Code:** This will be provided by TOPS to complete the license setup and can only be generated with the aforementioned information given.
- **System Defaults:** Allows you to select or set system defaults for the Language and Unit of Measure. Defaults can also be set later inside the application.

Enter the following: (1) Company Name, (2) Serial Number and (3) Verification Code from TOPS EXACTLY as provided into the above dialog box. Click on Apply. If all information is entered correctly, you should see a message saying "License successfully set" and the License Information section will

reflect the TOPS license module and format.

Congratulations! At this point, the installation is complete and you can start using TOPS Pro. To run TOPS Pro, go to Start | All Programs | TOPS for Windows Apps | TOPS Pro or click the TOPS Pro shortcut on the desktop.

Setting Up Client Machines for Network Install

The user should have full control (read, write, modify, execute rights) and access to the TOPSAPPS directory on the network and sufficient rights on the workstation you wish to setup TOPS on.


1. Use the same UNC path used during TOPS installation or permanently map a network drive from the client machine to the network share where TOPS was installed.
2. Browse across the network to the TOPSAPPS directory and run the WANSETUP.EXE file.
3. WANSETUP will copy necessary files to the local PC and install any required redistributables e.g. Microsoft Runtime, PDF writer, etc. It will create the required shortcuts for the software and place them in the TOPS for Windows Apps folder.
4. When WANSETUP completes, browse to the TOPS for Windows Apps directory under Start > All Programs (All Apps in Win10). Here launch the “TOPS Pro (WAN)” shortcut to access the application.
5. Repeat this process on all TOPS user machines.

Upgrading to TOPS Pro V6.8xx - Data Migration

If you are upgrading from a previous version/install of TOPS Pro, please follow these steps to export data from the current install. This step should be completed prior to installing V6.8xx.

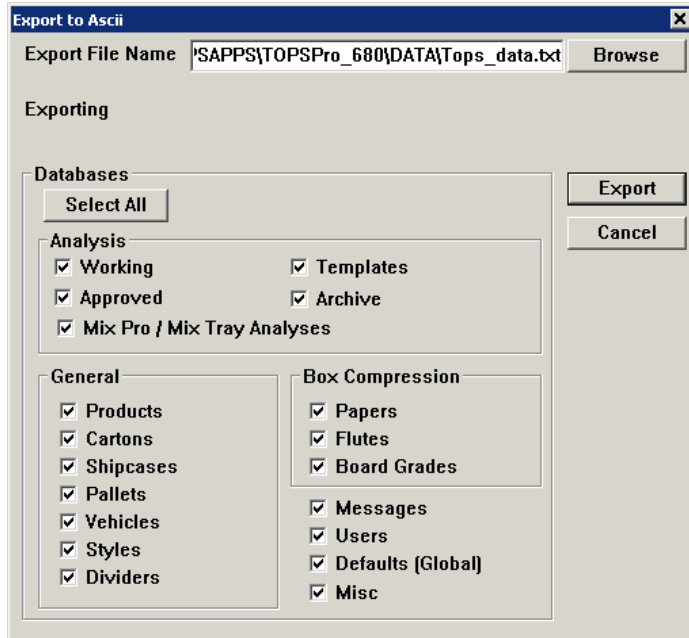
Export data (from Current version)

1. Run “TOPS Pro Config” (Config.exe, not TOPSPro.exe). From the taskbar, click on Start > All Programs (All Apps – in Win10). Find the TOPS for Windows APPS folder and click on TOPS Pro Config.

 **Note:** In Network versions, your shortcut may say TOPS Pro Config (NET) or TOPS Pro Config (WAN).

If you cannot locate this shortcut, please first verify with your internal IT where the install is running from or contact our Technical Support before proceeding.

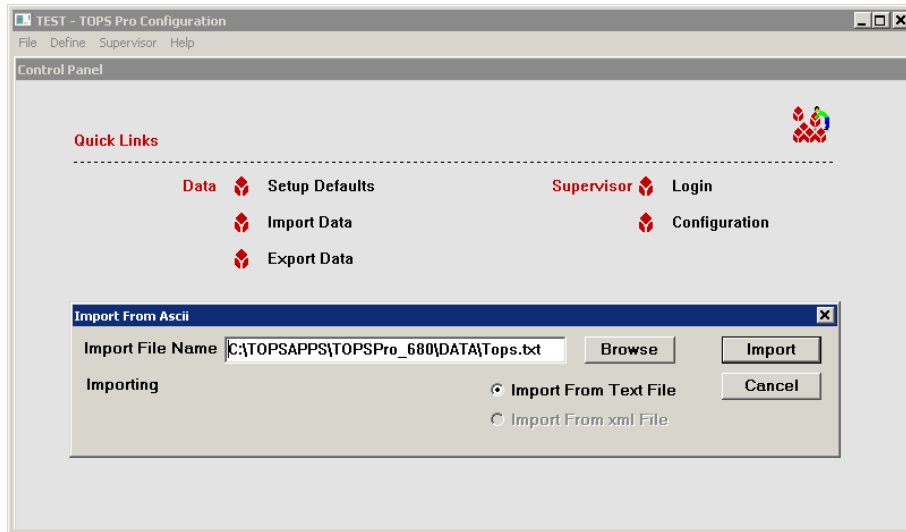
2. Login as any user.
3. Assume the Supervisor role by going to the Supervisor>Login/Logout. Enter the password tops software (Note: there is a <space> between both words.) and click on Login.
4. From the File menu, select Export.



5. Click Browse and select a location to save the export data file. Enter a new filename from the default top_data.txt if desired.
6. Click Select All to select all data.
7. Also check any other options that are not selected by default including Messages and Defaults (Global).
8. Click Export.
9. TOPS Pro Config will now export all the data to file specified in step 5. Wait for export to complete
10. Exit from TOPS Pro Config, and copy the export file from step 5 to a location that will be accessible so that it can be transferred or imported to the new install of TOPS Pro.

Import data (to new version)

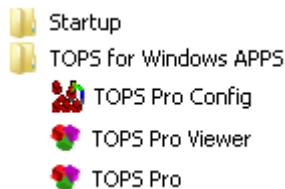
1. Run "TOPS Pro Config" (Config.exe, not TOPSPro.exe)
2. From the taskbar, click Start > All Programs (All Apps – in Win10). Find the TOPS for Windows APPS folder and click on TOPS Pro Config.
Note: In Network versions, your shortcut may say TOPS Pro Config (NET) or TOPS Pro Config (WAN).
3. Login as any user.
4. Click Import Data



5. Browse and select the data file that was exported from the older version (normally named top_data.txt).
6. Click Import.
7. If you receive message “Record already exists... Replace?”, check off the Apply to all check box and click Replace.
8. Wait for Import to complete.
9. Once the import completes, your old data should be present on the application. To verify that the old data was imported properly into the new version, click on the User Login section being populated with your unique user name (if applicable) or click File > Open and confirm that your old files are present.

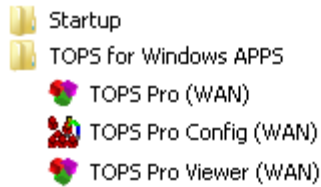
TOPS Pro Program Icon Group

The TOPS Pro program, generates three primary icons as follows:



- **TOPS Pro Config:** Allows you to change global defaults for TOPS Pro, perform bulk exporting, and even define and adjust your own board grades, papers and flutes. We will refer to this icon as the Config icon.
- **TOP Pro:** Launches the main program. We will refer to this icon as the TOPS Pro icon.
- **TOPS Pro Viewer:** Available only in the network version of TOPS, allows you to view analyses that have already been generated in the TOPS Pro system. This is a view/print-only feature and does not allow any changes made to the existing analyses.

 **Note:** If you are running a network license of TOPS, your program icons will be:



Uninstall and Move TOPS Pro

The TOPS Pro software is designed with an authorization scheme that enforces the TOPS Pro licensing agreement – each stand-alone license or network license can only have one single installation.

Circumstances may arise when you need to reinstall the software. For instance, if you are getting a new computer/hard disk or upgrading the version of Windows you're using. In such cases, please contact TOPS for assistance to re-install your TOPS license. Please note that you will have to delete/remove the old installation once the move has been completed.

Contact Information

If you need to contact TOPS Technical Support for any reason, use the information below:

TOPS Software Corporation
1031 Central Expy South, Suite 200
Allen, Texas 75013 USA
Phone 972.739.8677
Fax 972.739.9478

Email for technical support: tech@topseng.com
Email for sales information: info@topseng.com

Web page: www.topseng.com

2

The Basics

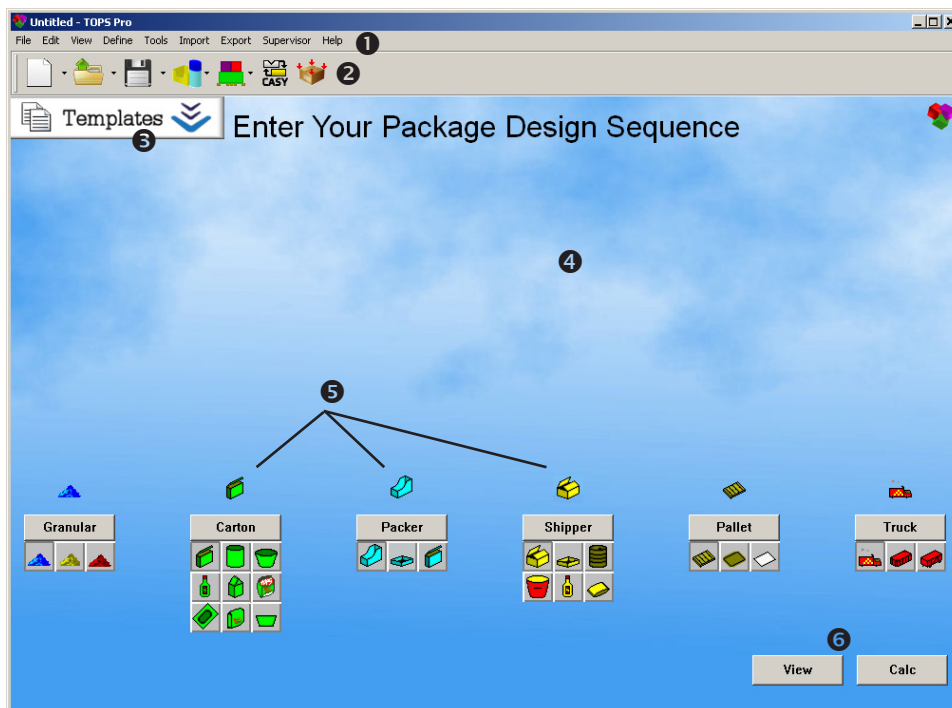
This chapter walks you through the basic features and functions of the TOPS Pro System. It is important to understand and master the basic attributes first, so we will describe each one of these. This chapter also introduces the basic stages in the sequence and how they are normally used as follows:

- **Control Panel:** Introduces the primary panel in the system, which allows you to select the type of analysis you want to perform, the modules to be used in the analysis, and the dimensions of each module.
- **Perform a Simple Analysis:** Walks you through the steps to perform a simple shipcase-to-pallet analysis.
- **Analysis View:** Displays the different solutions generated for your analysis. Allows you to select the solution that best meets your packing needs.
- **Layer Parameters:** Explains how to apply a number packaging characteristics – rotations, pads, trays, slipsheets, caps, secondary patterns – to your unitload layers.
- **Print the Analysis:** Explains how to design the layout of the printout, including what type of information to include and how to present that information (different graphic views, text and numbers, etc.) and how to add your company logo in the reports.
- **Copy an Image to the Clipboard:** Explains how to select an image in TOPS Pro and copy it to the Windows clipboard. Explains how to copy the image into Microsoft Word or Power Point and how to use the Paste Special feature.
- **Save the Analysis:** Explains how to save your analysis to the database.
- **Direct Email from TOPS Pro:** Allows you to email a standard printout directly to another person who may or may not have TOPS Pro.
- **Direct Export to PDF file:** Allows you to create TOPS analysis reports directly to a PDF file without using Adobe Acrobat or other third party PDF writer.

Control Panel

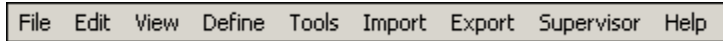
When you login to the system, the Control Panel appears, as pictured below. The Control Panel is the primary panel in the system, and it is the working area from which you will select: the type of analysis you want to perform, sequence to be used in the analysis, and define the dimensions of each stage. The Control Panel contains all the primary features of the system:

- 1 Menu Bar
- 2 Windows Toolbar
- 3 Template Toolbar
- 4 Package Design Sequence Area
- 5 Button-Styled Menus
- 6 Shortcut Buttons




Menu Bar

The Menu Bar, pictured below, provides a number of drop-down menus. These menus provide options that allow you to perform common tasks, many of which are duplicated on the Button Bar and Shortcut Buttons.



The list below describes the function of the eight menus on the Menu Bar:

















- **File Menu:** Create new records, open existing records, save records and set up print parameters. You can also use this menu to publish and access existing archived analyses.
- **Edit Menu:** Copy text and images to the Windows clipboard, as well as work with secondary pallet patterns.
- **View Menu:** View graphic images in several formats: 3-D, front, side, split screen, quad screen and others.
- **Define Menu:** Define parameters for new products, cartons, shipcases, pallets, vehicles, etc. as well as access to the C.A.S.Y functions.
- **Tools Menu:** Revise your TOPS Pro configuration, the language used in TOPS Pro, stacking strength parameters, color selections, Eco Savings Reports (ESR) and MixPro functions.
- **Import Menu:** Import TOPS analyses.
- **Export Menu:** Export different types of graphic files (.bmp, .tif, .jpg), analyses, product reports, etc.
- **Supervisor Menu:** Allows you to perform supervisor functions such as login/logout tasks, access approval and denial, template setup, etc.
- **Help Menu:** Displays Help information for all features and functions in the system.

 **Note:** For detailed information about all the menus and menu options included on the Menu Bar, please refer to Appendix C, Menu Options.

Windows Toolbar

The Windows Toolbar, as pictured below, contains a number of icons that allow you to perform standard, routine functions. It also provides direct links to parameter dialog boxes for primary packaging, intermediate packers, shipcase, unitloads and vehicles so you can modify those parameters without losing your place in the analysis.

The following table outlines the icons found in the Toolbar and their corresponding purpose.

Icon	Function
	New Analysis: Start a new analysis from scratch or start a new analysis via a predefined analysis template.
	Open Analysis: Open an analysis in standard format or in XML format. This will lead to the respective dialog box for further action.
	Save Analysis: Save the analysis as a new analysis, as a template or as an XML file.
	Print: Print the current analysis, pallet report, package profile, container diagram, combined report or compare solutions.
	Previous: Takes you to the previous step in the Package Design Sequence for an analysis
	Next: Takes you to the next step in the Package Design Sequence for an analysis. If there is no next step, this icon takes you back to the Package Design Sequence.
	Cancel to Package Design Sequence: Cancels out of the active analysis and takes you back to the Control Panel (Package Design Sequence area).
	Design CASY Shape or Tray: Open the CASY Primary Package Style or CASY Tray Style function editor.
	MixPro / MixTray Editor: Open the MixPro Mixed Pallet Editor or the MixTray Mixed Tray Editor.
	Modify Parameters: Quickly access the parameter dialog box for the different design sequence: primary pack, interpack, shipcase, unitload or vehicle.
	Show CASY: Serves as a toggle switch to turn on or off the CASY graphics display.
	Stacking Strength: Opens the Stacking Strength dialog box.
	Send to Office: Send current analysis to Microsoft Word or Excel.
	Information: Export current analysis data to Artios CAD, Impact CAD or open the Load Plan function to determine the load requirements for a specified quantity of primary product when the current package sequence is used.
	Export: Select from the menu the different export options. For graphics, export options include BMP, JPEG, PNG and PDF files. Users can also export analyses in text or XML format or export data to Artios CAD.
	Create PDF: Create PDF report for analysis, pallet report or package profile.

Template Toolbar

A Template Toolbar will be displayed upon clicking the Templates button.



The Toolbar, pictured below, gives you easy access to analysis templates set up in the system.

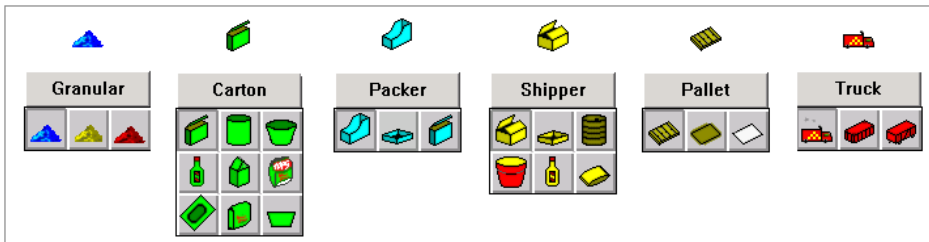


Notice the first button in the toolbar to the left. This template button shows four stages of an analysis: Can/Cylinder>Shipcase>Pallet>Vehicle. If you click on this button, TOPS Pro automatically inserts the corresponding icons in the Package Design Sequence Area.

As you set up the stages that make up an analysis, TOPS Pro allows you to save the analysis as a template and add it to the Template Toolbar. For more information, please refer to the section "Perform a Simple Analysis."


Button-Style Menus

The Button-Style Menus, as pictured below, allow you to set up a Package Design Sequence and select the various stages to be used in an analysis.



There are six Button-Style Menus, each represents a stage of an analysis.

Each button-style menu contains a group of items that allow you to define the stages of an analysis. To select an item from the menu, click on the graphic representation of the shaped item in the group, then click on the text button at the top of the group. As you select each stage, the corresponding icon will appear in the Package Design Sequence Area of the Control Panel. To remove an icon from that area, simply click the text button again.

 **Note:** Be aware that there are a few duplications in the button-style menus that should be clarified.

- **Carton Icons:** There are two Carton icons. The Box Carton icon (green) displays the Carton Parameters dialog box for primary pack (products). The Intermediate Pack Carton icon (blue) displays the Intermediate Pack Parameters dialog box.
- **Tray Icons:** There are two Tray icons. The Pack Tray icon (blue) displays the Intermediate Pack Parameters dialog box. The Shipper Tray icon (yellow) displays the Shipcase Parameters dialog box.
- **Bag Icons:** There are two Bag icons. The Film Bag icon (green) and the Shipper Bag icon (yellow) both display the Bag Parameters dialog box. However, you will use the green Shipper Film Bag icon to design a bag that contains a product. The Shipper Bag icon will be needed to put a bag onto a pallet.
- **Bottle Icons:** There are two Bottle icons. The Bottle icon (green) and the Shipper Bottle icon (yellow) both display the Bottle Parameters dialog box. However, you will use the green Bottle icon to design a bottle that goes into a shipcase. The Shipper Bottle icon will be needed to design a bottle that goes onto a pallet.

Right Click Menu

Place the mouse cursor on any blank area of the Control Panel and click the right mouse button.

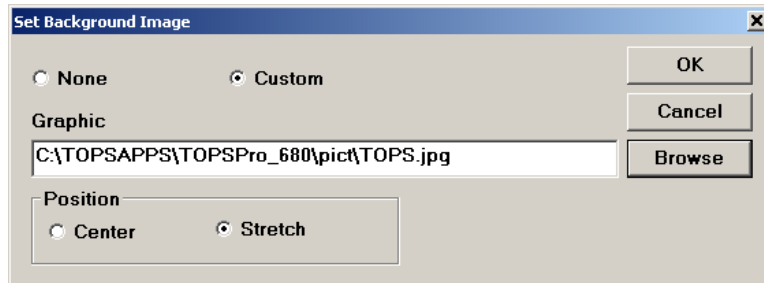
The Right Click Menu, pictured on the right, allows you to set up a Package Design Sequence, as well as to replace the wall paper used for the background of TOPS Control Panel.

Click the corresponding design step to be added to the Design Sequence; a check mark will indicate the steps chosen from the menu.

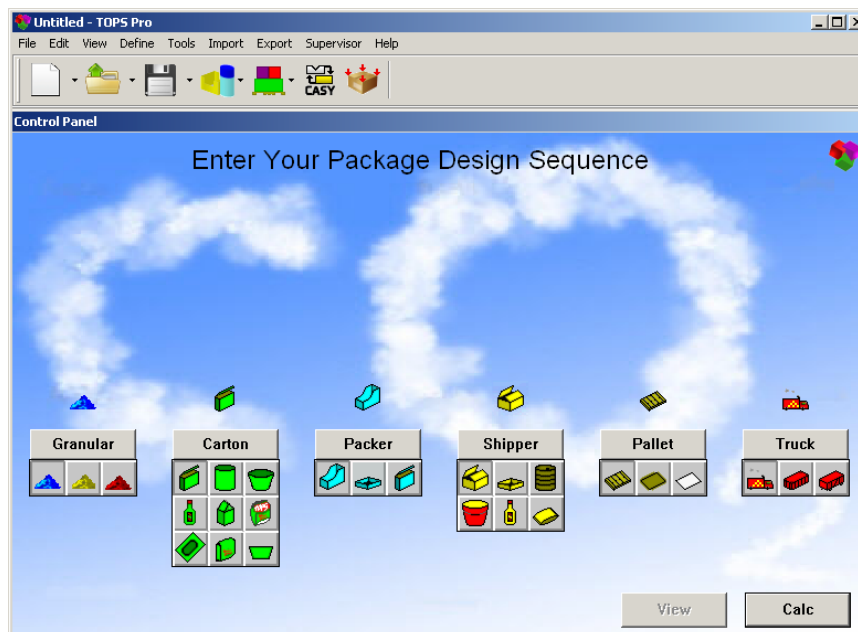


Customize the Control Screen Background

Click the Set Background option in the Right Click menu to open the Set Background Image dialog box, as pictured here.



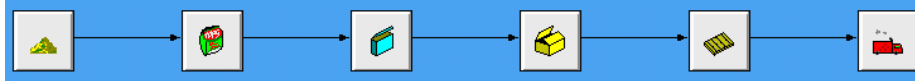
- **Custom:** Click this button to use a new image for the Control Panel.
- **Graphic:** Click Browse to locate a folder and specify the graphics image to be used.
- **Position:** Click Center to center the image on the Control Panel in its native resolution and fill the entire Control Panel with the new graphic.



Package Design Sequence

You can create a Package Design Sequence in the control screen and you can define a series of stages for an analysis. For example, if you selected six stages from the Button-Style Menus: bulk, bag, carton, shipper, pallet and truck, the corresponding modules will appear in the Package Design Sequence Area.

The icons you see in this figure are often referred respectively, as follows: the Bulk Parameters icon, the Primary Pack Parameters icon, the Intermediate Pack Parameters icon, the Shipcase Parameters icon, the Unitload Parameters icon and the Transit Vehicle Parameters icon.



The above represents a Package Design Sequence in which you will find the best solution for this particular analysis: bulk product into a bag, into a carton, into a shipcase, onto a pallet and into a truck.

Next, when you click on any of these icons, a dialog box will appear and allow you to define the parameters of that particular stage in the sequence. For example, when you click on the Bottle icon, the Bottle Parameters dialog box appears, and you can tell the system precisely how your bottles are designed in terms of dimensions, weight, shape, etc.

You can also click the Calc button on the lower right hand corner to start defining parameters for each stage.

Shortcut Buttons

The Shortcut Buttons, pictured below, allow you to view and calculate solutions for an analysis.



- **View Button:** Display and view the solution panels (Analysis View) for a selected analysis. This function becomes active only after an analysis has been completed.
- **Calc Button:** Calculate solutions for an analysis. After you have selected the stages for the analysis and defined parameters for each stage, the Calc button tells the system to generate all possible solutions for the analysis given the data you entered.

If you click on the Calc button and your analysis is incomplete, you forgot to enter a necessary detail. TOPS Pro automatically displays the appropriate dialog box and prompts you to enter the missing data. If you have simply made changes to the analysis, the system allows you to look over the changes you made before you continue.

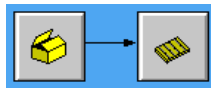
Perform a Simple Analysis

To follow through with the basics of the TOPS Pro software, this section will include an example on how to create a simple analysis and leads to the Analysis View, which is presented in the next section.

In this example we will place a shipcase onto a pallet. This is very common analysis and considered simple because it involves only two stages. We are stacking shipcases of dimension 17x13x11 (inch), weighing 10 pounds onto a pallet with no overhang.

Define the Package Design Sequence

To perform this analysis, start from the Control Panel and click on the Shipper and Pallet icons.

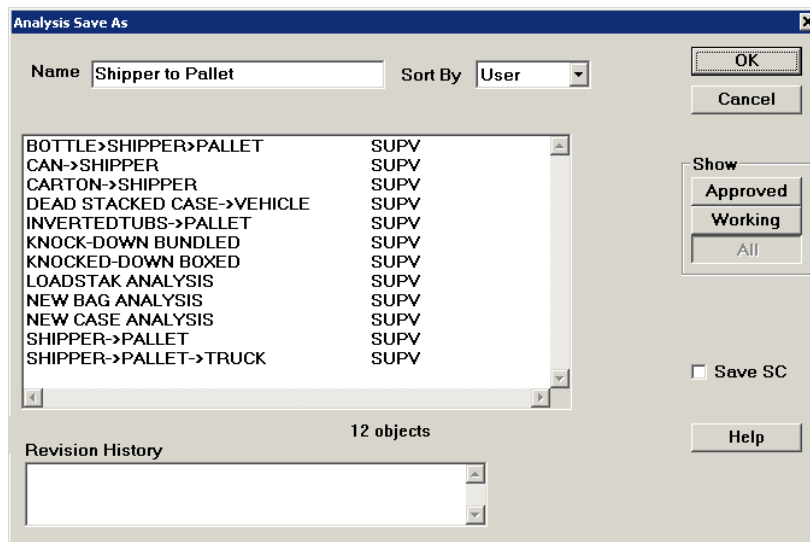


Save the Package Design Sequence as a Template


The shipcase-to-pallet sequence is a routine analysis that you will perform frequently. TOPS Pro allows you to save this analysis as a template and add it to the Template Toolbar.

To save the Package Design Sequence as a template, follow these steps:

1. Go to the Menu Bar and open the File Menu.
2. From the File Menu, click the Save As Template option. An Analysis Save As dialog box appears, as shown in the figure below.
3. In the Name field, enter the name of the new template (e.g., Shipper to Pallet) and click OK.



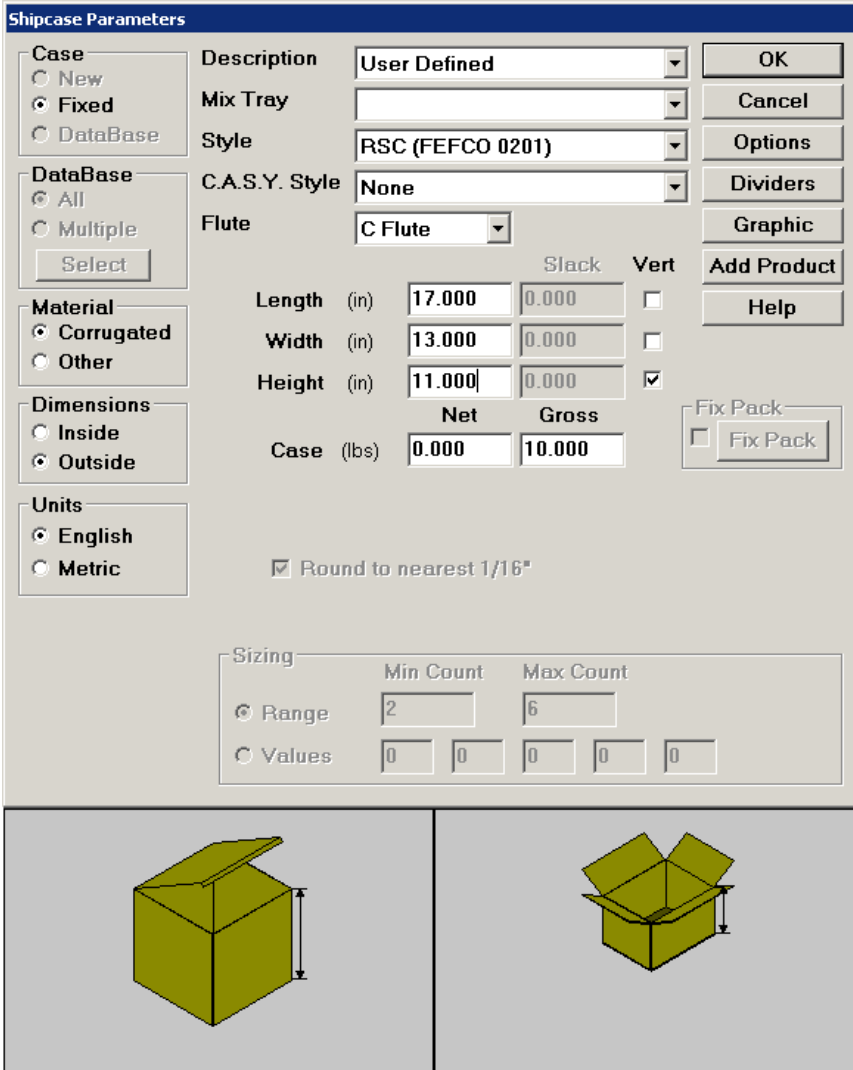
TOPS Pro saves the new template to the database and adds it to the Template Toolbar. The next time you want to perform this same analysis, simply go to the Template Toolbar and click on the “Shipcase to Pallet” template button or click File > New via Template and select the corresponding analysis from the list.


 **Note:** To display the Template Toolbar on the Control Panel, go to Tools, select Configuration. Under the General tab, make sure the Display Template Buttons option is checked.

Define Shipcase and Pallet Parameters

To define parameters for the shipcase and pallet, follow these steps:

1. Click on the Shipper icon in the Package Design Sequence area.
2. Enter data to define your shipcase parameters as shown in the dialog and click OK. TOPS stores your parameters to memory and closes the Shipcase Parameters dialog box.



 **Note:** The graphic illustration at the bottom of the dialog box is called **graphic on-line display (g.o.d.) window**. It is context sensitive and gives a graphical depiction of the parameters you enter. It can be turned off under Tools> Configuration menu.

- Click on the Pallet icon in the Package Design Sequence area and the UnitLoad Parameters dialog box, as shown in the following screen.

UnitLoad Parameters

Pallet

Single Pallet Style: **GMA (NOTCHED)**

Slave Pallet Slave: _____

Number of Slaves: **Two**

Multi Pallets **Select Pallets**

Optimize for all Pallets Optimize for each Pallet

Maximum Height (incl. Pallet) (in) **56.00**

Maximum Weight (incl. Pallet) (lbs) **9999.000**

Load Offset

	Length (in)	Width (in)
Maximum Overhang	0.00	0.00
Maximum Underhang	15.00	15.00

Units

English Metric

Packaging weight (lbs) **0.000**

Limit to Max.

Layers: **0** Items/Layer: **0** Total Items: **0**

Max UL High **4** **Clamp Direction** **N/A**

Pallet Size (in) **48.00 × 40.00 × 5.00**

OK **Cancel** **Options** **New Pallet** **Layer** **Help**

- Change the Maximum Overhang to 0 for both Length and Width dimension and click on OK. TOPS stores your parameters to memory when the UnitLoad Parameters dialog box closes.
- Click on the Calc button to generate solutions for the analysis.

TOPS Pro uses the defined parameters – shipcase and unitload – and generates all possible solutions for the analysis. When the calculation is complete, the Analysis View appears. The next section discusses the Analysis View in detail.

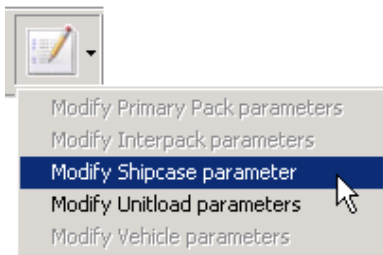
Revise Parameters for an Analysis (if necessary)

To revise any parameters for an analysis that has not yet been generated (this is prior to clicking on the Calc button), follow these instructions:

1. Click on the appropriate icon (shipper, pallet).
2. Use the dialog box to make the necessary changes.

To revise any parameters for an analysis that has already been generated (after having clicked Calc), follow these instructions:

3. Click on the Modify icon in the Windows Toolbar and select the desired parameter to be modified. For example, to revise shipcase parameters, click on the Modify button and then select Modify Shipcase Parameters in the drop down list.



4. Enter the necessary changes in the Shipcase Parameters dialog box.
5. Click OK. TOPS Pro uses your changes to generate a new set of solutions.

Analysis View

When TOPS Pro generates solutions for an analysis, it displays the Analysis View, as pictured below. You will use the Analysis View to evaluate and select the different solutions that best meets your packing needs.

The Analysis View is normally divided into three panes, which work in conjunction with one another. Below is a brief description of these three panes:

- **Graphic View Pane ❶:** This pane, in the top left portion of the screen, displays a graphic of what the selected unitload solution looks like – i.e., how the shipcases have been loaded onto the pallet.
- **Statistics View Pane ❷:** This pane, in the top, right portion of the screen, displays detailed statistics for the selected solution.
- **Solution List Pane ❸:** This pane, at the bottom of the screen, displays a list of the best 50 (if there are 50) solutions generated for the analysis, along with a variety of basic information for each solution.

The screenshot shows the TOPS Pro software interface. The main window is titled "Untitled - TOPS Pro" and contains a menu bar (File, Edit, View, Define, Tools, Import, Export, Supervisor, Help) and a toolbar with various icons. The interface is divided into three main panes:

- Graphic View Pane ❶:** Displays a 3D perspective view of a unitload on a pallet. The unitload consists of yellow and pink cases. Dimensions are shown: 39.000 (width), 47.000 (length), and 49.000 (height).
- Statistics View Pane ❷:** Displays detailed statistics for the selected solution. The data is as follows:

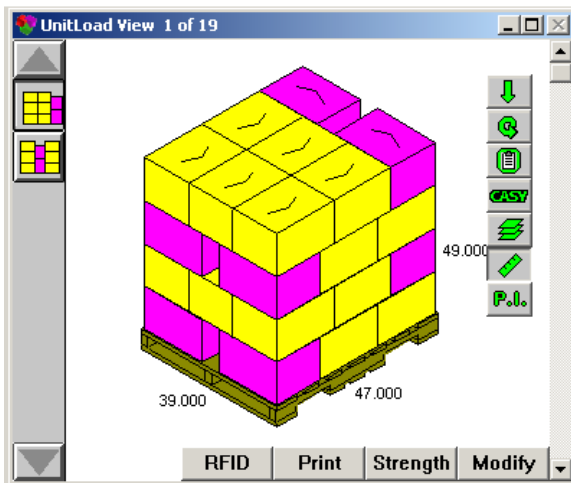
GMA (Notched) 48.000x40.000x5.000			
Shipper (ID)	Shipper (OD)	Shipper Bulge	UnitLoad (Incl. Pal)
Ln: 16.6875 in	17.0000 in	0.0000 in	47.000 in
Wd: 12.6875 in	13.0000 in	0.0000 in	39.000 in
Ht: 10.3750 in	11.0000 in	0.0000 in	49.000 in
Net:	0.00 lb		0.00 lb
Grs:	10.00 lb		385.00 lb
Cube:	1.271 ft ³	1.407 ft ³	51.977 ft ³
Height Vert			
Shipper:			32
Area Efficiency:	0.00 %		92.08 %
Cubic Efficiency:	0.00 %		79.44 %
Cases per layer:			8
Layers/load:			4
Pattern:			Interlock
- Solution List Pane ❸:** Displays a list of solutions. The data is as follows:

Select	Sol	Case Wgt	Vol (ID)	Dim Vert	Len	UL Wid	Hgt	UL Wgt	Ptm Type	Cases /Layer	Layers /UL	Cases /UL	Area Eff	Cubic Eff
<input checked="" type="checkbox"/>	1	10.000	1.271	H	47.000	39.000	49.000	385.0	B	8	4	32	92.08%	79.44%
<input type="checkbox"/>	2	10.000	1.271	H	43.000	39.000	49.000	345.0	B	7	4	28	80.57%	69.51%

Solution View Pane


The Graphic View pane displays a 3-D graphic of what the selected solution looks like; this pane is linked to the Solution List pane at the bottom. For example, if you select Solution 1 from the Solution List, this view pane displays a graphic that corresponds to Solution 1. If you select Solution 5 in the Solution List, the Solution View displays a graphic for Solution 5, and so on.

In this analysis, the UnitLoad Graphic View pane, pictured below, shows a graphic view for Solution 1.







Notice the following features on this pane:


- **Type of Solution:** The title bar of the pane reads “UnitLoad View 1 of 19.” If this were a Carton solution, the title bar would read “Carton View ...” The title bar of the pane also shows a counter (for example, 1 of 19). This tells you that this is the first of 19 solutions generated by the system.





-  **Alternate Pallet Patterns:** For a given solution, there might be a number of alternate ways you can configure the unitload on the pallet. For each possible configuration, TOPS Pro displays a button on the left side of the pallet. In the figure on the previous page, two buttons correspond to two possible configurations for Solution 1. If there were six possible configurations, the pane would display six different buttons.

If you click on a button, the pane redraws to show the selected configuration. If there were a large number of buttons, the scroll bar would allow you to access all the available buttons.

 **Note:** Keep in mind that these buttons represent different configurations for a single solution, not different solutions.

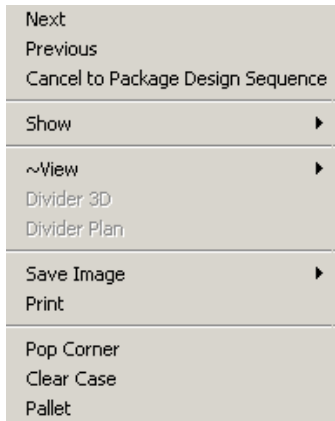
-  **Rotation Buttons:** For any solution, click on these buttons to rotate the 3-D graphic along the horizontal and vertical axes respectively.
-  **Copy to Clipboard Button:** Copy the 3-D unitload graphics to the system clipboard. Once on the clipboard, the graphics can be pasted onto other applications like MS Word, Excel or more.
-  **Show CASY On/Off Button:** Toggle on/off the CASY display on the 3-D unitload diagram. This

button serves the same functions as the CASY button () on the Windows toolbar.

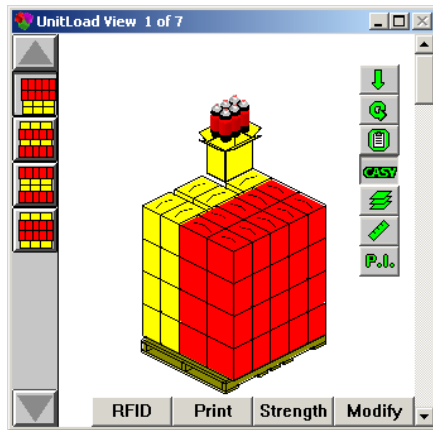
-  **Layer Parameters Button:** Open the Layer Parameters dialog box where you can rotate and add different layer accessories to selected layers of the unitload.
-  **Show Dims On/Off Button:** Turn on/off the dimension display on the unitload diagram.
If the dimensions shown here are not the dimensions you would like to see, try turning on or off the UL Size as Pallet Size switch on the Configuration dialog box. For more information on the Configuration dialog box, please refer to Appendix B, Dialog Boxes.
-  **Package Instruction Button:** Add package instructions for the current stage of the package sequence.
- **Scroll Bar:** The scroll bar on the right side of the pane allows you to display each successive solution in the list.
For example, if you click on the down button on the scroll bar, the pane displays the next solution in the list. If you click on the up button, the pane displays the previous solution in the list. If you scroll all the way down, the pane displays the final solution in the list; all the way up displays the first solution.
- **RFID (Radio Frequency Identification) Button:** Gives you the option to select from Sort by RFID or RFID function. The RFID function displays the RFID analysis screen which allows you to optimally place RFID tags on the face of the shipcase to provide maximum readability.
The Sort by RFID function will sort the solutions in the Solution List Pane in the order of RFID Blockage, which is added as the last column in the solution list. To remove the RFID Blockage data from the solution, select the Sort by RFID function again. For more information on RFID, please refer to Chapter 16.
- **Print Button:** Print the current image or open the Quick Print dialog box, which allows you to define print parameters and print the graphic in the pane.
 -  **Note:** For more information on the Quick Print dialog box, please refer to Chapter 11, Printing, or Appendix B, Dialog Boxes.
- **Strength Button:** Allows users to select either QStrength or regular Stacking Strength analysis for the pallet load. For more information on stacking strength, please refer to Chapter 9, Stacking Strength.
- **Modify Button:** Displays the Pallet Pattern Editor, which allows you to add, remove and reposition shipcases on a pallet.

Solution View Menu

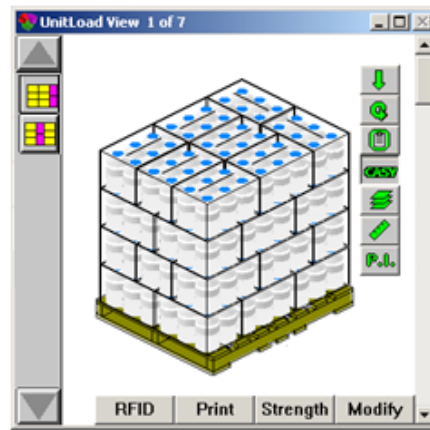
Right-click inside the Solution View pane and a small menu appears, as pictured below. As you are working with an analysis, the Solution View features a menu with a number of useful functions. The Solution View Menu provides the following options:



- **Next:** Displays the next stage of the analysis in Solution View.
- **Previous:** Displays the previous stage of the analysis in Solution View.
- **Cancel to Package Design Sequence:** Closes the Analysis View and returns you to the Control Panel.
- **Show:** Leads to a submenu to select items to be displayed in the solutions: dimensions, contents, bitmaps, CASY style, shrink wrapped and strapped.
- **View:** Allows you to view the image in a variety of formats: 3-dimensional, plan, front, side, as text (statistics), single stack, pop top, double stack, assembly and exploded.
- **Divider 3D:** If the shipcase includes dividers, this option displays the image in 3-dimensional format, including the dividers.
- **Divider Plan:** If the shipcase includes dividers, this option displays the image in plan format, including the dividers.
- **Save Image:** Provides a number of options for saving the Solution view image – as a bitmap file, JPEG file, PDF file, etc.
- **Print:** Allows you to print the Solution View image.
- **Pop Corner:** For a unitload image, this option displays one corner of the load exposed so you can see the contents. A pop corner view of a unitload is pictured below.
- **Clear Case:** For a unitload image, this option displays the shipcases as clear cases so you can see the contents. A clear case view of a unitload is pictured below.



Pop-corner



Clear Case

- **Pallet:** To show a graphic of the pallet used in the current analysis.

Statistics View Pane

The Statistics View pane displays detailed statistics for a selected solution; this pane is linked to the Solution List pane. For example, if you select Solution 1 in the Solution List, the Statistics View displays data for Solution 1. If you select Solution 5 in the Solution List, the Statistics View displays data for Solution 5, and so on.

In this analysis the UnitLoad View pane, pictured below, shows statistics for Solution 1. The Text View pane automatically sizes the information displayed to the window size. You can add and remove rows and columns of statistics by running the TOPS Pro Configuration program. For more information about changing the Statistics, please refer to Appendix B, Dialog Boxes, see section Configuration, Statistics Tab.

GMA (Notched) 48.00x40.00x5.00			
	Shipper (ID)	Shipper (OD)	UnitLoad (Incl. Pal)
Ln:	16.874 in	17.000 in	48.00 in
Wd:	12.874 in	13.000 in	40.00 in
Ht:	10.748 in	11.000 in	49.00 in
Ht w/o Pal:			44.00 in
Net:		0.00 lb	0.00 lb
Grs:		10.00 lb	324.06 lb
Cube:	1.35 ft3	1.41 ft3	54.44 ft3
		Height Vert	
Prod.Vol:	0.00 in3		0.00 ft3
Shipper:			32
Area Efficiency:		0.0 %	92.1 %
Cubic Efficiency:		0.0 %	79.4 %
Prod.Eff:	0.0 %	0.0 %	0.0 %
Cases per layer:			8
Layers/load:			4
Pattern:			Interlock
RSC Area:		10.00 ft2	320 ft2
Density (gr/cc):			0.1139
Max UL High:			4
Clamp Direction:			N/A
Box Cost:		0.00	0.00

Notice the following features on this pane:

- **Type of Solution:** The title bar of the pane reads “UnitLoad View 1 of 19.”
- The title bar of the pane also shows a counter (for example, 1 of 19). This tells you that this is the first of 19 solutions generated by the system.


Detailed Statistics: The pane presents detailed statistics for the selected solution – most of the same information you see in the List pane.

- **Scroll Bar:** The scroll bar on the right side of the pane allows you to move up and down the display area of the pane.

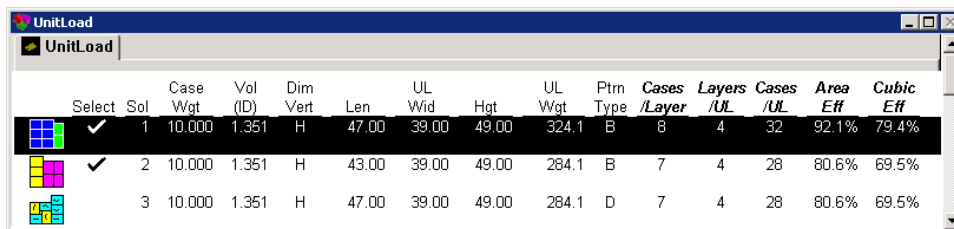
Solution List Pane

The Solution List pane displays a list of all solutions generated for the analysis. In the figure below, the Solution List pane includes 19 solutions for the analysis (only seven are visible). A scroll bar allows you to move up and down the list. For each solution, this pane displays different items of basic information, which appears in columns across the pane, depending on the type of analysis performed.

The ***bold italics*** column headings (on the right side of the pane) indicate the solutions can be sorted based on that data. Just click on the bold text to sort.

 **Important Note:** In order to see all displayed columns of information in the Solution List pane, be sure to maximize the Analysis View. If you still cannot see all columns, try increasing your video resolution.


Also, units of measurement (English or Metric) used in the Solution List pane are set up in Configuration.



Select	Sol	Case Wgt	Vol (ID)	Dim Vert	Len	UL Wid	Hgt	UL Wgt	Ptrn Type	Cases /Layer	Layers /UL	Cases /UL	Area Eff	Cubic Eff
<input checked="" type="checkbox"/>	1	10.000	1.351	H	47.00	39.00	49.00	324.1	B	8	4	32	92.1%	79.4%
<input checked="" type="checkbox"/>	2	10.000	1.351	H	43.00	39.00	49.00	284.1	B	7	4	28	80.6%	69.5%
<input type="checkbox"/>	3	10.000	1.351	H	47.00	39.00	49.00	284.1	D	7	4	28	80.6%	69.5%

Depending on the analysis performed, the Solution List pane displays some/all of the following items of information:

- **Select:** Highlight with a check mark if the solution has been selected for comparison.
- **Sol:** Identifies the solution (Solution 1, 2, 3, etc.).
- **Case Wgt:** The gross weight of the shipcase.
- **Vol (ID):** The volume of the shipcase, based on inside dimensions.
- **Board Area:** Measures the amount of corrugate that is being used per box and it is the same as the RSC area.
- **Slack (Len, Wid & Hgt):** The amount of unused space along the Length, Width and Height of the shipcase.
- **Ptrn Type:** The stacking pattern used to configure the shipcase.

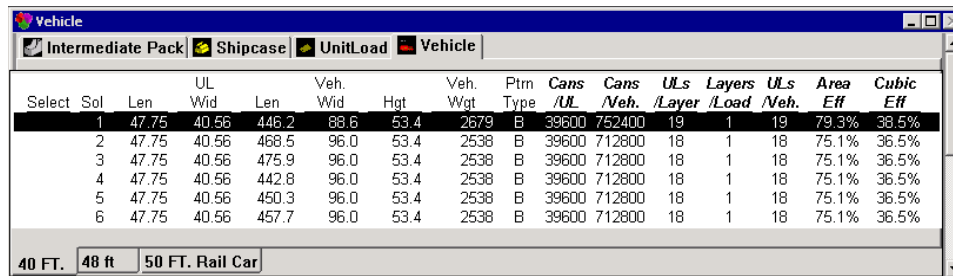
 **Note:** For detailed information about pallet patterns, please refer to Appendix D, Pallet Patterns.

- **Cubic Eff (Shipcase):** The percentage of cubic area that is used. TOPS Pro calculates this value based on how much space is being used versus the space you are trying to fill in the shipcase..
- **Dim Vert:** The dimension – length, width or height – specified as the vertical dimension of the shipcase relative to the ground.
- **Unitload Width:** The width of the unitload.
- **Height:** The height of the unitload, including the pallet.
- **Unitload Weight:** The weight of the unitload, including the pallet.
- **Cases/Layer:** The number of shipcases configured in each layer of the unitload.
- **Layers/Unitload:** The number of layers of shipcases configured in the unitload.
- **Cases/Unitload:** The number of shipcases configured in the unitload.
- **Area Efficiency:** The percentage of the pallet area that is used in the configuration. TOPS Pro calculates this value based on how much pallet area is covered by shipcases.
- **Cubic Efficiency:** The percentage of cubic area that is used in the configuration. TOPS Pro calculates this value based on how much space is being used versus the space you are trying to fill.

The exact statistics listed depend on the stage of design sequence you are looking at.

Solution List - Tab View

When there are multiple stages in the design sequence, the solutions at each stage will be displayed in tabs displayed at the top of the Solution List pane.



Select	Sol	Len	UL Wid	UL Len	Veh. Wid	Veh. Hgt	Veh. Wgt	Ptrn Type	Cans /UL	Cans /Veh.	ULs /Layer	Layers /Load	ULs /Veh.	Area Eff	Cubic Eff
1		47.75	40.56	446.2	88.6	53.4	2679	B	39600	752400	19	1	19	79.3%	38.5%
2		47.75	40.56	468.5	96.0	53.4	2538	B	39600	712800	18	1	18	75.1%	36.5%
3		47.75	40.56	475.9	96.0	53.4	2538	B	39600	712800	18	1	18	75.1%	36.5%
4		47.75	40.56	442.8	96.0	53.4	2538	B	39600	712800	18	1	18	75.1%	36.5%
5		47.75	40.56	450.3	96.0	53.4	2538	B	39600	712800	18	1	18	75.1%	36.5%
6		47.75	40.56	457.7	96.0	53.4	2538	B	39600	712800	18	1	18	75.1%	36.5%

40 FT. 48 ft 50 FT. Rail Car

Clicking each tab in the Solution List will also bring the program focus to the corresponding graphics pane.

When multiple pallets or vehicles are selected for an analysis, the solutions will be grouped in tabs displayed at the bottom of the Solution List as shown earlier.

For multiple pallets, you have the choice of keeping all solutions in one big list under the UnitLoad tab or grouped them in tabs under the pallet type as pictured next.

Select	Sol	Pallet Name	Case Wgt	Vol (ID)	Board Area	Dim Vert	Len	UL Wid	Hgt	UL Wgt	Ptm Type	Cases /Layer	Layers /UL	Cases /Veh.	Area Eff	Cubic Eff
	19	GMA (Notche)	0.000	0.972	8.48	H	38.938	36.938	47.500	65.0	B	7	4	28	1568	64.25% 53.54%
	20	CHEP Pallet	0.000	0.972	8.48	H	28.625	36.938	48.878	61.7	C	6	4	24	1344	56.85% 48.69%
	21	GMA (Notche)	0.000	0.972	8.48	H	36.938	28.625	47.500	65.0	C	6	4	24	1344	55.07% 45.89%
	22	EuroPallet	0.000	0.972	8.48	H	38.938	28.625	48.169	55.1	B	6	4	24	1344	71.06% 60.00%

Solution list “Optimize for all Pallets”

Select	Sol	Case Wgt	Vol (ID)	Board Area	Dim Vert	Len	UL Wid	Hgt	UL Wgt	Ptm Type	Cases /Layer	Layers /UL	Cases /Veh.	Area Eff	Cubic Eff	ULs /Veh.
	1	0.000	0.972	8.48	H	38.938	42.938	48.878	61.7	B	9	4	36	2016	85.27%	73.03% 56
	2	0.000	0.972	8.48	H	36.938	42.938	48.878	61.7	C	9	4	36	2016	85.27%	73.03% 56
	3	0.000	0.972	8.48	H	38.938	42.938	48.878	61.7	D	9	4	36	2016	85.27%	73.03% 56

CHEP PALLET | GMA [NOTCHED] | EUROPALLET


Solution list “Optimize for each Pallet”

UnitLoad Layer Parameters

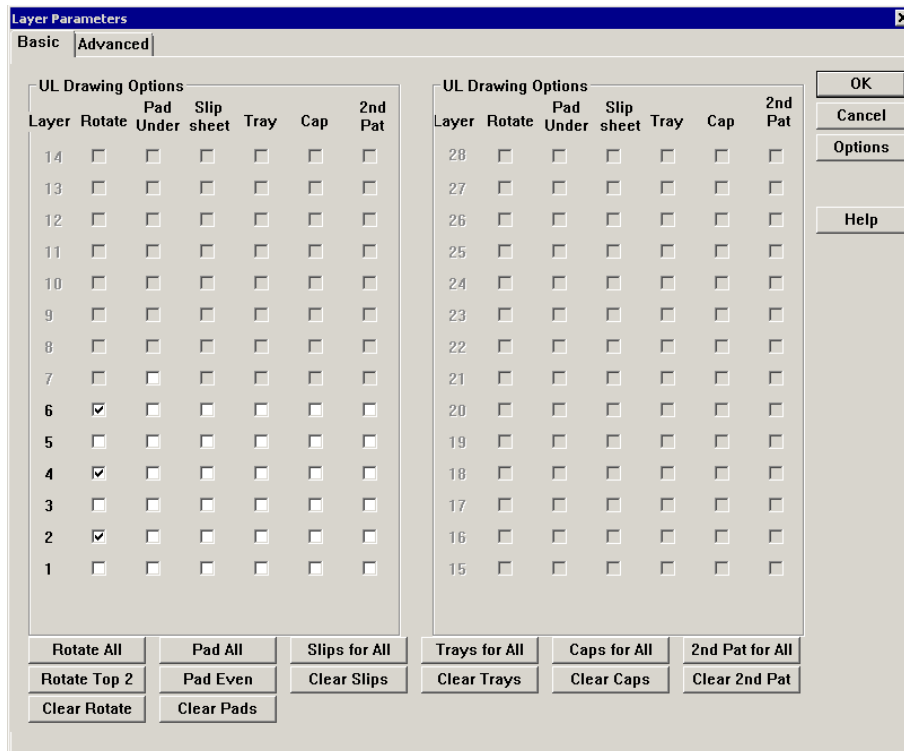
Once you have decided on a solution, you can work with the individual layers in the unitload. The Layer Parameters pane allows you to apply a number of different features to your unitload layers, including the following:

- Rotate selected layers.
- Use the secondary pattern set up for selected layers.
- Add caps, pads, slipsheets and trays to selected layers.

This feature allows you to select whichever layers you want – one, multiple, all or none – then apply a function to those selected layers. You have the flexibility to define layer parameters any way you want.

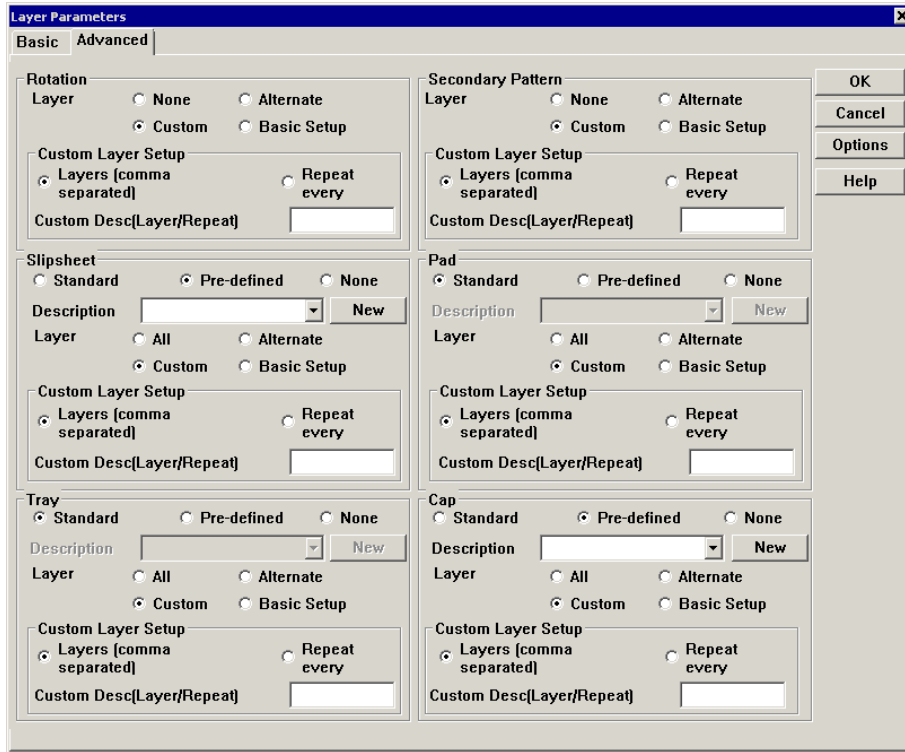
To define layer parameters, open the Layer Parameters dialog box by clicking on the Layer Parameter button () in the Unitload View pane or go to the menu bar, open the Edit menu and select Layer Parameters. The Layer Parameters dialog box appears, as pictured below.

The Basic tab contains check boxes and function buttons to allow you to easily apply different accessories to specific layers:



- **Unitload (UL) Drawing Options:** Select individual layers for which you want to perform a function – rotate, insert a pad, remove a slipsheet, tray, cap, or application of secondary pattern.
- **Function Buttons:** Set global functions on the unitload layers – Rotate All, Pad All, Clear Caps, Clear Second Pattern, etc. This is useful if you want to apply a function to a number of layers, not just one or two individual layers.
- **Options Button:** Opens a dialog box to specify these options:
 - **Rotate:** Specify how layers will be rotated – Length flip, width flip, length and width flip or rotate 90 degrees.
 - **Spread:** Specify how the layers will be spread – pack tightly, spread to edge of layer or spread to pallet edge.
 - **Filler:** Specify how filler (if any) will be used with the layers – at middle or at end.

The Advanced tab provides more “advanced” way to specify pallet accessories.



- **Layer:** Specify which layers the specific function or accessory will be applied: none, alternate, custom or basic.
- **Custom Layer Setup:** Select the layers to apply the function. For example, enter 1,2,5,7,9 in the Custom Desc field to rotate layers 1, 2, 5, 7 and 9 only. You can also specify to apply the function for every x layers by checking the corresponding radio button and enter a numeric value..
Note: Use this custom function to specify layers beyond 28.
- **New:** You can also define new slipsheet, pad, tray or cap via this dialog box. Click on Pre-defined selection and then select an existing accessory or define a new one by clicking on the New button.

TOPS Pro stores the layer parameters to memory and returns you to the Analysis View. The Graphic View pane displays the unitload with your defined layer parameters.

Unitload Drawing Options

The Unitload Drawing Options portion of the dialog box is organized into seven columns, as follows:

 **Note:** These options are adornments. They do not change the size of the unitload.

- **Layer:** Displays a column of layers that correspond to a unitload solution. Each layer represents a specific layer of cases in the unitload. If there are more than 28 layers in the unitload, click the Advanced tab and use the Custom Layer Setup to specify layers beyond 28.
- **Rotate:** Rotates a specific layer in the unitload.
- **Pad Under:** Insert a pad under a specific layer in the unitload.

- **Slipsheet:** Insert a slipsheet under a specific layer in the unitload.
- **Tray:** Insert a tray in the unitload.
- **Cap:** Insert a cap over a specific layer in the unitload.
- **2nd Pat:** Check the box to use a secondary pattern for a specific layer in the unitload.

Function Buttons

The Layer Parameters dialog box includes 14 function buttons, as follows:

- **Rotate All:** Rotates all layers in the unitload. When you click on this button, TOPS Pro automatically checks all the active boxes in the Rotate column.
- **Rotate Top 2:** Rotates the top two layers in the unitload.
- **Clear Rotate:** Clears all the Rotate commands already set up for the unitload. When you click on this button, TOPS Pro automatically unchecks all the active boxes in the Rotate column.
- **Pad All:** Inserts pads between each layer in the unitload. When you click on this button, TOPS Pro automatically checks all the active boxes in the Pad Under column.
- **Pad Even:** Inserts pads under only the even-numbered layers in the unitload. When you click on this button, TOPS Pro automatically checks all the active boxes in the Pad Under column for even-numbered layers.
- **Clear Pads:** Clears all the Pad commands already set up for the unitload. When you click on this button, TOPS Pro automatically unchecks all the active boxes in the Pad Under column.
- **Slips for All:** Inserts slipsheets between each layer in the unitload. When you click on this button, TOPS Pro automatically checks all the active boxes in the Slipsheet column.
- **Clear Slips:** Clears all the Slipsheet commands already set up for the unitload. When you click on this button, TOPS Pro automatically unchecks all the active boxes in the Slipsheet column.
- **Trays for All:** Places every layer in the unitload on a tray. When you click on this button, TOPS Pro automatically checks all the active boxes in the Tray column.
- **Clear Trays:** Clears all the Tray commands already set up for the unitload. When you click on this button, TOPS Pro automatically unchecks all the active boxes in the Tray column.
- **Caps for All:** Places a cap on every layer in the unitload. When you click on this button, TOPS Pro automatically checks all the active boxes in the Cap column.
- **Clear Caps:** Clears all the Cap commands already set up for the unitload. When you click on this button, TOPS Pro automatically unchecks all the active boxes in the Cap column.
- **2nd Pat for All:** Replaces all the current layers in the unitload with the selected secondary pattern. When you click on this button, TOPS Pro automatically checks all the active boxes in the 2nd Pat column.
- **Clear 2nd Pat:** Clears all the Tray commands already set up for the unitload. When you click on this button, TOPS Pro automatically unchecks all the active boxes in the Tray column.

Options Button

- **Rotate:** Specify how the layers will be rotated, as follows:
 - **Length Flip:** Flips the layer pattern along its length.
 - **Width Flip:** Flips the layer pattern along its width.
 - **Length and Width Flip:** Rotates the layer along both its length and width.
 - **Rotate 90 Degrees:** Rotates the layer 90 degrees.
- **Spread:** Specify how the layers will be spread on the pallet, as follows.
 - **Pack Tightly:** Shipcases in each layer are packed tightly toward the center, with minimum spread in between.
 - **Spread to Layer Edge:** Shipcases in each layer are spread to the edge of the unitload. This option “squares up” the unitload.
 - **Spread to Pallet Edge:** Shipcases in each layer are spread to the edge of the pallet.
- **Filler:** Serves primarily to fill empty space between layers, which prevents load shifting. The Filler function allows you to specify how filler will be used, as follows:
 - **None:** No filler is inserted between layers.
 - **Middle Filler:** Inserts filler in the middle of the layers.
 - **End Filler:** Inserts filler at the ends of the layers.

Print the Analysis

TOPS Pro provides a lot of flexibility in the way you design and print analysis output. After you have decided on a solution, you can print a hard copy that shows the information that went into the analysis.

You can design the layout of the printout, then decide what type of information will be included and how that information will be presented (different graphical views, text and numbers, etc).

In this example, we will design the output to have the following characteristics:

- The output will have a 3-Way Top page layout.
- The heading will read “Shipcase-to-Pallet Analysis.”
- The three areas of the printout will show the UnitLoad 3D View, the UnitLoad Plan View and the UnitLoad Statistics.
- The bottom of the printout will show sample text.

Define Print Parameters

To print the output from an analysis, start from the Control Panel and follow these instructions:

1. Go to the Menu Bar and click File.
2. Select Print Preview, then click Analysis.

Notice that the Print Parameters dialog box is organized into the following sections:

- **Page Layout:** Allows you to select one of eleven possible page layouts:
 - The **Full Page layout** selects only one panel of the analysis to print.
 - The **Horizontal Split and Vertical Split layouts** selects two panels of the analysis to print.
 - The **3 Way Bottom, 3 Way Top, 3 Way Left and 3 Way Right layouts** selects three panels of the analysis to print.
 - The **Quad Split layout** selects four areas of the analysis to print.
 - The **5 Way and 5 Way Down layout** selects five areas of the analysis to print.
 - The **6 Way Fixed, 6 Way Scaled and 6 Way Down layouts** has all six areas of the analysis to print.
- **Heading:** Type the name of the heading that you want at the top of the printout.
- **Areas 1 through 6:** Select the area(s) of the analysis from which you want to print information.
 - ✍ **Note:** Be aware that the number of areas available to select from depends on the page layout you selected. For example, if you selected the Horizontal Split layout, which contains two sections, you will be able to select from only two areas.
 - ✍ **Note:** Type any notes that you would like to appear at the bottom of the printout. To force the text to wrap to the next line, type a left apostrophe (') at the end of the line of text. In a normal word processor application, you would use the Enter or Return key to do this.
- **Show Additional Notes:** Allows you to enter information about such as Label Format, Test Weight and Package Quantity.
- **Printer:** Select either Black and White (B+W) or Color printing.
- **Double Stack Unitload:** Print output as a double-stacked unitload.
- **Print Analysis Name:** Allows you to print the analysis name on the printout.
- **Show Graphics/C.A.S.Y.:** Allows you to show graphics or CASY design in the printout.
 - ✍ **Note:** If the analysis includes both graphics and a CASY design, the system will display the CASY design, not both.
- **Font:** Select the font on the preview screen. The text can be displayed in the following 3 sizes:

Regular	Helvetica	10 pt
Small	Helvetica	8 pt
Very Small	Helvetica	6pt
- **Package Instruction:** For any package instruction (e.g. corner post, plastic wrap) entered under the Edit > Package Instruction function, you can specify where in the report these instructions will appear.
 - With 3D graphic – at the top right hand corner of the 3D unitload graphic.
 - Below Layout – in a new packaging section after the graphics and statistics.

Enter and select the print parameters for the analysis as illustrated below. Use the Tab key to move from field to field.

Print Parameters

Page Layout

Full Page 3 Way Top

Horiz Split 3 Way Left

Vertical Split 3 Way Right

3 Way Bottom Quad Split

5 Way 5 Way Down

6 Way Fixed 6 Way Scaled

6 Way Down

Printer

B+W Color

OK
Cancel
Help

Double Stack UnitLoad
 Print Analysis Name
 Show Graphics/C.A.S.Y.

Font: Regular

Package Instruction

None
 With 3D graphic
 Below Layout

Heading: Shipcase-to-Pallet Analysis

Area 1: UnitLoad 3D View **Area 2**: UnitLoad Plan View

Area 3: UnitLoad Statistics **Area 4**: UnitLoad Statistics

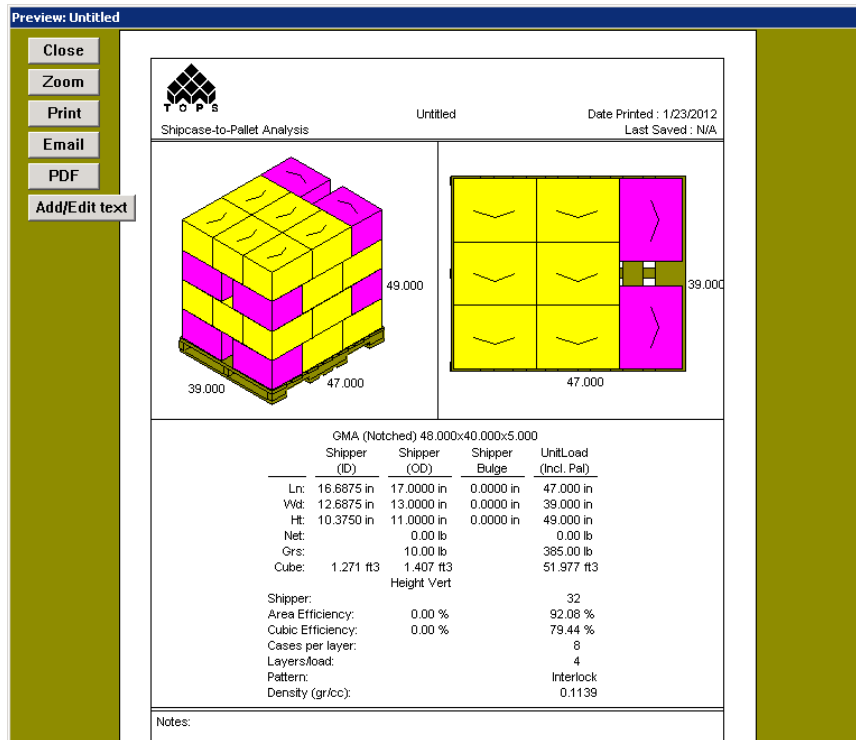
Area 5: UnitLoad 3D View **Area 6**: UnitLoad 3D View

Notes

Show Additional Notes

MCN#		Line 1	Line 2
Label Format	Made in		
Test Weight	Pkg Qty	Line 3	Line 4

- After completing the print parameters, click OK. The Print Preview panel appears, as pictured below.




Notice the following things about the Print Preview panel:

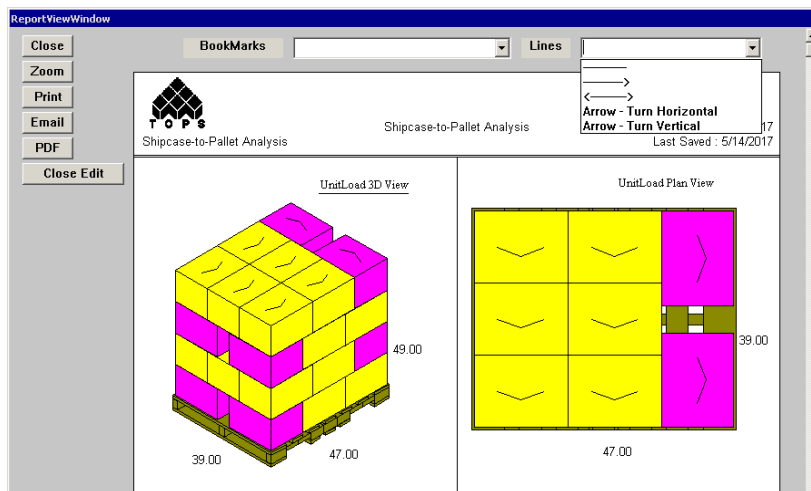
- The **heading** bar at the top of the output sheet reads “Shipcase-to-Pallet Analysis” and includes today’s date. The heading also includes a title, if you specified a title for the analysis.
 - Pane 1** displays a graphic of the UnitLoad 3D View.
 - Pane 2** displays a graphic of the UnitLoad Plan View.
 - Pane 3** displays the UnitLoad Statistics.
 - At the bottom of the printout, the Notes section will display any text you have entered.
 - The **Close button** will close the preview and take you back to the solution screen.
 - The **Zoom button** magnifies the panel and provides a closer, more detailed look at the output.
 - The **Print button** sends the output to the printer.
 - The **Email button** allows you to email this report as a JPG attachment to another user.
 - The **PDF button** allows you to export the current report to a PDF file in a specified location on your computer.
 - The **Add/Edit text button** allows you to add text and line/arrows anywhere on the printout.
- To print the output, click Print.

Add Text, Lines, or Images to Printed Output

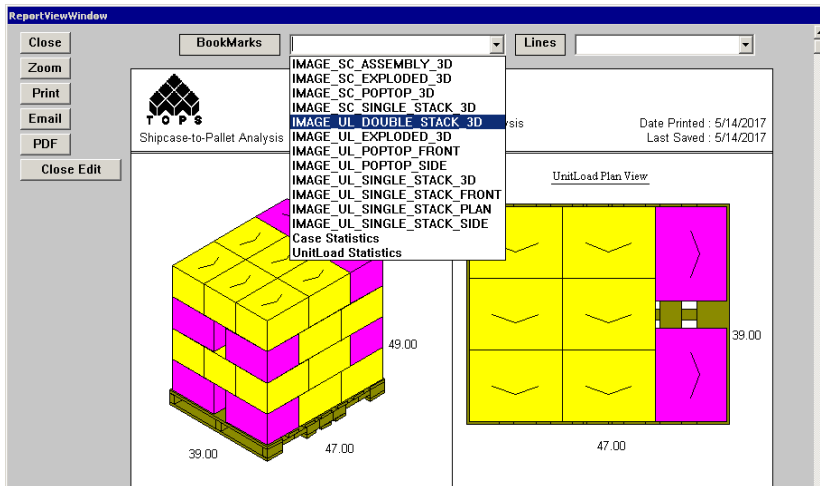
After you have designed and generated your analysis output, the system allows you to add text or graphic images to the output before you print it. This is a very easy process that allows you to customize and enhance the output's presentation.


To add text and images to the output, start from the Print Preview panel and follow these instructions:

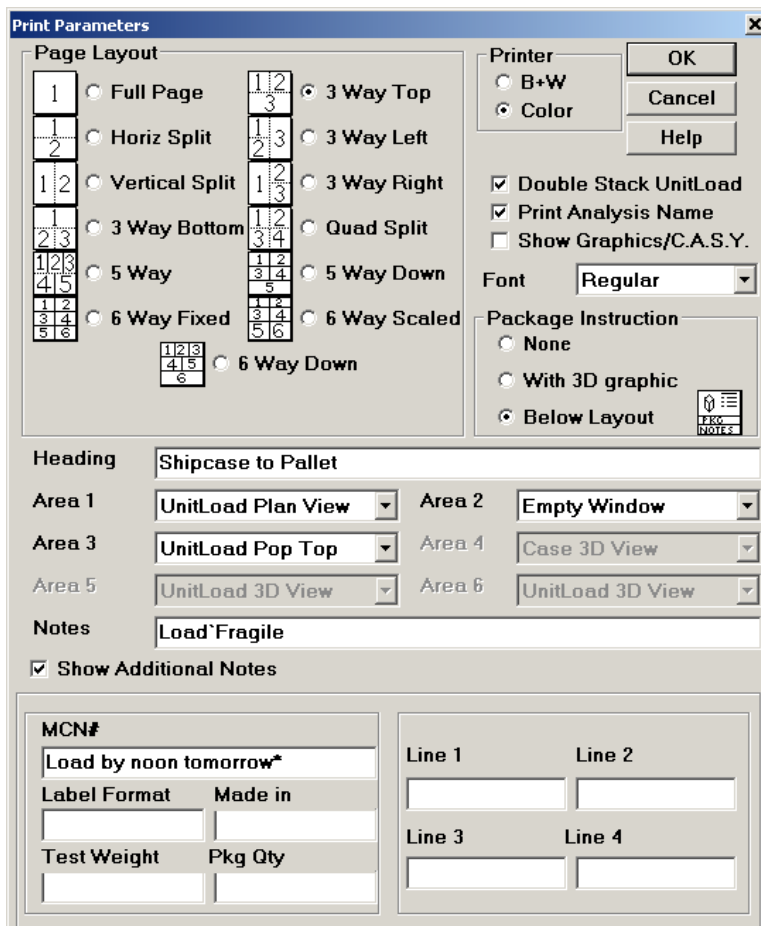
1. Click on the Add/Edit Text button. TOPS Pro magnifies the Print Preview panel.
2. Click on the area of the output where you want to enter text. TOPS Pro displays a text input field () with a text cursor. Notice that you can “drag” the entry field to any position on the screen by hovering over the left top corner of the field, which will make this cursor appear ().
3. Enter the text that you would like to appear in the selected area. In this exercise, enter “UnitLoad 3D View” in Area 1 (top left) and “UnitLoad Plan View” in Area 2 (top right).
4. To add lines or arrows to the printout, click the drop down from the **Lines** option and select the line type. You can also do the same via the right click menu. To delete them, click the line > left click your mouse and hit the Delete key.
5. To draw a line, place the mouse at any location, left click the mouse and drag it mouse to create a line on the screen. Move the line under the text “UnitLoad 3D View.” Repeat the same procedure to add a line under other text. The result will be similar to the following screen.



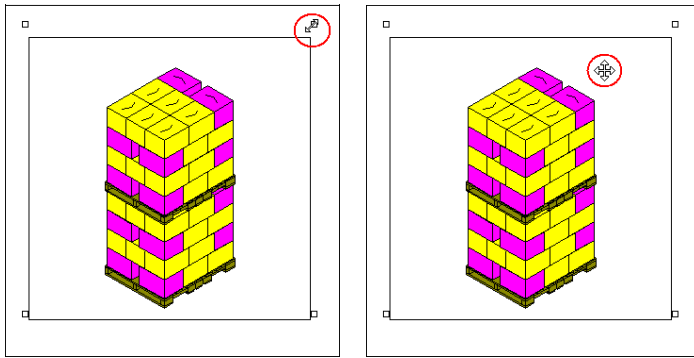
6. To add a TOPS image, use the **BookMarks** drop down. Select from the list an image to add to the report.



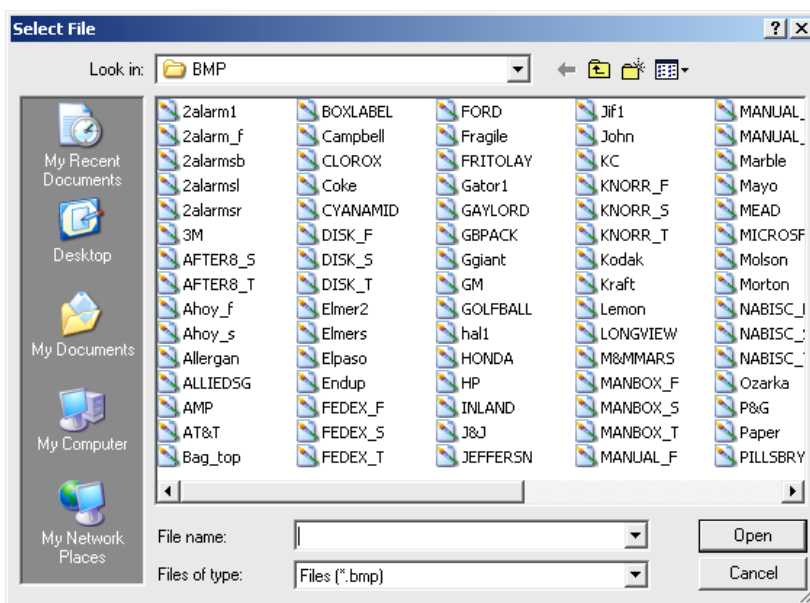
 **Tip:** To add an extra pane to the report, during the Print Preview Setup, on the Print Parameters dialog box pick the Page Layout you would like to use (3 Way Top, etc.) and click Empty Window from the drop down menu for the corresponding area (1, 2, 3, etc.) as shown below. This pane can be used to hold additional bookmarked images not available in the standard report.



7. The bookmarked image can be sized or moved to a desired pane.



- To add an external image to the printout, go to the Menu Bar and click Edit. Click Paste BMP File and find the image file from the Select File dialog box as pictured below.



- Click Open. You can also browse to any location to use any graphics. The Print Preview panel redisplay with the selected bitmap file inserted into the output.
- Drag the image to the area where you want it to appear and size it as desired by dragging any one of the four corner boxes (☐ ☐) around the graphic.
- After completing the text and graphics, click Print. TOPS Pro sends the analysis output to the printer.
- Click Close. TOPS Pro asks if you want to save your changes.
- Click Yes. TOPS Pro prompts you to enter a filename to be saved.
- Enter the name of this file and click OK.
- TOPS Pro returns you to the Control Panel.

Change the Company Logo in Printed Output

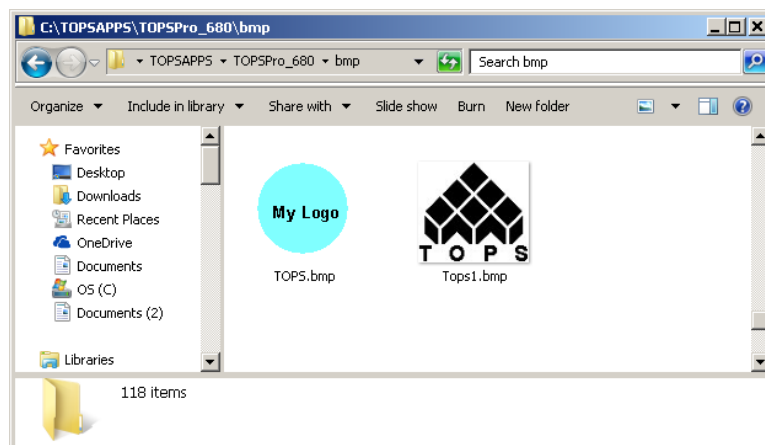
The logo image used in reports, for both stand-alone and network install licenses, is stored in the **bmp** folder under the ...\\TOPSAPPS\\TOPSPro_xxx\\ directory. If you view the contents of the bmp folder as icons, you will see a collection of samples bmp files including the tops.bmp which is the logo file used in TOPS Pro.

To use your company logo in TOPS reports, follow these steps to replace tops.bmp with your company logo.

1. Prepare a bit-mapped image of your company logo in bmp format.

 **Note:** Limit the file size to no more than 500K.

2. Save the company logo bmp file in the ..\\TOPSAPPS\\TOPSPro_xxx\\bmp\\ folder.
3. Open Windows Explorer and browse to the bmp folder. If you do not see the graphical icons of the files, right click, go to View and select one of the icons size display options.
4. Rename TOPS logo file from tops.bmp to tops1.bmp and your company logo to **tops.bmp** as referenced below.



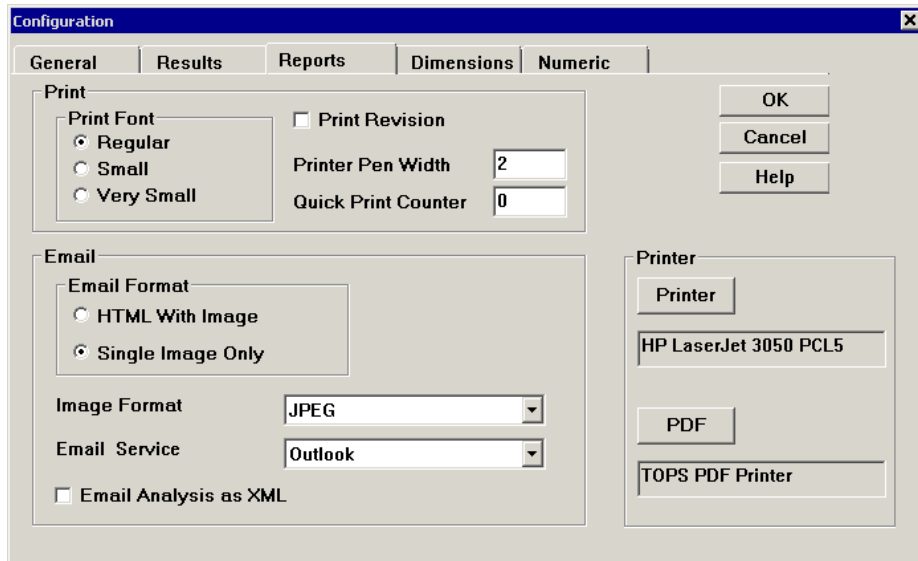
The next time you create an analysis report, your company logo will be on the upper left hand corner.


Setup Default Printers and Printer Pen Width

Users can specify where to send standard and PDF outputs and change the printer pen width, the thickness of the lines in a graphic or text when you print an analysis. The default for printer pen width is zero, which is a hairline width.

To setup a printer and change the printer pen width, follow these instructions:

1. From the menu bar, click Tools.
2. Select Configuration and click on the Reports tab.
3. In the Printer Pen Width field, enter a value to specify the line thickness with which you want to print.
4. For printers, click on the Printer button to select the paper output destinations and PDF button to specify the writer to send PDF files. Click OK to save the settings.



 **Note:** The Printer pen width has no effect when CASY graphic is turned on.


Copy TOPS Graphics to Other Programs


TOPS Pro graphic images can be incorporated into other applications via saving to the clipboard or to an external file in common formats like JPEG or PNG. This section addresses the following routines and features:

Copy a Single Graphic


To copy a single graphic from the Solution Pane to the clipboard, follow these instructions:

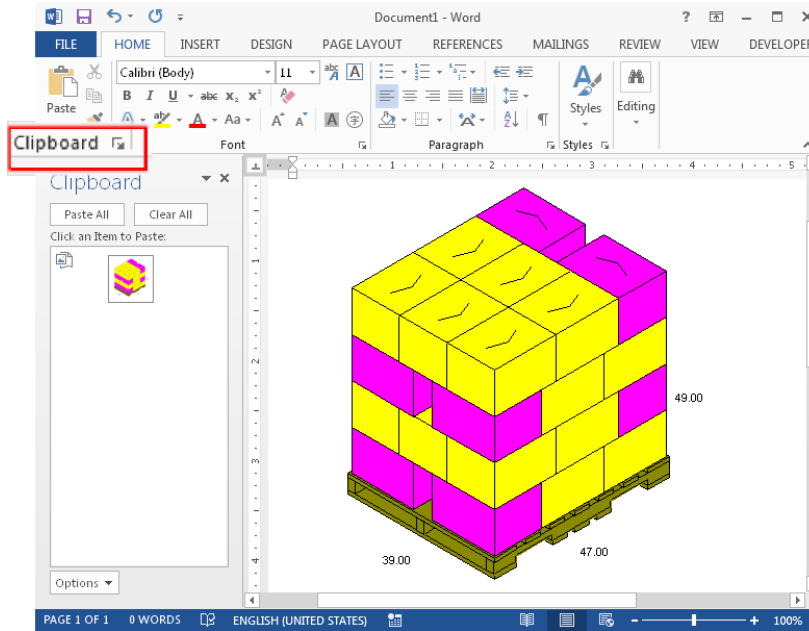
1. Click on the desired graphic to select it. The title bar of the selected pane should be highlighted

 **Tip:** You may want to resize the window to the size of the desired image before copying. For better printing, make the image twice as large.

2. Go to the menu bar and click Edit. To copy the graphic in color, select Copy to Clipboard Color. To copy the graphic in black and white, select Copy to Clipboard B+W. You can also use the right click menu and select Save Image, then select Copy to Clipboard Color or just click the copy to Clipboard button .

3. Open Microsoft Word, Excel, PowerPoint or other applications where you would like to paste the graphic, and paste the TOPS graphics from the clipboard using keyboard shortcut [Ctrl]+[V].

 **Tip:** In Microsoft Office, enable the show Clipboard function to view the TOPS image and click on the thumbnail to paste the graphics at the cursor position within the document.



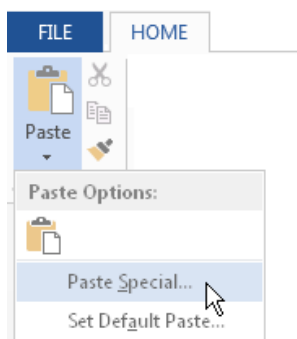
Paste Special

Paste Special is a Microsoft Office feature that allows you to define the format for a graphic pasted into a Word document, Excel spreadsheet or PowerPoint presentation. The formats available depend on the version of the application you are using.

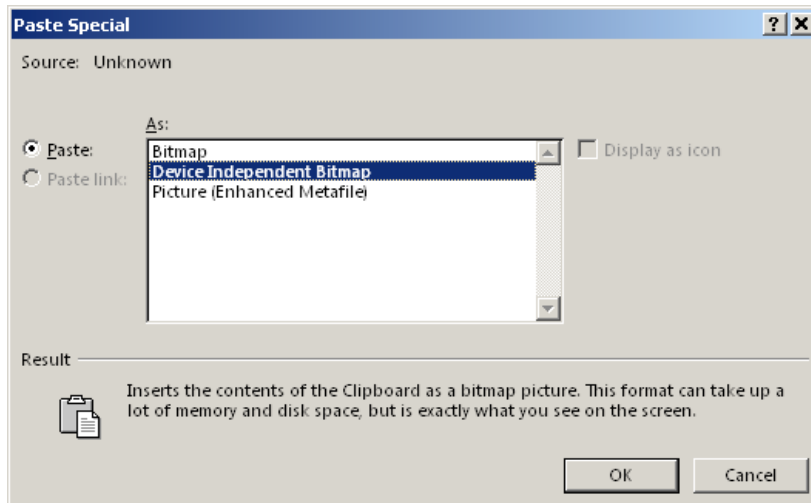
To use the Paste Special feature, follow these instructions:

1. Copy a graphic to the clipboard as described in previous section.
2. Open the Microsoft Office application.

Click on the Paste option under the Home ribbon on the far left and select Paste Special




3. The Paste Special dialog box, as pictured below.




4. Select the format for your graphic.

- The **Bitmap** and **Device Independent Bitmap** formats present the image in the largest file size, but provides more accurate text and numbers when resizing an image smaller than the original. Use the Device Independent Bitmap for TOPS graphics.
- The **Picture (Enhanced Metafile)** format will paste the graphics as a vector or line art file which enables you to resize to any dimension without losing quality. This is recommended for single graphics only and not for Print Preview reports.

 **Note:** For detailed information about the Paste Special feature, please refer to your Microsoft Word documentation.

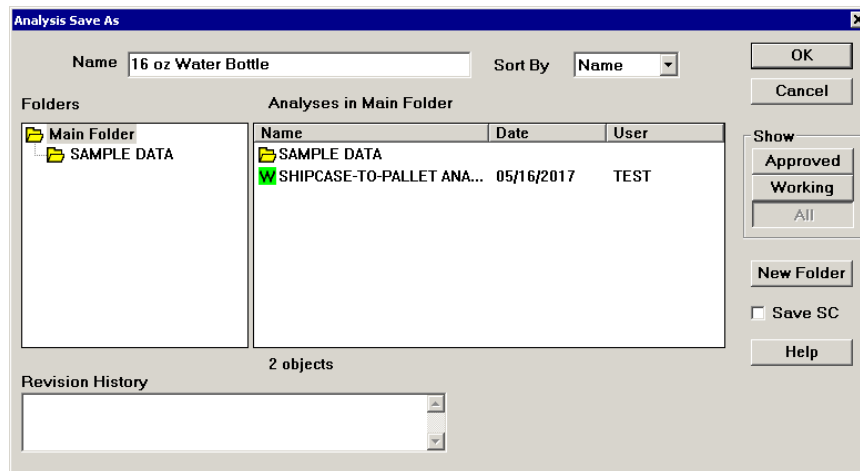
Save the Analysis

After completing an analysis, if you are satisfied with all the parameters and graphics, you can save the analysis to the database.

 **Note:** TOPS Pro does not save an analysis as a file on your hard drive. Rather, it saves the analysis as a record to the database – an important difference to remember when you need to open or search for an analysis.


To save the analysis (including print outs), follow these instructions:

1. Click Save. The Analysis Save As dialog box will appear, as pictured below.



2. Type the title for the analysis in the Name field of the dialog box.

If the duplicate analysis is being used at the time, the system will reject the name and prompt you to enter another one. There may be approved and unapproved (working) analyses with the same names.

 **Note:** You can use any characters up to a maximum length of 31 characters. If you type a name of an unapproved analysis that has already been used, TOPS Pro will prompt you to overwrite the duplicate name.

3. The analysis will be saved with the specified title in the Main Folder as highlighted above.

The other functions of the Analysis Save As dialog box are described below:

- The **Sort By** function sorts the analyses by Name, User or Date, you can select the sort option in the drop down list box.
- The **Folders** provide a tree view of all existing folders. You can save the analysis into any of these folders; Main Folder is the default.
- **Analyses in Folder** displays a list of analyses that have been saved to a selected folder.
- The **Show** option filters the analyses to be displayed based on their approval status, Approved, Working or All. Click the corresponding button to select the list.
- The **New Folder** button allows you to create a new folder and add it to the current database. To create a new folder, click New Folder and type a name in the pop-up dialog box.

Direct Email From TOPS Pro

TOPS Pro has an internal email feature that allows you to email an analysis and a Stacking Strength Board Combo List to another person who may or may not have TOPS Pro.

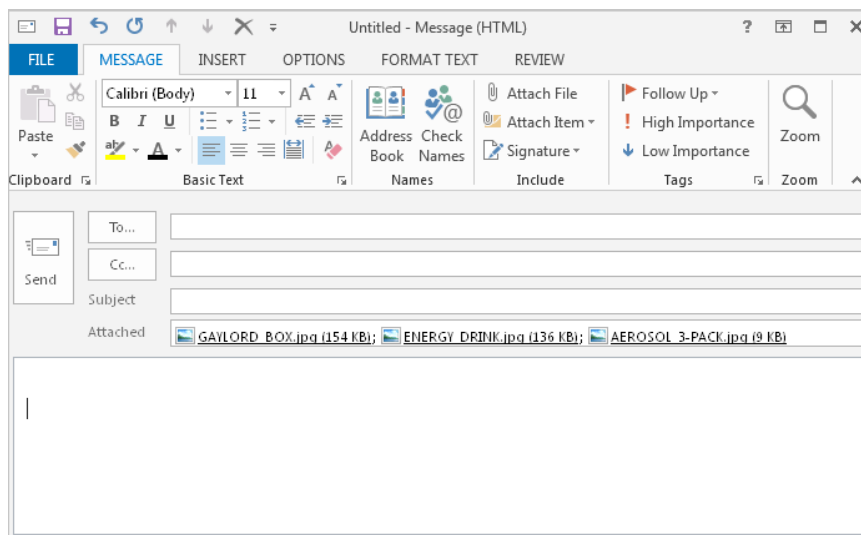
Email Analyses as Graphics Reports

This email function will attach a print preview report of the selected analysis as JPEG, PNG or PDF files to your email client. This is the best way to share reports with everyone including those who do not own a copy of TOPS Pro. The file format is specified under the Tools > Configuration > Reports menu.

To email multiple print preview reports:

1. Go to the File menu and click Open.
2. While holding down the [Ctrl] key on the keyboard, highlight the analysis report to be emailed.
3. Click Email.

TOPS will generate the print preview of each selected analysis and add them as attachment to the email client.



To email a single print preview report:

1. Follow the steps above and select only one analysis, or
2. With the analysis open, go to the File menu and click Print Preview. Select Analysis and click print parameters as described in earlier sections.
3. When preview opens, click Email.

Depending on the file type (JPG, PDF or PNG) selected under Configuration, the graphic report will be created and added as an attachment to a new email message.

Email Analyses as Text Files

Analyses in text format can only be imported and viewed by another TOPS Pro user. To email an opened analysis as text:

- Click File and select the Email Analysis option.
- Go to Help menu and select the Email Problem Definition option.

The TXT file will be attached to a new message of your email client. TOPS users receiving these TXT files can open the analysis using the import function under the Import menu, Import TOPS Data option.

If XML format is specified under the Tools > Configuration > Reports menu, the attachment will be in XML format.

Email Stacking Strength Results

To email the Stacking Strength Board Combo List, start from the Stacking Strength Results Screen. Go to the Tools menu and select the Email Stacking Strength option. The result will be attached as an .HTM file to a new message of your email program. Enter the recipient and email the message just like a regular email.

Direct Export to PDF

TOPS Pro has a built-in PDF writer which allows you to create PDF reports directly without the use of Acrobat or other third party PDF programs. Once you have created the analysis as described above, use one of these methods to create the PDF file:

- Click Export and select the PDF option.
- If you are in the Print Preview screen, click Export and select PDF option.

The Get Export File Name dialog will appear. Select the folder where the PDF file will be saved, type the filename or use the default tops.pdf filename then click on Save to create the file.

3

Advanced Features

This chapter walks you through some of the more advanced, complex analyses that you will use in your day-to-day packaging routines. The first four analyses take the form of four exercises, as outlined below:

- **Exercise #1: Fixed Carton-New Shipcase-Pallet**

Scenario: You have a fixed-size carton (6x2x4) that you use to package brown sugar.

Objective: Design a shipcase that allows you to put the maximum number of cartons onto a pallet.

- **Exercise #2: New Carton-New Shipcase-Pallet**

Scenario: You have decided you can improve the solution that resulted from Exercise #1. If you adjusted the dimensions of the carton (change length, width and height 1/4 inch in either direction), TOPS Pro will generate a broader range of solutions.

Objective: Design a shipcase that allows you to put the maximum number of cartons onto a pallet.

- **Exercise #3: Shipcase Consolidation**

Scenario: You want to find an existing shipcase that will allow you to load the most cartons of brown sugar on a pallet. Instead of designing a new shipcase, you will search the TOPS Pro database to find the shipcase that best meets your needs.

Objective: Design a shipcase that allows you to put the maximum number of cartons onto a pallet.

- **Exercise #4: Knockdown Analysis:**

Scenario: You are shipping flattened boxes that have not been constructed.

Objective: In a knockdown analysis, you will usually take a bundle of collapsed boxes and load them onto a pallet.

This chapter also introduces the following TOPS Pro features:

- **Paste-On Graphics:** Dress up your cartons, shipcases, trays and other box-like containers with graphics, such as a corporate logo.
- **Export:** Select a graphic, product report, case, carton, analysis or pallet pattern, then export it to another applications outside the TOPS Pro system.
- You can also use the Export function to send pallet pattern information to a robotic palletizer.
- **Artios Integration:** Automatically import Length, Width, Height and Box Style information from the Artios CAD software into TOPS Pro and drop it into a template.
- **Quick Print Template System:** Print multiple pages of information in a single step. This feature also allows you to design reusable report styles for standardized specifications.
- **Combined Report:** Combines information from two analyses or two solutions of the same analysis onto one printout. This feature is especially useful to include both the knocked-down and erected palletizations of a shipcase in a single report.
- **Control of Displayed Statistics:** Add or remove selected statistics from your printouts. This feature allows you to turn on and off any column of information the software can display in a

statistics pane.

- **Shipcase Database Option:** Tells TOPS Pro to consider all shipcases in the database when it calculates solutions. The Multiple option allows you to select the shipcases to be used when TOPS Pro calculates solutions.

Exercise #1: Fixed Carton-New Shipcase-Pallet Analysis

Scenario: You are packaging cartons of brown sugar into shipcases and onto a pallet. Your brown sugar carton is a fixed-size carton. However, the shipcases in your inventory do not quite meet your needs for this particular carton; there is too much wasted space and you do not load as many cartons onto the pallet as you would like.

Objective: You want to design a new shipcase that packs as many brown sugar cartons as possible onto a pallet. This will help you pack the cartons more efficiently into a shipcase and onto a pallet. You know the following facts going into the analysis:

- The carton is a fixed size with inside dimension of 6 inches long, 2 inches wide and 4 inches high.
- Your marketing people like a shipcase to have a quantity of 10, 12 or 24 cartons.
- You will use standard pallets and will load pallets in a 1-block or 2-block pattern arrangement.

In this analysis, you will work through these primary steps:

- On the Carton Parameters dialog box, set up the fixed brown sugar carton.
- On the Shipcase Parameters dialog box, you will set up the parameters TOPS Pro needs to design your new shipcase.
- On the UnitLoad Options dialog box, you will set up the analysis to consider only 1-block and 2-block pallet patterns.

Start from the Control Panel and follow these instructions:

1. Set up a Carton-Shipper-Pallet packaging sequence. (Use the green carton icon.)



- Click on the green Carton icon. The Carton Parameters dialog box will appear. Enter the dimensions of the carton as pictured in the next image.

- Click OK. TOPS Pro stores your carton parameters to memory and returns you to the Control Panel.
- Click on the yellow Shipper icon. The Shipcase Parameters dialog box appears. Set the following parameters as illustrated in the dialog box.
 - Case:** Select New. You want TOPS Pro to design a new, optimum shipcase and note that the dimensions are grayed out.
 - Dimensions:** Select Inside. You want TOPS Pro set up the shipcase using the inside dimensions.
 - Round to nearest 1/16":** Check this box to tell TOPS Pro to round its calculations to the nearest 1/16." This measure is the industry standard for packaging construction.
 - Sizing:** Select Values and type 10, 12 and 24 in the first three fields. This tells TOPS Pro to design shipcases that contain only 10, 12 or 24 of the fixed-size cartons.

Shipcase Parameters

New
 Fixed
 DataBase

All
 Multiple

Corrugated
 Other

Inside
 Outside

English
 Metric

Description:
 Mix Tray:
 Style:
 C.A.S.Y. Style:
 Flute:

	Length (in)	Width (in)	Height (in)	Slack	Vert
Length (in)	<input type="text" value="12.313"/>	<input type="text" value="0.000"/>	<input type="checkbox"/>		
Width (in)	<input type="text" value="8.313"/>	<input type="text" value="0.000"/>	<input type="checkbox"/>		
Height (in)	<input type="text" value="12.625"/>	<input type="text" value="0.000"/>	<input checked="" type="checkbox"/>		

Max Weight (lbs):

Use Tare weight
 Tare weight (lbs):
 Round to nearest 1/16"

Sizing

	Min Count	Max Count
<input type="radio"/> Range	<input type="text" value="2"/>	<input type="text" value="6"/>
<input checked="" type="radio"/> Values	<input type="text" value="10"/>	<input type="text" value="12"/>
	<input type="text" value="24"/>	<input type="text" value="0"/>
	<input type="text" value="0"/>	<input type="text" value="0"/>

- Click OK. TOPS Pro stores your shipcase parameters to memory and returns you to the Control Panel.
- Click the Pallet icon, the UnitLoad Parameters dialog box appears.

UnitLoad Parameters

Single Pallet Style:
 Slave Pallet Slave:
 Number of Slaves:
 Multi Pallets
 Optimize for all Pallets Optimize for each Pallet

Maximum Height (incl. Pallet) (in):
 Maximum Weight (incl. Pallet) (lbs):

	Length (in)	Width (in)
Maximum Overhang	<input type="text" value="1.00"/>	<input type="text" value="1.00"/>
Maximum Underhang	<input type="text" value="15.00"/>	<input type="text" value="15.00"/>

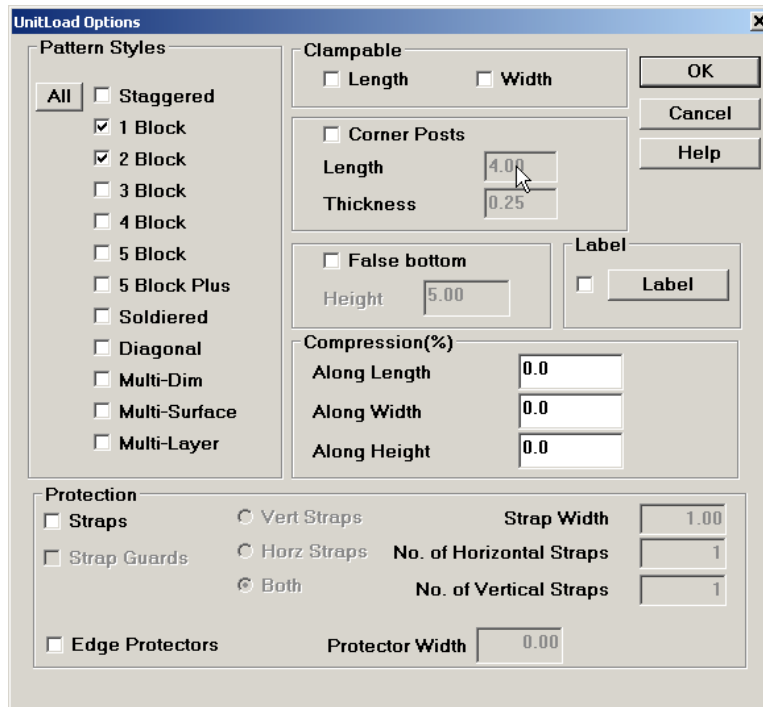
Packaging weight (lbs): English Metric

Limit to Max.
 Layers: Items/Layer: Total Items:

Max UL High: Clamp Direction:

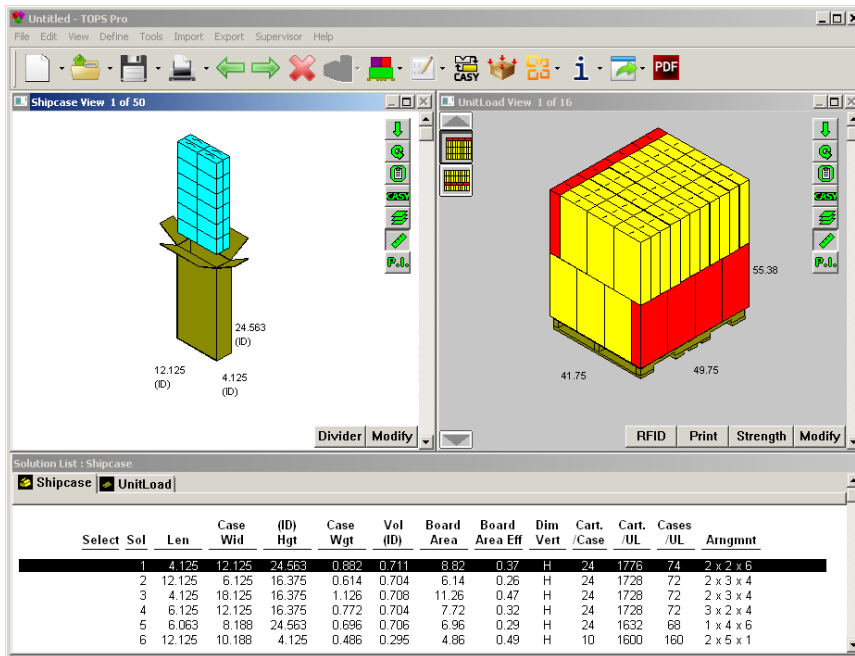
Pallet Size (in): 48.00 X 40.00 X 5.00

7. Click Options. The UnitLoad Options dialog box appears, as pictured below.



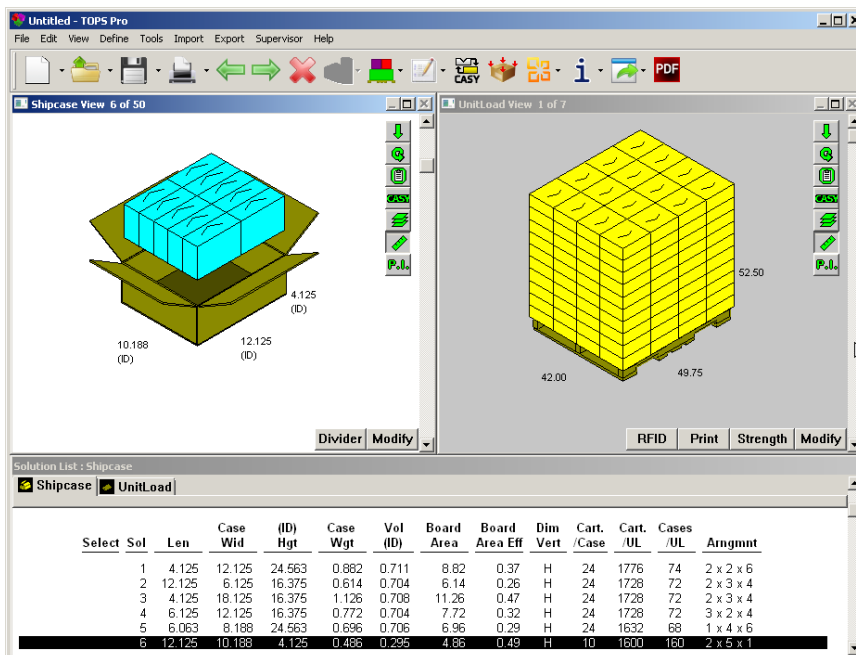
8. The most preferred way to load pallets is in the 1-block and 2-block arrangements, select only 1-block and 2-block, and make sure any other Pattern Styles are not selected or checked.
9. Click OK. TOPS Pro stores your selected pattern styles to memory and returns you to the UnitLoad Parameters dialog box.
10. Because your company uses a standard GMA Notched pallet, you don't need to change any parameters on the UnitLoad Parameters dialog box. Click OK. TOPS Pro stores the default unitload parameters to memory and returns you to the Control Panel.

- With all parameters defined, click the Calc button. TOPS Pro calculates solutions for the given parameters and displays the Analysis View, as pictured here.



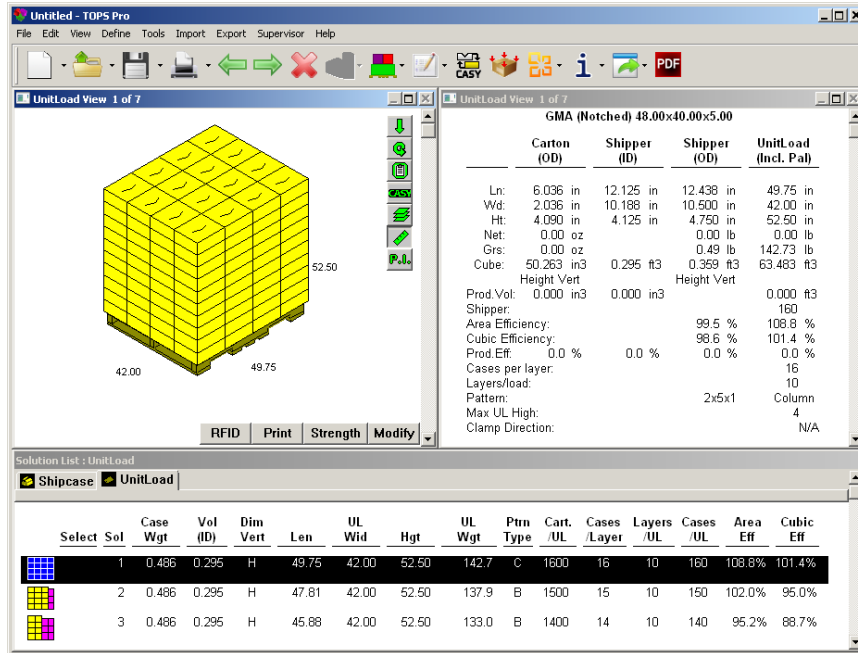
As you can see in the heading of the pane, TOPS Pro has generated 50 solutions (50 different shipcases designed to hold either 10, 12 or 24 cartons). In the Solution List pane at the bottom, if you look at the Cart./UL (cartons per unitload) column, you will see that the best solutions are listed first.

At this point, you can look at the various solutions and see how the unitload is arranged for each solution. In this exercise, we will go with the sixth solution, which packs 10 cartons into a shipcase.



- Click on the sixth solution from the list to select it. The Analysis Pane redisplay new graphics corresponding to the solution.

Click the Next button (➡) on the toolbar. The Analysis Pane redisplay with statistics for the selected solution, as pictured below.



Notice that the solutions are listed with the most Cartons/UL on top, totaling 1,600 cartons onto a unitload.

- Click the Next button (➡) on the toolbar. TOPS Pro returns you to the Control Panel. Print and save your work.

Exercise #2: New Carton-New Shipcase-Pallet

Scenario: In the previous exercise, you were working with a fixed-size carton and designed a new shipcase to pack as many cartons as possible onto a pallet, given a preferred pallet pattern. In this exercise, we believe we can fit more cartons onto a pallet if we revise the size of the carton.

Objective: We will design a new carton and enter a range of dimensions for the carton, which allows TOPS Pro to generate a broader range of solutions. We know the following facts going into the analysis:

- We will design a new carton and tell TOPS Pro to account for a 1/4-inch range in each direction for each dimension. For example, the fixed carton had a length of 6 inches. In this exercise, we will tell TOPS Pro to calculate a minimum length of 5.75 inches and a maximum length of 6.25 inches and a similar range for width and height. Also, you know that the volume of the carton, regardless of the specific dimensions, is 48 cubic inches.
- You have persuaded your marketing people that the optimal shipcase holds a quantity of 10 cartons.

- You will use standard pallets and will load pallets in a 1-block or 2-block pattern arrangement. In this analysis, you will work through these primary steps:
- On the Carton Parameters dialog box, you will set up the new carton.
- On the Shipcase Parameters dialog box, you will set up the parameters TOPS Pro needs to design your new shipcase to hold 10 cartons.
- On the UnitLoad Options dialog box, you will set up the analysis to consider only 1-block and 2-block pallet patterns.

Start from the Control Panel and follow these instructions:

1. Set up a Carton-Shipper-Pallet packaging sequence. If the packaging sequence from the previous exercise is still there, you can use it.



2. Click the Carton icon. The Carton Parameters dialog box appears. Enter the following parameters as illustrated: a dimension range for each of length, width and height at 0.25 inch increments and a fixed volume of 48 cubic inches.

	Min	Max	Incr	Vert
Length (in)	5.7500	6.2500	0.2500	<input type="checkbox"/>
Width (in)	1.7500	2.2500	0.2500	<input type="checkbox"/>
Height (in)	3.7500	4.2500	0.2500	<input checked="" type="checkbox"/>

	Net	Gross
Weight (lbs)	0.0000	0.0000
Caliper (in)	0.0180	

3. Click OK. TOPS Pro stores your carton parameters to memory and returns you to the Control Panel.

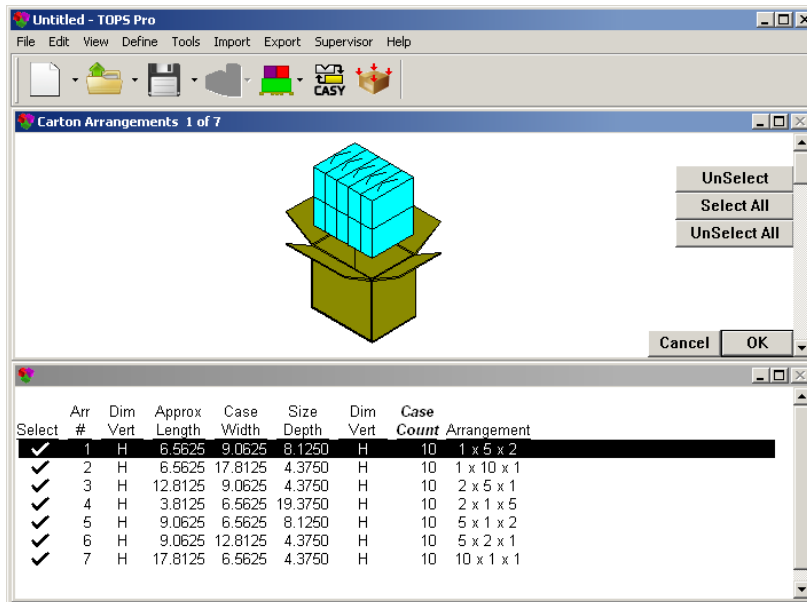
- Click the Shipper icon. In the Shipcase Parameters dialog box, select New Case, Dimension> Inside and under Sizing enter 10 as the only Value as shown in the following illustration.

The screenshot shows the 'Shipcase Parameters' dialog box with the following settings:

- Case:** New, Fixed, DataBase
- DataBase:** All, Multiple
- Material:** Corrugated, Other
- Dimensions:** Inside, Outside
- Units:** English, Metric
- Description:** User Defined
- Mix Tray:** None
- Style:** RSC (FEFCO 0201)
- C.A.S.Y. Style:** None
- Flute:** C Flute
- Length (in):** 12.3125, **Slack:** 0.0000, **Vert:**
- Width (in):** 10.3125, **Slack:** 0.0000, **Vert:**
- Height (in):** 4.6250, **Slack:** 0.0000, **Vert:**
- Max Weight (lbs):** 0.000
- Use Tare weight
- Tare weight (lbs):** 0.000
- Round to nearest 1/16"
- Sizing:**
 - Range: Min Count 2, Max Count 6
 - Values: 10, 0, 0, 0, 0

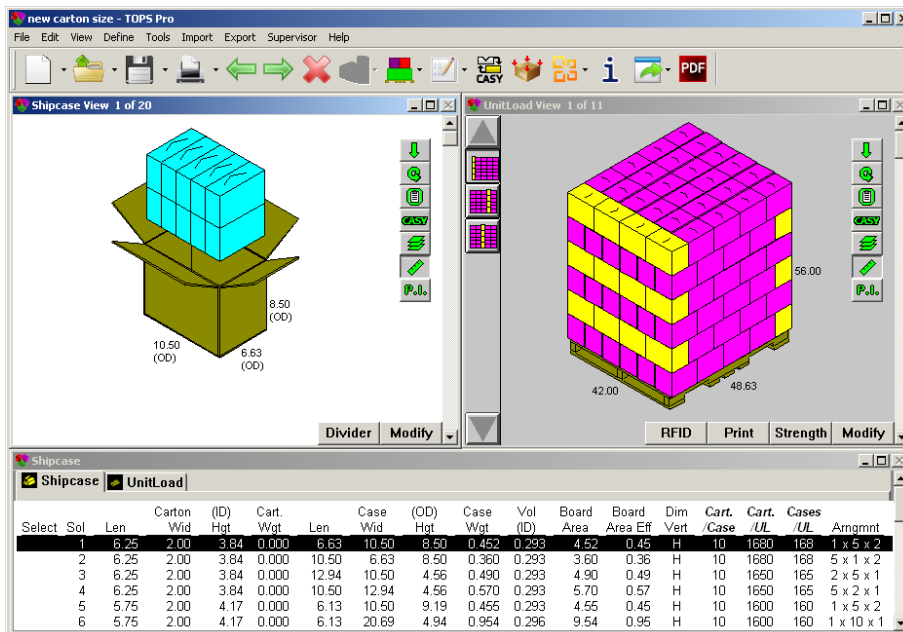
- Click OK. TOPS Pro stores your shipcase parameters to memory and returns you to the Control Panel.
- Click the Pallet icon. The UnitLoad Parameters dialog box appears.
- As in the previous exercise, click on the Options button and select only 1-block and 2-block arrangements.
- Click OK. TOPS Pro stores your selected pattern styles to memory and returns you to the UnitLoad Parameters dialog box.
- Because your company uses a standard GMA Notched pallet, you don't need to change any parameters on the UnitLoad Parameters dialog box. Click OK. TOPS Pro stores the default unitload parameters to memory and returns you to the Control Panel.

- Click the Calc button. TOPS Pro calculates solutions for the given parameters and displays the Analysis View, as pictured on the next page.



As you can see, this screen shows a list of carton solutions and their corresponding carton arrangements. At this point, you can look at the different carton arrangements and decide on one if you like. However, we will select all the arrangements to give TOPS Pro more options to work with as the system generates solutions.

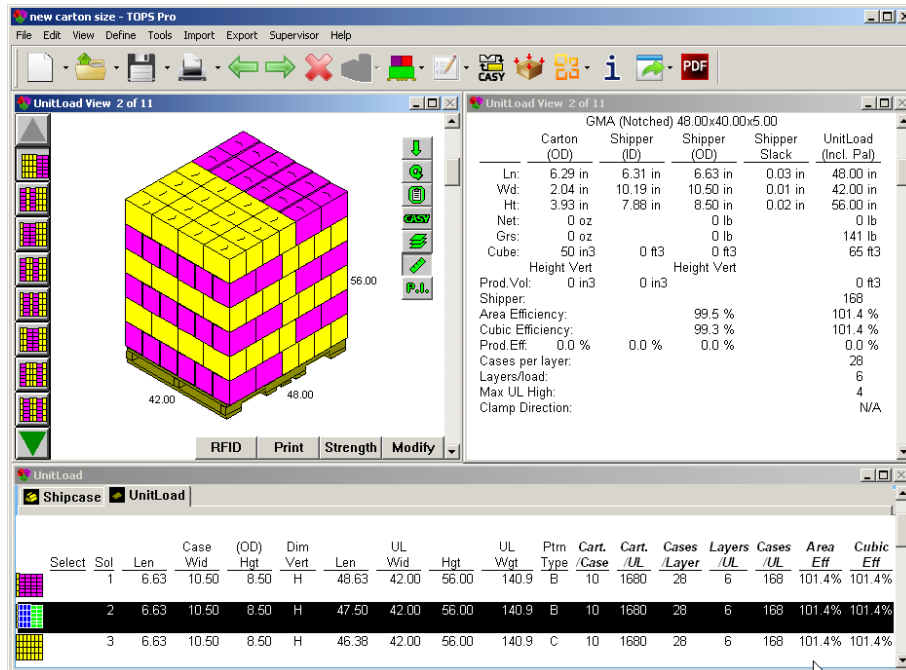
- Click the Select All button. TOPS Pro automatically checks all the carton arrangements as selected as indicated by the check marks added under the Select column.
- Click OK. The Analysis View redisplay, as pictured below.



As you can see, TOPS Pro has generated 20 solutions (20 different shipcases designed to hold 10 cartons), with the first four unitload solutions carrying more than 1,600 cartons already. In the List Pane at the bottom, if you look at the Cart/UL (cartons per unitload) column, you will notice that the best solutions are listed first. At this point, you can look at the various solutions and see how the cartons and unitload are arranged for each solution. In this exercise, we will choose the first solution. This solution allows you to load 1,680 cartons per pallet, and the carton arrangement and pallet pattern are well-designed.

Remember that in the previous exercise, the analysis with the fixed carton gave us a maximum of 1,600 cartons per unitload. With this solution, by revising the dimensions of the carton, we can add another 80 cartons onto the pallet. The example below demonstrates that changing the outside dimension of the fixed carton to 6.29 inch x 2.04 inch x 3.93 inch while keeping the same volume of 48 cubic inches.

- Click the Next button (➡) on the toolbar. The Analysis View redisplay with the statistics.



At this point, you can look at the different solutions and see if there is a unitload arrangement that you like more than the others.

- Select the solution you want to use for your new carton and shipcase.
- Click on Next button. TOPS Pro saves the solution parameters to memory and returns you to the Control Panel.
- Print and save your work.

Exercise #3: Shipcase Consolidation Analysis (Database Function)

Scenario: You need a shipcase to load your cartons of brown sugar, but you don't want to have to design a new shipcase. Time and cost issues make it necessary to go with a shipcase that is already set up in the database.

Objective: Search the TOPS Pro database for an existing shipcase that will load the most cartons of brown sugar on a pallet.

You know the following facts going into the analysis:

- The carton is a fixed size: 6 inches long, 2 inches wide, and 4 inches high.
- The quantity of cartons that will go into the shipcase is not an issue here.
- You will use standard pallets and will load pallets in a 1-block or 2-block pattern arrangement.

In this analysis, you will work through these primary steps:

- On the Carton Parameters dialog box, set up the fixed brown sugar carton.
- On the Shipcase Parameters dialog box, set up the parameters TOPS Pro needs to search the database for the right shipcase.
- On the UnitLoad Options dialog box, set up the analysis to consider only 1-block and 2-block pallet patterns.

Start from the Control Panel and follow these instructions:

1. Set up a Carton-Shipper-Pallet packaging sequence. (Use the green Carton icon.)




2. Click the Carton icon. The Carton Parameters dialog box appears. Enter the fixed dimension of 6x2x4 inches for the carton as pictured below.

Carton Parameters	
<input checked="" type="radio"/> Fixed	Description: User Defined
<input type="radio"/> New	Style: STANDARD REVERSE TUCK C
<input type="radio"/> DataBase	C.A.S.Y. Style: None
<input type="radio"/> KnockDown	
Length (in): 6.0000	6.2500 0.2500
Width (in): 2.0000	2.2500 0.2500
Height (in): 4.0000	4.2500 0.2500
Volume (in ³): 48.000	48.000
	Net Gross
Weight (lbs): 0.0000	0.0000
Caliper (in): 0.0180	
	Vert: <input checked="" type="checkbox"/>
	Dimensions: <input checked="" type="radio"/> Inside <input type="radio"/> Outside
	Units: <input checked="" type="radio"/> English <input type="radio"/> Metric
	Bundle: <input type="checkbox"/> Bundle

3. Click OK. TOPS Pro stores your carton parameters to memory and returns you to the Control Panel.

4. Click the Shipper icon. The Shipcase Parameters dialog box appears. Use these guidelines to enter shipcase parameters as illustrated on the following page.
 - **Case:** Select Database. You want TOPS Pro to search the database for the optimum shipcase. TOPS Pro comes with some sample shipcases. To add your own, go to the Define menu and select Shipping Case. Refer to Appendix B for more details.
 - **DataBase:** Select All. You want TOPS Pro to go through all shipping cases in the database.
 - **Dimensions:** Select Inside. You want TOPS Pro set up the shipcase using the inside dimensions.

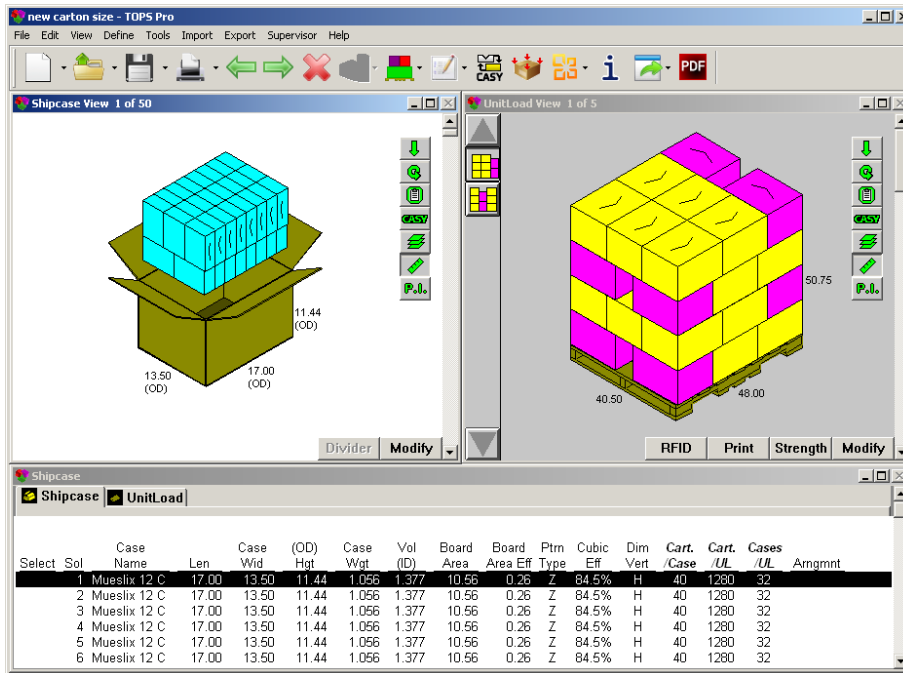
 **Note:** In this exercise, you want TOPS Pro to search the complete range of shipcases in the database. Therefore, instead of entering specific sizing values, you will enter a range. Because you want TOPS Pro to look at every shipcase in the database, we will make the range a big one (1-1000).
 - **Sizing:** Select Range and enter Min Count of 1 and Max Count of 1000.

The screenshot shows the 'Shipcase Parameters' dialog box with the following settings:

- Case:** New, Fixed, DataBase
- DataBase:** All, Multiple
- Material:** Corrugated, Other
- Dimensions:** Inside, Outside
- Units:** English, Metric
- Sizing:** Range, Values. Min Count: 1, Max Count: 1000
- Description:** User Defined
- Mix Tray:** None
- Style:** RSC (FEFCO 0201)
- C.A.S.Y. Style:** None
- Flute:** C Flute
- Length (in):** 0.0000
- Width (in):** 0.0000
- Height (in):** 0.0000
- Max Weight (lbs):** 0.000
- Tare weight (lbs):** 0.000
- Slack:** 0.0000
- Vert:** 0.0000
- Use Tare weight:**
- Round to nearest 1/16":**
- Fix Pack:**

5. Click OK. TOPS Pro stores your shipcase parameters to memory and returns you to the Control Panel.
6. Click the Pallet icon. The UnitLoad Parameters dialog box appears. Click Options to select only 1-Block and 2-Block pattern styles.
7. Click OK. TOPS Pro stores your selected pattern styles to memory and returns you to the UnitLoad Parameters dialog box.
8. Because your company uses a standard GMA Notched pallet, you don't need to change any parameters on the UnitLoad Parameters dialog box. Click OK and TOPS Pro stores the default unitload parameters to memory and returns you to the Control Panel.

- Click Calc. TOPS Pro calculates solutions for the given parameters and displays the Analysis View, as pictured here.




As you can see, TOPS Pro has generated 50 solutions (50 different shipcase and arrangement that can accommodate your brown sugar cartons). In the List Pane at the bottom, if you look at the Cart/UL (cartons per unitload) column, you will see that the best solutions are listed first.

- At this point, you can work through the Analysis Views and look at the various criteria that go into your decision-making: carton arrangement, pallet pattern, underhang, overhang or cubic efficiency.
- When you decide on a solution, click Next (➡) on the toolbar to view the statistics for the unitload.
- Click Next again, TOPS Pro stores the solution parameters to memory and returns you to the Control Panel.
- Print and save your work.

Exercise #4: Knockdown Analysis

Scenario: One frequently used analysis is the knockdown (KD) analysis, which refers to a situation where you are shipping collapsed flat boxes. In a knockdown analysis, you will take a bundle of collapsed boxes and load them onto a pallet. The dimensions of the box have obviously changed.

TOPS Pro allows you to account for the knockdown by entering the dimensions of a box after it has been collapsed flat. You can also enter dimension of the erected box and TOPS Pro will calculate the dimension of the knockdown box for calculation. TOPS Pro finds the optimal solution for loading bundles of collapsed boxes onto a pallet after one or more boxes have been collapsed.

 **Note:** The Knockdown button, located on the Carton Parameters dialog box, will automatically calculate these dimensions for you.

Objective: Find the optimal solution for loading bundles of collapsed boxes onto a pallet after one or more boxes have been collapsed. In this analysis, the various stages have these general characteristics:

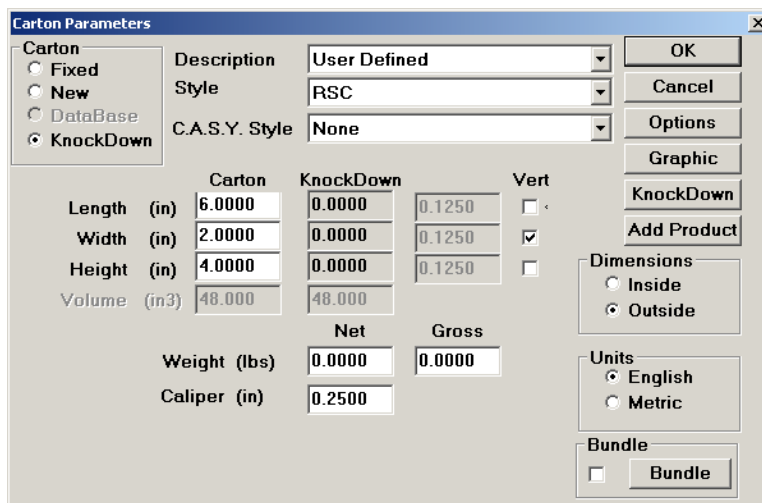
- Each carton (box) measures 6 inches long, 2 inches wide and 4 inches high.
- Each bundle is configured as a shipcase that contains 20, 25 or 30 collapsed boxes.

To perform this analysis, start from the Control Panel and follow these instructions:

1. Set up a Carton-Shipper-Pallet packaging sequence. (Use the green Carton icon).

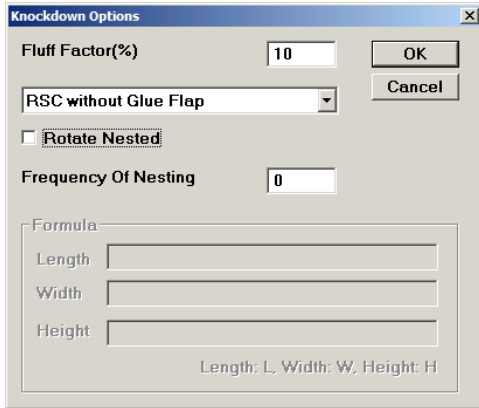


2. Click the Carton icon. The Carton Parameters dialog box appears. Select KnockDown under Carton and enter the dimension and caliper of the erected carton (6x2x4) as pictured below.

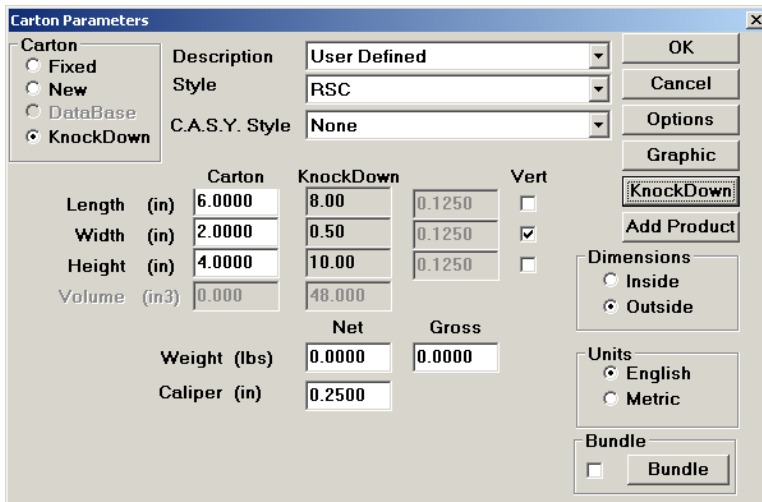


	Carton	KnockDown	Vert
Length (in)	6.0000	0.0000	<input type="checkbox"/>
Width (in)	2.0000	0.0000	<input checked="" type="checkbox"/>
Height (in)	4.0000	0.0000	<input type="checkbox"/>
Volume (in ³)	48.0000	48.0000	
		Net	Gross
Weight (lbs)		0.0000	0.0000
Caliper (in)		0.2500	

3. Place a check mark “✓” corresponding to the Width under Vert column, this allows the knock down flats to lay flat inside the shipper.
4. Click KnockDown to enter your Knockdown Options. For this example, leave the settings as is and click OK.



- Upon returning to the Carton Parameters dialog box, the KnockDown column next to the Carton dimension will auto populate with the knock down dimension of the carton.



- Click OK to store your carton parameters to memory and redisplay the Control Panel.
- Click the Shipper icon to open the Shipcase Parameters dialog box. Specify the parameters described below as illustrated in the dialog box next.

Shipcase Parameters

Case
 New
 Fixed
 DataBase

DataBase
 All
 Multiple

Material
 Corrugated
 Other

Dimensions
 Inside
 Outside

Units
 English
 Metric

Description: User Defined
 Mix Tray: None
 Style: BUNDLE (INVISIBLE)
 C.A.S.Y. Style: None
 Flute: C Flute

Slack Vert
 Length (in): 8.3125 0.0000
 Width (in): 10.3125 0.0000
 Height (in): 1.7500 0.0000

Max Weight (lbs): 0.000
 Use Tare weight
 Tare weight (lbs): 0.000
 Round to nearest 1/16"

Sizing
 Range: Min Count: 2 Max Count: 6
 Values: 20 25 30 0 0

- **Case:** Use the default (New).
- **Style:** Select Bundle (Invisible).
- **Dimensions:** Use the default (Outside).
- **Vert:** Use the default (Height), this governs the orientation of the shipcase when loaded onto the pallet.
- **Sizing:** Select Values.
- **Values:** Enter 20, 25 and 30.

8. Click the Options button to specify the sizing for the shipcase (represented in this example as a bundle of collapsed boxes). The Shipcase Options dialog box appears, as pictured next.

Shipcase Options

Pattern Styles

 Staggered
 1 Block
 Block/Interlock
 3 Block
 4 Block
 Diagonal
 Multi-Dim
 Multi-Surface
 Multi-Layer

Bulge
 Length (in): 0.0000
 Width (in): 0.0000
 Height (in): 0.0000

Sizing

	Cartons	(in)
Max Cartons along Length	1	0.0000
Max Cartons along Width	1	0.0000
Max Cartons along Depth	100	0.0000
Length to Width Ratio	4.500	
Depth to Width Ratio	3.500	

Optional
 Turn \$/1000: 0.000
 Cost: 0.000
 Cases per Pallet: 0

Box Cost
 Cost / Box Cost: 0.000
 Cost / Sq. unit

9. Use the following fields to define the sizing of the shipcase. This instructs TOPS Pro to stack the KD boxes as single bundle only but can be as many as 100 boxes high (depth).
 - **Max Cartons along Length/Cartons:** Enter 1.
 - **Max Cartons along Width/Cartons:** Enter 1.
 - **Max Cartons along Height/Cartons:** Enter 100.
10. After completing the sizing parameters, click OK. TOPS Pro stores your sizing parameters to memory and redisplay the Shipcase Parameters dialog box.
11. After completing the shipcase parameters, click OK. TOPS Pro stores your shipcase parameters to memory and redisplay the Control Panel.
12. Click the Pallet icon. The UnitLoad Parameters dialog box appears. We don't want any overhang so change those values to 0.
 - **Maximum Overhang Length:** Enter 0
 - **Maximum Overhang Width:** Enter 0

UnitLoad Parameters

Pallet

Single Pallet Style: **GMA (NOTCHED)**

Slave Pallet Slave: **48 X 48 PALLET**

Number of Slaves: **Two**

Multi Pallets **Select Pallets**

Optimize for all Pallets Optimize for each Pallet

Maximum Height (incl. Pallet) (in) **56.000**

Maximum Weight (incl. Pallet) (lbs) **9999.000**

Load Offset

	Length (in)	Width (in)
Maximum Overhang	0.000	0.000
Maximum Underhang	15.000	15.000

Units: English Metric

Packaging weight (lbs) **0.000**

Limit to Max.

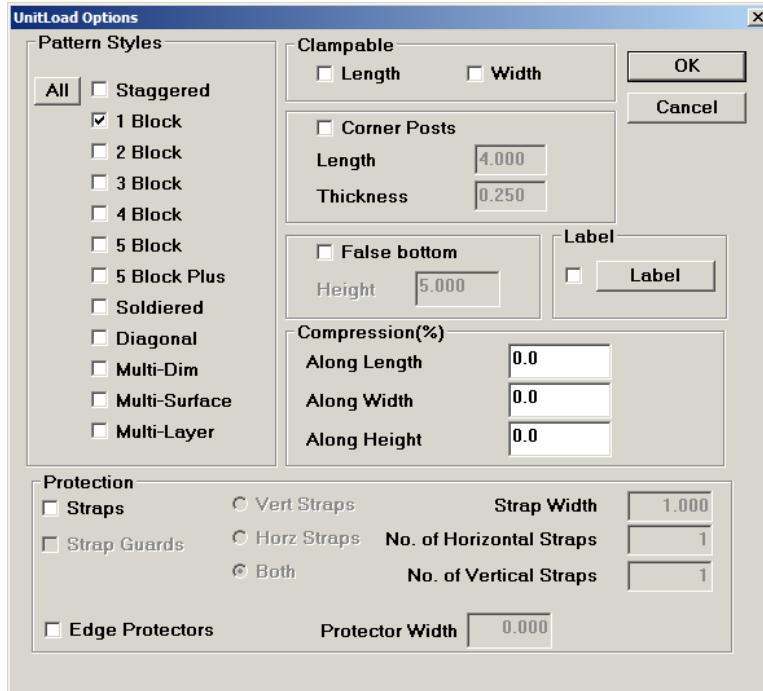
Layers	0	Items/Layer	0	Total Items	0
--------	----------	-------------	----------	-------------	----------

Max UL High **4**

Pallet Size (in) **48.000 X 40.000 X 5.000**

Buttons: **OK**, **Cancel**, **Options**, **New Pallet**, **Layer**

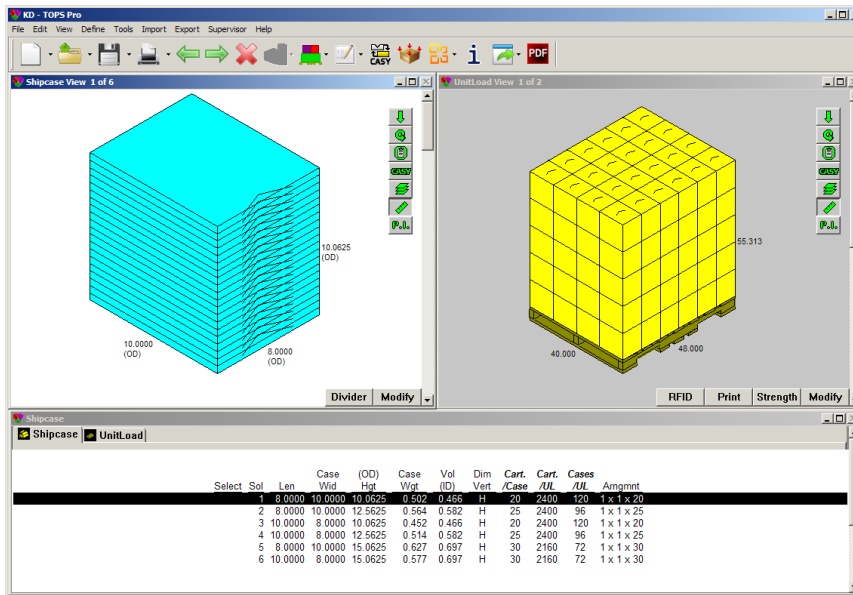
13. At this point, let's say you want all the knockdowns oriented the same way on the pallet – a one-block pattern. (In a two-block pattern, the knockdowns are oriented in two ways, and so on). Because you want to see only a one-block solution, you need to tell TOPS Pro to eliminate all other possibilities.
14. Click the Options button. The UnitLoad Options dialog box appears, as pictured next.



Notice a couple of things about the UnitLoad Options dialog box:

- The **Pattern Styles section** provides a list of all types of patterns you might want to see. To select a pattern style, click on the box next to that style “✓”. To de-select a pattern style, click the box again, and the box is cleared.
- When you select a pattern style, the **g.o.d. window** in the bottom, right corner of the screen displays a visual of what the selected pattern style looks like.

15. You want to see only a one-block pattern, so select 1 Block. If you see any options marked with a “✓” as selected, and be sure to de-select those options.
16. Click OK. TOPS Pro stores your unitload options to memory and redisplay the UnitLoad Parameters dialog box.
17. After completing the unitload parameters, click OK. TOPS Pro stores your unitload parameters to memory and redisplay the Control Panel.
18. Click the Calc button. TOPS Pro uses the defined parameters (carton, shipcase, and unitload) and generates all possible solutions for the analysis. TOPS Pro displays the Analysis View with three different panes, as picture here.



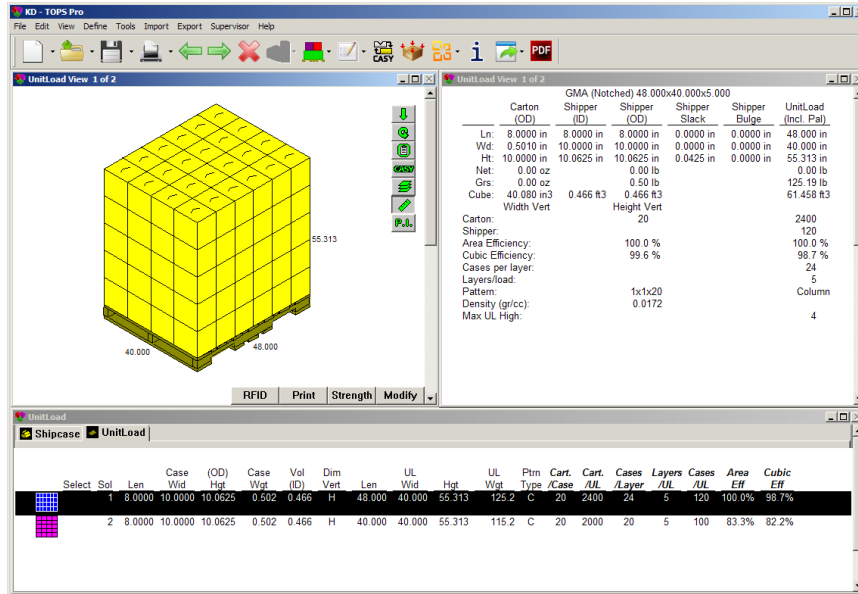
Let's look at these three panes one at a time:

- **Shipcase Solution View:** This pane, in the top, left portion of the screen, displays a graphic of what a selected shipcase solution looks like – i.e., how the collapsed boxes are bundled. If you select another solution from the Shipcase Solution List, this graphic will change accordingly.
- **UnitLoad Solution View:** This pane, in the top, right portion of the screen, displays a graphic of the unitload that corresponds to the selected shipcase solution. It shows how the bundles are configured on the pallet. The UnitLoad Solution View is driven by the selected shipcase solution and changes in conjunction with the Shipcase Solution View.

For example, if you select Solution 2 from the Shipcase Solution List, the Shipcase Solution View will redisplay to reflect the Solution 2 values. At the same time, the UnitLoad Solution View will redisplay to reflect Solution 2.

- **Shipcase Solution List:** This pane, at the bottom of the screen, displays a list of all shipcase solutions generated for the analysis. In this example, TOPS Pro has generated three shipcase solutions.

19. Select a shipcase solution.
20. Click the Next button in the Toolbar. TOPS Pro redisplay the Analysis View with three new panes, as pictured below.



Notice that TOPS Pro has proceeded to the next step in the analysis. We have completed the shipcase stage of the analysis; now we are ready to work with the unitload solutions, which will complete the analysis.

All three panes work in conjunction with one another. Let's briefly outline these three panes:

- **UnitLoad Solution View:** This pane displays a graphic of what a selected unitload solution looks like – i.e., how the knockdowns are loaded onto the pallet.
- **UnitLoad Statistics View:** This pane displays detailed statistics for a selected solution.
- **UnitLoad Solution List:** This pane displays a list of all the solutions generated for the analysis. For this analysis, TOPS Pro generated two solutions for the given shipcase and unitload parameters.

For each solution, this pane displays 15 items of basic information (case weight, volume, vertical dimension, etc.) which appear in 15 columns across the pane.

21. Select a unitload solution.
22. Click OK in the UnitLoad View pane. TOPS Pro redisplay the Control Panel.
23. Click Save to save the analysis record.

Paste-On Graphics

The Paste-On Graphics feature allows you to dress up your cartons, shipcases, trays and other box-like containers with graphics, such as a corporate logo. This is a fairly restricted feature that is accessed with a Graphics button on the following dialog boxes:


- Define Carton
- Define Shipping Case
- Intermediate Pack Parameters
- Milk Carton Parameters
- ShipCase Parameters
- Can Parameters
- Drum Parameters
- Tub Parameters
- Bucket Parameters
- Bottle Parameters
- Bag Parameters

Before getting into the step-by-step instructions, be aware of these tips and guidelines regarding Paste-On Graphics:

- In order for the Paste-On Graphics feature to work, you must turn on the Show Graphics switch. To turn on Show Graphics, start from the Control Panel, open the View menu and select Show Graphics/C.A.S.Y.
- For speed purposes, before using a graphic, TOPS Pro shrinks the graphic to no larger than 64 pixels by 64 pixels. TOPS Pro then places the reduced graphic on the shipcase, carton, etc. Therefore, if you are designing graphics to be used in TOPS Pro, you will get best results with graphics that are no bigger than 64 x 64 pixels.
- The Paste-On Graphics feature does not work for monochrome bitmaps. If you want to use a monochrome bitmap, open it in Microsoft Paintbrush and re-save it as a 16-color bitmap.

To demonstrate how the Paste-On Graphics feature works, we will start by defining parameters for a shipcase, then add graphics to the front and side of the shipcase. Start from the Control Panel and follow these instructions:

1. From the Menu Bar, open the View menu and select Show Graphics/C.A.S.Y.

 **Note:** The Paste-On Graphics feature will not be available unless you first turn on the Show Graphics feature.

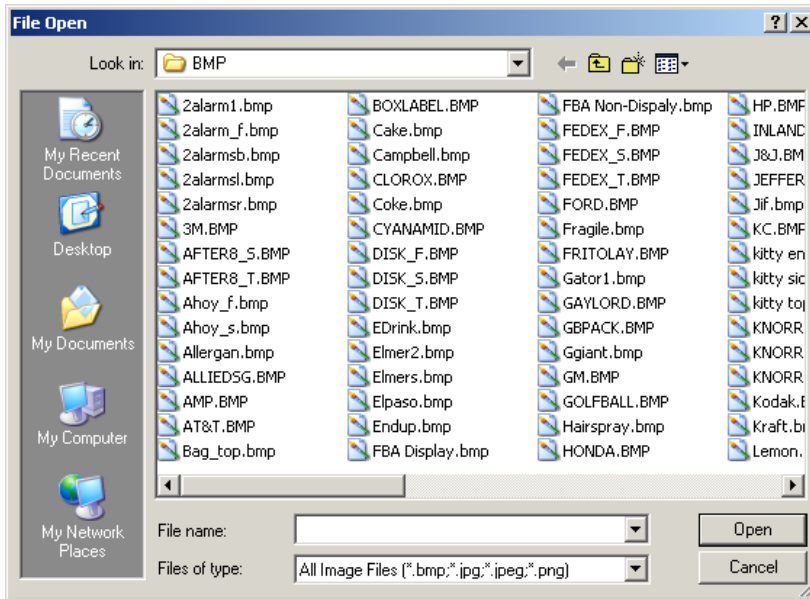
- Click the Shipper icon on the design sequence. The Shipcase Parameters dialog box appears. Enter 10 x 7.5 x 5 for the shipcase.

- Click the Graphic button. The Assign Graphics dialog box appears, as pictured below.


Notice three things about this dialog box:

- This dialog box works in conjunction with the **Graphic Online Display (g.o.d.) feature**, which appears in the bottom portion of the screen. As you assign graphics to the shipcase, the g.o.d. feature will redisplay to show the selected graphic pasted on the shipcase.
 - The **Top, Front, Back, Right and Left fields** allows you to browse and select a list of graphic files to be pasted on the corresponding side of the shipcase.
- The **Rotate buttons** turns the graphic in different orientations. . They turn the graphic by 90 degrees left (counter-clockwise) or right (clockwise).

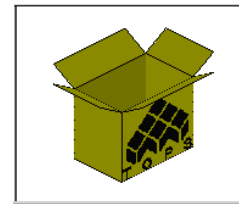
- To paste a graphic on the front of the shipcase, go to the Front field and click Browse. The File Open dialog box appears, as pictured below.



- Scroll down the list of file names until you find the graphic you want.

 **Note:** In the figure above, the list of files represent a few of the bitmaps that are shipped with the TOPS Pro software.

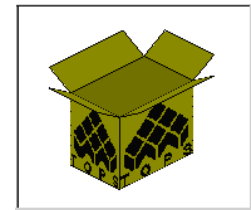
- Select the graphic and click OK. In this exercise, we will select the tops.bmp file. The Graphic Online Display (g.o.d.) redisplay, as pictured to the right, with the selected graphic on the front of the shipcase. TOPS Pro will display the logo with a transparent background to blend with the color of the shipcase.



- To paste a graphic on the right side of the shipcase, go to the Right field and click Browse. The Get Graphics File Name dialog box appears.

- Scroll down the list of file names until you find the graphic you want.

- Select the graphic and click OK. Again, we will select the tops.bmp file. The Graphic Online Display (g.o.d.) redisplay, as pictured here, with the selected graphic on the front and side of the shipcase.



- Change the color of the upper, left-hand pixel to a color that is NOT currently used anywhere in the bitmap.

Export


The Export feature allows you to select a graphic, product report, case, carton, analysis or robotic palletizer, then export it to another application outside the TOPS Pro system.

Export a Graphic

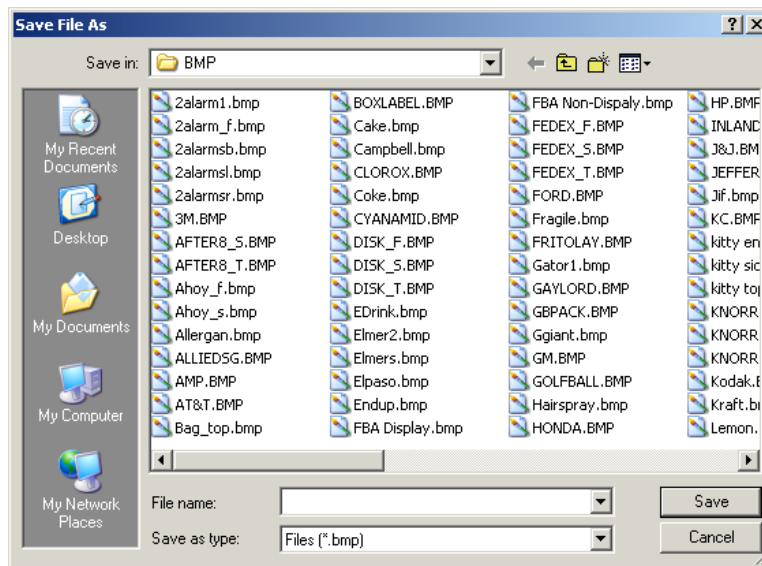
To export a graphic from the TOPS Pro system, follow these instructions:

1. Select and click the graphic that you want to export from the view pane.
2. From the Menu Bar, open the Export menu and select the format you want to use to export the graphic:
 - BMP (Color)
 - BMP (B+W)
 - EPS
 - TIFF
 - PCX

In this example, we will select BMP (Color).

 **Note:** When you select a graphic for export, TOPS Pro creates a file that is the same size as the graphic you see on your screen. The color depth will match your current Windows display setting.

The Save File As dialog box appears, as pictured here.



Notice that the Save File As dialog box displays a list of bitmap files. If you select a JPEG format, the dialog box will display a list of .jpg files, and so on.

3. In the File Name field, enter the name of the file.
4. Select the drive and directory path to which you want to save the file.
5. If everything is correct, click OK.

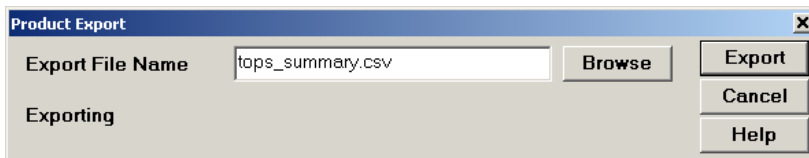
TOPS Pro saves the graphic file to the selected drive and directory path.


Export a Product Report

The product report exports information to an ASCII command delimited text file in a form suitable for import into Microsoft Access, Excel or other applications. The report includes information on every product attached to an approved package profile. To export a product report from the TOPS Pro system, follow these instructions:

1. From the Menu Bar, click Export and select Product Report.

The Product Export dialog box appears, as pictured below. Notice that TOPS Pro has automatically inserted the directory path of the product file, along with “topsexport.csv” as the file name.



 **Note:** For more information on the Product Export dialog box, please refer to Appendix B, Dialog Boxes.

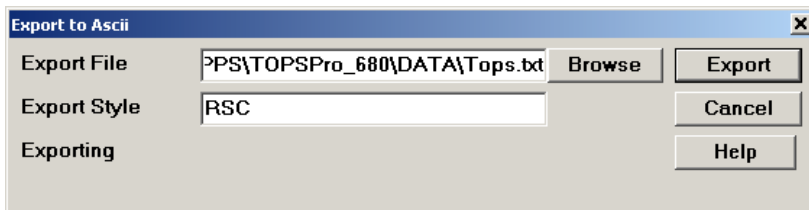
2. In the Export File Name field, replace “tops_summary.csv “ with the name of the product file.
3. If everything is correct, click Export. TOPS Pro issues a message indicating that the export is complete.


Export a Shipcase

TOPS Pro allows you to export the shipcase in the current analysis from the TOPS Pro system to an ASCII delimited test file for use by third-party products, such as Design Axis’ Package for DOS product. To export a shipcase from the TOPS Pro system, follow these instructions:

1. From the Menu Bar, click Export and select Case.

The Export to ASCII dialog box appears, as pictured below. Notice that TOPS Pro has automatically inserted (1) the directory path of the product file, along with “tops.txt” as the file name, and (2) the shipcase style (RSC).



 **Note:** For more information on the Export to ASCII dialog box, please refer to Appendix B, Dialog Boxes.

2. In the Export File field, replace “tops.txt” with the name of the product file. As an option, you can use the Browse button to display the Get Export File Name dialog box and select the file to be exported.
3. In the Export Style field, enter another shipcase style, if necessary.

4. If everything is correct, click Export. TOPS Pro issues a message indicating that the export is complete.


Export a Carton

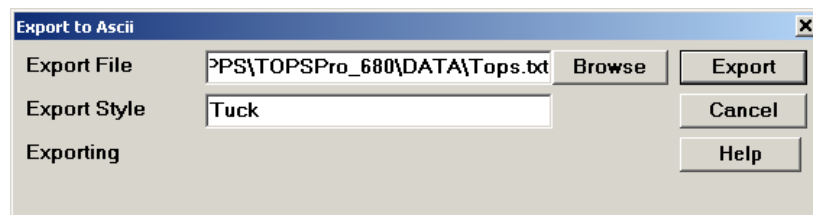
TOPS Pro allows you to export the carton in the current analysis from the TOPS Pro system to an ASCII delimited test file for use by third-party products, such as Design Axis' Package for DOS product.

To export a carton from the TOPS Pro system, follow these instructions:

1. From the Menu Bar, click Export and select Carton.

The Export to ASCII dialog box appears, as pictured below. Notice that TOPS Pro has automatically inserted (1) the directory path of the product file, along with "tops.txt" as the file name, and (2) the carton style (Tuck).

 **Note:** For more information on the Export to ASCII dialog box, please refer to Appendix B, Dialog Boxes.

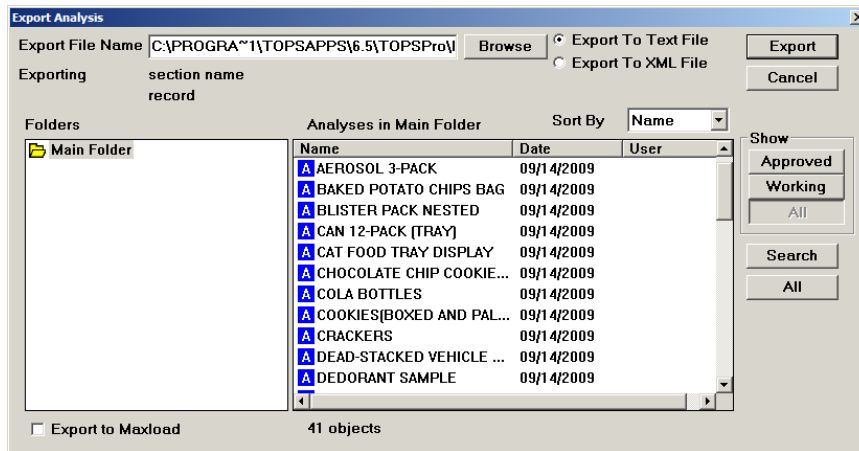


2. In the Export File field, replace "tops.txt" with the name of the product file. As an option, you can use the Browse button to display the Get Export File Name dialog box and select the file to be exported.
3. In the Export Style field, enter another carton style, if necessary.
4. If everything is correct, click Export. TOPS Pro issues a message indicating that the export is complete.

Export an Analysis

TOPS Pro allows you to export an analysis to an ASCII delimited text file or an XML file. You can use this file to transfer analyses to other copies of TOPS Pro (same release or higher) or to back up your work. To export an analysis from the TOPS Pro system, follow these instructions:

1. From the Menu Bar, click Export and select Analysis.
2. The Export Analysis dialog box appears, as pictured below. Notice that TOPS Pro has automatically inserted the directory path of the product file, along with "tops.txt" as the file name.



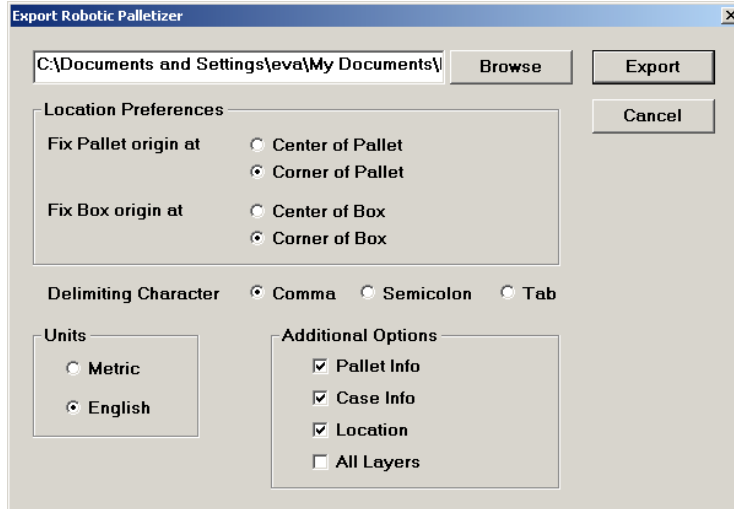
3. In the Export File Name field, replace “tops_data.txt” with the name of the product file. As an option, you can use the Browse button to display the Get Export File Name dialog box and select the file to be exported.
4. To export all analysis files, click the All button. All analyses, including both pending and approved ones, will be highlighted.
 - Note:** To select only specific analyses for export, press the [Ctrl] key on your keyboard while clicking the name of the analysis with the left mouse button.
5. If everything is correct, click Export. TOPS Pro issues a message indicating that the export is complete.

The Export Analysis dialog box allows you to search for a file to export. If you click on the Search button, the Analysis Search dialog box appears. For more information about this dialog box, please refer to Appendix B, Dialog Boxes.

Export to a Robotic Palletizer

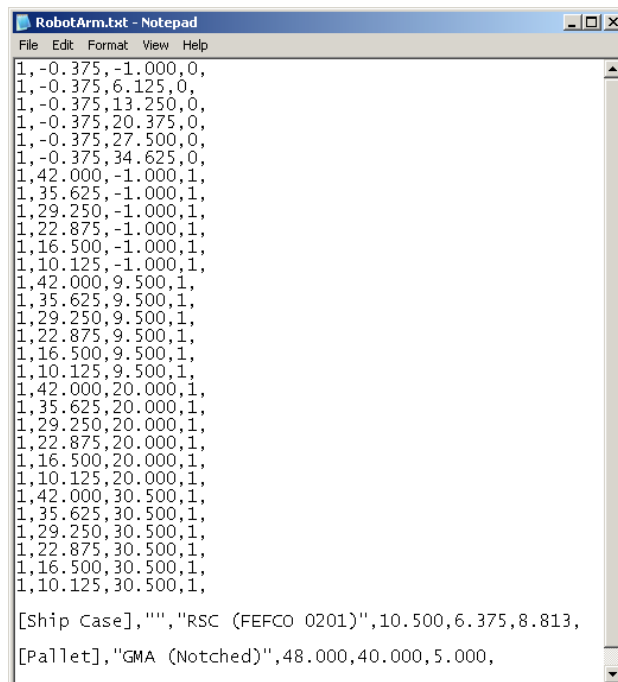
TOPS Pro allows you to export the arrangement of a pallet pattern layer to an ASCII text file, which can be used by robotic palletizing machines to determine how to arrange a unitload. To export a robotic palletizer from the TOPS Pro system, follow these instructions:

1. Select the pallet pattern you want to export, which means you have to highlight a unitload solution.
 - Note:** You will not see any response if your current selection is on a shipcase solution.
2. From the Menu Bar, click Export and select Robotic Palletizer. The Export Robotic Palletizer dialog box appears, as pictured below.



3. Click the Browse button to select drive and directory path for the exported file and specify the output filename to be used.
4. Select the origin point (center or corner) preference for the pallet and shipcase.
5. Specify the delimiter to be used among comma, semicolon or tab to separate each field in the record.
6. Select the unit of measure.
7. Add pallet, shipcase and layer information to the output as desired.
8. Click Export. TOPS Pro will create the text file as specified to the selected drive and directory path.

Below is an example of a text file output for a Robotic Palletizer including pallet and shipcase information for one layer (of 30 shipcases).



Artios Integration


The Artios CAD program can send Length, Width, Height and Box Style information to TOPS Pro to be automatically imported and dropped into a template for palletization. You can also use this feature to add information to the Shipcase and Carton databases. Please note that the graphics in Artios cannot be transferred into TOPS Pro.

To use TOPS with Artios CAD, please review the following section.

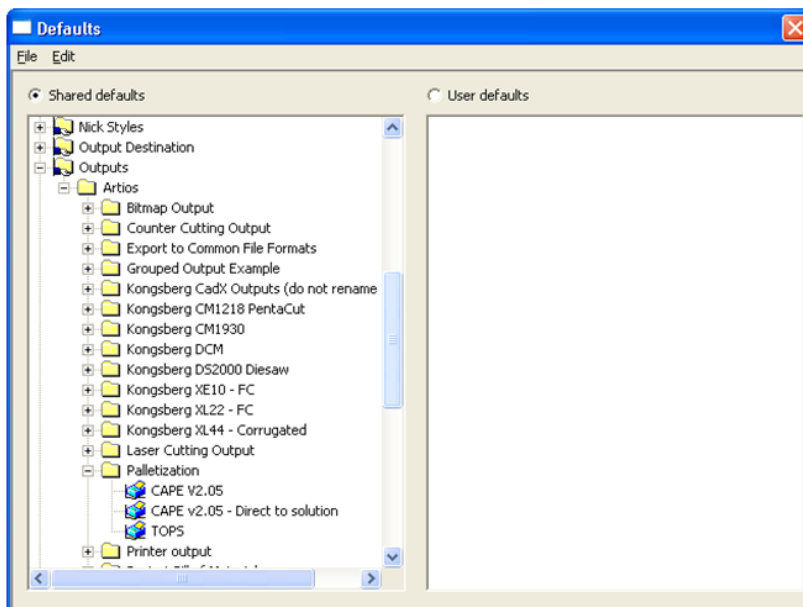
From Artios to TOPS: Box Data for Palletization

Setting Defaults in Artios CAD

To initiate the integration of TOPS Pro from Artios, the defaults should be set in Artios so that it points to the correct install of TOPS Pro. Below are the steps involved.

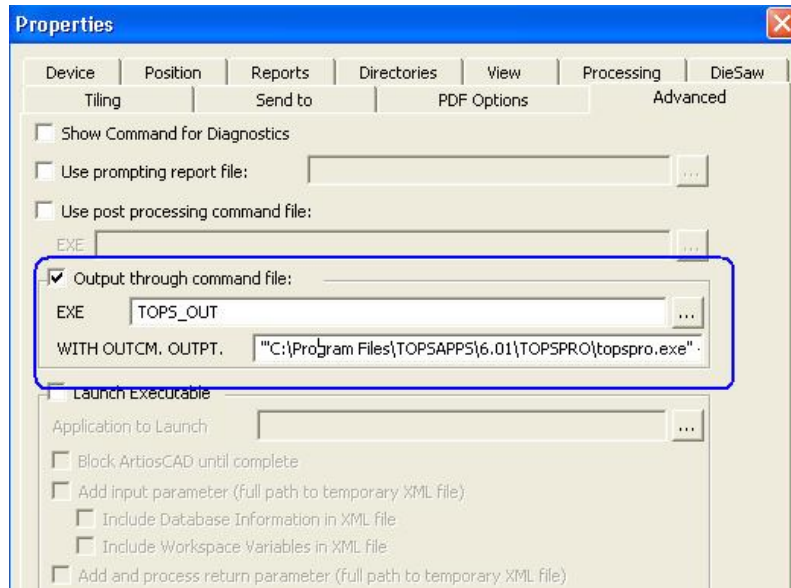
 **Note:** The menus and screen shots might be slightly different from what is shown here with different versions of Artios

1. Choose the Options menu in Artios and select Defaults under it. This should open up the default selection dialog.
2. Under Shared defaults, go to Outputs section, select Artios, Palletization and then TOPS as shown below.

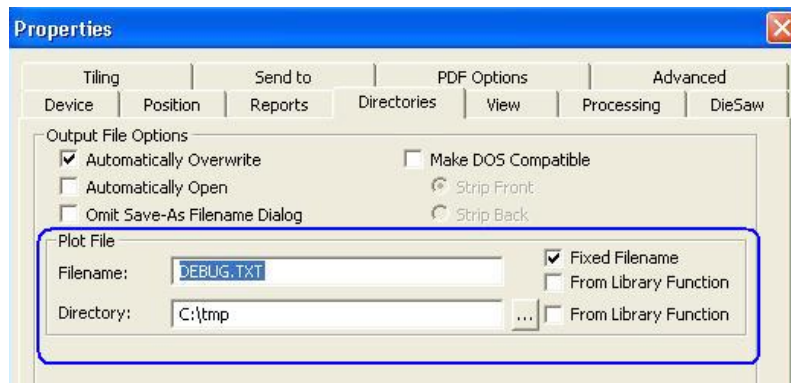


3. Double click on the TOPS icon to set the details.
4. In the Properties dialog box, click the **Advanced** tab. The "WITH OUTCM.OUTPUT" field under Output through command file should have the current install of TOPS Pro with full path and INI information within single quotes.

Example: "'C:\ProgramFiles\TOPSAPPS\6.01\TOPSPRO\topsp.exe" -ini=C:\PROGRA~1\TOPSAPPS\6.01\TOPSPRO\topsp.ini'



5. Select the Directories tab and make sure that the Plot File section has the option Fixed Filename checked. The Filename and Directory can have the default values.

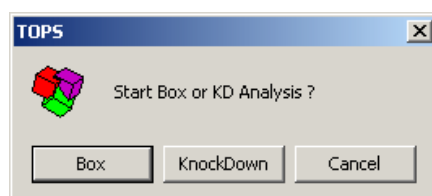


6. Click OK and save the defaults.

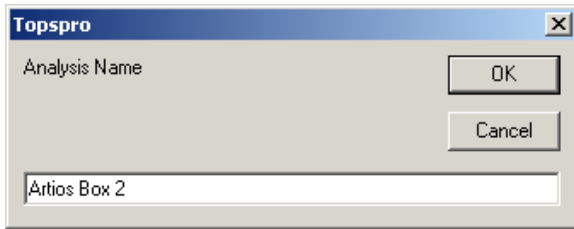
Launching TOPS Pro

1. From Artios CAD, select Export to TOPS. This will launch TOPS Pro.
2. Login TOPS Pro under any user name.
3. A message box appears asking if you would like to transfer the current carton design from Artios CAD into TOPS Pro as an erected box or as knockdown. Select Box for a shipper to pallet analysis or KnockDown for a knockdown carton analysis.

The dimension will be imported accordingly based on this selection.




- Next, a dialog will prompt for an Analysis name to use for the imported carton in an analysis, you may use any name here and click OK.



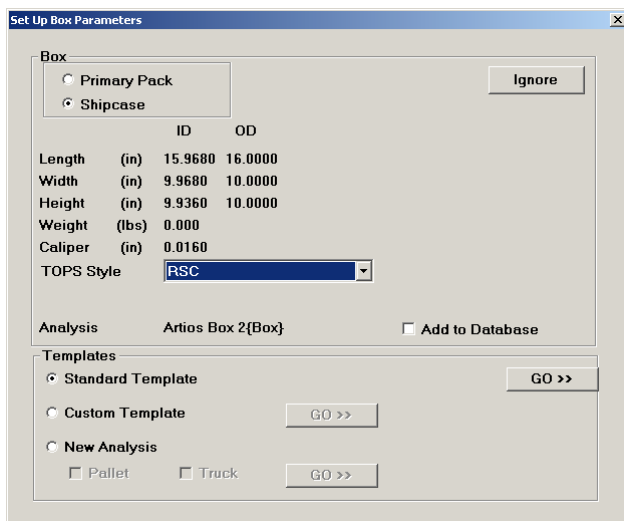
- At the Set Up Box Parameters dialog box, you can select the following options regarding the carton data from Artios CAD:
 - To import the carton as a Primary (green carton) or Shipcase (yellow shipper).
 - Specify the box style for the imported carton at the TOPS Style drop list. The style is normally preselected if it's included in the Artios output data.
 - Enable the "Add to Database" check box to add this carton to the database.
 - Specify a design template to use for the analysis using the existing carton.

Templates:

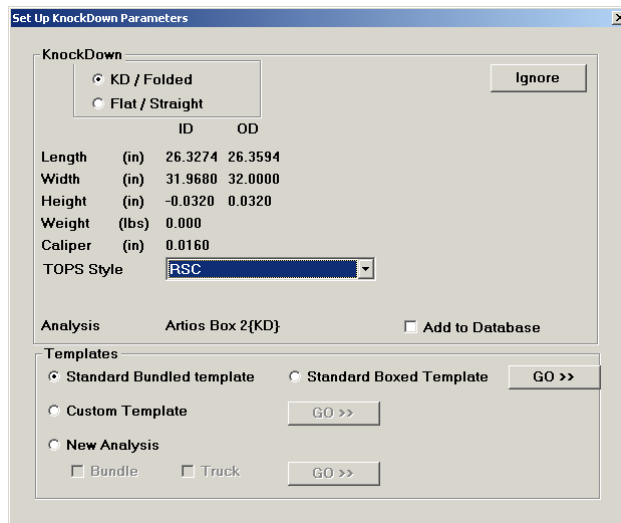
- Standard Bundled Templates – KnockDowns are bundled.
- Standard Bundled Templates – KnockDowns are placed in shipcase.
- Custom Template – Click the "Open Analysis" dialog box to select a pre-defined analysis template.
- New Analysis – placed KnockDown in Bundles, pallet and then into a truck.

 **NOTE:** The analysis is setup using a predefined template / default values. Contact TOPS Software if you would like to know how to change this template / default values.


Box Import:




KnockDown Import:

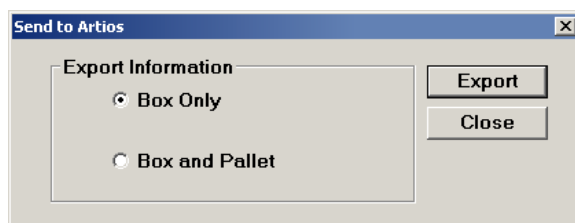


6. TOPS Pro will then perform an analysis using the Artios data.
7. Once the analysis is calculated you may perform a KD (knock down) analysis for this box by clicking on the “KD” button on the tool bar.
8. Then TOPS will perform a KD analysis.
9. Use the “Combine Report” to get single page printout with both the KD and Box/erected analysis on it.



 **Note:** To enable Artios import, you will need to login to the TOPS Configuration program as a supervisor, go to the Global Configuration dialog box and turn on the Artios-Laserpoint IQ switch.

From TOPS to Artios: Box and Pallet information

To initiate the Artios box design from TOPS Pro, go to the Windows Toolbar and click the Integration button () to open the Send to Artios dialog box.



Select the information (box data only or box and pallet data) to be exported to Artios and click the Export button. This will launch Artios CAD with the box dimension already imported. If you select Box and Pallet to export, a 3D image of the unitload will also be available along with the box dimension.

 **Note:** If the Integration button () opens the Load Plan dialog box instead, please open TOPSPRO.INI and change the section under [Integration] from Type=LoadPlan to Type=XML.

For further assistance, please contact TOPS technical support.

Quick Print Template System

TOPS Pro has a Quick Print feature that allows you to print multiple pages of information in a single batch. This feature designs reusable report styles for standardized specifications. The Quick Print feature is good if you need a standard printout that has four graphics on the first page and statistics on the second page. For more information, please refer to Chapter 11, Printing.

Combined Report

The Combined Report feature combines information from two analyses or up to five solutions of the same analysis onto one printout. This feature is particularly useful to include both the knocked-down and erected palletizations of a shipcase in a single report. For more information, please refer to Chapter 11, Printing.

Control of Displayed Statistics

This feature adds or removes specific statistics information from your printouts. For example, you can remove information regarding slack or RSC Area from the printed statistics. You could also specify whether to add Bulge information to the report. In essence, this feature can turn on and off any column of information the software can display in a statistics pane. For more information, please refer to Configuration - Statistics Tab in Appendix B, Dialog Boxes.

Shipcase Database Option

As you work through analyses and create various types of shipcases, TOPS Pro allows you to save those shipcases to a shipcase database. Rather than entering shipcase parameters with each new analysis, this feature helps you use shipcases already defined in the system.

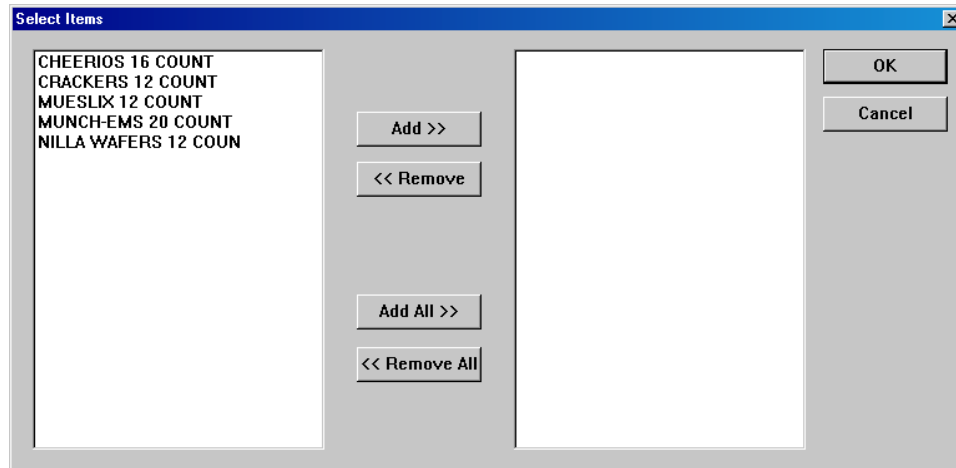
Notice two things on the Shipcase Parameters dialog box:

The **Case** feature includes a Database option, which activates the Database feature just below. The **Database** feature tells TOPS Pro to automatically use shipcases already set up and stored in the shipcase database. The Database feature has two options:

- **All:** Tells TOPS Pro to consider all shipcases saved to the database when it calculates solutions.
- **Multiple:** Opens the Select Items dialog box and allows you to select specific shipcases to be used in calculating solutions.

To use the Multiple option, follow these instructions:


1. Click Multiple, the Select Items dialog box appears, as pictured in the next page.



Notice two things about this dialog box:

- The window on the left shows a list of shipcases available to be used in the calculation.
- The window on the right will show a list of shipcases that have been selected to be used in the calculation.

2. Select a shipcase to be used in the analysis.
3. Click Add.
4. Repeat steps 2 and 3 for each shipcase to be used in the analysis.

 **Note:** To use all shipcases, click Add All. To remove a shipcase from the right-hand window, select the shipcase and click Remove.
To remove all shipcases from the right-hand window, click Remove All.

5. After selecting the shipcases, click OK. TOPS Pro stores the selected shipcases to memory and redisplay the Shipcase Parameters dialog box.

4

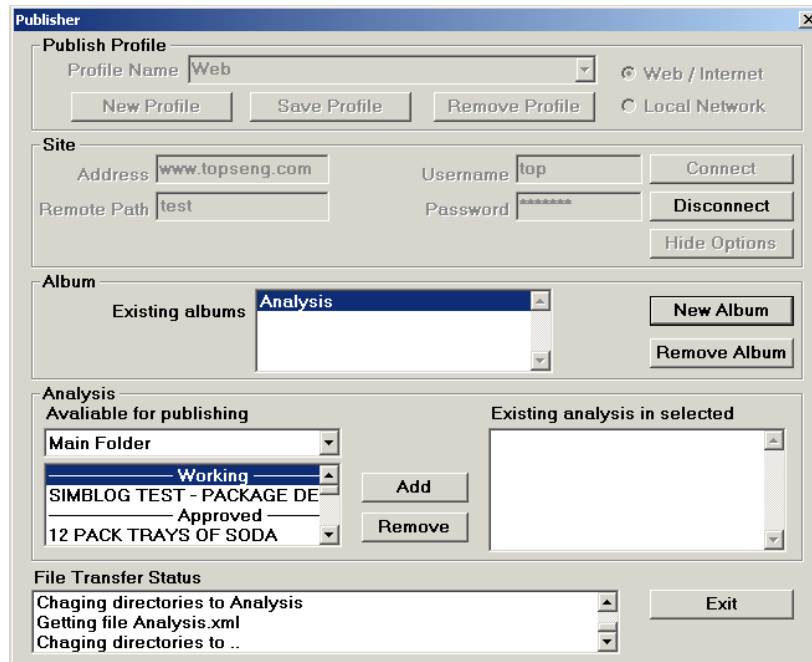
Publishing an Analysis

TOPS Pro allows you to publish the results of an analysis to the Web or to a local network, thus enabling other people to view the analysis. With the Publish Analysis feature, analyses are collected into albums, which are created by the user to logically organize one or more analyses.

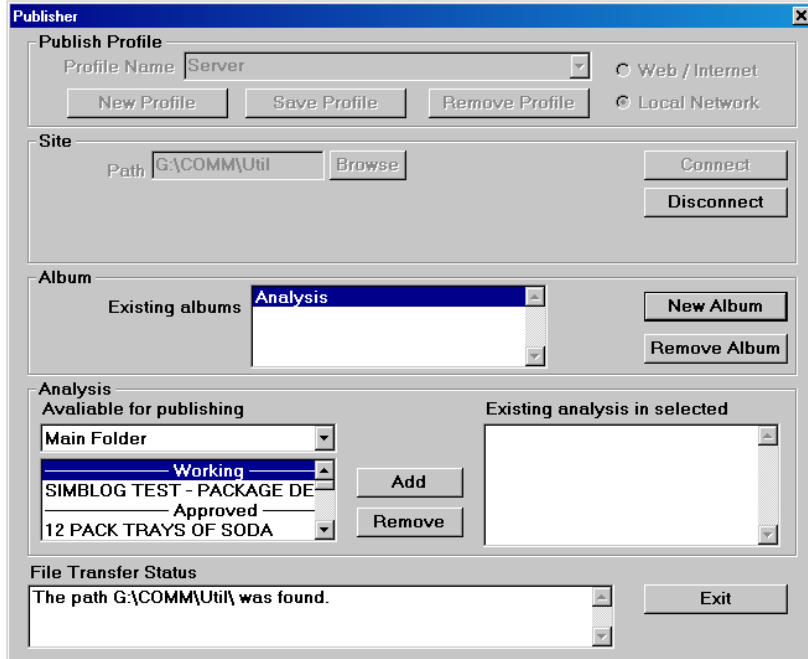
To publish an analysis to the Web or network, start from the Control Panel and follow these instructions:

1. Go to the Menu Bar and click File.
2. Click the Publish Analysis option, then select either the To Web or To Network option.

The Publisher dialog box appears in one of two forms, as pictured here.



Publisher to Web/Internet Option



Publisher to Local Network Option

The Publisher dialog box is organized into the following sections:

- **Publish Profile:** A profile contains information regarding the destination (web or local network) where analyses will be published. Creating a profile enables you to quickly recall the details of the published site.
 - **Profile Name:** Type the name for a new profile (details of the profile will be entered under the Site section) or select an existing profile from the drop-down list.
 - **New Profile:** Click to create a new profile.
 - **Save Profile:** Click to save the Site information into the specified profile.
 - **Remove Profile:** Delete the selected profile from the database.
 - **Web/Internet or Local Network:** Specify whether the new profile is a web or local network location.

- **Site:** Specifies or displays the details of the publish location for the new or selected profile.

With the Web/Internet option selected, the Site section prompts you to the followings:

- **Address: IP address or URL of the destination web site**
- **Remote Path:** Name of the folder on the remote site where the analyses will be saved, if applicable
- **User Name and Password: Authenticate your right to access the remote site**

With the Local Network option selected, the Site section prompts you to enter a destination **Path**. Enter the directory path or click the **Browse** button to specify a location on your local network.

 **Note:** For specific Site information, please contact your IT Department.

- **Connect/Disconnect:** Click to connect to or disconnect from the selected remote location.

- **Album:** Published analyses are organized into albums. This section allows you to create a new album, select an existing album to which the selected analysis will be stored or remove an existing album.
 - **Analysis:** Select and add one or more analyses to be published as part of an album.
 - **File Transfer Status:** Displays a list of FTP transactions (when publishing a profile to the Web).
3. In the Profile Name field, use the drop-down list to select an existing profile that will be used to publish the analysis. In this case, previously saved Site information for the selected profile will be recalled.
 - 📌 **Note:** To create a new profile, click the New Profile button and type the name of the new profile in the Profile Name field.
 4. In the Site section, enter information for one of two options for a new profile: If you are publishing to the Web, enter the Address, Remote Path, User Name and Password. If you are publishing to a local network, browse for and select the path.
 5. After entering Site information, click Connect. TOPS Pro establishes a connection to the specified site, then populates the Album section with a list of existing albums stored on the site.
 6. In the Album section, select an existing album from the drop-down list to add new analyses or to create a new album.

To create a new album, click the New Album button and enter the name at the pop-up dialog box.

7. In the Analysis section, go to the “Available for Publishing” list, select the analysis you want to publish, then click Add. Repeat this step for each analysis you want to add to the album.

To remove a selected analysis from the album, highlight the analysis in the “Existing Analysis is Selected” list and click Remove.

TOPS Pro retrieves images from the selected analysis, converts the images to XML and HTML files, and sends the files to the specified location in the profile.

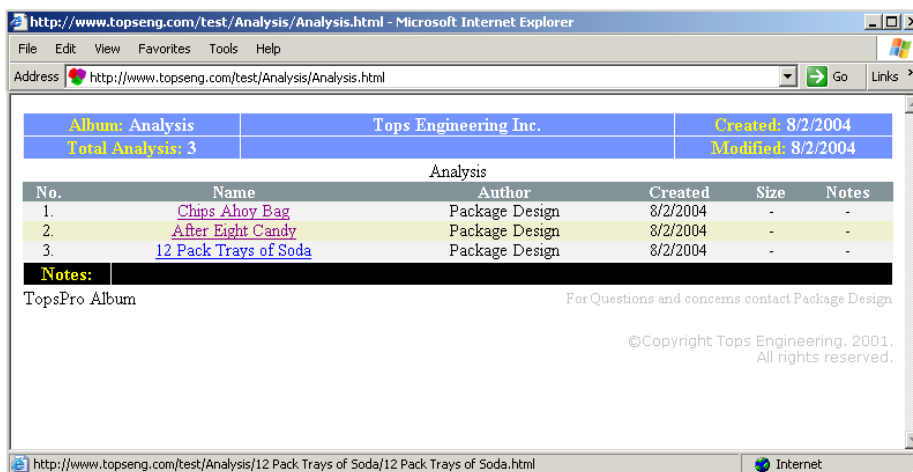
- 📌 **Note:** When publishing to the Web, TOPS Pro displays a log of FTP transactions in the File Transfer Status window. If there is an error publishing to the Web, this log provides information that might identify the problem.

Viewing the Published Analyses

To view the analyses published to the web, enter the following at the web browser address field - <http://URL/FolderName/AlbumName.html> in the following locations:

- **URL** is the web address or IP address for the **site** as specified in the Site information section of the Publisher dialog box
- **FolderName** is the optional Remote Path specified under Site Information
- **AlbumName** is the name of the Album containing the analyses as specified under the Album section of the **Publisher dialog box**

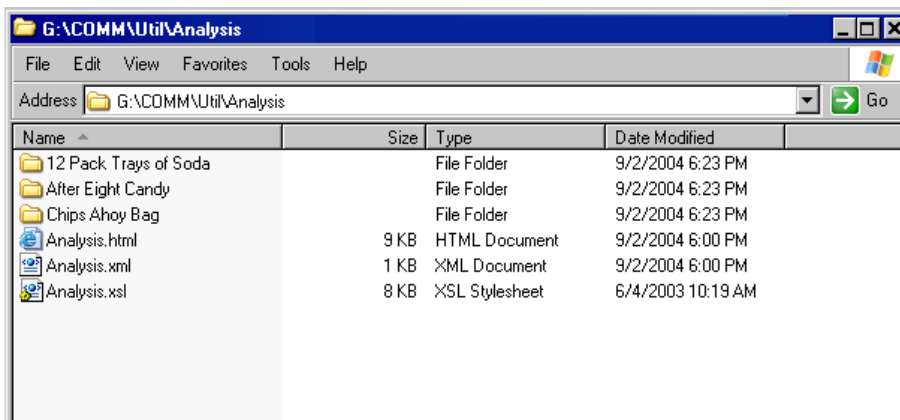
The browser will be updated to open the specified html file as illustrated on the next page. To view any analysis, just click the Name to open the report.



Published Analysis list on the web

To view the analyses published to the local network, open the Windows Explorer and browse to the folder as specified in the Publish dialog box.

- **Tip:** Create a shortcut to the Analysis.html file so you can access the published album with just one simple click.



Published Analysis list on the web


5

Package Pattern and Divider Editor

This chapter discusses the following editing functions in TOPS Pro:

- Pallet Pattern Editor
- Vehicle Load Editor
- Interactive Shipcase Sizing Editor
- Custom Divider Editor

The Pallet Pattern Editor reconfigures boxes on a pallet by moving individual boxes to different positions, removing boxes from the pallet and adding boxes to the pallet. The Editor manipulates the configuration in a way that cannot be accomplished with the standard dialog boxes and parameters.

 **Note:** This feature edits pallet patterns and columns of shipcases. It works with one- to four-block patterns, diagonals and previously edited patterns.

The Vehicle Load Editor is similar to the Pallet Pattern Editor and lets you re-arrange the layout of the contents inside the transit vehicle.

The Interactive Shipcase Sizing Editor reconfigures the arrangement inside an intermediate pack or shipcase by removing or adding items inside the box. If the new arrangement calls for a bigger shipcase, its Auto Size function will automatically adjust the shipcase size to accommodate the additional items.

The new Divider Editor provides a graphical interface where you can easily create custom dividers for any interpack or shipcase.

Using the Pallet Pattern Editor

The Pallet Pattern Editor has a number of useful features, which we will discuss one at a time. First, let's perform a simple analysis that will result in a standard shipcases-on-a-pallet configuration. Follow these instructions:

1. Define the Package Design Sequence by clicking on the Shipper and Pallet icons. The Shipper and Pallet icons appear in the Package Design Sequence area of the Control Panel.
2. Click the Shipper icon to open the Shipcase Parameters dialog box. Enter the dimension of the shipcase as pictured in the following illustration.

Shipcase Parameters

New
 Fixed
 DataBase

Case Description:

DataBase
 All
 Multiple

Material
 Corrugated
 Other

Dimensions
 Inside
 Outside

Units
 English
 Metric

Mix Tray:

Style:

C.A.S.Y. Style:

Flute:

Length (in): Slack: Vert:

Width (in): Slack: Vert:

Height (in): Slack: Vert:

Case (lbs): Net Gross

Round to nearest 1/16"

Sizing:

	Min Count	Max Count
<input checked="" type="radio"/> Range	<input type="text" value="2"/>	<input type="text" value="6"/>
<input type="radio"/> Values	<input type="text" value="0"/>	<input type="text" value="0"/>

Fix Pack
 Fix Pack

3. After entering shipcase parameters, click OK. TOPS Pro stores your parameters to memory and closes the dialog box.
4. Click the Pallet icon to open the UnitLoad Parameters dialog box. Use the default setting as pictured below and click OK.

UnitLoad Parameters

Single Pallet Style:

Slave Pallet Slave:

Number of Slaves:

Multi Pallets

Optimize for all Pallets Optimize for each Pallet

Maximum Height (incl. Pallet) (in):

Maximum Weight (incl. Pallet) (lbs):

Load Offset

	Length (in)	Width (in)
Maximum Overhang	<input type="text" value="1.00"/>	<input type="text" value="1.00"/>
Maximum Underhang	<input type="text" value="15.00"/>	<input type="text" value="15.00"/>

Packaging weight (lbs):

Units:
 English
 Metric

Limit to Max.

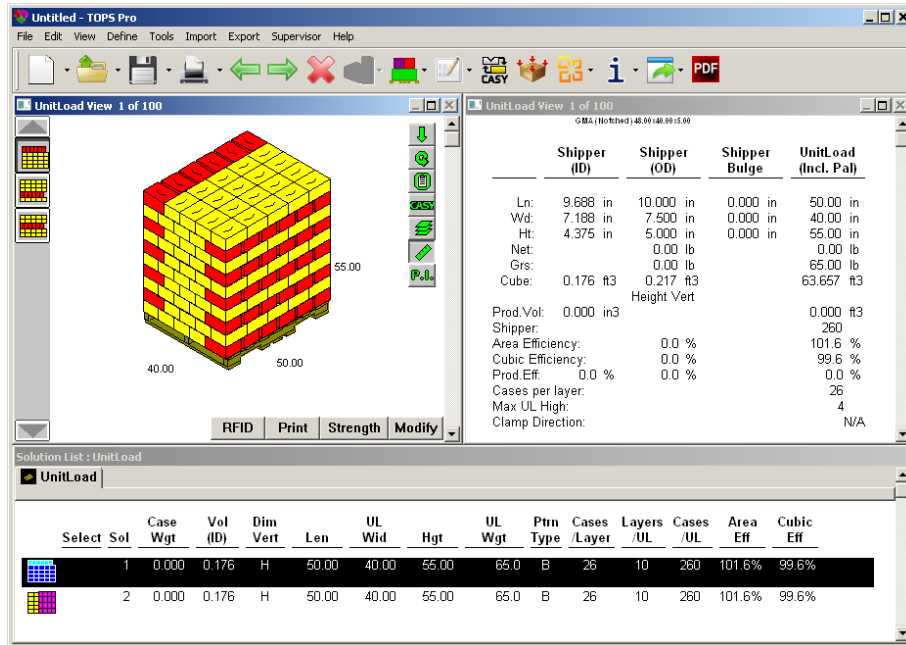
Layers	<input type="text" value="0"/>	Items/Layer	<input type="text" value="0"/>	Total Items	<input type="text" value="0"/>
--------	--------------------------------	-------------	--------------------------------	-------------	--------------------------------

Max UL High: Clamp Direction:

Pallet Size (in): 48.00 X 40.00 X 5.00

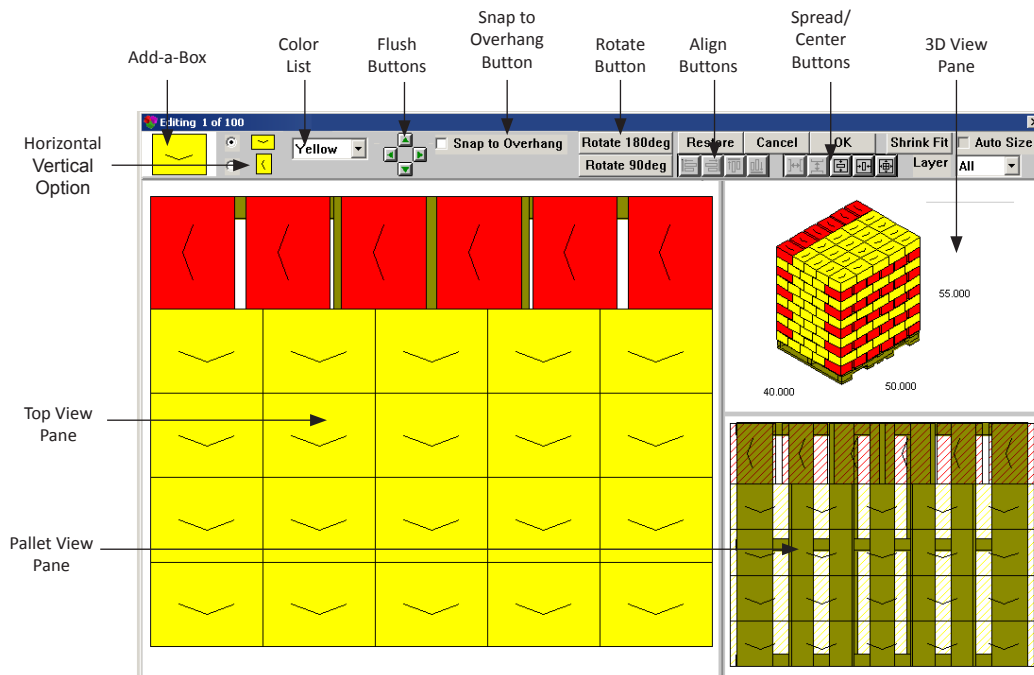
- Click the Calc button to generate solutions for the analysis.

TOPS Pro uses the defined parameters and generates all possible solutions for the analysis. When the calculation is complete, the Analysis View appears with three panes, as pictured below.












Notice that each of the UnitLoad View panes has a Modify button, which displays the Editing Screen and allows you to make changes to the pallet configuration.

- Click the Modify button and the editing screen appears.



Notice the following elements on the screen:

- **Add-a-Box Feature:** Add an individual box to the pallet. This feature works in conjunction with the horizontal/vertical option.
- **Horizontal/Vertical Option:** When you add a box to the pallet, these buttons allow you to position the box horizontally or vertically.
-  **Flush Up/Down/Left/Right Buttons:** Allow you to select a box and position it flush (in the direction you choose) against the nearest box. This feature also allows you to use two directions; for example, you can position a box flush down and to the right simultaneously.
- **Color Drop-Down List:** Allows you to select a box or multiple boxes and paint them a different color.
- **Rotate Buttons:** Rotates the highlighted shipcase 90 or 180 degrees.
- **Restore Button:** Erases any edits you have made and restores the Editing Screen with the original parameters.
- **Cancel Button:** Erases any edits you have made, closes the Editing Screen and returns you to the Analysis View.
- **OK Button:** Saves any edits you have made, closes the Editing Screen and returns you to the Analysis View.
- **Shrink Fit Button / Auto Size Button:** Not applicable.
- **Snap to Overhang Button:** Check this box to make sure the cartons will align with the allowable overhang setup in the Unitload Parameters dialog box. This function requires the Flush Buttons to be enabled also.
-  **Align Left Button:** Allows you to select multiple boxes, select one as the anchor box and align the boxes with the anchor box in the direction you choose. The first box you select will serve as the anchor box.
- **Align Right Button:** Allows you to select multiple boxes, select one as the anchor box and align the boxes with the anchor box in the direction you choose. The first box you select will serve as the anchor box.
-  **Align Up Button:** Allows you to select multiple boxes, select one as the anchor box and align the boxes with the anchor box in the direction you choose. The first box you select will serve as the anchor box.
-  **Align Down Button:** Allows you to select multiple boxes, select one as the anchor box and align the boxes with the anchor box in the direction you choose. The first box you select will serve as the anchor box.
-  **Spread Horizontal Button:** Select multiple boxes and spread them horizontally on the pallet, with equal spacing between the selected boxes.
-  **Spread Vertical Button:** Select multiple boxes and spread them vertically on the pallet, with equal spacing between the selected boxes.
-  **Center Horizontal Button:** Center all the boxes horizontally on the pallet.
-  **Center Vertical Button:** Center all the boxes vertically on the pallet.
-  **Center All Button:** Center all the boxes in the middle of the pallet.

- **Layer Button:** Specify which layer the modifications will be applied to. Select from the drop list to change individual layer or to all layers. To modify only layers 3 and 4 out of 8 layers, select from the drop list Layer 3, make the changes; then select Layer 4 and make any change desired.
- **Top View Pane:** Displays the pallet and boxes from directly above. This pane allows you to manipulate the pallet configuration by working with individual boxes. Using your mouse, you will add, remove or reposition a box; align boxes; spread boxes; and center boxes from this pane.
- **3-D View Pane:** Displays the pallet and boxes from a different angle, and gives you a graphic illustration of what the whole configuration looks like as you make changes in the Top View pane. You can rotate the 3D graphics for a different view by pressing the arrow buttons while holding down the [Shift] key.
- **Pallet View Pane:** Displays the boxes transparently so you can see how they're positioned on the deck boards of the pallet. This feature allows you to line up the boxes precisely as you want in relation to the deck boards of the pallet.

To demonstrate how to use these editing features to manipulate your pallet configuration, we will walk through three basic routines:

- Move boxes on the pattern.
- Remove boxes from the pattern.
- Add new boxes to the pattern.

Move Boxes on the Pattern

To move boxes on the pattern, you will use these editing features:

- Select multiple boxes
- Rubber-banding
- Align Left/Right/Up/Down buttons
- Spread Horizontal/Vertical buttons
- Center Horizontal/Vertical buttons
- Flush Up/Down/Left/Right buttons

Select Multiple Boxes

To select multiple boxes to be moved, follow these instructions:

1. Left-click on the first box. (TOPS Pro highlights the box).
2. Press the Shift key, hold it down and, one at a time, and click on the other boxes you want to move. (TOPS Pro highlights all the selected boxes).
3. Move the boxes as necessary.

Rubber-Banding

Select multiple boxes for moving by using the rubber-banding feature. To select boxes with the rubber-banding method, follow these instructions:

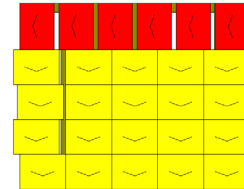
1. Left-click on the white area outside the unitload.
2. Drag the mouse to form a "rubberband box" on the pane. Enlarge the box to include all the boxes on the pallet you want to move.
3. Let go of the left mouse button.

- All boxes that are completely inside the “rubberband box” will be highlighted (selected). Any boxes that are only partially inside the “rubberband box” will not be highlighted.
- Move the boxes as necessary.

Align Left/Right/Up/Down Buttons

The Align Left/Right/Up/Down feature allows you to select multiple boxes, select one as the anchor box and align the boxes with the anchor box in the direction you choose.

In the figure on the right, you will see that three boxes on the left side of the pattern are positioned just off the pallet. Suppose we want to position these three boxes just off the pallet, but we want the three to align together with the bottom-most box (the anchor).



In this case, we will use the Align Left button to align the three boxes to the left relative to the bottom-most box. Follow these instructions:

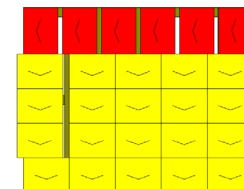
- Left-click on the first box, then press the Shift key and click on the other two boxes that are out of line. Be sure to click on the bottom-most box first. (Don’t release the Shift key until all three boxes are selected.)



After you have selected the three boxes, the Top View pane will look like the one on the right.

- Click on the Align Left button .

TOPS Pro aligns the three selected boxes, with the bottom-most box as the anchor (the one you clicked on first) as pictured on the right.

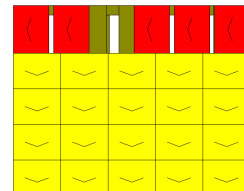


Note that when you aligned the boxes to the left, the 3-D View and Pallet View panes redisplay to reflect the boxes’ new position on the pallet.

 **Note:** The Align Right, Align Up and Align Down buttons work according to the same principles.

Spread Horizontal/Vertical Buttons

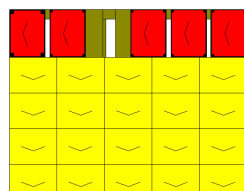
The spread Horizontal feature allows you to select multiple boxes and spread them horizontally on the pallet, with equal spacing between the selected boxes. In the figure on the right, you will see that one of the boxes has been removed from the top row on the pallet.




In this exercise, we want to space the five boxes on the top row horizontally, so that there is equal spacing between those five boxes. Follow these instructions:

- Press the Shift key and click the five boxes on the top row of the pallet. (In this case, it doesn’t matter which box you select first).

After you have selected the five boxes, the Top View pane will look like the one on the right.

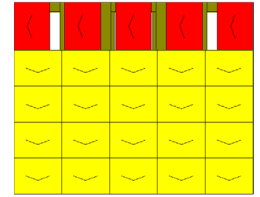


- Click the Spread Horizontal button 

TOPS Pro spreads the five selected boxes horizontally, creating equal space between them, as pictured on the right.

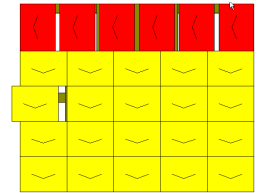
Note that when you spread the selected boxes horizontally, the 3-D View and Pallet View panes redisplay to reflect the boxes' new position on the pallet.

 **Note:** The Spread Vertical button works according to the same principles.



Center Horizontal/Vertical Buttons

The Center Horizontal feature allows you to center all the boxes horizontally on the pallet. In the figure on the right, you will see that one box on the left side is positioned a few inches off the pallet; consequently, the boxes are not centered on the pallet.




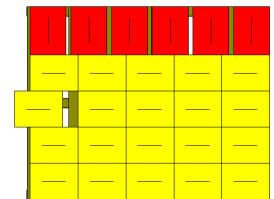
In this exercise, we will center all the boxes on the pallet horizontally. Follow this instruction:

- Click the Center Horizontal button 

TOPS Pro automatically centers all the boxes horizontally on the pallet, as pictured on the right.

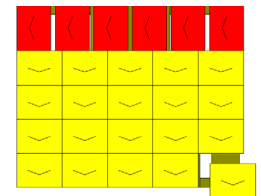
Notice that when you center the selected boxes horizontally, the 3-D View and Pallet View panes redisplay to reflect the boxes' new position on the pallet.

 **Note:** The Center Vertical button works according to the same principles.



Flush Up/Down/Left/Right Buttons


The Flush Up/Down/Left/Right buttons allow you to select a box and position it flush (in the direction you choose) against the nearest box. This feature also allows you to use two directions; for example, you can position a box flush down and to the right simultaneously.



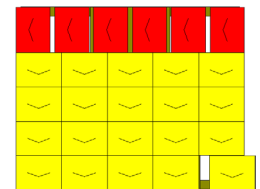
In the figure on the right, you see that one box is positioned out of line, separated from the other boxes on the pallet.

You will use the Flush directional arrows to move the box back into position. In this exercise, we will use the Up and Left arrows separately, then together. Follow these instructions:

- Click the box to select it.
- Click the Flush Up arrow.

 **Note:** When you click on this arrow, it will depress and show a red outline.


- Drag the box slightly in any direction, then let go. TOPS Pro snaps the box flush up against the nearest box, as pictured on the right.



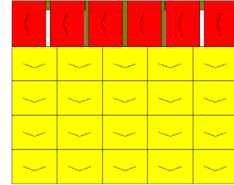
Notice that when you moved the box flush up, the 3-D View and Pallet View panes redisplay to reflect the box's new position on the pallet.

Now you want to move the box flush left.

1. Click on the box to select it.
2. Click on the Flush Left arrow.

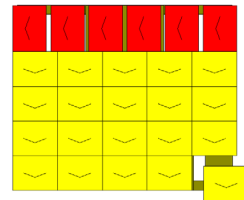
 **Note:** When you click on this arrow, it will depress and show a red outline.

3. Drag the box slightly in any direction, then let go. TOPS Pro snaps the box flush left against the nearest box, as pictured on the right.




Again, note that when you moved the box flush left, the 3-D View and Pallet View panes redisplay to reflect the box's new position on the pallet.

This feature allows you to move a box in two directions at once with only one movement. Again, we will start with the box moved out of line, as pictured on the right.

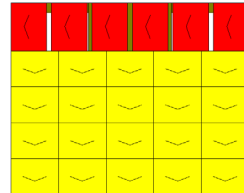


To move the box flush up and left simultaneously, follow these instructions:

1. Click box to select it.
2. Click Flush Up and Flush Left arrows.

 **Note:** When you click these arrows, they will depress and show a red outline.

Drag the box slightly in any direction, then let go. TOPS Pro snaps the box flush up and left against the nearest box, as pictured on the right.



Again, note that when you moved the box flush up and left, the 3-D View and Pallet View panes redisplay to reflect the new position of the box on the pallet.

Remove Boxes from the Pattern

Removing boxes from the pattern is easy. Using your mouse, follow these two simple instructions:

1. Click the box you want to remove.
2. Drag the box off the pallet pane; that is, anywhere outside the area that bounds the Top View Pane. TOPS Pro removes the box from the pallet, leaving an empty space where the box used to be.

Add New Boxes to the Pattern

To add new boxes to the pallet, you will use these editing features:

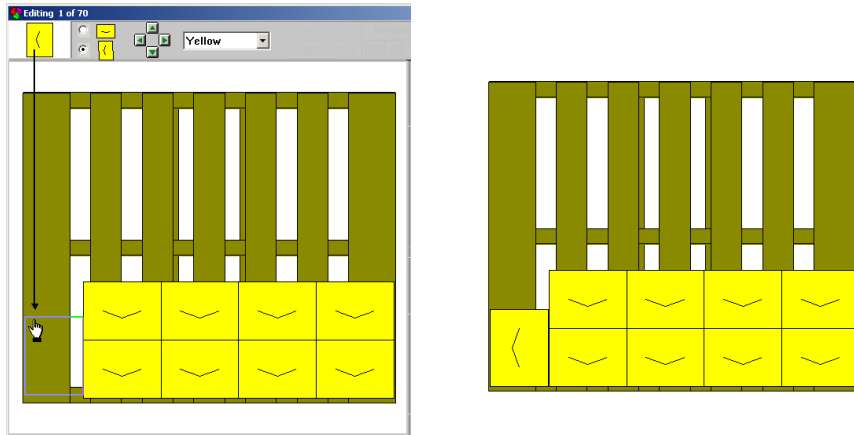
- Add-a-Box
- Horizontal/Vertical option
- Flush Up/Down/Left/Right buttons

Add a Box Using the Horizontal/Vertical Option

The Add-a-Box feature allows you to add an individual box to the pallet. This feature works in conjunction with the horizontal/vertical option. But first, before you can add a box to the pallet, there must be ample empty space on the pallet. After you have removed one or more boxes on the pallet, follow these instructions:

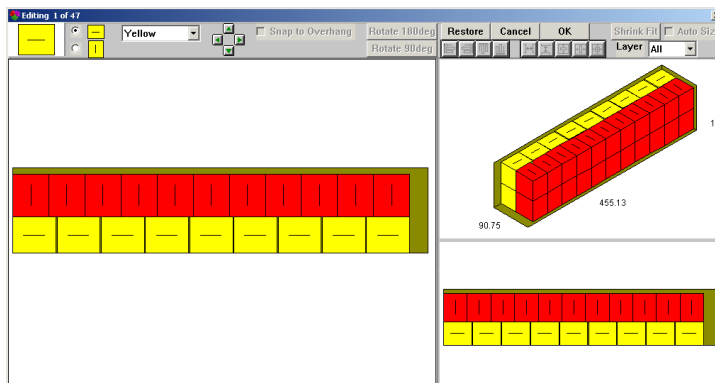
1. Click the box in the corner of the screen.
2. Select the horizontal or vertical option, depending on how you want the box to lie on the pallet by clicking on the radio button.
3. Drag the box from the Add-a Box window to an empty space in the Top View Pane.

TOPS Pro adds the box to the pallet and positions the box horizontally or vertically, based on your input when you release the mouse button as pictured below.



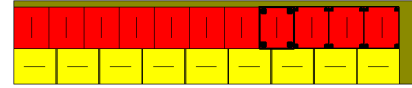
Using the Vehicle Pattern Editor

The Vehicle Pattern Editor works exactly the same way as the Pallet Pattern Editor. To access the editor, click the Modify button in the Vehicle View pane.

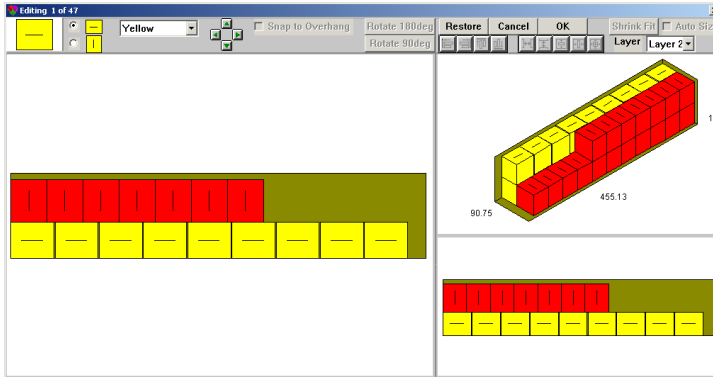


In the example, we will change the orientation of some pallets on the top layer inside the vehicle. For other details, please refer to the previous section for more instructions.

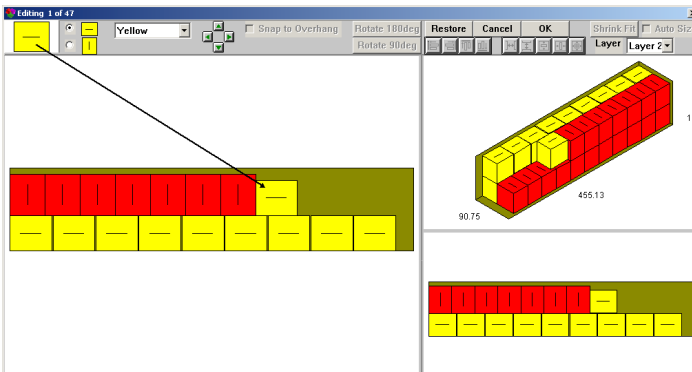
1. In the Editing screen, select Layer 2 from Layer option at the top right hand corner. This will only apply modifications to the top layer inside the vehicle.
2. Select the four pallets on the right inside the vehicle as shown on the right. You can use the rubber banding method or the standard mouse click while holding down the [Shift] button as described on page 93.



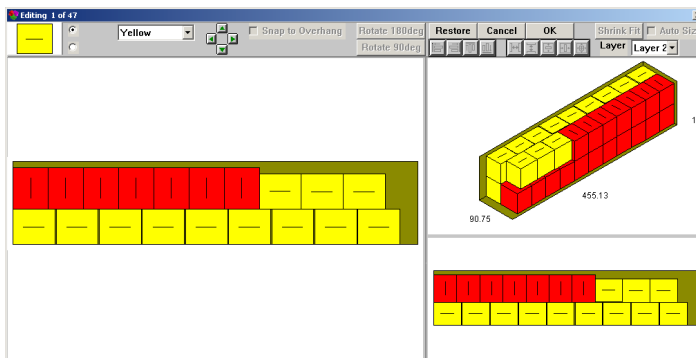
3. With the pallets highlighted, drag them outside the top view pane to remove them from the vehicle.



4. Go to the Add-A-Box section and drag the pallet inside the vehicle. You can enable the flush button to make sure the pallets are aligned.



5. Repeat step 4 to bring more pallets inside the vehicle



6. To accept the modifications, click OK.

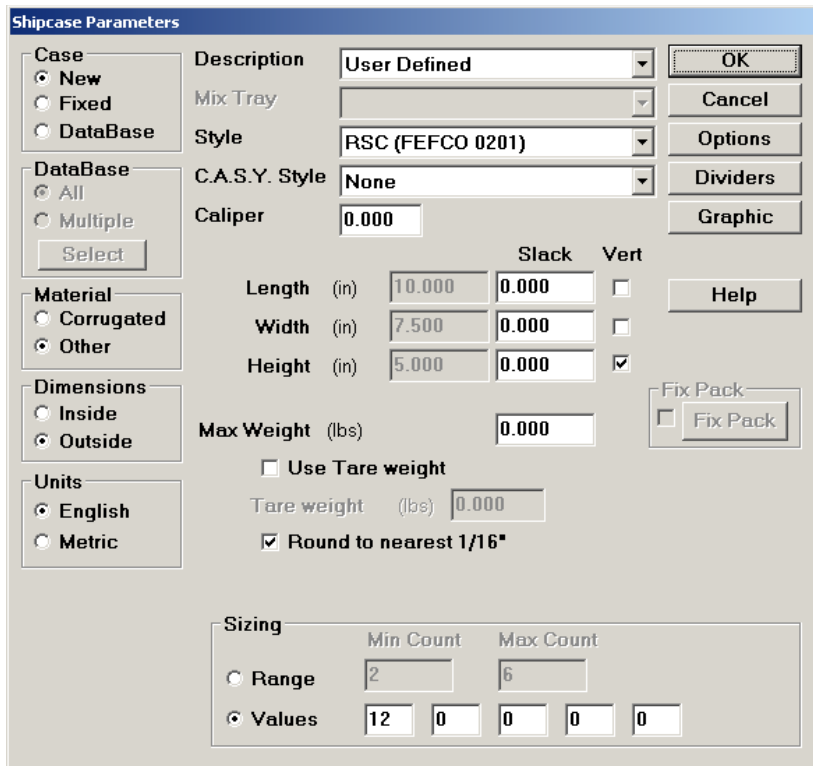
Using the Interactive Shipcase Sizing Editor

The Interactive Shipcase Sizing Editor reconfigures the arrangement inside an intermediate pack or shipcase by removing or adding items inside the box. If the new arrangement calls for a bigger shipcase, its Auto Size function will automatically adjust the shipcase size to accommodate the additional items.

To illustrate its function, let's perform a simple analysis that places cartons inside a shipcase. Follow these instructions:

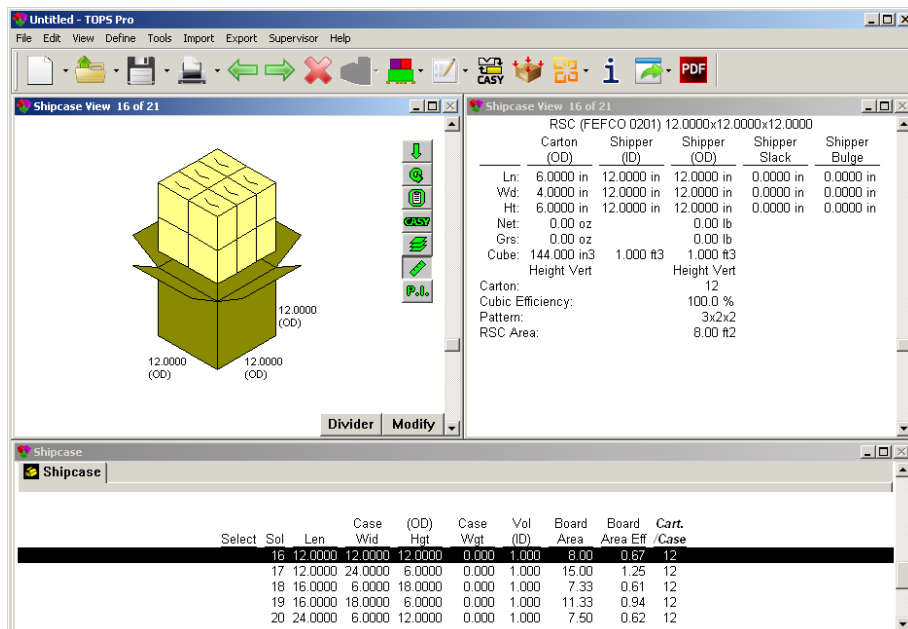
1. Define the Package Design Sequence by clicking on the Carton and Shipper icons. The Carton and Shipper icons appear in the Package Design Sequence area of the Control Panel.
2. Click the Carton icon to open the Carton Parameters dialog box. Enter the dimension of the shipcase as pictured in the following illustration.

3. After entering carton parameters, click OK. TOPS Pro stores your parameters to memory and closes the dialog box.
4. Click the Shipcase icon to open the Shipcase Parameters dialog box. Specify a New case and use a Sizing Value of 12 as pictured on the next page and click OK.



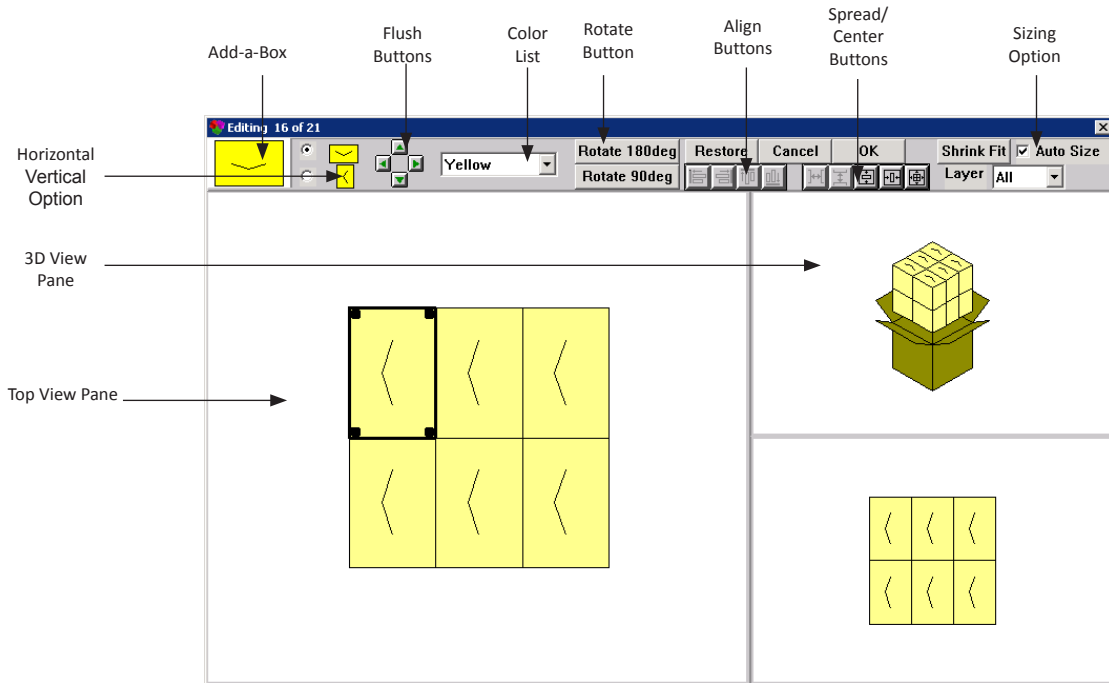
5. Click the Calc to generate solutions for the analysis.

TOPS Pro uses the defined parameters and generates all possible solutions for the analysis. When the calculation is complete, the Analysis View appears with three panes, as pictured below.



Notice that each of the Shipcase View panes has a Modify button, which displays the Editing Screen and allows you to make changes to the shipcase configuration.

6. Scroll down to solution referenced and click the Modify button to open the Editing screen.



Note that the screen is very similar to the Pallet Pattern Editor as described on page 91 except for the Sizing Option.

- **Auto Size:** When checked, this allows TOPS Pro to automatically resize the shipcase to accommodate any changes made by moving, adding or removing items.
- **Shrink Fit:** Shrinks the shipcase so all items will fit tightly inside the shipcase.

Please refer to page 92 for descriptions for the rest of the elements on the Editor screen.

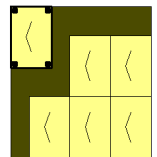
To demonstrate how to use the auto sizing and other features, we will walk through these basic routines. For selection, alignment and spread/center functions, please refer to the similar section on Pallet Pattern Editor.

- Move cartons inside the shipcase
- Add new cartons the shipcase
- Rotate cartons inside the shipcase

Move Cartons Inside the Shipcase

To move a carton in the shipcase, follow these instructions:

1. Make sure the Auto Size option is checked.
2. Right-click on the carton you want to move. (TOPS Pro highlights the carton with a darker outside.)
3. While holding down the left mouse button, move the carton to a new location as pictured here.
4. Release the mouse button when done.

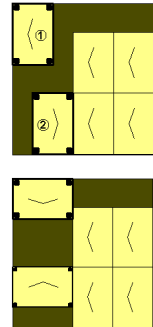


- Note that the shipcase is resized as well as the 3D View Pane being updated automatically with the new carton arrangement.

Rotate the Cartons

We will rotate the two cartons on the left 90 degrees and add a new carton. To select the two cartons to be rotated, follow these instructions:

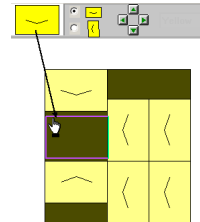
- Right-click on the first carton marked (1) on as pictured on the right.
- Press and hold the Shift key, now click on the carton marked (2).
- With both cartons highlighted, click Rotate90deg button.
- Note the two cartons are now rotated 90 degrees.



Add a New Carton



We will now add a new carton to the shipcase so there will be 7 cartons per layer inside the shipcase. Follow these instructions:

- Click on the Add-a-Box icon in the corner of the Editor screen.
- Select the horizontal option.
- Drag the box from the Add-a Box window to the empty space between the two cartons as pictured on the right.
- Note that a new carton will be added when you release the mouse button.



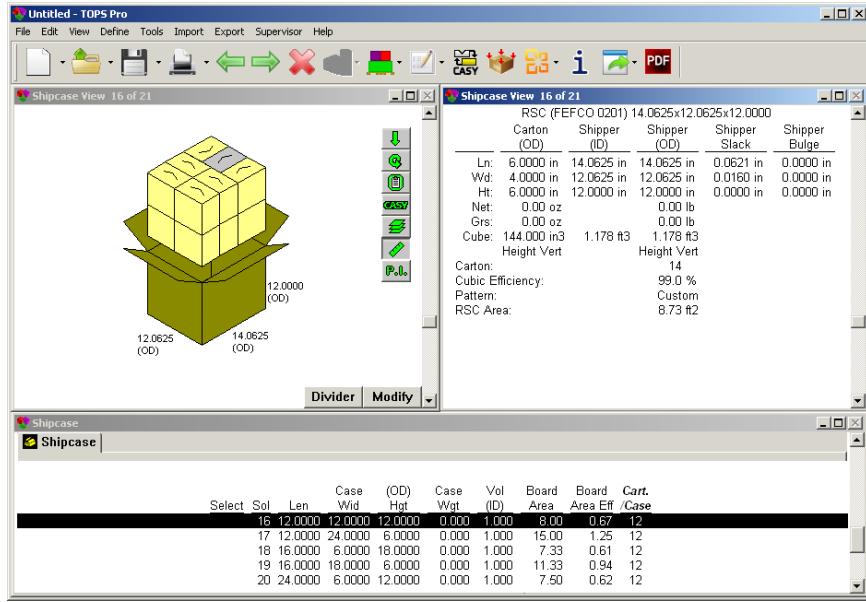
Resize the Shipcase

We will resize the shipcase so all cartons will be centered. Follow these instructions:

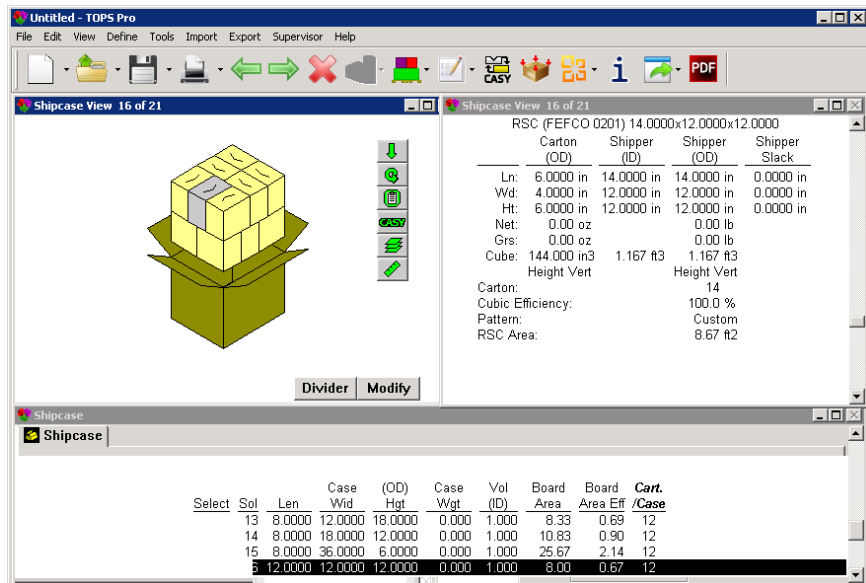
- Click the Center All items button  to bring all cartons to the center as pictured on the right. Note that all cartons are now cluttered in the middle but not using the space efficiently.
- Enable the Flush Bottom button by clicking on the down arrow .
- Use the rubber banding method (page 93) to select all three cartons on the left.
- With all three cartons selected, drag and drop the group towards the lower part of the shipcase as pictured on the right.
- When the mouse button is released, all cartons are now repacked tightly inside the shipcase.
- To use this new shipcase arrangement, click OK.



Click Yes on the message “Box size was changed, continue?” to accept the change and return to the Analysis View.



- To rotate the layers inside the shipcase, go to the Edit menu, select Layer Parameters and check the layer you would like to rotate.
- Click OK to return to the Analysis View which now shows rotated top layer inside the shipcase.



- The Shipcase Sizing Editor is also available at the Intermediate Package level and for different primary package types like cans, mike cartons, etc.

Defining Custom Dividers

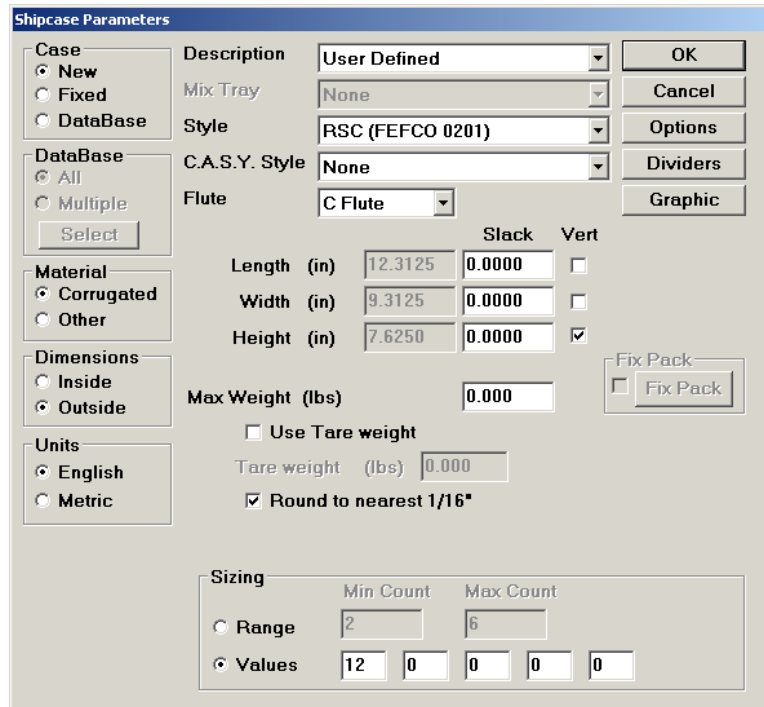
Custom Dividers can be easily defined inside TOPS Pro using the graphical divider editor. Users have the ability to control the size, including the height, width and alignment of each partition within a carton or shipper. After the divider has been defined, it can be saved to the database and can be used again in future analyses.

To define custom dividers, follow these instructions:

1. Define the Package Design Sequence by clicking on the Can/Cylinder (green) and Shipper (yellow) icons. The Can and Shipper icons appear in the Package Design Sequence area of the Control Panel.
2. Click the Can icon to open the Can Parameters dialog box. Enter the dimension of the shipcase as pictured below.

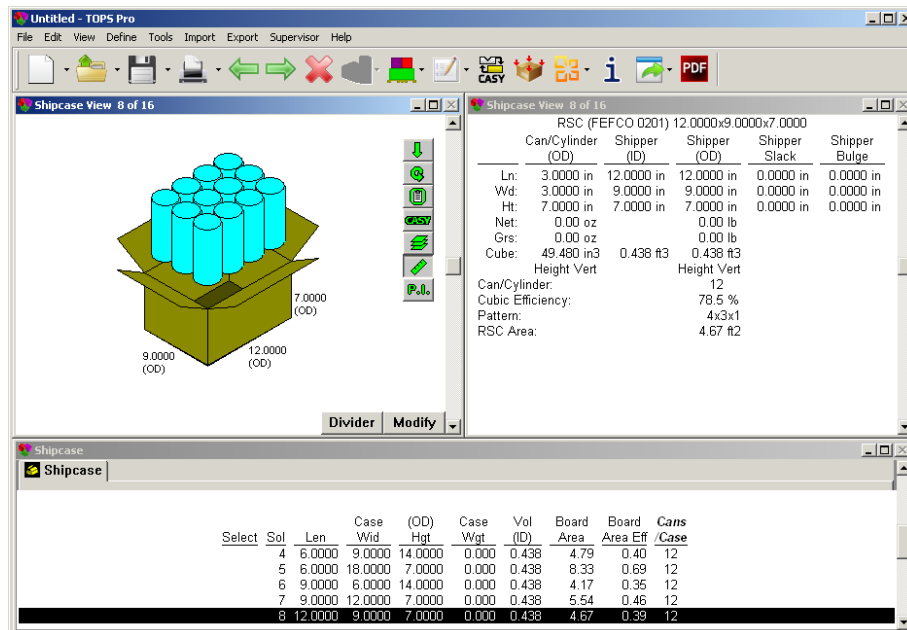
	Min	Max	Incr	
Diameter (in)	3.0000	0.0000	0.1250	<input type="checkbox"/> Vert
Height (in)	7.0000	0.0000	0.1250	<input checked="" type="checkbox"/> Vert
Volume (in3)	49.480	49.480		
Weight (oz)	Net	Gross		
	0.000	0.000		

3. After entering shipcase parameters, click OK. TOPS Pro stores your parameters to memory and closes the dialog box.
4. Click the Shipper icon to open the Shipcase Parameters dialog box. We will place 12 cans inside a new shipcase as pictured below and click OK.

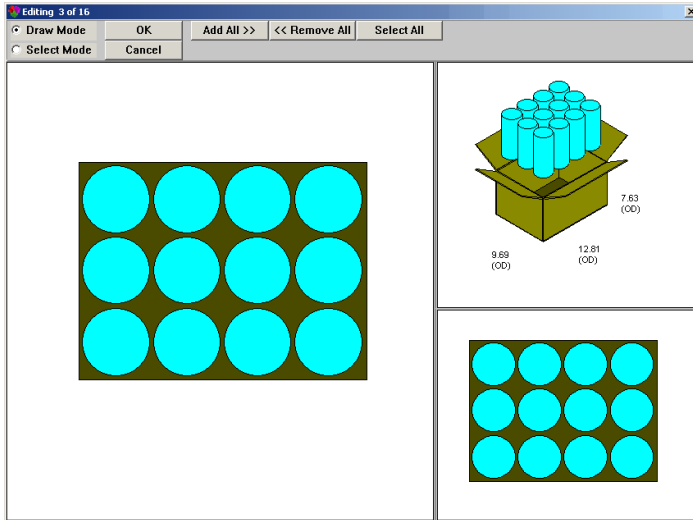


5. Click the Calc button to generate solutions for the analysis.

TOPS Pro uses the defined parameters and generates all possible solutions for the analysis. When the calculation is complete, the Analysis View appears with three panes, as pictured below.



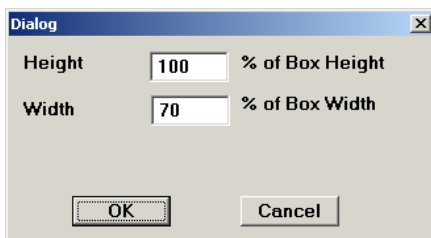
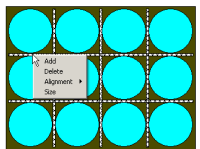
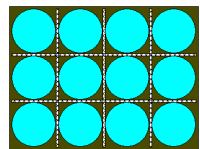
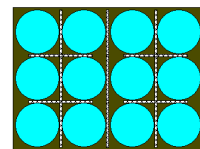
6. Click the Divider button located on the right-bottom corner of the view pane to access the divider editing screen.
7. You will be prompted to answer: "Divider in the edger?" In this example, we are not using divider along the edges and click NO to proceed to the divider editor as shown next.



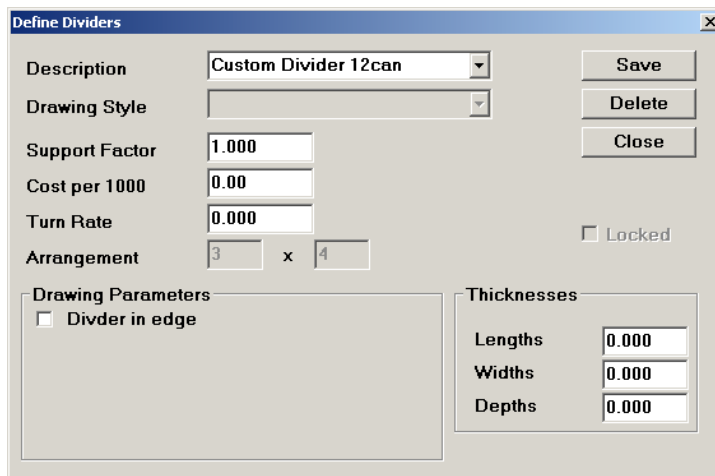
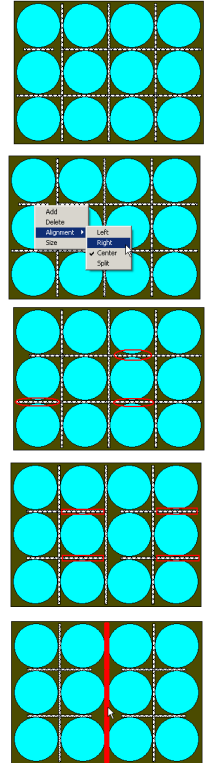
Notice the following elements on the screen:

- **Draw/Select Mode:** When in Draw Mode, each mouse click will add or remove the selected divider partition. You can access the right click menu to change the size and alignment of the selected cell partition. Select Mode, allows you to highlight (in red) different partitions of the divider upon the mouse click, followed by action items via the right click menu.
- **Add All/Remove All/Select All:** These buttons provide the functions exactly as described.
- **OK:** Opens the Define Dividers dialog box to save the custom divider into TOPS database for future use.
- **Cancel:** Cancels any changes and takes you back to the Solution View of the analysis.
- **3-D View Pane:** Displays the pop top view of the shipcase. You can rotate the 3D graphics for a different view by pressing the arrow buttons while holding down the [Shift] key.
- **Top View Pane:** Displays the shipcase and its contents directly from above.

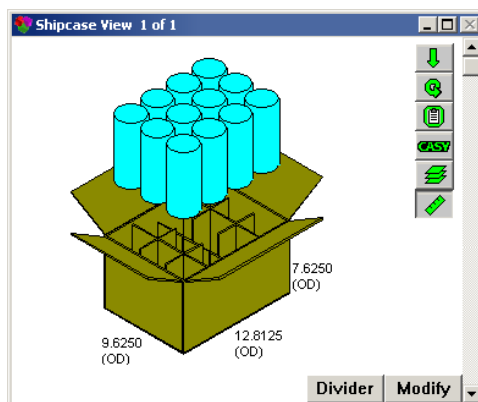
8. We will create a custom divider for the 12 cans as illustrated on the right. The divider will have the same height as the shipcase except the central single partition between the 2 six-pack will be 80% the height of the shipcase.
9. To start, click the Add All button to place partitions around every divider cell.
10. Place the mouse at the location of the cursor as shown on the right and left-click the mouse button. At the pop-up dialog box, select **Size**.
11. The following dialog box will open. Change the Width to 70% of Box Width as shown here.




12. The partition now is only 70% of the width of the cell.
13. With the mouse cursor placed on the same partition (now smaller), right-click the mouse button and select Alignment, then click Right.
14. Repeat steps 10 through 13 on the three partitions circled on the right.
15. We will now repeat steps 10 through 14 to bring the other four partitions to 70% of cell width and align left to create the 2 dividers for the 6 cans on each side.
16. To set the height for the center divider, change to Select Mode (in order to select across partitions) and then click the center divider. The partition will highlight in red. Right-click the mouse button, select **Size** and enter 80% of Box Height at the dialog box.
17. To save the new divider, click OK to open the Define Dividers dialog box as shown.



18. Name the divider in the Description field so it can be used in the future, click Save.
19. Click the Close button to exit the divider editor and return to the Solution View which shows the new divider inside the shipcase.



 **Note:** This custom divider is for a product arrangement of 4x3 only. If you apply this divider to a shipcase with other than a possible 4x3 arrangement, you will receive an error message as followed.



6

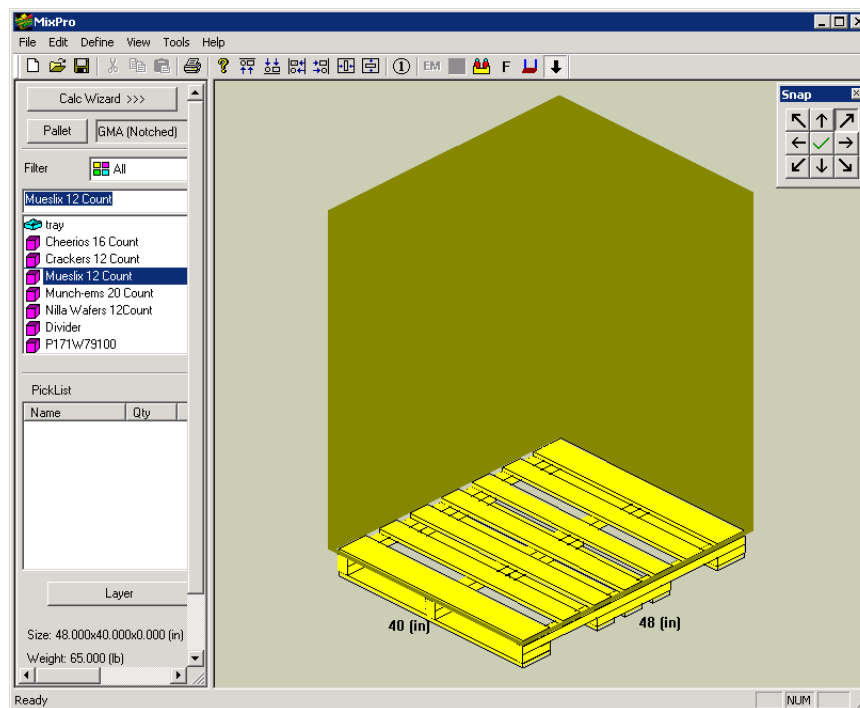
MixPro Mixed Pallet Editor

This chapter discusses MixPro Pallet Editor, a TOPS Pro module that allows you to design a mixed-product pallet for display with different size boxes. Mixed pallets are extremely common in warehouse stores.

For example, a mixed pallet load can include several shipcases of snack foods (chocolate bars, peanut bars and corn chips), all of which have different shipcase dimensions. The MixPro Pallet system allows you to easily load and place all types of shipcases onto a pallet.

MixPro Pallet Editor

To access the MixPro Pallet module, go to the Toolbar and click the MixPro Pallet Editor icon, select MixPro Mixed Pallet Editor. Alternatively, you can open the MixPro Pallet Editor by going to the Tools Menu and then select MixPro.



Notice the following features on the MixPro Pallet Editor:

- **Calc Wizard:** Opens the MixPro auto load generator, an automatic calculation engine to place mixed size shipcases onto a pallet.
- **Pallet:** Select a pallet from the database for loading shipcases.
- **Filter:** Filter the types of shipcase to be displayed in the Shipcase List. Select “All” to display all available cases and trays supported by MixPro.

- **Shipcase List:** Displays a list of shipcases that you can add to the pick list for loading onto the pallet.
- **Pick List:** Displays a list of shipcases you have selected from the shipcase list. These shipcases can be loaded onto the pallet. The pick list also tracks the following information for each type of shipcase: number of cases, length, width and height.
- **Layer:** Add layers of shipcases onto the mixed pallet, provided space is available to add the layers.
- **Pallet Display Window:** Displays an image of the pallet and allows you to drag shipcases onto the pallet.
- **Snap Toolbar:** Move the unitload flush to any corner or side of the pallet.

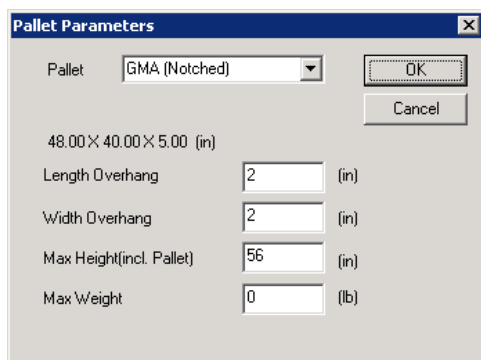
Create a Mixed Pallet Manually

In this exercise, we will manually create a mixed pallet load that consists of the following:

- 15 cases of chocolate bars
- 32 cases of peanut bars
- 30 cases of corn chips

To load this mixed pallet, follow these instructions:

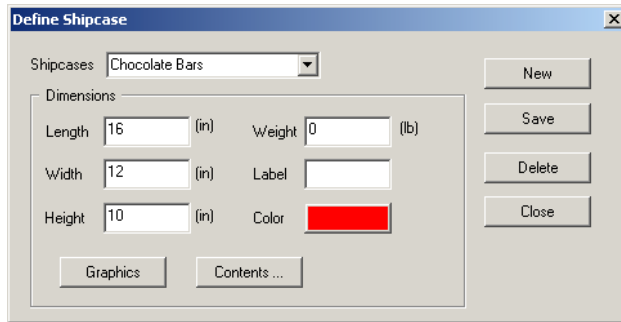
1. Click the Pallet button. The Pallet Parameters dialog box appears.
2. Use the default pallet but change the overhang and load height as pictured below.



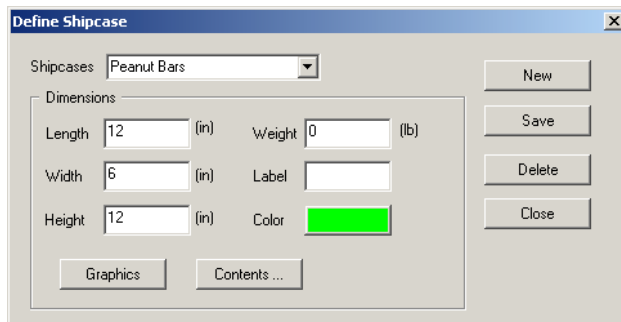
3. Look at the shipcase list and decide which items you want to load onto the pallet. In this exercise, we will have a mixed pallet load to include chocolate bars, peanut bars and corn chips.

Notice that the initial shipcase list does not include any of these items. In this case, MixPro allows you to create new shipcases for these items.

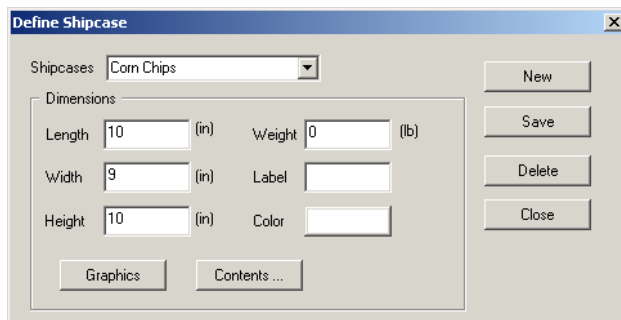
4. To create a new shipcase, click Define on the Menu bar and select Shipping Case. The Define Shipcase dialog box appears.
5. Enter the shipcase name, dimension, color and label (if desired) as pictured here for Chocolate Bars and click Save when done. The new shipcase information will be saved.





- Click New to define a new shipcase for Peanut Bars. Click on Save when all parameters are entered.



- Click New to define a new shipcase for Corn Chips. Click Save when all parameters are entered.



 **Note:** You can paste a graphic image onto a shipcase. To use paste-on graphics, click the Graphics button. Further, you can add CASY trays to the shipcase. To add trays, click the Contents button.

 **Note:** The Contents button is only available for newly defined shipcase and will be available upon clicking on the New button in the Define Shipcase dialog box.

The MixPro Pallet Editor redisplay with the name of the new shipcase included in the shipcase list. When you have created these three new shipcases, the shipcase list will include chocolate bars, peanut bars and corn chips.

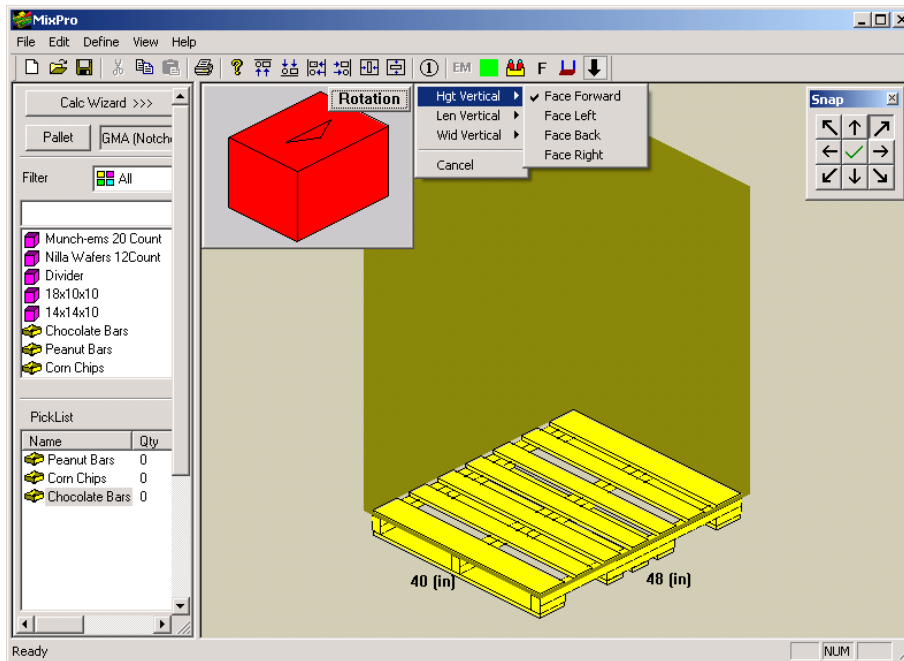
- In order to load an item onto the pallet, you have to move it from the shipcase list to the pick list. To move an item to the pick list, double click the shipcase from the shipcase list. The system inserts the selected item into the pick list.

Repeat this step for each item you want to select to the pick list. In this exercise, we are loading

three items: chocolate bars, peanut bars and corn chips.

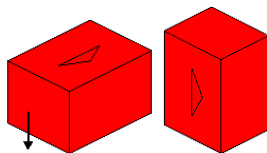
- From the pick list, select an item to be loaded onto the pallet. In this exercise, we will select the chocolate bars first.

A graphic of the selected shipcase appears in the g.o.d. (graphic online display) window, located in upper left corner of the data display window, as pictured below.

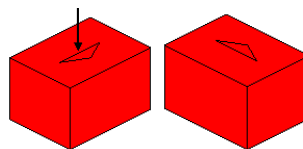


You can change the orientation of the case by clicking on the Rotation button. Select the dimension to be loaded vertically and then the face direction. The current orientation is highlighted with a (✓) mark.

Note: You can also change the case orientation by clicking on different faces. For example, position it on its side or on its end – click on the face of the shipcase you want to face the floor. Click on the top of the case to rotate 90 degrees.



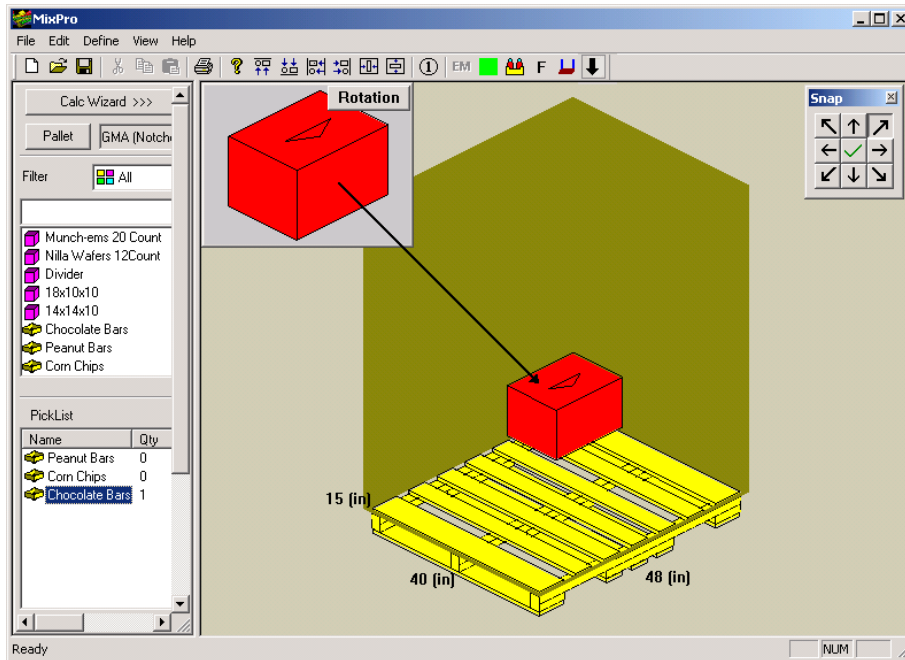
Click on the face with the arrow



Click on the top face to rotate shipcase 90 degrees

Note: To remove/hide the selected shipcase in the g.o.d. window, click the [Esc] key on the keyboard.

- To load the item onto the pallet, click on the image of the shipcase and drag it onto the pallet. The system copies an image of the shipcase to the pallet area, as pictured here.



In the figure above, the shipcase automatically flushes against the top left corner of the pallet because of the default Snap feature.

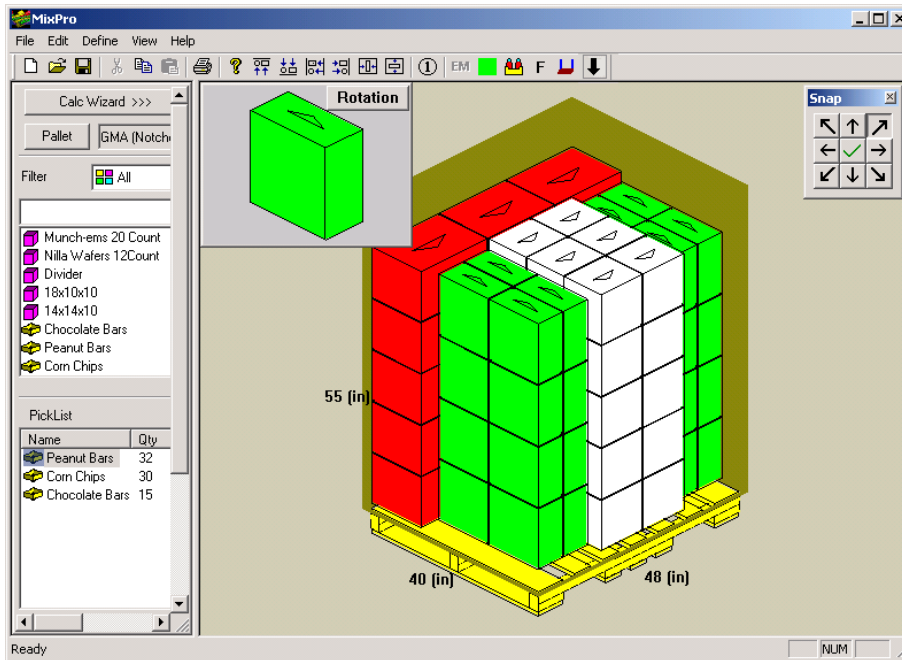
Note: If needed, click on the green ✓ which turns to a red X, to disable the Snap feature. In this way, you can place the shipcase anywhere on the pallet, without being aligned to any side or corner of the pallet.

11. Continue to load cases until you have loaded 15 cases of chocolate bars to the pallet, forming a wall along the backside of the pallet. Your unitload will look similar to the one pictured on the next page.
12. To begin adding the next item onto the pallet (the peanut bars), select it from the pick list. The case pictured in the g.o.d. window changes to the newly selected case.


Complete the mixed pallet load until the unitload contains the following items:

- 15 cases of chocolate bars
- 32 cases of peanut bars
- 30 cases of corn chips













When you have finished loading the three different shipcases, the unitload will look similar to the unitload pictured on the next page.



- Now that all the shipcases are loaded onto the pallet, you can now align the unitload on the pallet as you like (to the top, bottom, left, right, etc). You can also display the labels on the various shipcases.

 **Note:** The MixPro alignment feature works a little differently than in TOPS Pro. In MixPro, the alignment moves the entire load; you cannot select individual cases to align.

Notice the following buttons in the MixPro Pallet Editor Screen button bar:

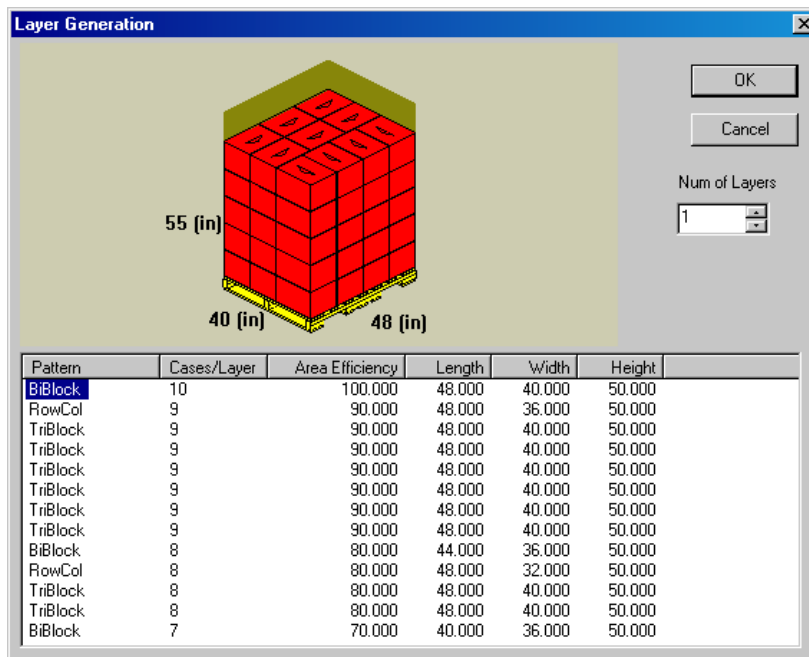
-  **Align Top:** Aligns the load to the top edge of the pallet.
-  **Align Bottom:** Aligns the load to the bottom edge of the pallet.
-  **Align Left:** Aligns the load to the left edge of the pallet.
-  **Align Right:** Aligns the load to the right edge of the pallet.
-  **Align Vertical:** Compacts the spacing to align the load in the center of the pallet vertically.
-  **Align Horizontal:** Compacts the spacing to align the load in the center of the pallet horizontally.
-  **Label:** Displays the labels on the shipcases. This is an on/off toggle feature.
-  **Edit Texture:** Adds graphics to the different faces of the shipcase.
-  **Show Contents:** Clicks to show contents of any CASY trays.
-  **Show Front Face:** Clicks to show the display face of the shipcases.
-  **Add Corner Posts:** Adds corner posts to the unitload. You will define the width and thickness of the corner posts in the pop up dialog box.
-  **Snap Tool:** Clicks to enable or disable the Snap buttons for the MixPro Pallet editor.

14. When your load is aligned the way you want it, you are ready to work with the Print Preview feature, tailor the report and then print it.
15. Before closing MixPro, be sure to give this mixed pallet a name and save the file.

Create a Mixed Pallet Using Layers


MixPro allows you to configure layers of shipcases on a pallet. To work with layer configurations, start from the MixPro Pallet Editor and follow these instructions.

1. Add your item to the PickList. In this example, we will start again with Chocolate Bars by double clicking the item in the shipcase list.
2. With the Chocolate Bars shipcase displayed in the g.o.d. window, click the Layers button. The Layer Generation Screen appears, as pictured on the next page.



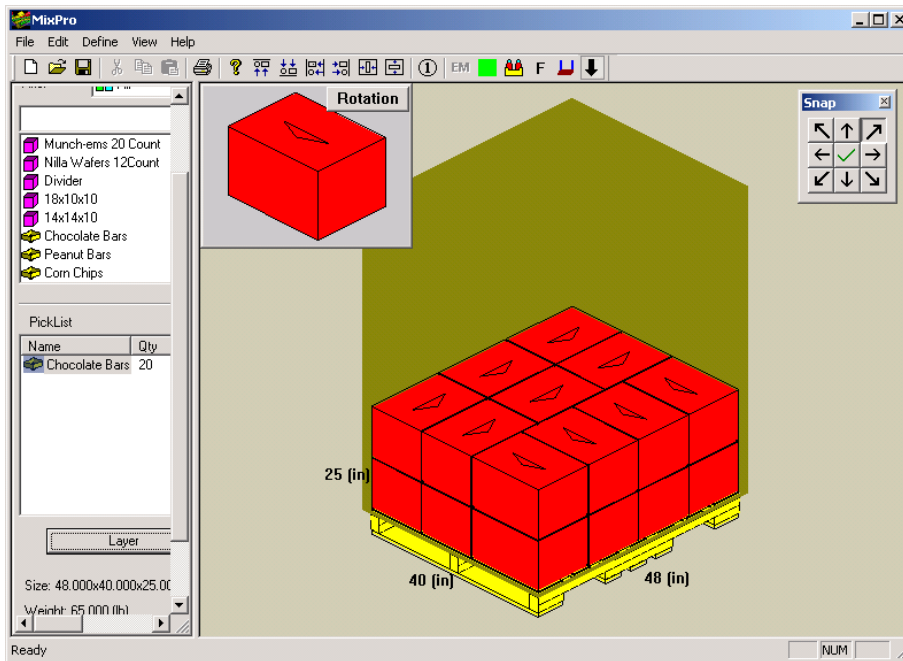
Notice the following about the Layer Generation Screen:

- A **list of layer configurations** is displayed in the lower portion of the screen. For each configuration, the screen displays pattern type, count (number of cases in a layer), area percentage, length, width and height.
- The **layer configuration display** shows an illustration of the selected configuration in the upper portion of the screen. This display also provides dimensions for length, width and height.
- The **Number of Layer box** allows you to specify the number of layers in the configuration.

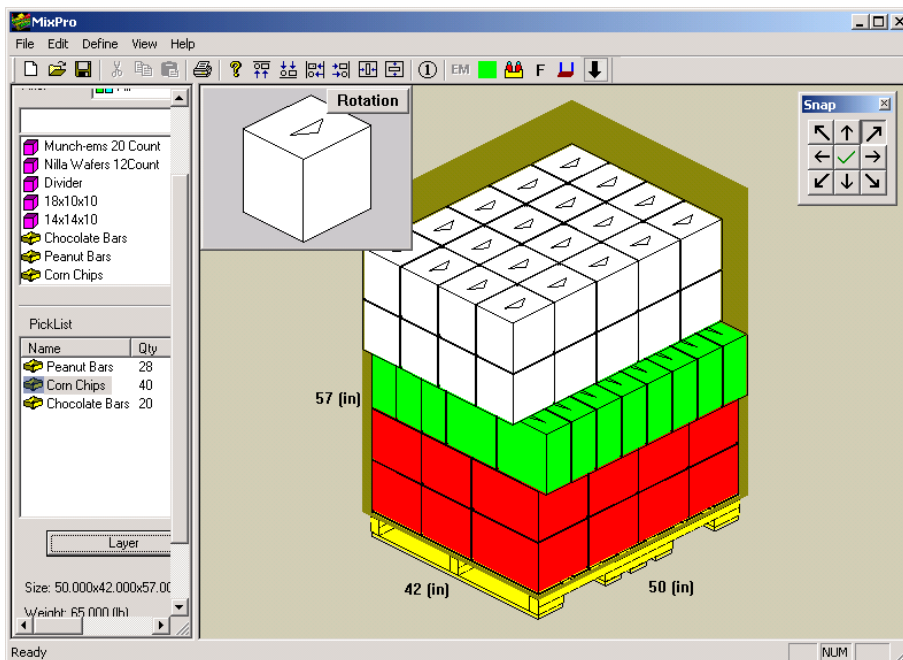
 **Note:** TOPS will limit the number of layers for each item based on the remaining space available on the pallet.

3. Select the layer configuration you want for the mixed pallet load. Here we will select the first BiBlock configuration as illustrated above.

4. Select the number of layers in the configuration to two (2).
5. Click OK. The mixed pallet with two layers of chocolate bars will be displayed, as shown on the next page.



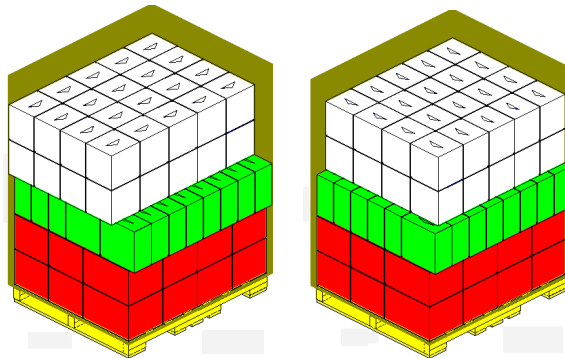
6. Repeat steps 1-5 to add one layer of Peanut Bars and two layers of Corn chips to the pallet, with the final results as shown below.




Layer Manipulations

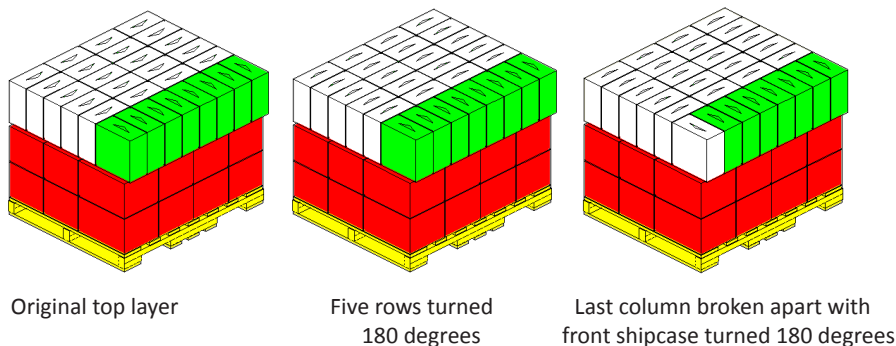
By right clicking the mouse while pointing to the different layers within the mixed pallet, you will see a menu with these functions:

- **Properties:** Provide statistics (shipcase name, length, width, height and weight) on the layer of item you are pointing to.
- **Rotate 90 degrees:** Where space permits, turn the referenced block 90 degrees as illustrated by the top two layers of the pallet below.

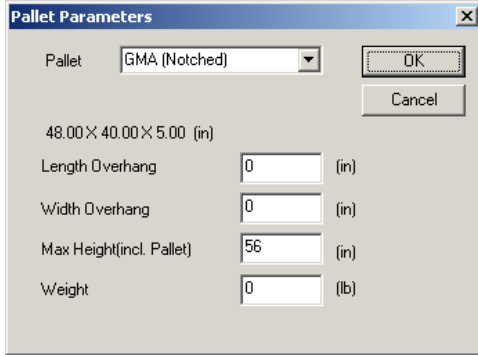


- **Rotate 180 degrees:** Turn the referenced block 180 degrees as illustrated on the top five rows of top layer below.

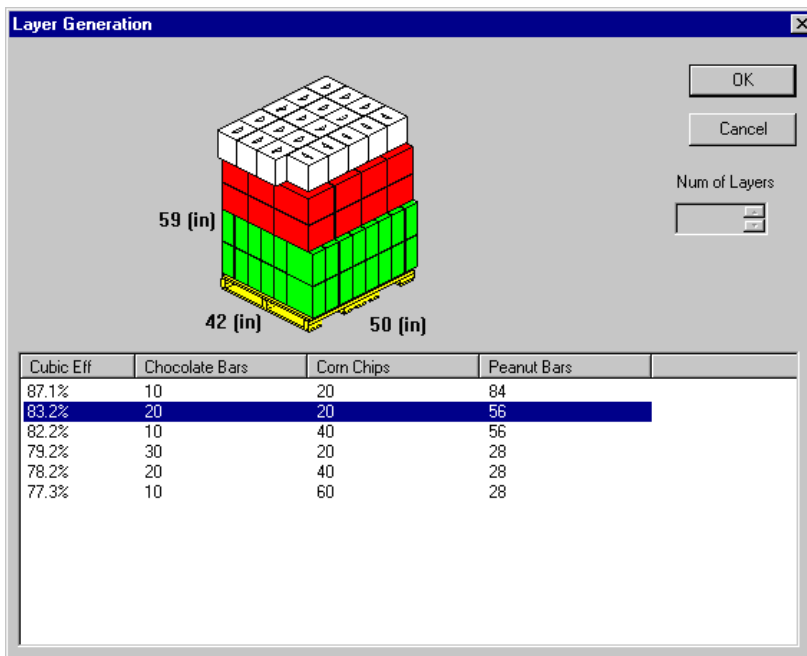
 **Note:** Use this function to turn the front face of the shipcase to the outside of the mixed pallet to create pallet for display in club stores.



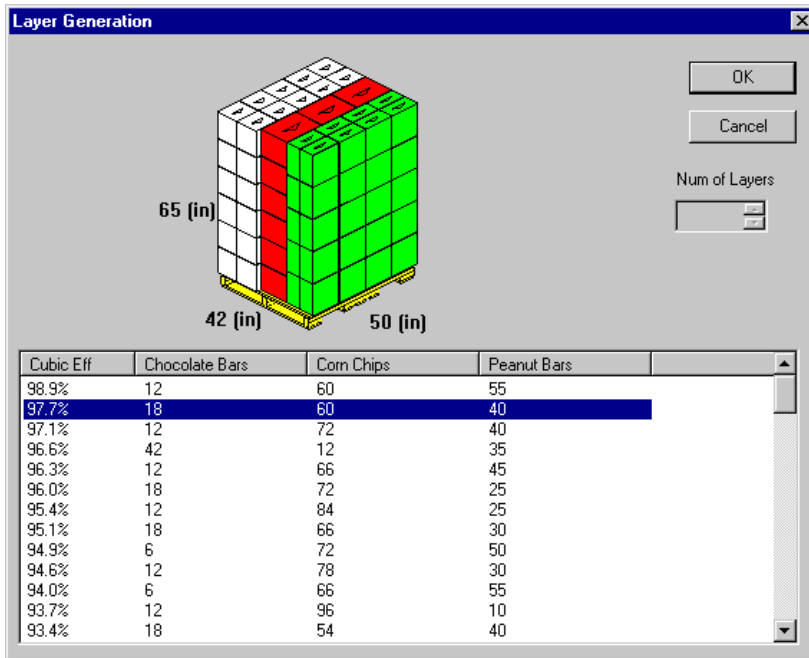
- **Break:** Break the placement of shipcases into individual shipcases. In the top layer of the illustration above, the top five rows are considered one placement and the last column another. We will break apart the last column placement and turn the front shipcase 180 degrees, with the result illustrated above.
- **Add Slipsheet:** Add a slip sheet on top of the up-most shipcase layer of the pallet.



8. Set the **Speed-Space** slide bar to a desired setting or keep it at the default value. This controls if MixPro optimizes calculation for speed or for space efficiency.
9. When ready, click the **Calc** button.
10. MixPro will return a mixed pallet optimized by layer or column as specified by the users.

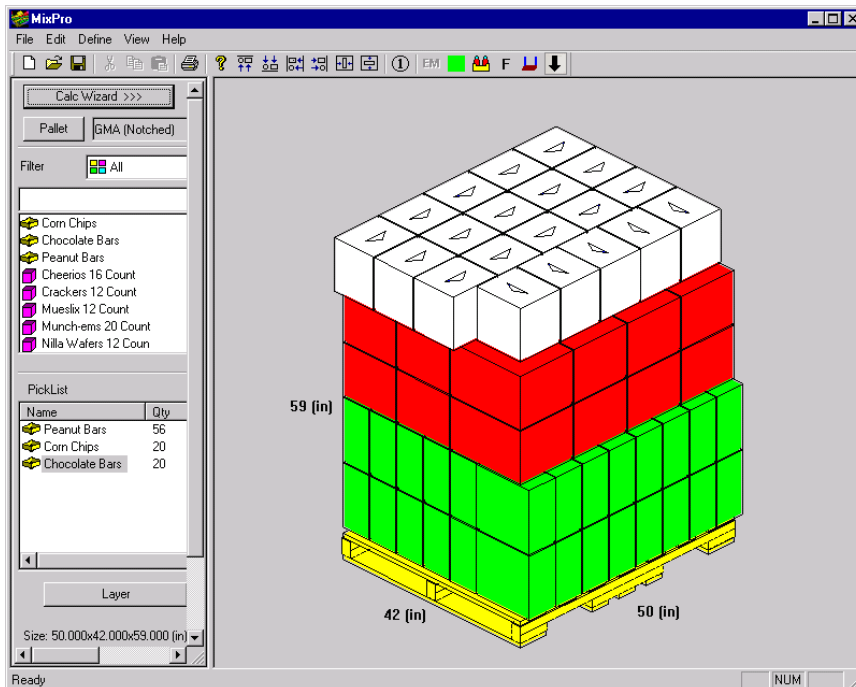


Mixed pallet optimized by layer



Mixed pallet optimized by column

11. You can scroll through the different solutions and pick the pattern that works best for you. Click OK and the selected mixed pallet will be displayed in the MixPro dialog as shown next.

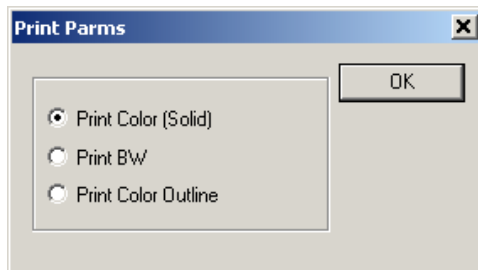


Once in the MixPro Pallet Editor, you can perform functions on each layer and/or shipcase as described on page 117.

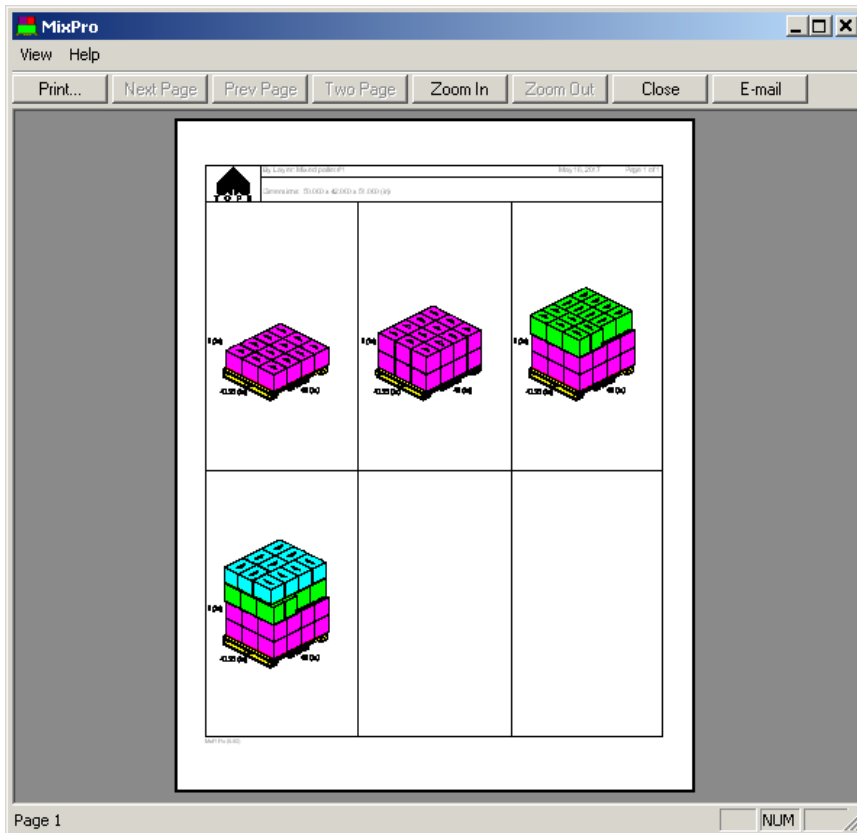
Direct Email from MixPro Pallet

MixPro Pallet has an internal email feature that allows you to email different MixPro reports as a JPG file. To use the direct email feature, follow these instructions:

1. Work through the analysis to create the mixed pallet.
2. At the Menu Bar, go to the File Menu and select Print Preview.
3. You have a choice of the following report types:
 - **Load:** Picture of mixed pallet with unitload and pallet dimensions as well as contents of the load.
 - **Load (front/back):** Similar to the Load report but with the additional view of the back side of the unitload.
 - **By placement:** Report giving step by step illustrations on how the mixed pallet is created with each placement of shipcases.
 - **By Layer:** Report with step by step illustrations on how the mixed pallet is created by layer placement.
 - **By Edge:** Report with step by step illustrations on how the mixed pallet is created from the side of the pallet.
4. After selecting the report type, specify how the report will be printed, in solid color, black & white or color outline.



5. Click OK.
6. When the report appears, click the Email button. The system launches your default email application and attaches the current report as a JPG file to the email message, see following illustration.



Tips for Working with Cases on a Pallet

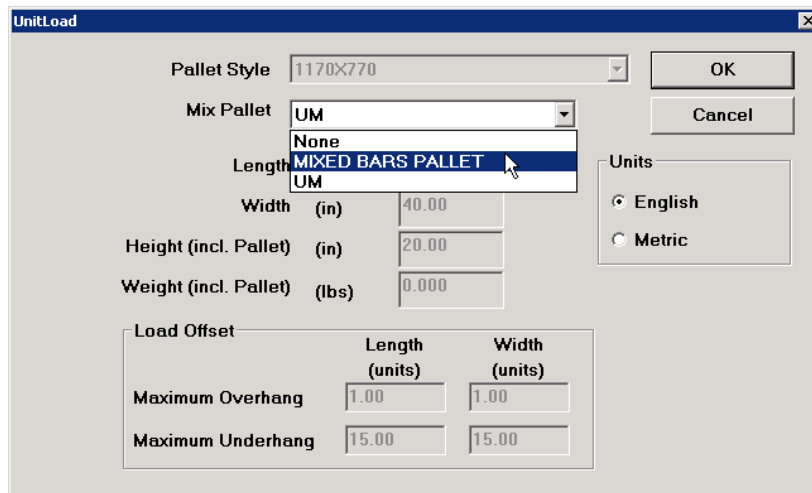
- To add a second case to the pallet, hold down the [Shift] key and click the first shipcase. To place the second case on top of the first case, [Shift] and click on top of the first case. To place the second case to the side of the first case, [Shift] and click the side of the first case.
- If you have loaded a column, row or layer of cases on the pallet, you can add another column, row or layer with one click. For example, to add a layer of cases, hold down the [Shift] key and click the top of the first layer. The system adds another layer on top of the first layer. To remove a layer of cases, hold down the [Alt] and [Shift] keys simultaneously and click on the layer.
- To remove (or delete) one or more cases from the pallet, click the case(s) and drag it off the backside of the pallet (to the left). The case(s) completely disappear from the display. To temporarily remove one or more cases from the pallet (you want to load it back later) click on the case(s) and drag it off the front side of the pallet (to the right). The case(s) remain in view on the display.
- Use the Layer button to have MixPro calculate optional patterns for the selected shipcase.

Loading MixPro Pallets into Trucks

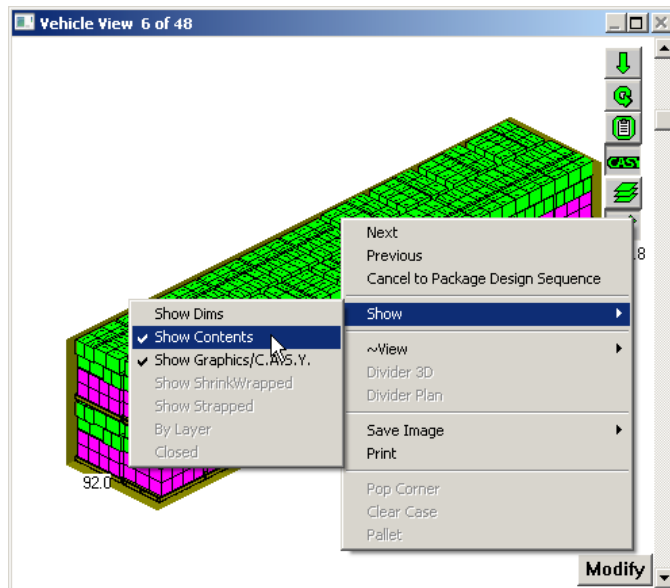
Users can load the mixed pallets created with MixPro Pallet Editor into any transit vehicles in the Design Sequence.



When you click the pallet icon to define Unitload parameters, you will open the UnitLoad dialog box as shown here.



Click the drop down button for the Mix Pallet option to select any MixPro Pallets previously defined and place them inside trucks or containers. To view the contents of the mix pallet, make sure the Show Contents is enabled.



7

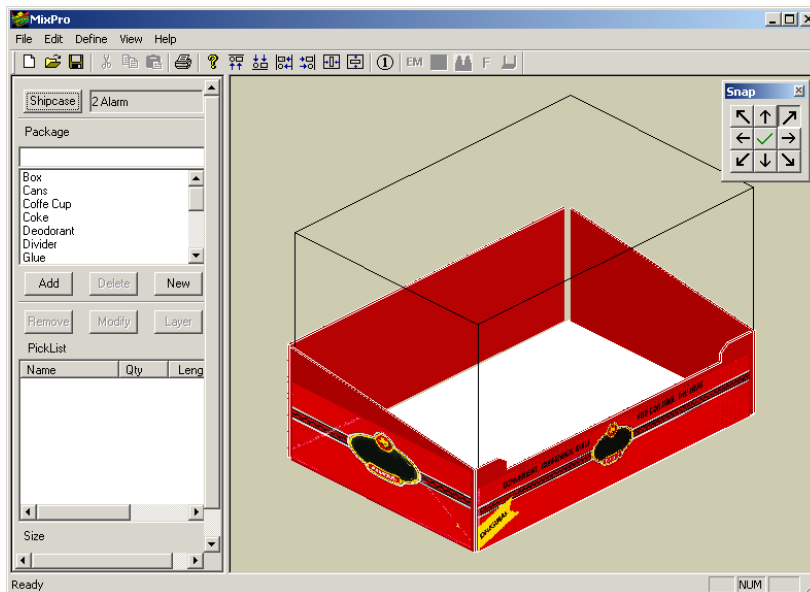
MixPro Mixed Tray Editor

This chapter discusses MixPro Tray, a TOPS Pro module that allows you to design a mixed-product tray for display with different size packages in the tray. For example, suppose you are loading trays to be displayed in a grocery store, where the tray will be displayed directly on a busy aisle.

This mixed tray includes several different items of nutrition supplements (cans of protein powder, bottles of Gatorade and energy bars), all of which have different product dimensions. MixPro Tray allows you to easily load and place all types of packages into a tray. These trays can then be saved and used in MixPro Pallet to create a mixed pallet for display.

MixPro Tray Editor

To access the MixPro Tray module, go to the Toolbar and click the MixPro Pallet icon, select MixTray Mixed Tray Editor from the drop list. You can also access the MixPro Tray Editor via the Tools > MixedTray Menu in the tool bar.



- Notice the following features on the MixPro Tray Editor:
- **Shipcase Button:** Allows you to select a tray template.
- **Package List:** Displays a list of packages (or objects) that you can add to the pick list for loading into the tray.
- **Add Button:** Moves a selected item from the package list to the pick list.
- **Delete Button:** Deletes a selected item from the package list.
- **New Button:** Opens the Define Package Info dialog box and allows you to create a new package/object. Use this function if the package list does not include the package you need.

- **Remove Button:** Removes a selected package from the pick list.
- **Modify Button:** Opens the Define Package Info dialog box, which allows you to modify a newly created package/object.
 - ✍ **Note:** The Modify function applies only to packages created in MixPro Tray. You cannot modify packages created in TOPS Pro. Also, you cannot modify a package that is already placed into the tray.
- **Pick List:** Displays a list of packages you have selected from the package list. These packages can be loaded into the tray. The pick list also tracks the following information for each type of package: number of packages, length, width and height.
- **Tray Display Window:** Displays an image of the tray and allows you to drag packages into the tray.
- **Snap Toolbar:** Move the assortment of packages to any corner or side of the tray.

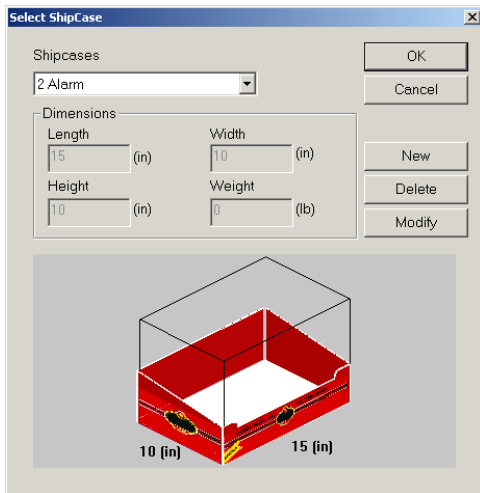
In this exercise, we will create a mixed tray that consists of the followings:

- 6 Bottled Water
- 6 Bottled Soda

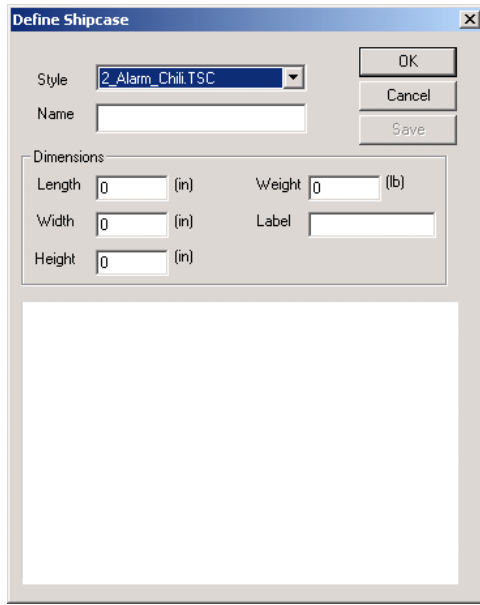
The first step in this process is to create a new tray designed to hold these products. We will design the tray based on a template designed in CASY. From the MixPro Tray Editor, follow these instructions:

Create a New Shipcase/Tray

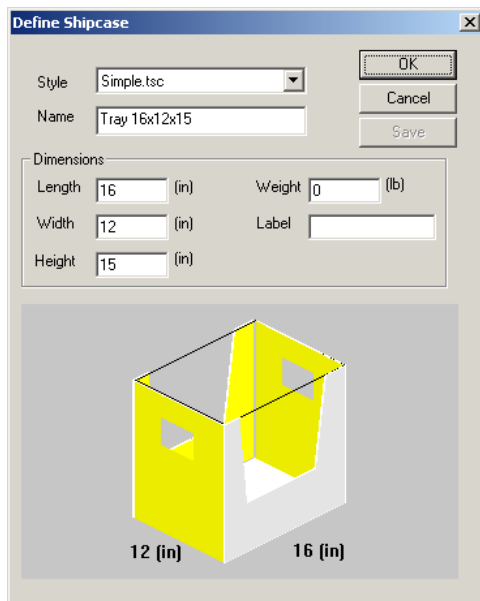
1. Click the Shipcase button. The Select ShipCase dialog box appears, as pictured below. It displays the first shipcase style on the list as the default.




2. From the Select Shipcase dialog box, click the New button and the Define Shipcase dialog box appears, as pictured next.



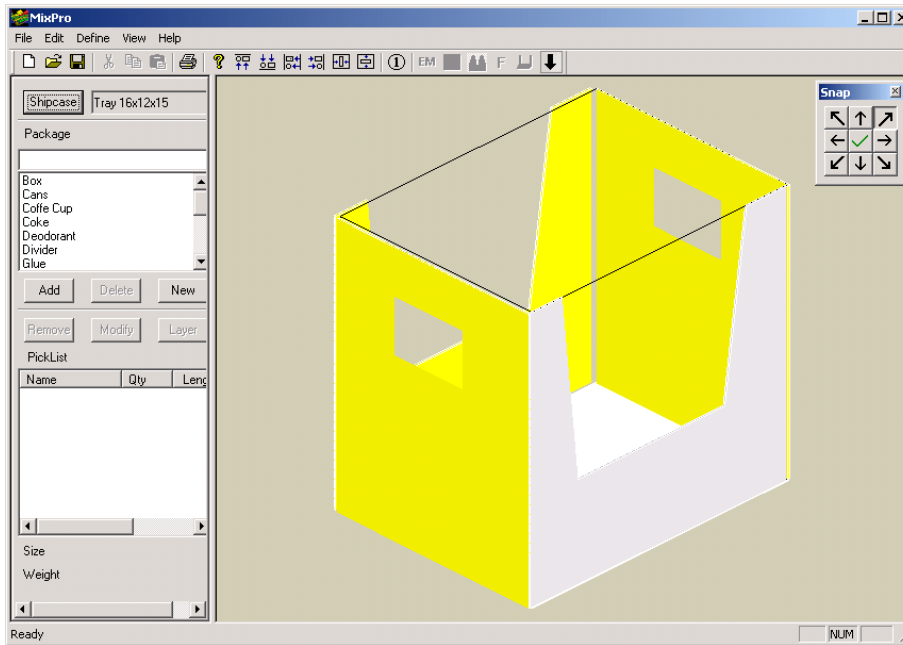
- To define a new shipcase, enter the dimensions as displayed in the picture below.



 **Note:** The style Simple.tsc is created using the CASY Tray function covered in Chapter. You can select any style found in the drop list for this exercise but keep the dimension at 16x12x15.

- After completing the new shipcase parameters, click OK. The Define Shipcase dialog box closes. The Select Shipcase dialog box re-appears with the parameters for the new tray.
- From the Select Shipcase dialog box, click OK.

MixPro saves the new tray to the database. (MixPro saves the tray as a shipcase.) The MixPro Tray Editor re-appears, as pictured below, with the new tray name (Tray 16x12x15) displayed next to the Shipcase button.



6. Look at the package list and decide which items you want to place into the tray. To select an existing package from the list, double click on the package name or highlight the name and then click on Add button. The package will be added to the Pick List.

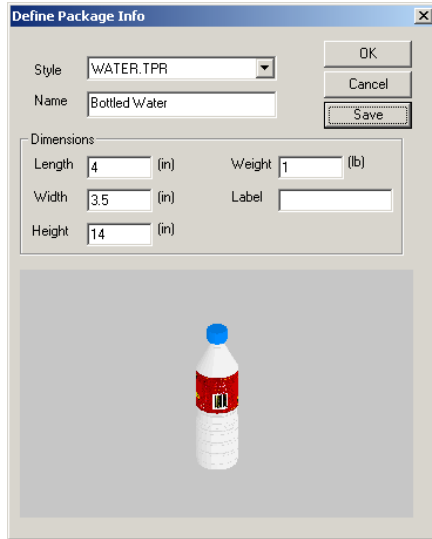
In this exercise, we want the mixed tray to include some bottled drinks which are not on the package list. In this case, MixPro allows you to create new packages for these items, just like what we did earlier with the shipcase.

Create A New Package

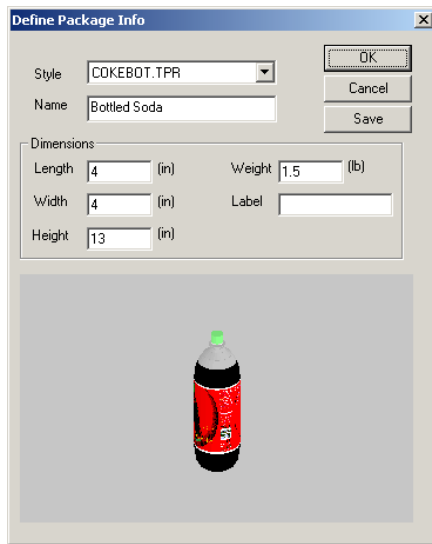
From the MixPro Tray Editor as pictured above, click New. The Define Package Info dialog box appears, as pictured on the next page.

In the Define Package Info dialog, you will select a package Style from the drop list (these styles are created using the C.A.S.Y. Primary Package described in Chapter 8) to be applied to this new package, provide a name and dimensions.

1. Use the following fields to define Bottled Water. If you want, you can also define a label for each package.



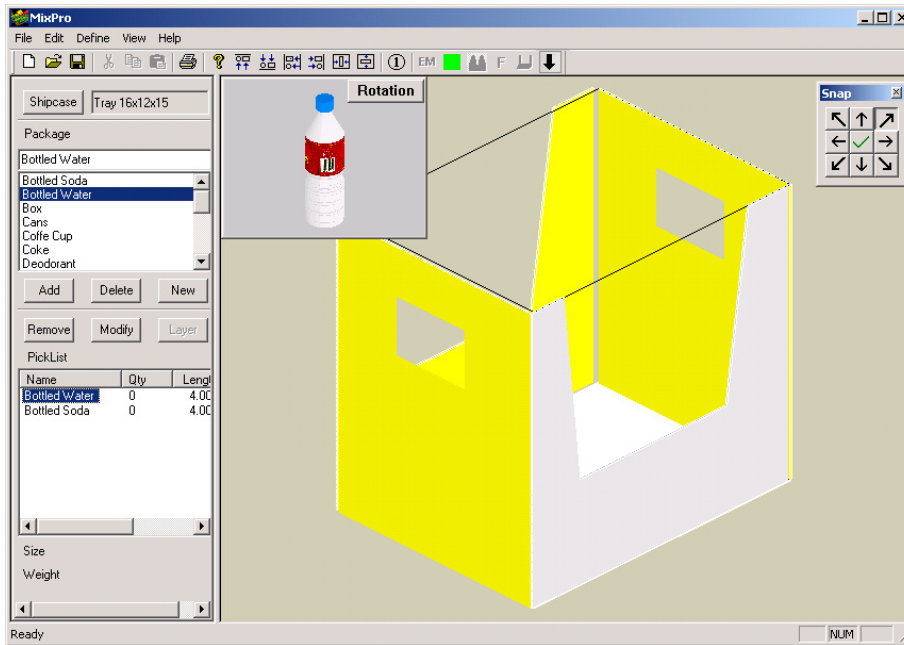
2. After completing the package dimensions, click Save. MixPro saves the new package to the database and refreshed the dialog for a second package input.
3. Create a second package named Bottled Soda as pictured below:




4. After completing the package dimensions, click OK to save and leave the Define Package Info dialog. MixPro saves the new package to the database and the MixPro Tray Editor reappears.

Add Packages to the Shipcase/Tray


1. In order to place a package into the tray, you have to move it from the package list to the Pick List. To add Bottle Water and Bottle Soda to the list, highlight the selection in the package list and click Add or double click on the package.
2. The system inserts the selected items into the pick list. A graphic of the selected package appears in the g.o.d. (graphic online display) window, located in upper left corner of the data display window, as pictured below.

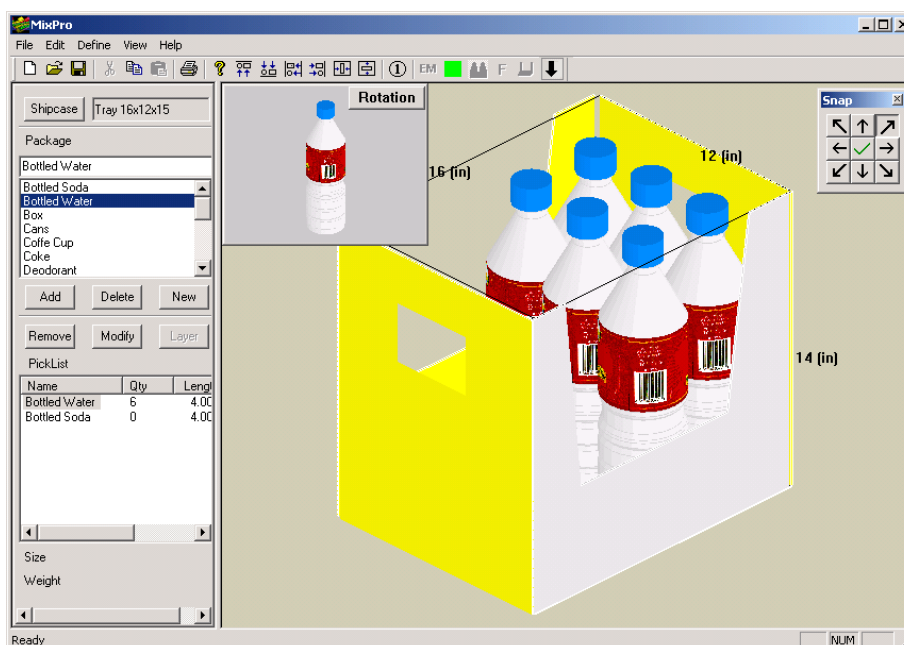


 **Note:** To change the orientation of the package, for example, position it on its side or on its end, click on the rotation button and select the new orientation from the pop-up menu.

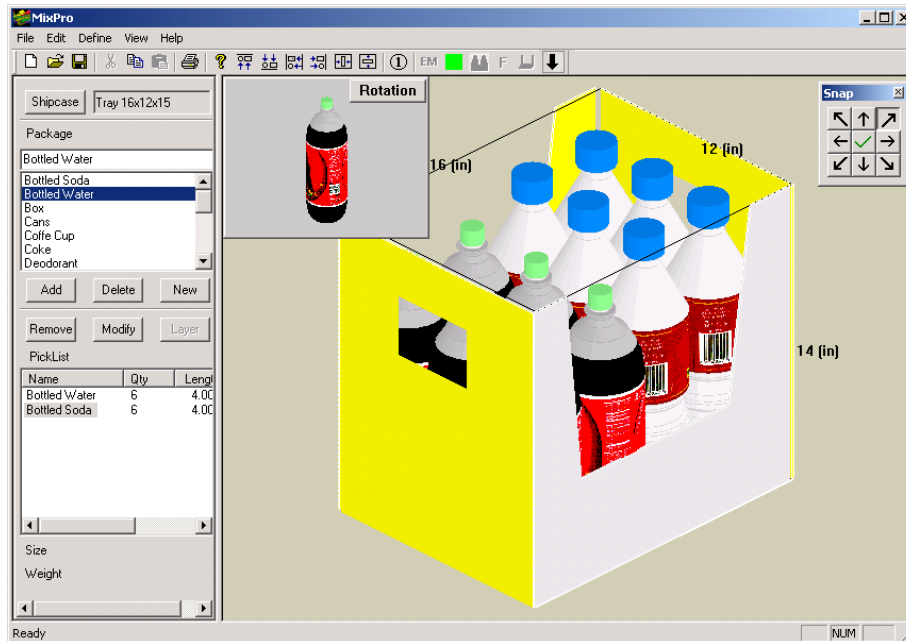
- To load the item into the tray, click on the image of the item and drag it into the tray. The system copies an image of the item to the tray area.

Repeat this step until the tray contains six Bottle Water. When you have done this, the screen will look similar to the one pictured on the next page. Note that the quantity is now 6 for Bottled Water in the Pick List.

 **Note:** For tips on placing packages into a tray, use the guidelines outlined at the end of this chapter.

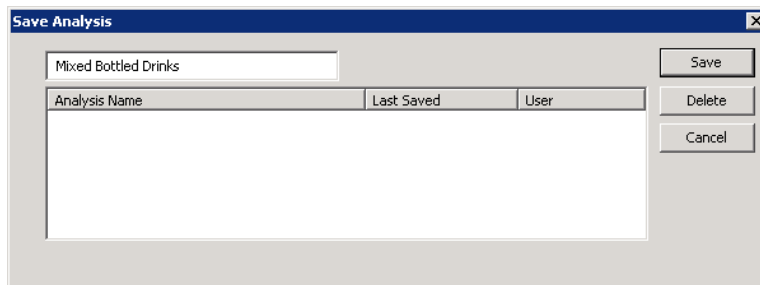


- Repeat the previous steps to place 6 Bottled Soda into the tray. When you are done, your tray will look similar to the tray pictured below.



Save the Mixed Tray


If this tray is the way you want it, open the File menu and select the Save As option. The Save As dialog box appears, as pictured below.



- Select a location where the file will be saved. The default folder is under \TOPSAPPS\TOPSPRO\STYLE\. In the File name field, enter the name of the mixed tray (Mixed Bottled Drinks).
- Click Save. MixPro saves the tray to the database.
- Exit MixPro Tray. The Control Panel appears.

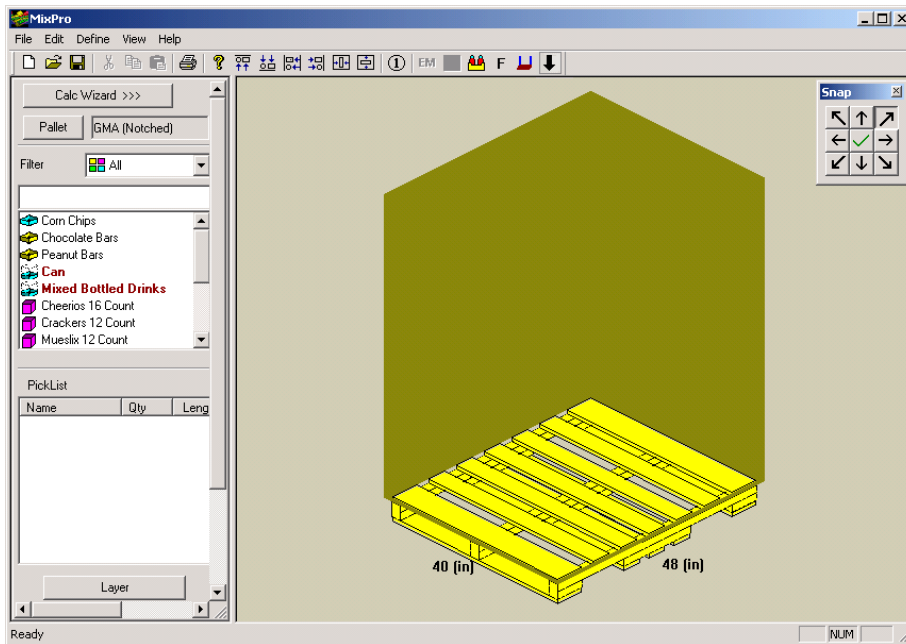
The mixed tray created can now be used in the MixPro Pallet to create a display pallet.

Use the Mixed Tray in Mixed Pallet

- From the Toolbar at the top of the Control Panel, click the MixPro Mixed Pallet Editor icon  and select MixPro Mixed Pallet Editor.

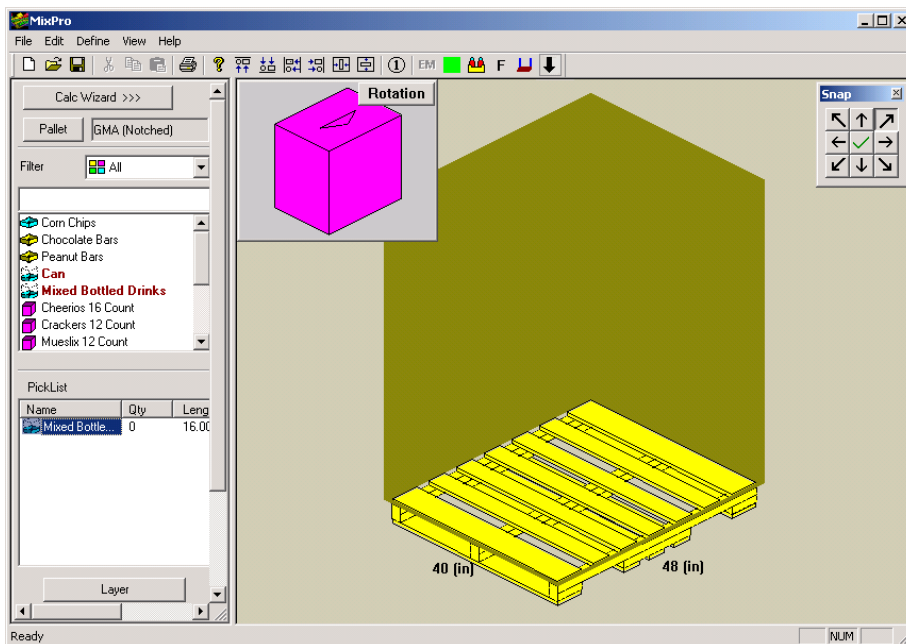
Notice that the new Mixed Bottled Drinks tray is already added to the list in addition to the Chocolate Bars, Peanut Bars and Corn Chips we defined earlier. Note also the different icons

next to the name of the shipcase.





2. To add the mixed tray (shipcase) to the pallet, select the Mixed Bottled Drinks shipcase and double click on the package name.

MixPro adds the tray (shipcase) to the PickList and displays a graphic of the tray (shipcase), as pictured in the next page.

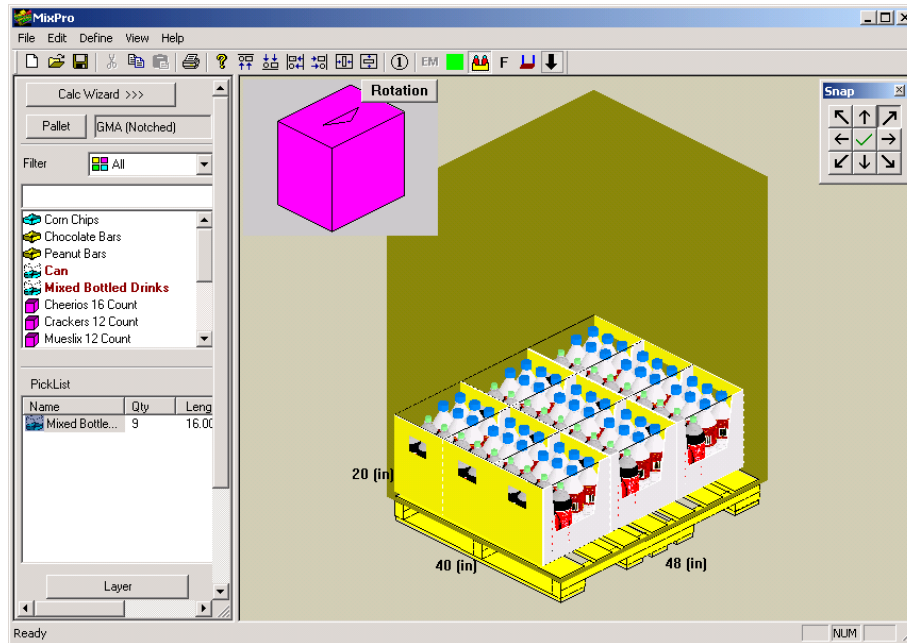


3. Drag and drop the shipcases onto the pallet until the unitload is complete.

 **Note:** For instructions on how to load shipcases onto a pallet, please refer to Chapter 6, MixPro Pallet.

4. To display the contents of the shipcases, go to the Toolbar at the top of the MixPro Pallet Editor and click the Show Contents icon .

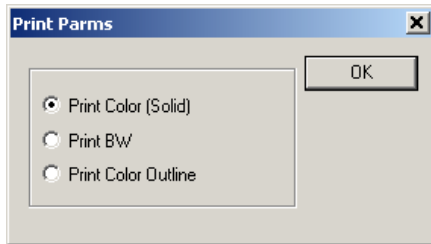
The MixPro Pallet Editor re-appears to show the contents of the package, as pictured below.



Direct Email From MixPro Tray

Email different MixPro reports as a JPG file. To use the direct email feature, follow these instructions:

1. Work through the analysis to create the mixed pallet.
2. At the Menu Bar, go to the File Menu and select Print Preview.
3. You have a choice of the following report types:
 - **Load:** Picture of mixed pallet with unitload and pallet dimensions as well as contents of the load.
 - **Load (front/back):** Similar to the Load report but with the additional view of the back side of the unitload.
 - **By placement:** Report giving step by step illustrations on how the mixed pallet is created with each placement of shipcases.
 - **By Layer:** Report with step by step illustrations on how the mixed pallet is created by layer placement.
 - **By Edge:** Report with step by step illustrations on how the mixed pallet is created from the side of the pallet.
4. After selecting the report type, specify how the report will be printed, in solid color, black & white or color outline.



5. Click OK.
6. When the report appears, click on the Email button.
7. The system launches your default email application and attaches the current report as a JPG file to the email message.

Tips for Working with Packages on a Tray

- To add a second package to the tray, hold down the [Shift] key and click on the first package. To place the second package on top of the first, Shift and click on top of the first package. To place the second package to the side of the first, [Shift] and click on the side of the first package.
- If you have loaded a column, row or layer of packages on the tray, you can add another column, row or layer with one click. For example, to add a layer of packages, hold down the [Shift] key and click on the top of the first layer. The system adds another layer on top of the first layer. To remove a layer of packages, hold down the [Alt] and [Shift] keys simultaneously and click on the layer.
- To remove (or delete) one or more packages from the tray, click on the package(s) and drag it off the backside of the tray (to the left). The package(s) completely disappear from the display. To temporarily remove one or more packages from the tray (you want to load it back later) click on the package(s) and drag it off the frontside of the tray (to the right). The package(s) remain in view on the display.
- Right-click or click on the Rotation button to display a small menu that allows you to position a package on the tray in a number of directions. The first menu provides the following functions:
 - Hgt Vertical
 - Len Vertical
 - Wid Vertical

For the height, length and width vertical functions, you have four additional functions:

- Face Forward
- Face Left
- Face Back
- Face Right

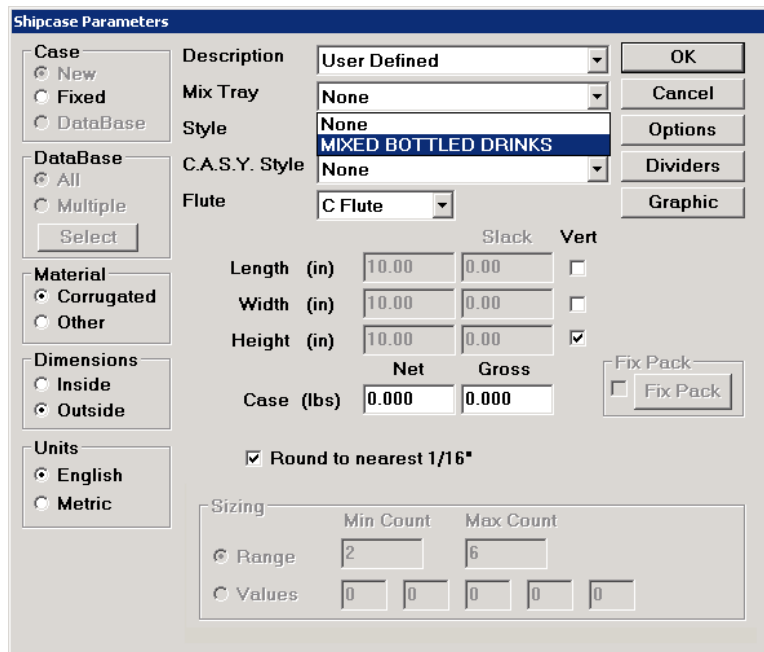
Using these guidelines, continue to load packages until you have loaded as many spray bottles as you want into the tray.

Using MixPro Tray in the Design Sequence

Users can now incorporate any MixTray into a Design Sequence which starts with the yellow Shipcase stage.



When you click the yellow icon to define shipcase parameters, you will see the Mix Tray option in the dialog box. Click the drop down button to specify any Mix Tray previously defined and place them onto pallets as in the MixPro Mixed Pallet Editor described earlier.



The screenshot shows the "Shipcase Parameters" dialog box. It has a left sidebar with sections: Case (New, Fixed, DataBase), DataBase (All, Multiple, Select), Material (Corrugated, Other), Dimensions (Inside, Outside), and Units (English, Metric). The main area contains the following fields:

- Description: User Defined
- Mix Tray: None
- Style: None
- C.A.S.Y. Style: None
- Flute: C Flute
- Length (in): 10.00, Slack: 0.00, Vert:
- Width (in): 10.00, Slack: 0.00, Vert:
- Height (in): 10.00, Slack: 0.00, Vert:
- Case (lbs): Net 0.000, Gross 0.000
- Buttons: OK, Cancel, Options, Dividers, Graphic
- Fix Pack: Fix Pack
- Round to nearest 1/16" (checked)
- Sizing: Range (Min Count: 2, Max Count: 6), Values (0, 0, 0, 0, 0)

8


Create A Shape Yourself (CAS Y)

This chapter discusses the Create A Shape Yourself (CAS Y) system, which allows you to design custom-shaped bottles, cans, shipcases, trays, etc. not included in the standard TOPS Pro database. This chapter discusses the CAS Y system in two sections: CAS Y Primary Style and CAS Y Tray Style.


CAS Y Primary Package

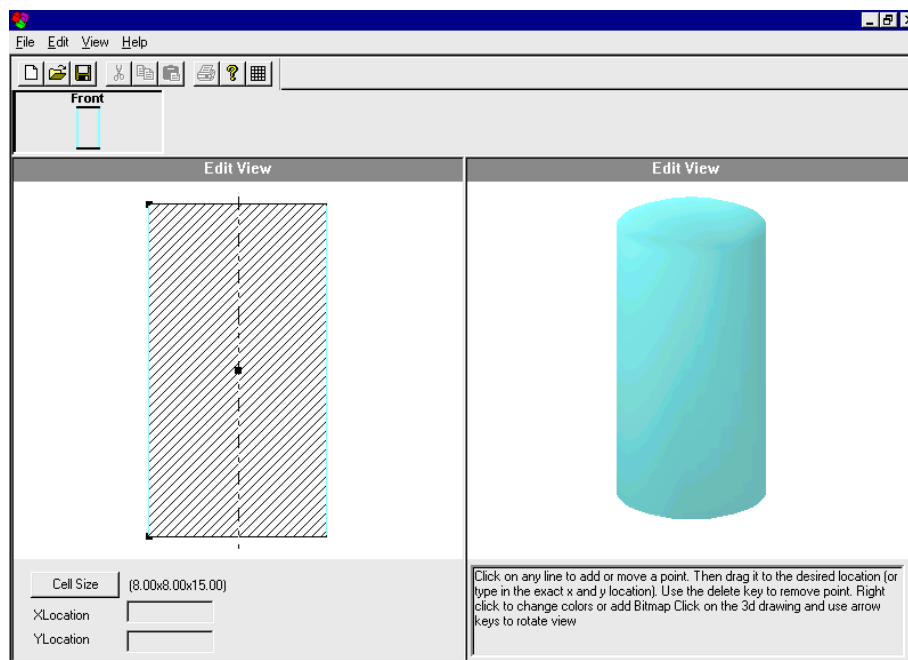


The Create A Shape Yourself (CAS Y) system allows you to design a primary package (bottle, can, cup, etc.) that has a custom, non-standard shape. You can use the CAS Y system to create a more realistic model of your product.

 **Note:** The CAS Y system is designed for display purposes only. You will not use CAS Y to define dimensions for a new bottle, can, cup, or container. The CAS Y system simply allows you to create a unique shape for a cylinder and see how it looks when packaged on a tray or shipper, etc.

After you have designed a cylinder with CAS Y, you can give that unit a name and save it to the database. As you work with an analysis in TOPS Pro (for example, a tray of soda cans) all your CAS Y-designed units are available in a drop-down list. If you want to see your tray packaged with the custom-shaped cans, you can select the CAS Y-designed can from the list.

To design a custom-shaped cylinder, click the CAS Y tool icon  and select CAS Y Primary Style. You will work with the CAS Y Primary Package Screen, as pictured below.




Notice that the CASY Primary Package Screen is divided into two primary sections:

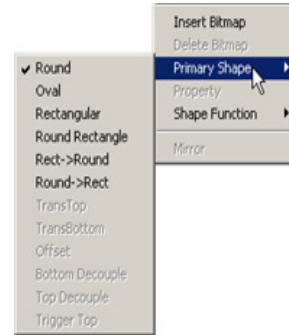
Edit View Work Area

The left side of the screen, allows you to start with a generic cylinder and create a distinctly shaped unit (bottle, can, cup, etc.). The right side of the screen, displays the unit in adjustable 3-D as you manipulate its shape in the Edit View Work Area.


Edit View Work area, notice the following features:

- **Work Unit:** This cylinder-shaped unit allows you to mark off sections in the unit. For each section, you will drag the marker toward or away from the center axis and thus begin to define the shape of the unit. You will use a click and drag technique to define all the various sections of the work unit.

 By default, the unit displays as a cylinder. You can change this primary shape to an oval, rectangle or some other transitioned shape via the right click menu as shown on the right.




- **Center Axis:** A dotted vertical line that runs from top to bottom through the center of the work unit, allows you to offset a selected section of the work unit.
- **Cell Size:** Defines the relative dimension (shape), not the actual size of the new shape being created. When this CASY shape is applied to a new package later on, it will be scaled to the exact size as defined by the user.
- **XLocation:** For a selected point on the left edge of the work unit, this represents the relative distance to the center axis.
- **YLocation:** For a selected point on the left edge of the work unit, this represents the relative distance to the bottom edge of the work unit.

 **Note:** The X and YLocation measures are relative measures. They do not represent inches, millimeters, etc. Rather, they represent relative distances between two points, the total of which is set on the right side of the screen (length, width and height).

Edit View Display Area

The right side of the screen shows a graphic rendering of the 3D shape being created. In this area, notice the following features:

- **Display Unit:** This image evolves into a specific shape as you define the work unit. The CASY system allows you to rotate the display unit backward, forward, left and right to view it from a number of angles.
- **Length:** The relative length of the display unit.
- **Width:** The relative width of the display unit.
- **Height:** The relative height of the display unit.

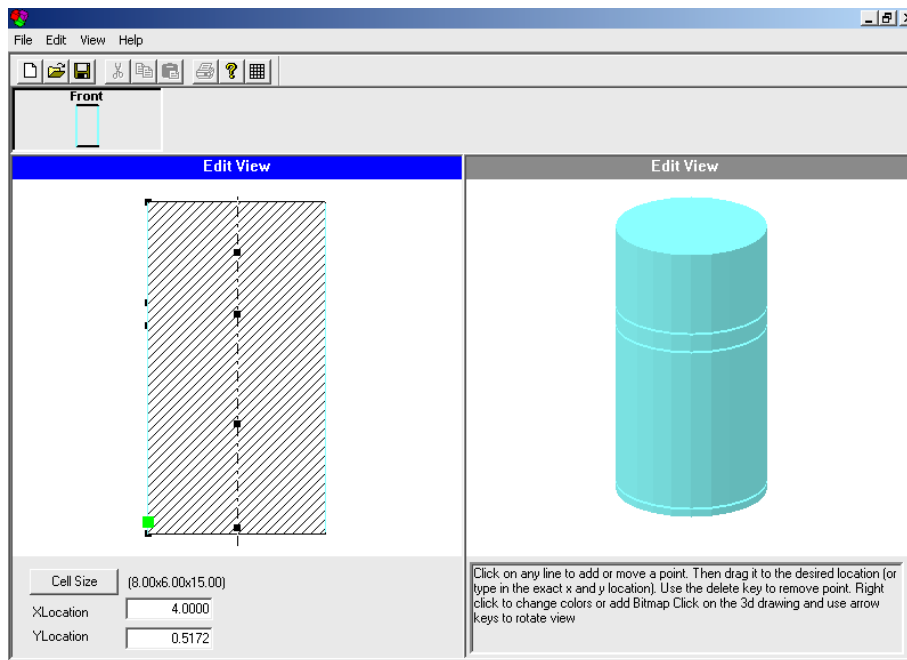
 **Note:** The Length, Width and Height measures are relative measures. They do not represent inches, millimeters, etc. Rather, they represent relative length, width and height of the work unit (the hypothetical space you are using to build this cylinder).

Suppose you want to design a custom oil can that is comprised of four sections: a spout at the top of the can, the neck of the can, the body of the can and a wide base at the bottom of the can. In addition, the spout will be positioned off-center, to one side of the can. To design this oil can, start

from the CASY Primary Package Screen and follow these instructions:

1. In the work area, select the points on the left edge of the work unit by clicking on the edge. This marks the four sections of the oil can.
 - The section from the first marker (top left corner of the work unit) to the second marker will represent the spout of the oil can.
 - The section from the second marker to the third marker will represent the neck of the oil can.
 - The section from the third marker to the fourth marker will represent the body of the oil can.
 - The section from the fourth marker to the fifth marker (bottom left corner of the work unit) will represent the base of the oil can.

When you have marked off the four sections, the work unit will look similar to the one pictured below.



Notice that the display unit shows four clearly defined sections. Also, notice that if you select one of the markers on the left edge of the work unit, the x- and y-Locations change accordingly to show you the relative distance of that point from the center and bottom axes.

2. First, we will design the spout section of the oil can. Click the first marker, positioned on the top left corner of the work unit.
 - 👉 **Note:** Notice that the arrow converts to a cross hair symbol (+). When the cross hair symbol appears, you can drag that marker to another position on the work unit.

Drag the marker straight across the top edge of the unit to a position near the center axis. In this exercise, we will drag the first marker to an x-Location of 0.4818; or type in this value for the x-Location. This marks the top of the spout section. This marker is flush to the top of the image, so the y-Location is 15.0.

Next, click on the second marker, which marks the bottom of the spout section, and drag it

straight across to a position near the center axis. In this exercise, we will make the bottom of the spout slightly wider than the top of the spout; the x-Location will be 0.9315; or type in this value for the x-Location. The y-Location is 10.2141.

3. Next, we will design the neck section of the oil can. The second marker, which marks the bottom of the spout section, also marks the top part of the neck section. The position of this marker will not change.

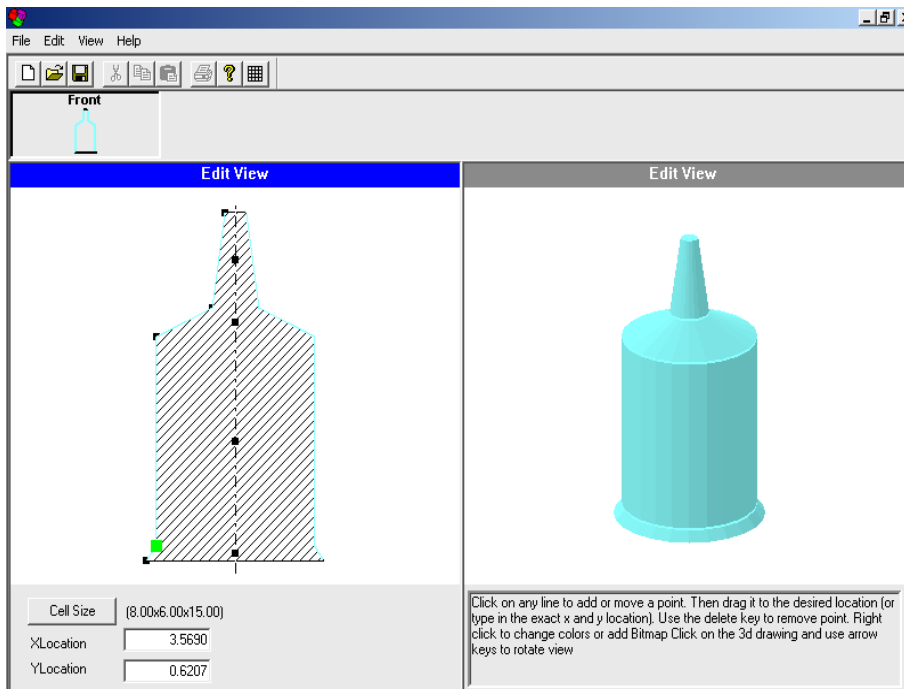
Click on the third marker, which marks the bottom of the neck section, and drag it slightly to the right. In this exercise, we will drag this marker to an x-Location of 3.6296. The y-Location is 8.2227.

4. Next, we will design the body section of the oil can. The third marker, which marks the bottom of the neck section, also marks the top part of the body section. The position of this marker will not change.

Click on the fourth marker, which represents the bottom of the body section, and drag it slightly to the right, even with the third marker – an x-Location of 3.5690. (There should be a perfectly straight, vertical line from the third marker to the fourth marker.) The y-Location is 0.5172.

The bottom section of the unit, the base section of the oil can, is already set; it's defined by the fourth and fifth markers. (The fifth marker sits on the bottom left corner).

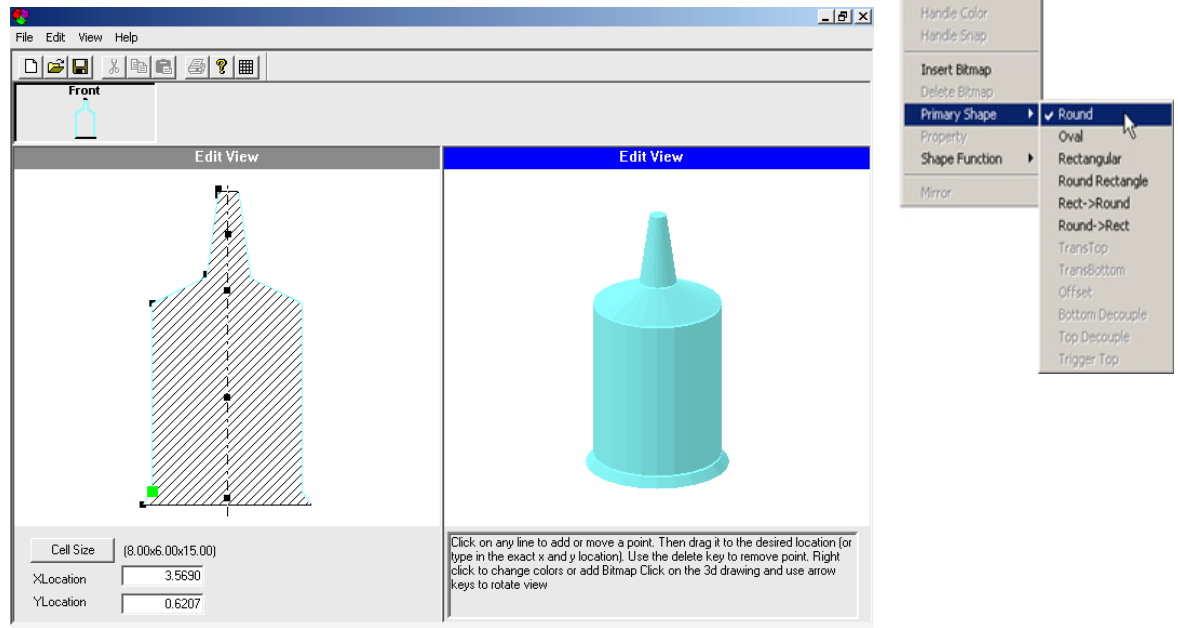
When you have defined the five sections of the oil can, the work unit should look similar to the one pictured below.



5. Next, we will fine-tune the shapes of each section of the oil can. The CASY system allows you to assign a specific shape (round, oval or rectangular) to an individual section. In this exercise, we will go with the default shape (Round) for each section of the oil can.

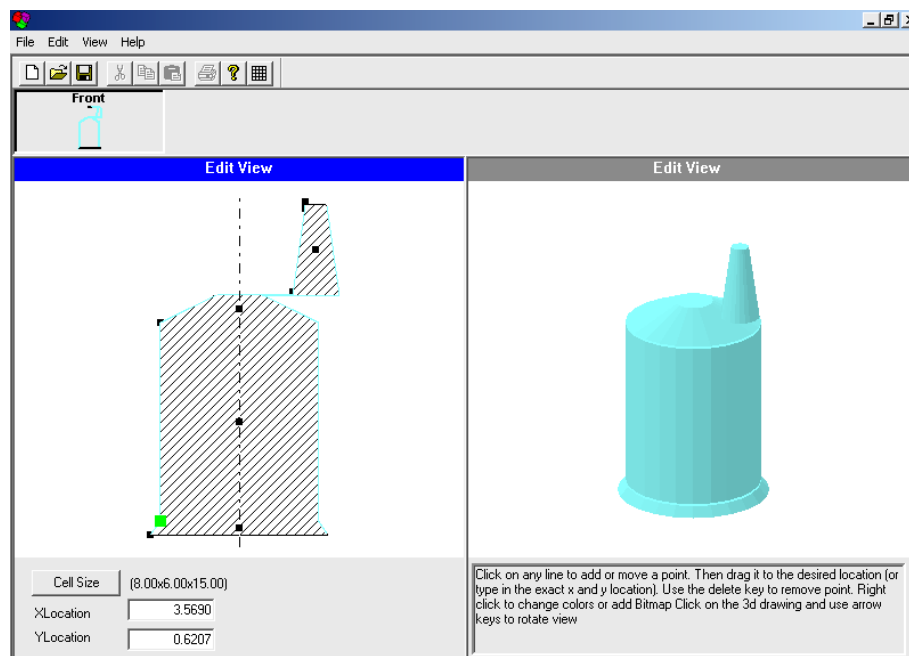
To assign a shape to the spout section, right-click on that section in the work unit. A small menu appears, as pictured on the right. Select the Primary Shape option and then select the Round option at the submenu.

Repeat these steps for each section of the oil can. When you have assigned the appropriate shapes to the four sections of the oil can, the can should look like the one pictured below.



- Next, we will position the spout off-center, flush to the right side of the oil can. In the above figure, notice that each section of the work unit has a marker that sits on the center axis line.

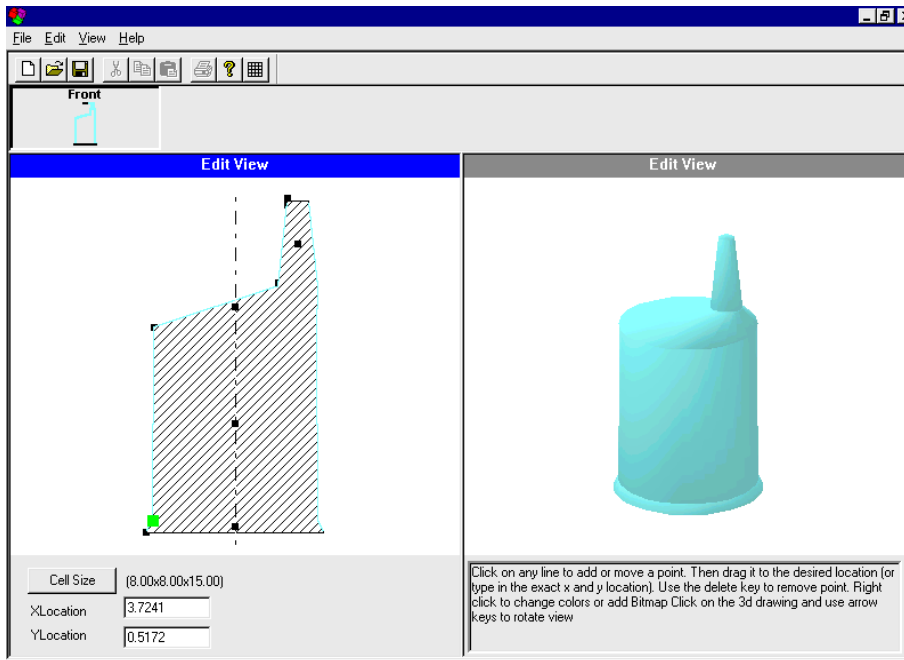
To move a section off-center, click on the center marker for that section and drag it off-center. In this exercise, click the center marker for the spout section and drag it to the right, as pictured here.



- Notice that in the previous figure, there is a disjointed space where the spout section meets the neck section of the can; it needs a smoother transition. CASY provides a feature that allows you to smoothly transition from one section to another when one section is off-center.

Right-click in the neck (second) section on the work unit and the small menu appears. Select the Primary Shape option. At the submenu which appears, select the TransTop option.

The work unit redisplay with the spout and neck sections of the can joined seamlessly together, as pictured below.



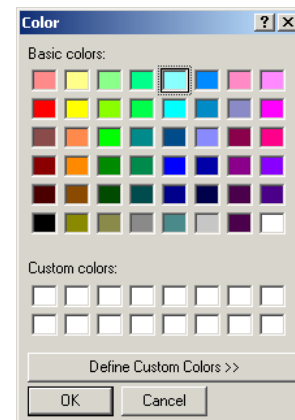
Note: The TransTop option transitions the top of the selected section to conform to the bottom of the adjoining section. Likewise, the TransBottom option transitions the bottom of a section to conform to the top of the adjoining section. The TransTop and TransBottom options are active only when you are working with an off-center section.

CASY provides two other transition features that you should be aware of. The TransRect option gives the selected section a round bottom that transitions to a rectangular top. Likewise, the TransRound option gives the selected section a rectangular bottom that transitions to a round top.

- Next, we will assign colors to the five sections of the oil can. In this exercise, we will make the spout gray, the neck and body sections red, and the base black.

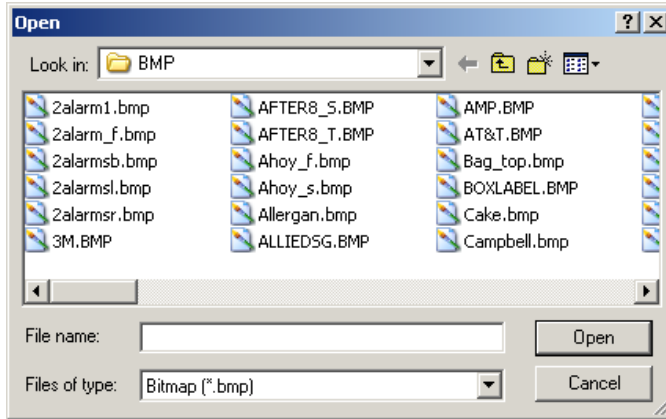
Right-click in the spout section of the work unit, the small menu appears. Select the Color option. A color palette appears, as pictured on the right, and prompts you to select a color.

Select gray and click OK. The color palette closes and the display unit on the screen redisplay with the spout colored gray. Repeat these steps and assign a color to each section of the work unit.



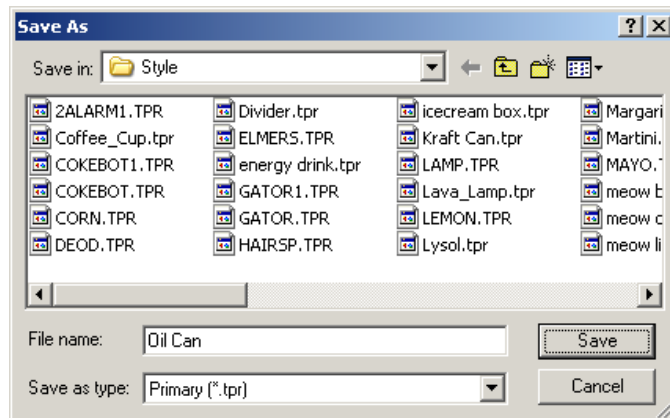
9. CASY also allows you to select and insert a bitmap onto individual sections of the primary package. To insert a bitmap onto a section, right-click on that section.


The small menu appears, select the Insert Bitmap option. A dialog box appears with a list of bitmap files, as pictured here.



Select the bitmap file you want to insert and click the Open button. The system inserts the bitmap onto the selected section of the oil can. You can resize the bitmap as you like and drag it any position on the selected section.

10. When you are satisfied with all the elements of the custom-shaped primary package, save the new shape by going to the File menu and select Save As.

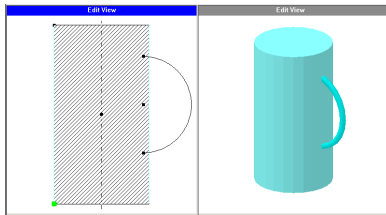


The new shape will now be available in the C.A.S.Y. Style drop list of primary packages. Note that this is a shape function only, the actual look of the can depends on the dimension of the primary package as defined in the Parameters dialog box. Make sure also the Show CASY function  is enabled in order to view the applied shape.

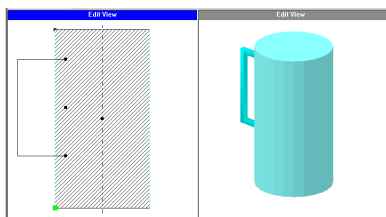
Other Primary Package Shape Functions

In addition to applying bitmap graphics, color and primary shape functions, the C.A.S.Y. functions also include the following:

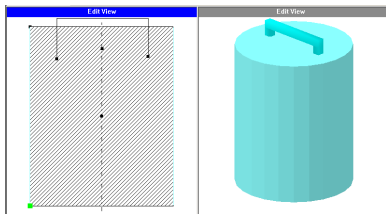
- **Handle:** Select from Round or Rectangular handle as well as locations of left, right or vertical as pictured below.



Horizontal Right (mug)

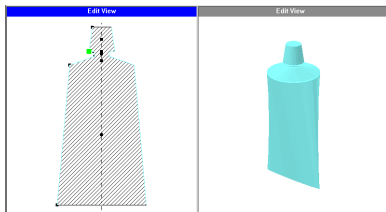


Rectangular Left (pitcher)

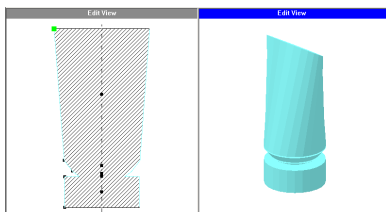


Rectangular Vertical (canister)

- **Shape Function:** Select from pinch top, pinch bottom.




Pinch bottom (toothpaste)



Pinch top (lotion)

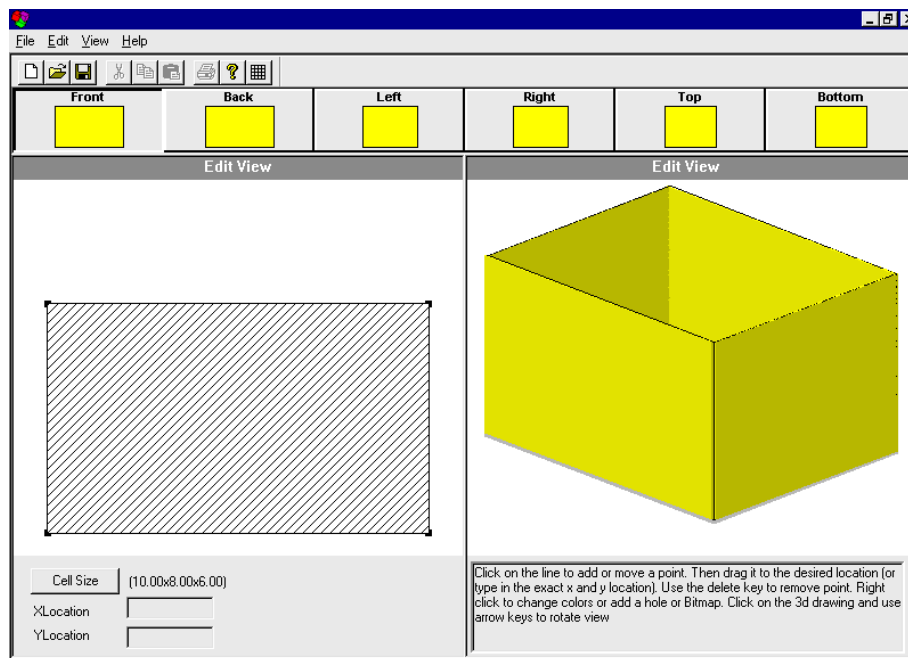
CASY Shipcase/Tray

The Create A Shape Yourself (CASY) system allows you to design and build a shipcase or tray that has a custom, non-standard shape. You can use CASY Shipcase/Tray to create more realistic trays and boxes.

 **Note:** The CASY system is designed for display purposes only. You will not use CASY to define the dimensions of a shipcase or tray. The CASY system simply allows you to create a unique shape for a shipcase or tray and see how it looks when loaded onto a pallet, etc.

After you have designed a shipcase or tray with CASY, you can give that unit a name and save it to the database. As you work with an analysis in TOPS Pro (for example, a tray of soda cans) all your CASY-designed units are available in a drop-down list. If you want to see a pallet loaded with the custom-shaped shipcases, you can select the CASY-designed shipcase from the list.

To design a custom-shaped shipcase or tray, you will work with the CASY Shipcase/Tray Screen, as pictured below.




Notice that the CASY Shipcase/Tray Screen is divided into two primary sections:

- **Edit View Work Area:** The left side of the screen, allows you to start with a generic box and create a distinctly shaped unit (shipcase or tray). The right side of the screen, displays the unit as you manipulate its shape in the Edit View Work Area.
- **In the Edit View Work** area, notice the following features:
- **Work Unit:** This box-shaped unit allows you to click on any point on the top edge of the unit, drag it downward and form openings that give the unit its shape.
- **Cell Size:** Defines the relative dimension, not the actual size, of the new shipcase or tray being created. When this CASY shape is applied to a new shipper later on, it will be scaled to the exact size as defined by the user.
- **XLocation:** For a selected point on the top edge of the work unit, this represents the relative


distance to the right edge or the unit.

- **YLocation:** For a selected point on the top edge of the work unit, this represents the relative distance to the bottom edge of the work unit.

 **Note:** The X and YLocation measures are relative measures. They do not represent inches, millimeters, etc. Rather, they represent relative distances between two points.

In the Edit View Display Area, notice the following features:

- **Display Unit:** This image evolves into a specific shape as you define the shape with the work unit. The CASY system allows you to rotate the display unit backward, forward, left and right to view it from a number of angles.
- **Length:** The relative length of the display unit.
- **Width:** The relative width of the display unit.
- **Height:** The relative height of the display unit.

 **Note:** The Length, Width and Height measures are relative measures. They do not represent inches, millimeters, etc. Rather, they represent relative length, width and height of the work unit (the hypothetical space you are using to build this shape).

Also, notice the six large icons at the top of the screen, just below the button bar. The **Front, Back, Left** and **Right icons** allow you to work with the corresponding areas of the work unit. For example, you can choose to work with the front side of the tray, back side, left side or right side.

 **Note:** The Top and Bottom icons are not currently active.

In this exercise, we will design a shipcase for bleach bottles. We want the bleach brand label to be clearly visible as the bottles sit in the case, so we will design the case with a large display window in the front and back sides. Also, the shipcase needs handles (holes) in the left and right sides of the case.

To design a shipcase that meets these specifications, follow these instructions:

1. When the CASY Shipcase/Tray Screen opens, the front side of the unit is active by default, so we will work with that side first. The front needs six markers along its top edge, which we will use to design the display window. The top left and top right corners serve as two of the markers.

Click the top edge of the shipcase to insert the other four markers. Position these four markers as follows:

Marker 2: XLocation = 1.0538

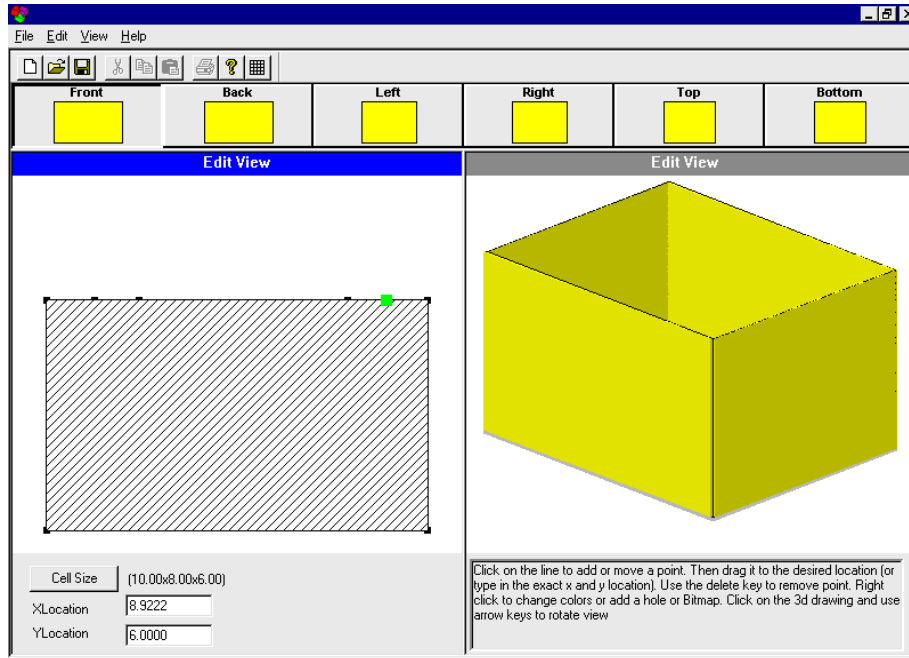
Marker 3: XLocation = 2.2094

Marker 4: XLocation = 7.7500

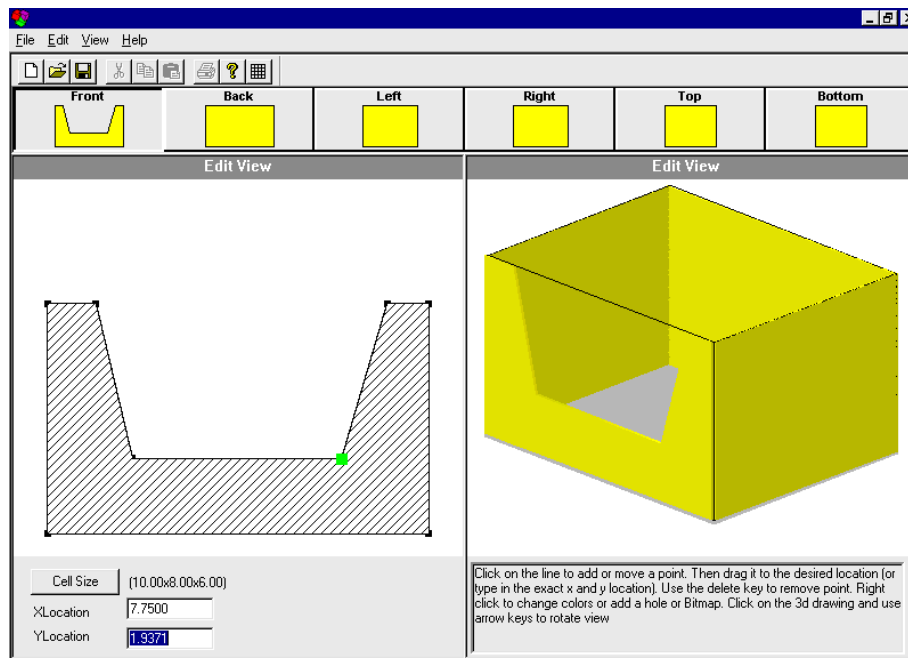
Marker 5: XLocation = 8.9222

 **Note:** These markers are for relative positioning only and there is no need to be exact.

The work unit, with six markers across the top edge, should look like the one pictured followed:

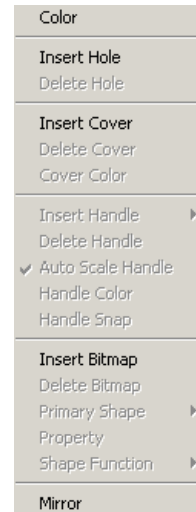


- For markers 3 and 4, drag the markers downward to a YLocation of 1.9371. When you have moved these markers into the right positions, the work unit should look like the one pictured below.

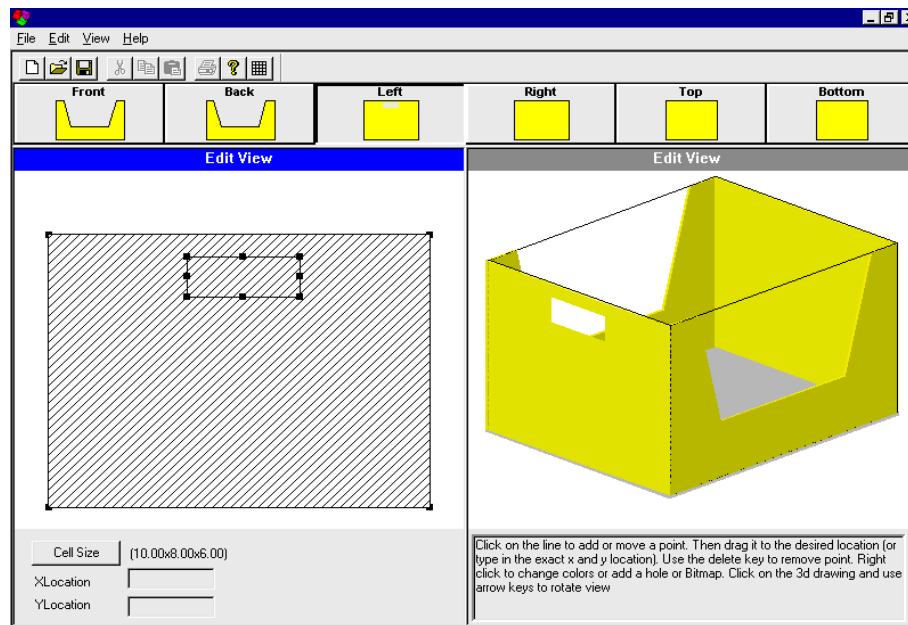


- Now that the display window on the front side of the shipcase is complete.

4. To create a similar cut out on the back side, right-click inside the work unit. A small menu appears, as pictured on the right.
5. Select Mirror to duplicate the same cut out on the back side of the box.
6. On the left and right sides of the case, we want to create holes to serve as handles for the shipcase. To create a hole in the left side of the shipcase, click the Left icon on the Toolbar. The CASY Shipcase/Tray Screen redisplay with work unit representing the left side of the case.
7. Right-click inside the work unit and select the Insert Hole option. The system inserts a box, which represents the hole, on the face of the work unit. This box has markers that allow you to expand the box to the right, left, up and down. You can also drag the box to any position on the work unit you want.

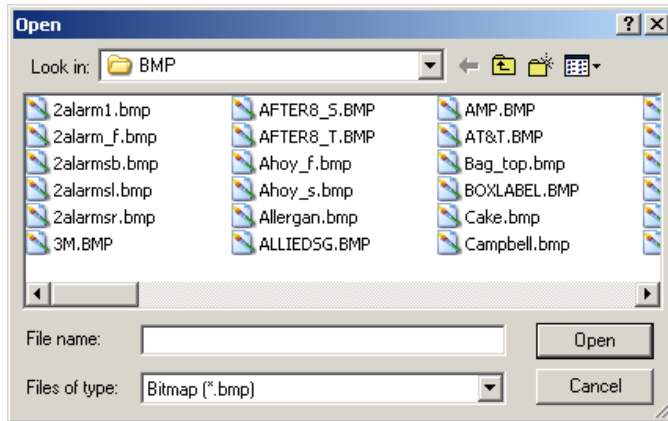


Resize the box (hole) to the appropriate size and move it near the top edge of the work unit. The left side of the shipcase should look similar to the one pictured below.



8. Now that the hole on the left side of the shipcase is complete, repeat the same process to design a hole for the right side or use the Mirror function to make sure the hole is created at the identical location on the opposite side.
9. CASY allows you to select and insert a bitmap onto any side of the shipcase. To insert a bitmap, select a side (front, back, left or right) to make it active.

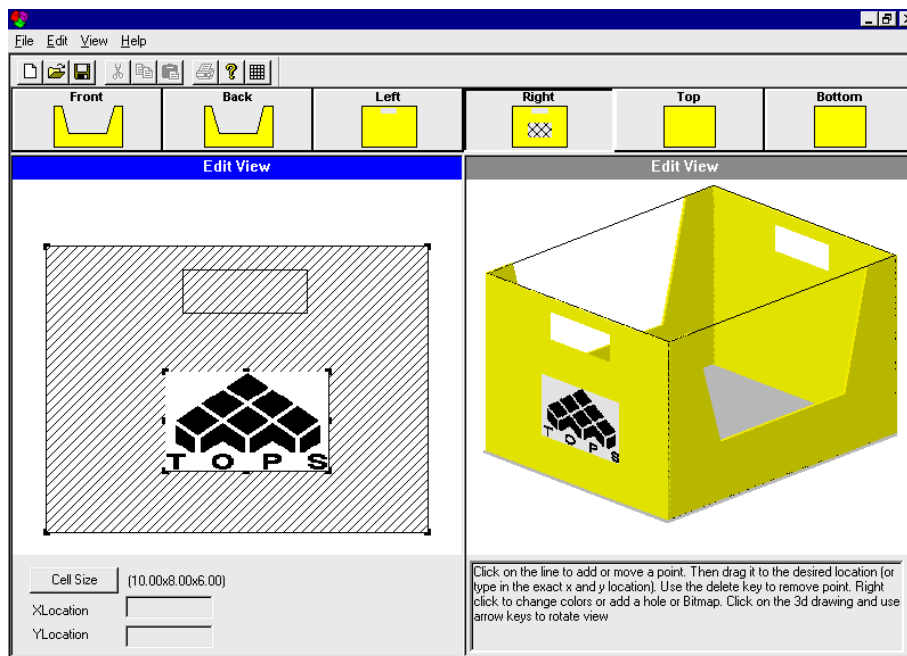
Right-click inside the work unit and select the Insert Bitmap option. A dialog box appears with a list of bitmap files, as pictured below.



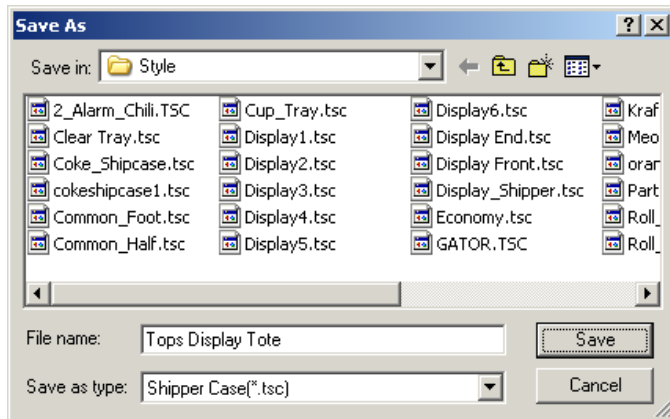
Select the bitmap file you want to insert and click the Open button.


The system inserts the selected bitmap onto the active side of the shipcase. You can resize the bitmap as you like and drag it to any position on the active side.

In this exercise, we will insert a TOPS bitmap on the left and right sides of the shipcase. After all the design elements are complete, the shipcase should look similar to the one pictured below.



- To save this new shipcase/tray, go to the File menu and select Save As. A dialog appears, enter a name for the tray, for example, Tops Display Tote as pictured and click Save.



TOPS will save this new tray in the database. To use this tray as a shipcase, select “Tops Display Tote” in the drop list from the C.A.S.Y. Style field. Make sure the Show CASY function  is enabled.

9

Stacking Strength

As a packaging professional, you will routinely need to calculate the stacking strength of your shipping cases. The TOPS Pro software uses the McKee formula to calculate the stacking strength of a regular slotted container (RSC). This chapter covers the stacking strength function, including the following topics:

- The McKee formula
- Edge crush test (ECT)
- Ring crush test (RCT)
- Calculate stacking strength
- Stacking strength results
- Email board combo list
- Configuration default settings

The McKee Formula

The McKee formula uses two laboratory tests performed on board components: the edge crush test (ECT) and/or the ring crush test (RCT), which are used to derive a box compression strength value. TOPS Pro adjusts this compression strength value (lab compression) with a variety of environmental and structural factors to calculate a box performance value.

Important Note

Even though the McKee formula is a generally accepted design formula, the packaging engineer is ultimately responsible for evaluating the degree to which this formula might apply and perform the physical tests to assure safety.

The McKee formula is defined as follows:


$$(FC) \times (ECT) \times (BP)^{.4924} \times (\text{Caliper})^{.5076}$$

Lab Compression = [(FC) x (ECT) x (BP)^{.4924} x (Caliper)^{.5076}] x (Shape Factor) x (Length-to-Width Ratio Factor) x (Horizontal Flute Factor) x (Printing Factor)

Box Performance = (Lab Compression) x (Flap Gap Factor) x (Humidity Factor) x (Storage Time Factor) x (Pallet Spacing Factor) x (Interlock Factor) x (Overhang Factor) + (Product Support)

The abbreviated components in the formula are outlined below:

- **FC** = Flute Constant (5.87)
- **ECT** = Edge Crush Test
- **BP** = Box Perimeter
- **Caliper** = Combined board thickness
- **Overhang Factor** = 1 – [minimum of (square root of overhang) x 32.25 ÷ 100, 1]

 **Note:** The next three values: Horizontal Flute Factor, Shape Factor and Printing Factor, are defined and adjusted in the TOPS Configuration program. For more information, please refer to Chapter 14, Configuration.

- **Horizontal Flute Factor (HFF)** = 1, unless non-vertical flute is selected. If non-vertical flute is selected, TOPS Pro looks at HFF for the specific board grade. However, there is no generally accepted industry standard for how much a non-vertical flute's compression will degrade. TOPS Pro currently ships with a HFF of 0.9 for a 10 percent reduction.

 **Note:** To adjust HFF, open the Definitions menu and select Board Combinations.

- **Shape Factor** = Table lookup based on the proportions of the box (relative to box depth) and vertical dimension. To adjust the shape factor, open the Definitions menu and select Box Design Factors.
- **Printing Factor** = Table lookup based on printing type and quantity. To adjust the printing factor, open the Definitions menu and select Box Design Factors.
- **Product Support** = Additional support to the overall stacking strength provided by the products inside the shipcase.

For all other factors, TOPS Pro looks up the value in the table of environmental factors, in the Configuration program. Other factors, which the McKee formula does not account for, include rough handling, transportation conditions, workers sitting on the box, die cuts, adhesive additives, etc.

Edge Crush Test

Box compression strength is a matter of structural mechanics or performance evaluation. Engineering formulas have been developed using various relationships to predict compression strength. The general formula used here predicts Box Compression Test (BCT) value as related to Edge Crush Test (ECT), Flexural Rigidity and box perimeter.

Edge Crush Test, also known as Short Column Test, is measured as the pounds of force per inch needed to crush a portion of the sidewall of combined corrugated board. Although not the sole criterion for box performance, ECT values are an excellent indicator of Box Compression Test values and box performance in most of today's applications.

Ring Crush Test

The Ring Crush Test (RCT) measures paper strength, more specifically stiffness. RCT has been widely used and has a history of more than 20 years of data correlated to combined board strength (ECT).

In the RCT, a strip of paper is placed into a jig that curls it into a short, tubular ring. Pressure is then applied perpendicular to the exposed edge. Ring Crush is measured as the pounds of force required to crush this specimen. This value has a direct relationship to predicting Edge Crush values of the combined board and, ultimately, box compression strength.

Across the industry, there is substantial variation in Ring Crush for a given Basis Weight from different paper mills, even from different paper machines within the same mill.

“High Ring Crush” or “High Performance” linerboard and medium are well above the industry average, at the upper end of the industry variability range for a given Basis Weight. Generally, these papers are more tightly pressed, thinner, denser, less porous than those at the average or lower end of the range, which gives paper greater strength per pound.

Calculate Stacking Strength

In this exercise, you will perform a shipcase-to-pallet analysis first, then calculate the stacking strength. To calculate stacking strength, start from the Control Panel and follow these instructions:


1. Perform a shipcase-to-pallet analysis and calculate solutions.
2. Click the Strength button located on the left view panel and select Strength. As an option, you can open the Tools menu and select Stacking Strength.

The Stacking Strength dialog box appears, as pictured below.

The screenshot shows the 'Stacking Strength' dialog box with the following settings:

- Units:** English (selected), Metric
- Calculation Method:** Ring Crush
- Case Specifications:** Length (17.000), Width (13.000), Height (11.000), Weight (10.00), Flap Gap (0.000), Prod Sup (0.00). Vert: None (selected).
- Environment:** Storage Time (1 Month), Humidity (50), # of Loads High (1).
- UnitLoad:** Pallet (GMA (NOTCHED)), Cases/Layer (8), Layers/Load (4), Overhang (0.000), Rotation (All), Footprint Factor (8).
- Print:** Amount of Printing (None), Quick Set, Flexo Ink (selected).
- High Light:** Color (selected), None


Notice that the dialog box is complete with pre-defined shipcase and pallet parameters, which are grayed out (you cannot change them).

3. At this point, you will need to make decisions regarding the following parameters:
 -  **Note:** Some of these parameters are pulled from the Environment Factors dialog box in the TOPS Configuration program. This dialog box is pictured on page 155 for easy reference.
 - **Storage Time:** Select the target storage time for the unitloads, the period of time you expect the unitloads to be stored in a warehouse; for example, three months.
 - **Humidity:** Enter the humidity percentage that exists in the warehouse. The default is 50 percent; a typical humidity factor is 85 percent.
 - **# of Loads High:** Enter the target number of pallets high the unitload can be stacked in the warehouse.
 - **Rotation:** Select the rotation to be used for the unitloads. Use these guidelines:
 - If the unitloads are columnar (non-interlocked), select None. This rotation yields no degradation in stacking strength.

If the unitloads are fully interlocked, select All. This rotation yields a 30 percent degradation in stacking strength.

If the unitloads are partially interlocked – for example, only the top two layers, select Some. This rotation yields a 15 percent degradation in stacking strength.

- **Footprint Factor:** If you have multiple unitloads and not all shipcases help support the unitload above, specify how many shipcases do help support. Lowering this number reduces the number of bottom-most cases that help support the above unitload.
- **Amount of Printing:** Select the amount of printing on the shipcases, usually Simple.
- **Type of Printing:** Select the type of printing on the shipcases, usually Flexo.
- **High Light:** Select either Color or None to specify whether you want the next screen and printouts to appear in color. If you only want to print, select None.

 **Note:** This has no bearing on stacking strength.

- **Calculation Method:** Select the method used to calculate stacking strength. Use these guidelines:

The **Ring Crush method** looks up the ring crush values of the board combination's liners and mediums, then calculates the edge crush test (ECT) value from those values.

The **Edge Crush method** uses the exact ECT value typed in for each board combination.

The **Kellicut method** is an internationally recognized way to calculate stacking strength.

- **Dividers:** The Dividers button displays the Dividers dialog box, which displays information entered from the ShipCase Parameters dialog box. Use the Dividers dialog box to change the dividers parameters.

Dividers provide a significant increase in stacking strength of your shipcases. For example, if a 12-cell divider is made of the same cardboard as the shipcase, it increases stacking strength by 108 percent.


- **Options:** This button displays the Stacking Strength Options dialog box, which allows you to specify which columns of information will appear on the Stacking Strength Results report by selecting from a listing of board grades.

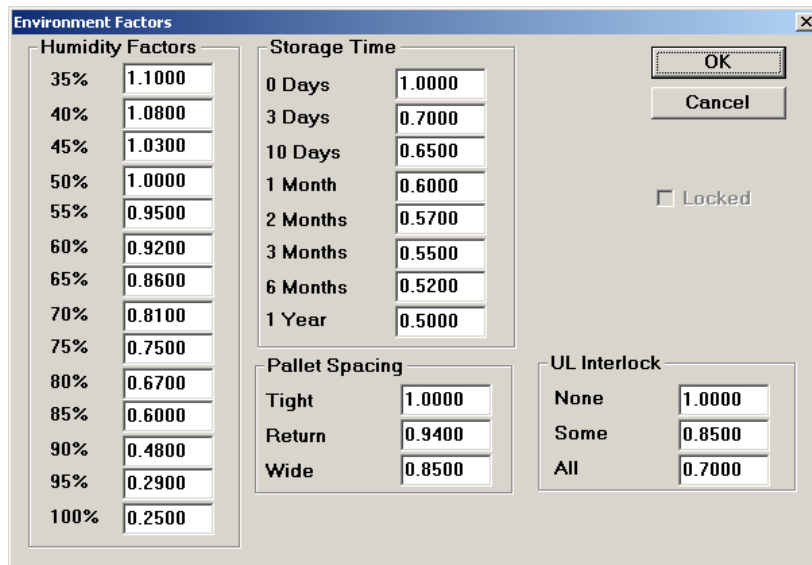
For detailed information about the Stacking Strength Options dialog box, please refer to Appendix B, Dialog Boxes.

4. After completing the stacking strength parameters, click OK. The Stacking Strength Results Screen appears, as pictured on page 156,
5. If you want to print the list of stacking strength options, open the File menu, select Print, then select Stack Strength List. TOPS Pro sends the list of stacking strength options to the printer.
6. If you want to print all the board combinations in the software, open the File menu, select Print Database, then select Stacking Strength. TOPS Pro sends the list of board combinations to the printer.

Environment Factors Dialog Box

The Environment Factors dialog box, pictured below, allows you to assign numeric safety factors to a range of environmental factors. TOPS Pro uses environmental factors to calculate stacking strength.

 **Note:** The Environment Factors dialog box is accessed from the TOPS Pro Configuration program.



Humidity Factors	
35%	1.1000
40%	1.0800
45%	1.0300
50%	1.0000
55%	0.9500
60%	0.9200
65%	0.8600
70%	0.8100
75%	0.7500
80%	0.6700
85%	0.6000
90%	0.4800
95%	0.2900
100%	0.2500

Storage Time	
0 Days	1.0000
3 Days	0.7000
10 Days	0.6500
1 Month	0.6000
2 Months	0.5700
3 Months	0.5500
6 Months	0.5200
1 Year	0.5000

Pallet Spacing	
Tight	1.0000
Return	0.9400
Wide	0.8500

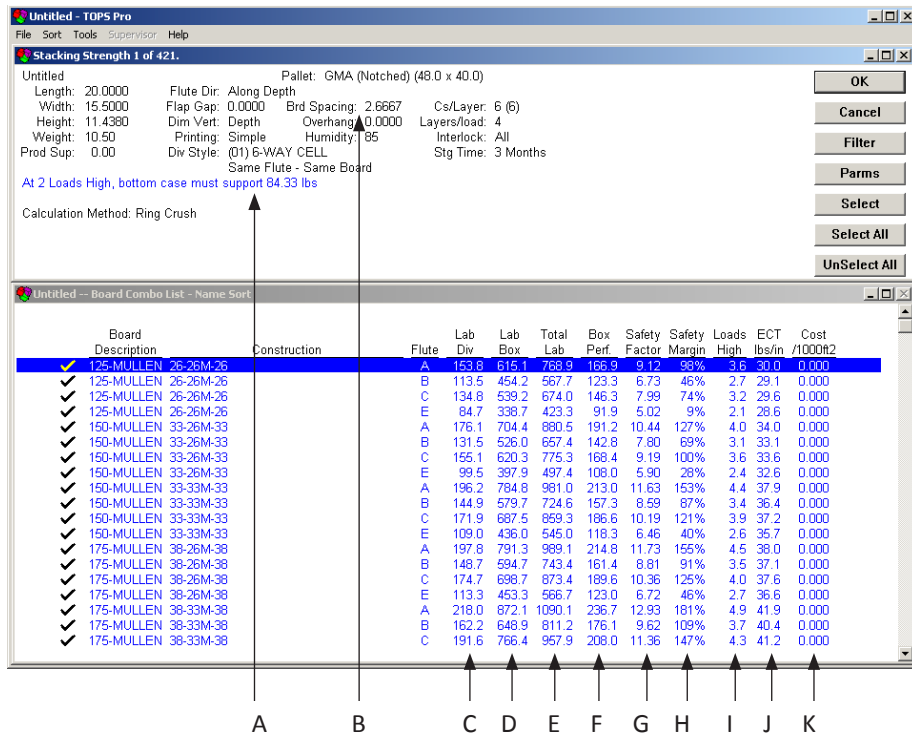
UL Interlock	
None	1.0000
Some	0.8500
All	0.7000

For detailed information about the Environment Factors dialog box, please refer to Appendix B, Dialog Boxes.

Stacking Strength Results

Once you have calculated a stacking strength analysis, TOPS Pro displays the Stacking Strength Results Screen, as pictured below. This screen is divided into two panes:

- **Stacking Strength Statistics Pane:** Includes any added data related to the stacking strength option and your package design.
- **Board Combo List Pane:** This pane in the lower section of the screen, displays a number of columns that represent the board grades selected from the Stacking Strength Options dialog box. The default set of columns is represented in the figure below.



The Stacking Strength Results Screen provides the following stacking strength information:

- **(A) At 2 Loads High, bottom case must support 84.33 lbs:** Amount of weight that must be supported by a box on the bottom layer of the bottom pallet.
- **(B) Board Spacing:** Also known as pallet spacing. Use these guidelines:
 - If this value is less than 0.1 inch, you have tight pallet spacing.
 - If this value is greater than 0.1 inch and less than 3 inches, you have normal pallet spacing.
 - If this value is greater than or equal to 3 inches, you have wide pallet spacing.

Note: The stacking strength factors associated with pallet spacing are defined on the Environment Factors dialog box, pictured on page 155.
- **(C) Lab Div:** Lab Compression of the divider. This column appears only if you have specified a divider. To define new dividers, open the Definitions menu and select Dividers. Each divider has a support factor that determines the amount of additional support added by the divider. (A support factor of one (1) = no change.)
- **(D) Lab Box:** Lab Compression of the box without the divider. This column appears only if you have specified a divider.
- **(E) Total Lab:** Total Lab Compression. If you have defined a divider, this value is the sum of the divider compression and box lab compression; i.e., Total Lab Compression = Lab Compression of the divider + Lab Compression of the box without the divider.
- **(F) Box Perf:** Box Performance. The resulting compression strength, which takes into account the environmental conditions you have specified.
- **(G) Safety Factor:** Total Lab divided by the weight that must be supported by the bottom case.
- **(H) Safety Margin:** The percentage that the box performance exceeds the weight that must be supported by the bottom case; i.e., $G = (F - A) \div A$. Boards with Safety Margins that are greater than zero are highlighted in blue.

- **(I) Loads High:** How many unit loads it takes to reach the limit (box performance) of a bottom-most case.
- **(J) ECT lbs/in:** The ECT of the board. If the calculation method is Edge Crush, this value is the empirical value entered for each board in the TOPS Configuration program. If the calculation is Ring Crush, TOPS will calculate the ECT from the Ring Crush Factor (RCF) of each board's papers.
- **(K) Cost/1000ft²:** The cost per 1000 square feet as entered into the board grade database.

Now that you have calculated stacking strength options for your analysis, you are ready to narrow down the list of options and select the one that best meets your needs. Follow these instructions:

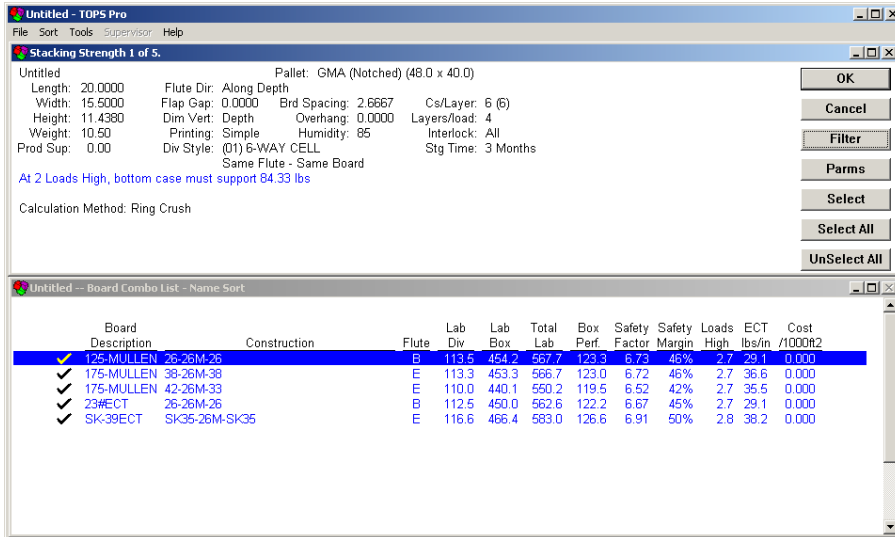
1. Analyze the list of options and decide how you want to narrow the list. For example, you might want to narrow the list to show all options that have a safety factor of 4-7 and a compression strength of 550-665.
2. Click the Filter button. The Stacking Strength Filter dialog box appears. Enter the limiting values for Compression Strength and Safety Factor as pictured below.

	Min	Max
Compression Str (lbs)	550.0	665.0
Box Performance	0.0	0.0
Safety Factor	4.0	7.0
Safety Margin	0.0	0.0
UnitLoads High	0	20

Note: Compression is the recommended filter method because it is the most fine-tuned. For more information about the Safety Strength Filter dialog box, please refer to Appendix B, Dialog Boxes.

3. After completing the filter criteria, click OK.

TOPS Pro identifies all options that match your filter criteria, then redisplay the Stacking Strength Results Screen, as pictured below. The options that match your criteria are displayed in blue; the options that do not match are displayed in black.



Notice that TOPS Pro has filtered the list of solutions from 421 down to five.

- To sort the options by a specific criteria, open the Sort menu and select a sort option: Name, Lab Compression, ECT, Cost or Reverse Order.

TOPS Pro redisplay the Stacking Strength Results Screen with the options sorted according to the selected sort option.

- After you have selected a solution, print the output.

 **Note:** At this time, there is no way to limit the number of columns printed or displayed.

Stacking Strength Results – Menu Options

The Stacking Strength Results Screen features a menu bar with the following menus:

- File Menu
- Sort Menu
- Tools Menu
- Supervisor Menu
- Help Menu

The File, Supervisor and Help menus are identical in functionality to the menus that appear on the Control Panel's menu bar. For more information on these menus, please refer to Appendix C, Menu Options.

Sort Menu

The Sort menu provides the following options:

- Name
- Lab Compression
- ECT
- Cost
- Reverse Order


The Sort menu allows you to sort stacking strength results by name, lab compression, ECT, cost and reverse order.

To use the Sort function, start from the Stacking Strength Results Screen and select a Sort option (for example, ECT). The Stacking Strength List Pane redisplay with the stacking strength results sorted based on the selected option.

Tools Menu

The Tools menu provides the following options:

- Email Stacking Strength
- Select As Primary Boardgrade

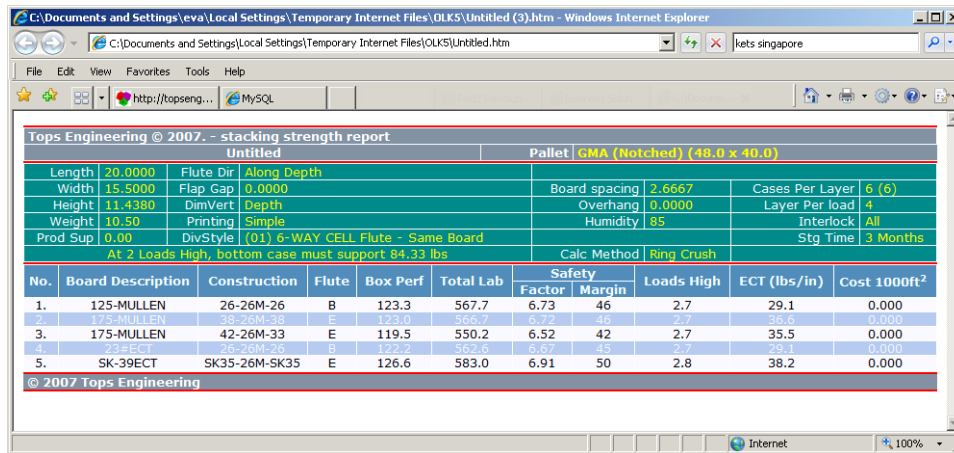
 **Note:** The Select As Primary Boardgrade option is not currently active.

The Email Stacking Strength option allows you to email the Stacking Strength Board Combo List to other users. This function is discussed in the next section.

Email Stacking Strength Combo Board List

After you have calculated stacking strength results, TOPS Pro allows you to email the Stacking Strength Board Combo List to other users. To use this feature, start from the Stacking Strength Results Screen and follow these instructions:

1. Go to the Windows Toolbar and open the Tools Menu.
2. Select the Email Stacking Strength option. TOPS Pro automatically launches your email application, converts the Stacking Strength Board Combo List to an HTML file as pictured below and attaches it to the email.



Tops Engineering © 2007. - stacking strength report										
Untitled						Pallet GMA (Notched) (48.0 x 40.0)				
Length	20.0000	Flute Dir	Along Depth			Board spacing	2.6667	Cases Per Layer	6 (6)	
Width	15.5000	Flap Gap	0.0000			Overhang	0.0000	Layer Per load	4	
Height	11.4380	DimVert	Depth			Humidity	85	Interlock	All	
Weight	10.50	Printing	Simple			Stg Time	3 Months			
Prod Sup	0.00	DivStyle	{01} 6-WAY CELL Flute - Same Board			Calc Method	Ring Crush			
At 2 Loads High, bottom case must support 84.33 lbs										
No.	Board Description	Construction	Flute	Box Perf	Total Lab	Safety		Loads High	ECT (lbs/in)	Cost 1000ft ²
						Factor	Margin			
1.	125-MULLEN	26-26M-26	B	123.3	567.7	6.73	46	2.7	29.1	0.000
2.	175-MULLEN	42-26M-33	E	119.5	550.2	6.52	42	2.7	35.5	0.000
4.	23-EECT	26-26M-26	B	122.2	562.6	6.67	45	2.7	29.1	0.000
5.	SK-39ECT	SK35-26M-SK35	E	126.6	583.0	6.91	50	2.8	38.2	0.000

3. Send the email to the appropriate users. TOPS Pro closes the email application and returns you to the Stacking Strength Results Screen.

Define Stacking Strength Factor for a Non-RSC Box

When defining parameters for a new, non-RSC box, TOPS Pro includes a feature that defines stacking strength in relation to an RSC box. For example, you can define stacking strength for the non-RSC box as 80 percent or 120 percent of the stacking strength of an RSC box. To use this feature, follow these instructions:

1. Go to the Menu Bar and open the Define Menu.
2. From the Define Menu, select the Box Styles option. The Case Styles dialog box appears, as pictured below.

3. In the Strength Factor field, enter a stacking strength factor as a percentage. For example, if stacking strength for this box is 90 percent compared to that of an RSC box, enter 90.00.
4. Complete the remaining fields to define the new box.
5. After defining the new box parameters, click OK.

TOPS Pro saves the new box, including stacking strength factor, to the database.

Configuration Default Settings

The TOPS Configuration program allows you to define defaults for the various stacking strength variables used in the system, including the following:

- **Board Combinations:** Adjusts board grades, including changing, deleting or marking them unavailable. Use this option to adjust a board's ECT or cost per 1,000 square feet.
- **Flutes:** Adjusts base flutes, such as the default thickness or flute constant.
- **Environmental Factors:** Adjusts humidity, storage time, interlock and pallet spacing lookup values.
- **Paper:** Adjusts paper ring crush values.
- **Dividers:** Adjusts divider definitions, which reside in the primary TOPSWIN program.



For more information about defining stacking strength default values, please refer to Chapter 14, Configuration.

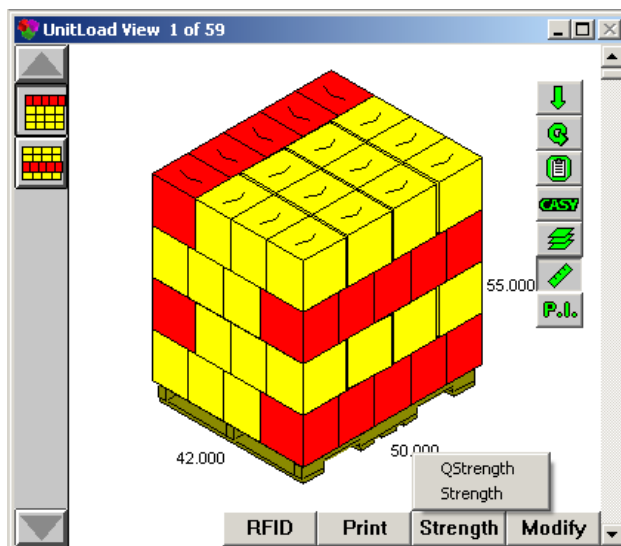
QStrength: Quick Strength Reports

The QStrength function allows users to determine the ECT value and minimal strength requirements for a shipcase's board combination, without needing to know the actual papers or board combination possibilities.

TOPS will calculate the weight to be supported and users can provide their desired Safety Factor range. Based on this information, TOPS can now provide the minimal requirements for the shipcase in total pounds that must be supported, and a range of acceptable ECT values. With this information, a corrugate provider can then look at what board combinations in their stock meet these requirements.

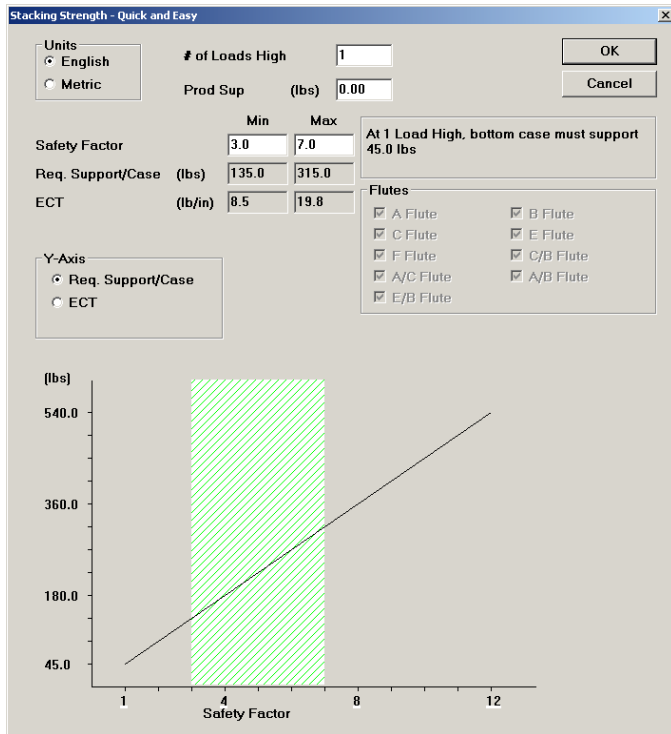
To access the QStrength report, please follow these steps:

1. Create a design sequence of  → 
2. Enter the dimensions of the shipcase at the Shipcase Parameters dialog box and make sure it has a defined gross weight.
3. Select the pallet to be used in the Unitload Parameters dialog box and specify any height and overhang requirements.
4. Click Calc to view the solutions.

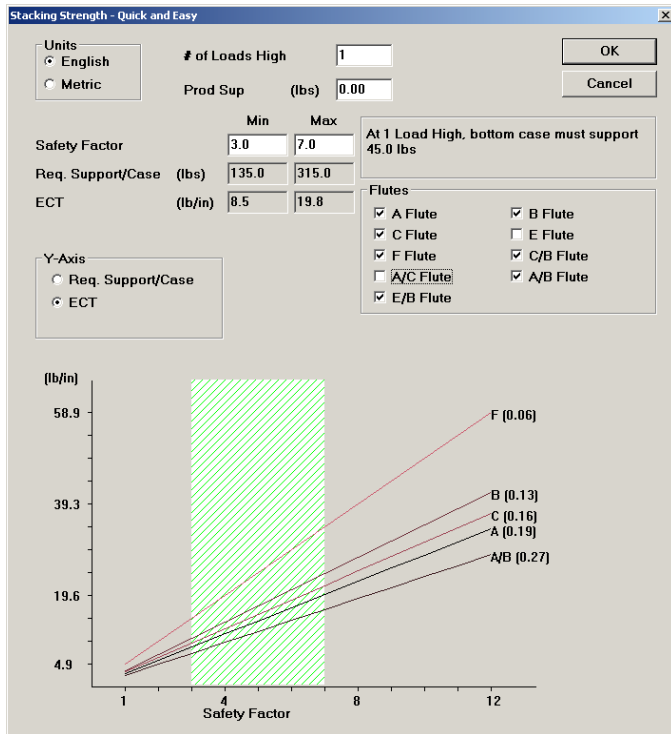


5. In the UnitLoad view, click the Strength button and select QStrength.

QStrength Report



QStrength report showing required support / shipcase



QStrength report showing ECT value for each board

- **# of Loads High:** Enter the target number of pallets high the unitload can be stacked in the warehouse.
- **Prod Sup:** Additional support to the overall stacking strength provided by the products inside the shipcase. If present, the required support from each shipcase will be less.
- **Safety Factor:** Enter the desired range for safety factor. This is the Total Lab divided by the weight that must be supported by the bottom case.
- **Req. Support/Case:** Based on the safety factor range provided, these fields show the minimal weights the shipcase must be able to support.
- **ECT:** Based on the safety factor range provided, these fields show the minimal ECT values that will be required from the corrugate provider's board combinations.
- **Y-Axis:** The graph can be toggled to report required pounds per shipcase, or required ECT value per shipcase.

For more information about defining stacking strength default values, please refer to Chapter 14, Configuration.


10 Package Profile

This chapter teaches you how to create a profile for a complete package analysis, sometimes called a cube specification. The package profile is designed for situations where many products use the same packaging. For example, if you package cereal, you can use the same box for several different brands of cereal.

Create a Package Profile

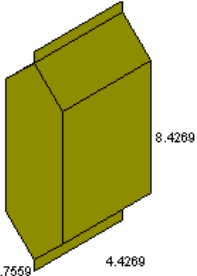
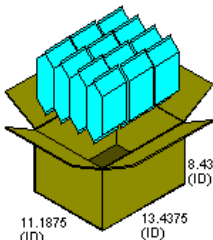
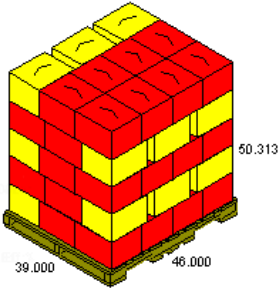
In this example, we will create a packaging solution for 8 oz bags of potato chips. The same package information will be used for 3 different variations: original, cheddar cheese and BBQ flavor. To create a package profile, follow these instructions:

1. Complete an 8 oz chip package analysis and save it to the database.

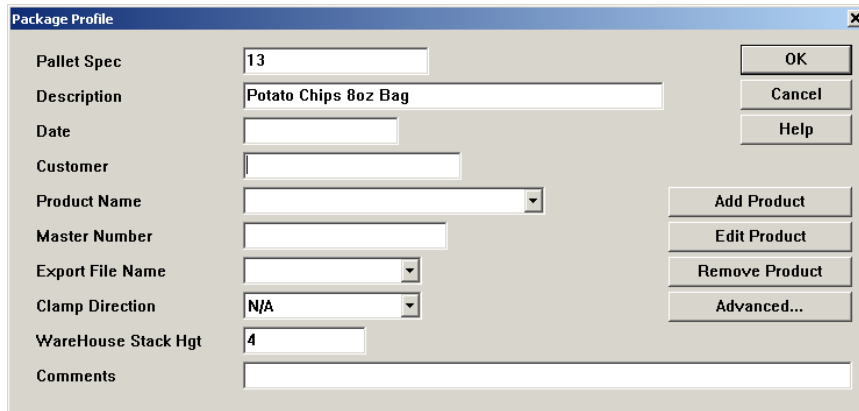

 Tops Engineering

Chips

Date Printed : 2/7/2010
 Last Saved : 2/6/2010

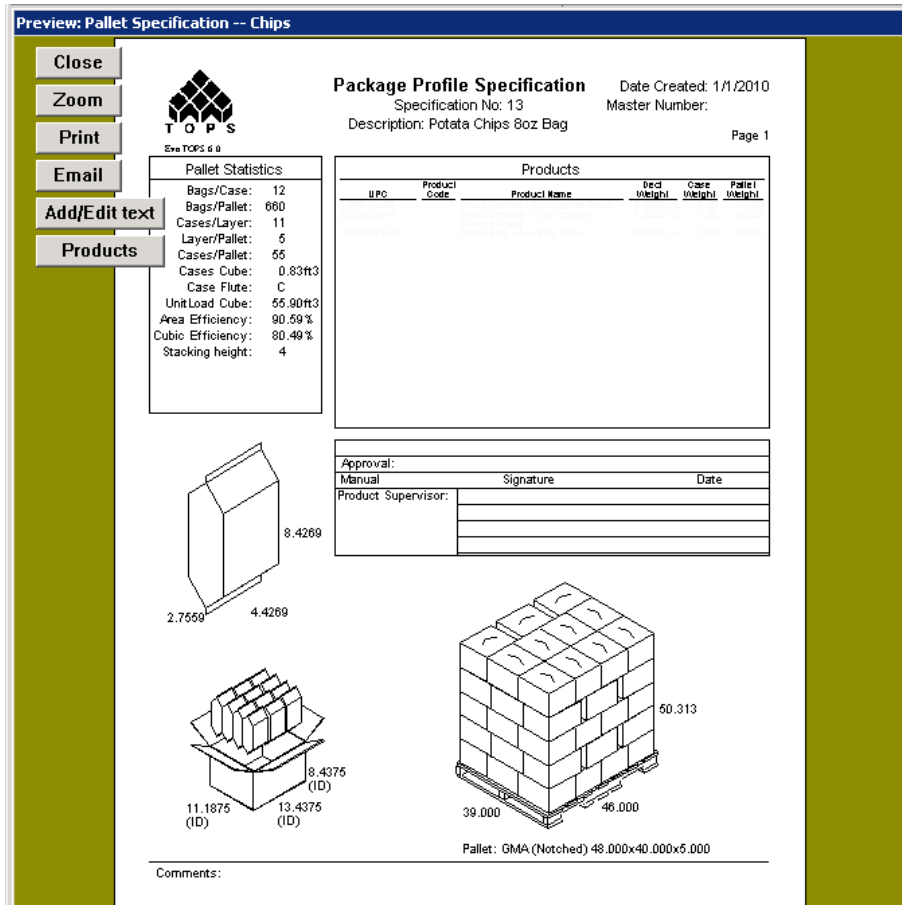
 <p>8.4269 2.7559 4.4269</p>	 <p>8.4375 (ID) 11.1875 (ID) 13.4375 (ID)</p>																																																			
 <p>50.313 39.000 46.000</p>	<table border="1" style="width: 100%; border-collapse: collapse; font-size: small;"> <thead> <tr> <th colspan="3">GMA (Notched) 48.000x40.000x5.000</th> </tr> <tr> <th>Shipper (ID)</th> <th>Shipper (OD)</th> <th>Unit Load (Incl. Pal)</th> </tr> </thead> <tbody> <tr> <td>Ln: 13.4375 in</td> <td>13.7500 in</td> <td>46.000 in</td> </tr> <tr> <td>Wd: 11.1875 in</td> <td>11.5000 in</td> <td>39.000 in</td> </tr> <tr> <td>Ht: 8.4375 in</td> <td>9.0625 in</td> <td>50.313 in</td> </tr> <tr> <td>Net: 8.4375 in</td> <td>6.0000 lb</td> <td>330.000 lb</td> </tr> <tr> <td>Gr: 6.7211 lb</td> <td>6.7211 lb</td> <td>434.661 lb</td> </tr> <tr> <td>Cube: 0.7340 ft³</td> <td>0.8293 ft³</td> <td>52.234 ft³</td> </tr> <tr> <td colspan="3" style="text-align: center;">Height Vert</td> </tr> <tr> <td>0.0000 in³</td> <td></td> <td>0.0000 ft³</td> </tr> <tr> <td>Shipper:</td> <td></td> <td>55</td> </tr> <tr> <td>Area Efficiency:</td> <td>97.4 %</td> <td>90.6 %</td> </tr> <tr> <td>Cubic Efficiency:</td> <td>71.3 %</td> <td>80.5 %</td> </tr> <tr> <td></td> <td>0.0 %</td> <td>0.0 %</td> </tr> <tr> <td>Cases per layer:</td> <td></td> <td>11</td> </tr> <tr> <td>Max UL High:</td> <td></td> <td>4</td> </tr> <tr> <td>Clamp Direction:</td> <td></td> <td>N/A</td> </tr> </tbody> </table>	GMA (Notched) 48.000x40.000x5.000			Shipper (ID)	Shipper (OD)	Unit Load (Incl. Pal)	Ln: 13.4375 in	13.7500 in	46.000 in	Wd: 11.1875 in	11.5000 in	39.000 in	Ht: 8.4375 in	9.0625 in	50.313 in	Net: 8.4375 in	6.0000 lb	330.000 lb	Gr: 6.7211 lb	6.7211 lb	434.661 lb	Cube: 0.7340 ft ³	0.8293 ft ³	52.234 ft ³	Height Vert			0.0000 in ³		0.0000 ft ³	Shipper:		55	Area Efficiency:	97.4 %	90.6 %	Cubic Efficiency:	71.3 %	80.5 %		0.0 %	0.0 %	Cases per layer:		11	Max UL High:		4	Clamp Direction:		N/A
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Clamp Direction:		N/A																																																		
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2. Open the File menu and select Package Profile. The Package Profile dialog box appears. Create a new Package Profile called Potato Chips 8oz Bag as pictured in the next page.



The Package Profile dialog box allows you to add individual products to the package profile. Each product will appear on the profile by name, UPC, product code, declared weight and calculated gross unitload weight.

- **Pallet Spec:** Enter the specification number for the pallet style. By default, TOPS Pro suggests a unique spec ID.
 - **Description:** Enter a description of the package profile being created.
 - **Date:** Enter the current date to specify when the package profile was created.
 - **Customer Name:** Enter the name for the customer if desired.
 - **Product Name:** Select a product name associated with the package profile or type in the first few letters of the product.
 - **Note:** The drop-down list displays products that have been added to this profile. You will use this field to edit or delete a product.
 - **Master Number:** Enter the master number associated with the package profile.
 - **Note:** You can use this field for any numeric value. To rename the field, use the Text Modification dialog box. For more information, please refer to Appendix B, Dialog Boxes.
 - **Export File Name:** This is a reserved key.
 - **Clamp Direction:** Select the clamp direction associated with the package profile, if applicable.
 - **Note:** The printout will show clampability arrows on the unitload according to your input here. Unlike the clampable option on the UnitLoad Options dialog box, the clamp direction does not affect the calculations.
 - **Warehouse Stack Hgt:** Enter the maximum stacking height for your warehouse.
 - **Note:** Like the Master Number field, you can use this field for any numeric value by renaming it via the Tools/Language function.
 - **Comments:** Enter the text of any comments that are relevant to the package profile.
3. After completing the package profile parameters, click OK and TOPS Pro returns you to the Control Panel.
 4. Open the File menu, select Print Preview, then Package Profile. The Package Profile Specification Screen appears, as shown in the next illustration.



5. Click the Zoom button. TOPS Pro magnifies the Package Profile Specification Screen in Zoom mode.
6. Study the screen to make sure everything is as you want it. Make annotations and add graphics as necessary.
7. After completing any annotations or graphics, click the Close button. TOPS Pro takes you out of the Print Preview mode and back to the preceding screen.
8. Save your work to the database.

Add a Product to the Package Profile

To add a product to the package profile, start from the Package Profile dialog box and follow these instructions:


1. Go to the File menu and select Package Profile.
2. The Package Profile dialog with the description Potato Chips created earlier appears.

3. Click Add. The Specification Products dialog box appears, as pictured on the next page.

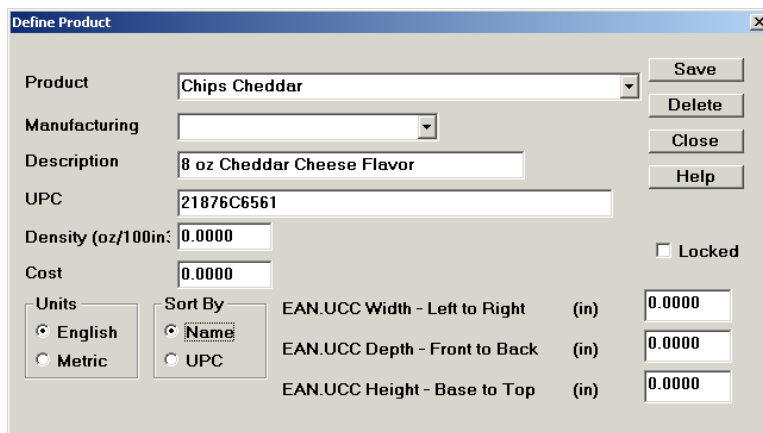
The Specification Products dialog box allows you to (1) add a product to the package profile or (2) define parameters for a new product to be added to the Product Name drop-down list.

Note: For detailed information about the Specification Products dialog box, please refer to Appendix B, Dialog Boxes.

4. If the product you want to add is not on the list, you can add it to the database by clicking on the New Product button. The Define Product dialog box appears.
5. Add a new Product Chips Original as pictured below.

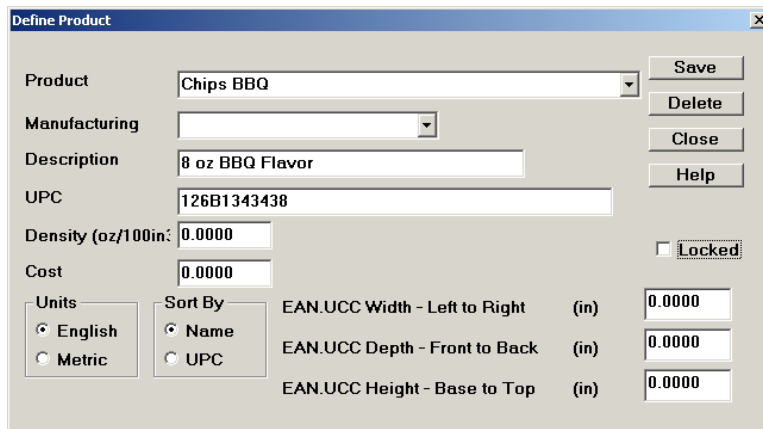
 **Note:** For detailed information about the Define Product dialog box, please refer to Appendix B, Dialog Boxes.

6. After completing the Define Product dialog box, click Save. TOPS Pro saves your new product parameters to the database.
7. Add Chips Cheddar and Chips BBQ in the Define Product dialog box as pictured on the next page and click Save to save the new products to the database.



The screenshot shows the 'Define Product' dialog box with the following fields and values:

Product	Chips Cheddar	Save
Manufacturing		Delete
Description	8 oz Cheddar Cheese Flavor	Close
UPC	21876C6561	Help
Density (oz/100in:	0.0000	<input type="checkbox"/> Locked
Cost	0.0000	
Units	Sort By	EAN.UCC Width - Left to Right (in) 0.0000
<input checked="" type="radio"/> English	<input checked="" type="radio"/> Name	EAN.UCC Depth - Front to Back (in) 0.0000
<input type="radio"/> Metric	<input type="radio"/> UPC	EAN.UCC Height - Base to Top (in) 0.0000



The screenshot shows the 'Define Product' dialog box with the following fields and values:

Product	Chips BBQ	Save
Manufacturing		Delete
Description	8 oz BBQ Flavor	Close
UPC	126B1343438	Help
Density (oz/100in:	0.0000	<input type="checkbox"/> Locked
Cost	0.0000	
Units	Sort By	EAN.UCC Width - Left to Right (in) 0.0000
<input checked="" type="radio"/> English	<input checked="" type="radio"/> Name	EAN.UCC Depth - Front to Back (in) 0.0000
<input type="radio"/> Metric	<input type="radio"/> UPC	EAN.UCC Height - Base to Top (in) 0.0000

8. After defining all new products, click Close to return to the Specification Products dialog box.
9. The last product added, Chips BBQ will appear in the Specifications Products dialog, click OK to add this to the Package Profile as pictured next.

- To add the other two chips to the Package Profile, click the Add Product button to open the Specification Products dialog box. Click the drop-down list to select Chips Cheddar as pictured below and click OK to add the product to the profile.

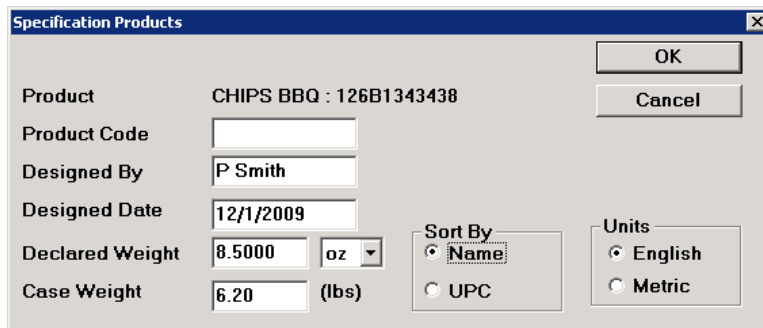
- Repeat step 9 to add Chips Original to the profile.
- When you are back at the Package Profile, click the Product Name as pictured below and you will see all three chip variations are added to the profile.

- Click OK to close the Package Profile dialog box. TOPS Pro saves the new package profile to the database.

Edit a Product in the Package Profile

This feature allows you to select and edit a product in the package profile. To edit a product, start from the Package Profile dialog box and follow these instructions:

1. The current Package Profile “Potato Chips 8oz Bad” will be opened with 3 chips variations already added.
2. To edit Chip BBQ, select it under the Product Name drop-down list and click the Edit button.
3. Enter more details or make necessary changes for the Chips BBQ as pictured below and click OK to save.



The screenshot shows a dialog box titled "Specification Products" with the following fields and options:

- Product:** CHIPS BBQ : 126B1343438
- Product Code:** [Empty text box]
- Designed By:** P Smith
- Designed Date:** 12/1/2009
- Declared Weight:** 8.5000 [oz dropdown]
- Case Weight:** 6.20 (lbs)
- Sort By:** Name, UPC
- Units:** English, Metric

Buttons for "OK" and "Cancel" are located in the top right corner.

4. TOPS Pro saves your changes to the database and redisplay the Package Profile dialog box. Click OK to close the Package Profile dialog box.
5. Go to the Print menu and select Print Preview and then Package Profile.
6. The new report will now include the 3 chip variations together with the declared and case weights for Chip BBQ updated as pictured on the next page.

Preview: Pallet Specification -- Chips

Close
Zoom
Print
Email

Package Profile Specification Date Created: 1/1/2010
Specification No: 13 Master Number:
Description: Potata Chips 8oz Bag Page 1

Dr. TOPS 6.0

Pallet Statistics

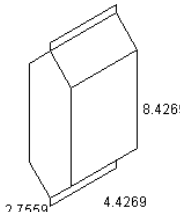
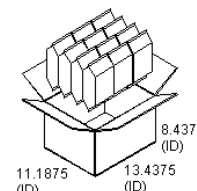
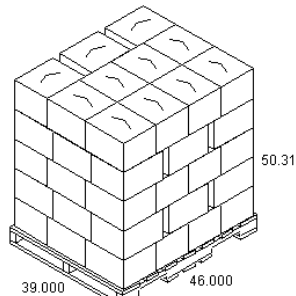
Bags/Case: 12
Bags/Pallet: 660
Cases/Layer: 11
Layer/Pallet: 5
Cases/Pallet: 55
Cases Cube: 0.83ft3
Case Flute: C
Unit Load Cube: 55.90ft3
Area Efficiency: 90.6%
Cubic Efficiency: 80.5%
Stacking height: 4

Products

UPC	Product Code	Product Name	Decl Weight	Case Weight	Pallet Weight
1296Z12466		Chips Original - 8 oz Original Flavor	0.0000 oz	0.00	65.00
21876C6561		Chips Cheddar - 8 oz Cheddar Cheese Flavor	0.0000 oz	0.00	65.00
126B1343438		Chips BBQ - 8 oz BBQ Flavor	8.5000 oz	6.20	406.00

Approval:

Manual	Signature	Date
Product Supervisor:		

Pallet: GMA (Notched) 48.000x40.000x5.000

Remove a Product from the Package Profile

This feature removes a product from the pallet specification in the package profile. To remove a product, start from the Package Profile dialog box and follow these instructions:

1. Use the Product Name drop-down list to select the product you want to remove.
2. Click the Remove Product button. TOPS Pro asks this question: "Remove product "XXX" from Pallet Specification?"
3. To remove the product from the package profile, click OK. TOPS Pro removes the product from the package profile and updates the database.

11

Reports and Printing

TOPS Pro provides a lot of flexibility in the way you design and print analysis output. When you have completed an analysis and decided on a solution, TOPS Pro allows you to print a hard copy of the information that went into the analysis. For a package profile and pallet report, you can print to print a pre-defined report.

You can use the Print function under the File menu to send the report directly to the printer. It is recommended to use the Print Preview function under the File menu to design the layout and preview the output before sending it to the printer or other formats like JPEG or PDF.

This chapter walks you through the following print features and functions:

- Print Preview for an analysis, including how to define print parameters
- Print Preview for Pallet Report
- Print Preview for a package profile
- Add text to Print Preview
- Add a graphic image to Print Preview
- Edit a graphic image in Print Preview
- The Quick Print feature
- The Pallet Report feature
- The Combined Report feature
- Printer width

Print Preview – Analysis

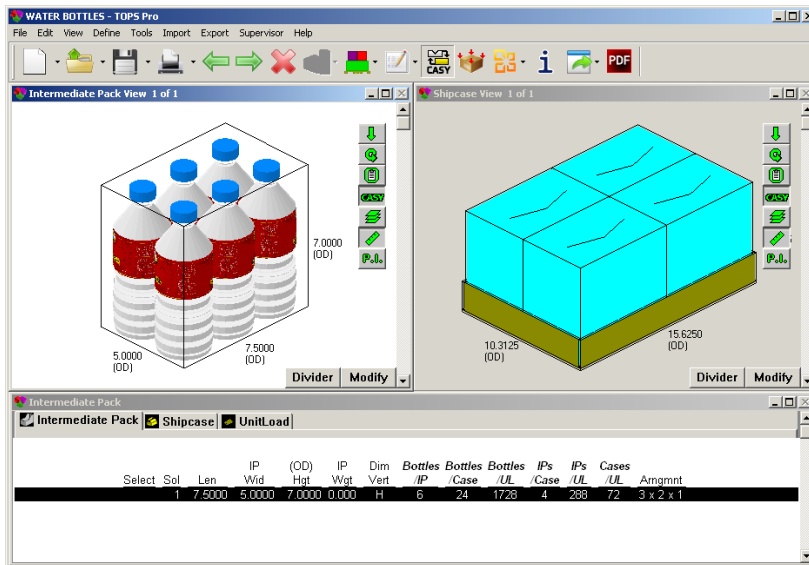
After you have selected a solution for an analysis, you are ready to print the output of that analysis. This section explains how to design the layout of the printout, then define the type of information to be included and how to present that information (different graphical views, text and numbers, etc.).


In this example, we will open an existing sample analysis from the TOPS Pro software and design the printed output to have the following characteristics:

- The output will have a 5-Way Down page layout.
- The heading will read “Print Example.”
- The five areas of the printout will show graphics of the primary package, intermediate package 3D view, shipcase 3D view, unitload 3D view plus the statistics for the unitload.
- The bottom of the printout will show text “Shrink-wrapped 6-pack bottled water.”

To start, follow these steps:

1. Go to the Menu Bar and open the File menu, select Open and highlight “Water Bottles” at the bottom of the Analyses in Main Folder and click Open.
2. The analysis with a previously saved solution will be opened and displayed in the analysis view as pictured below.



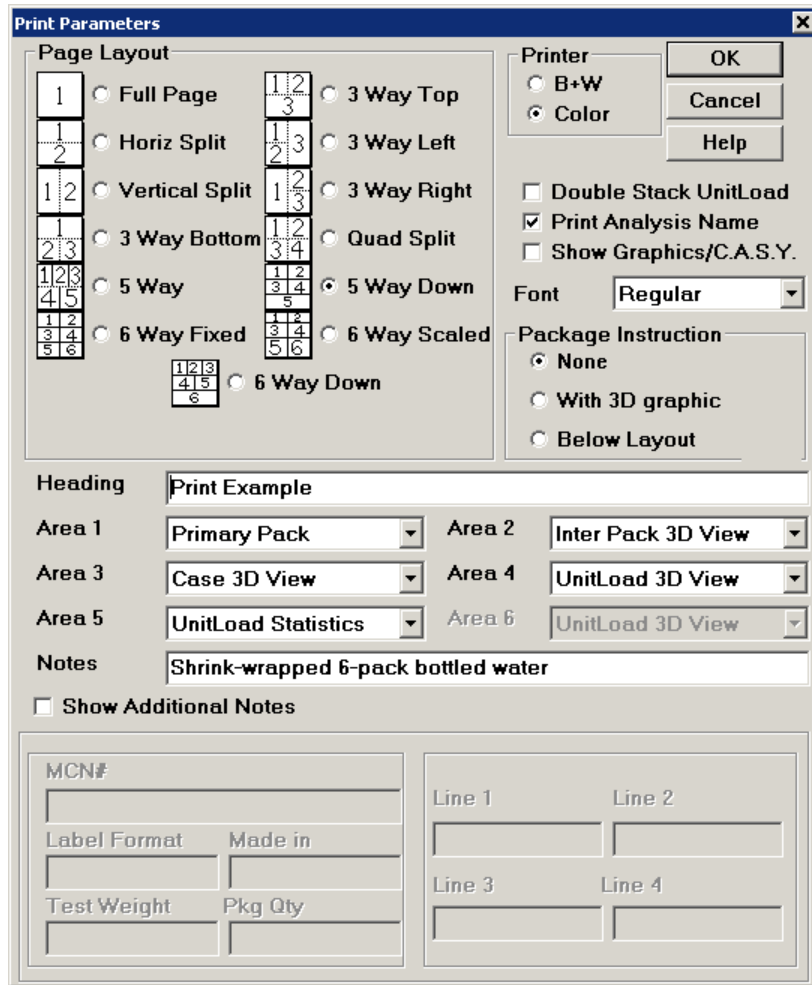
 **Note:** If your screen layout is different from what is displayed here, please change it by going to the toolbar, select View Menu and then Split screen.

- To preview a report, go to the File menu, select Print Preview, then select Analysis. The Print Parameters dialog box appears.

Define Print Parameters

The Print Parameters dialog allows you to design the layout of the output, for instance what type of information will be included.

Enter the print parameters as described earlier and click OK to generate the preview of the color report as pictured on page 176.



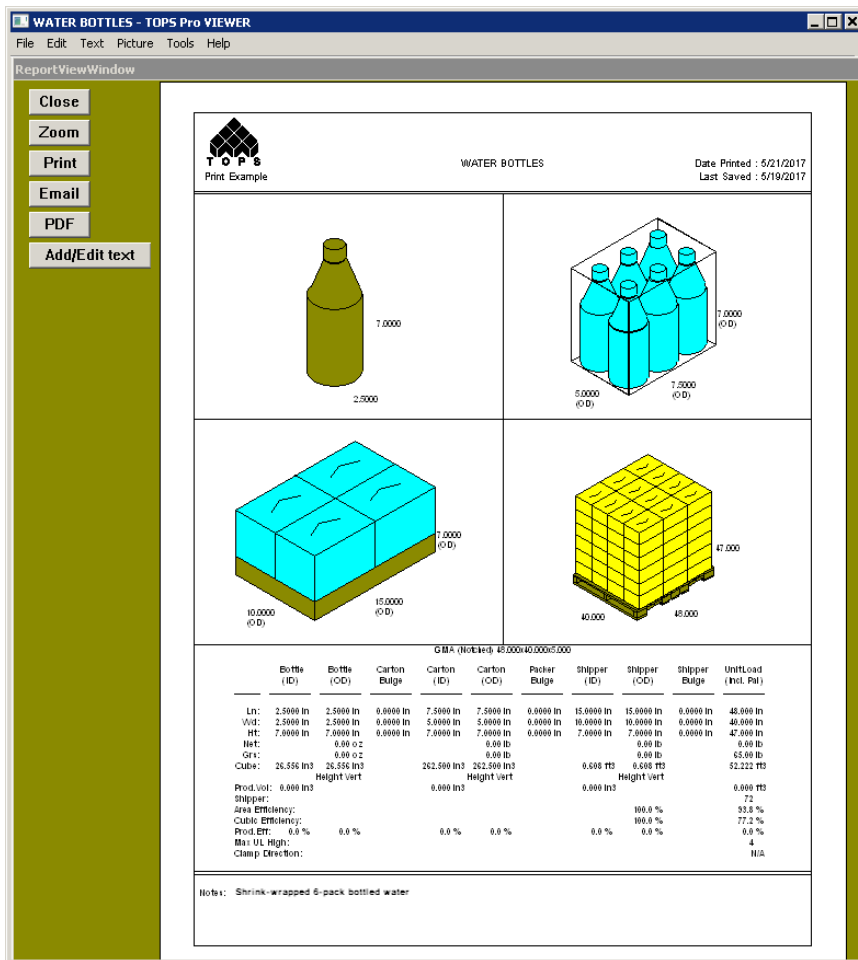
The Print Parameters dialog box is organized into the following sections:

- **Page Layout:** Select one of 13 possible page layouts as illustrated.
- **Heading:** Enter the text of the heading that will appear at the top of the printout.
- **Areas 1 through 6:** Select what graphics or statistics you want in each of these areas in the report. The graphic views and data available from the drop list depend on your current design sequence.
- **Note:** Be aware that the number of areas available to select from depends on the page layout you selected. For example, if you selected the Horizontal Split layout, which contains two sections, you will be able to select from only two areas.
- **Notes:** You can type any text notes and they will appear at the bottom of the printout.
 - 👉 **Tip:** To force the text to wrap to the next line, type a left apostrophe (') at the end of the line of text.
- **Show Additional Notes:** Enter information about such as Label Format, Test Weight and Package Quantity.
- **Printer:** Select either Black and White (B+W) or Color printing.
- **Double Stack Unitload:** Print output as a double-stacked unitload.
- **Print Analysis Name:** Print the analysis name on the printout. This will appear at the top center

of the report.

- **Show Graphics/C.A.S.Y.:** Show graphics or CASY design in the printout.
 - 🔗 **Note:** If the analysis includes both graphics and a CASY design, the system will display the CASY design, not both.
- **Font:** Here you can select the font on the preview screen. The text can be displayed in the following 3 sizes.


Regular:	Helvetica	10 pt.
Small:	Helvetica	8 pt.
Very Small:	Helvetica	6 pt.
- **Package Instruction:** Select whether to include previously defined package instructions in the printout for each stage of the design sequence. When included, specify whether to show them with the 3D graphics or in the packaging section after the different print areas.



Notice the following things about the Print Preview panel:

- This zoom-out state is a rough approximation of the actual printout. For a more accurate view, zoom in.
- The **analysis name** appears in the top, center of the printout and reads “Water Bottles.”
- The **heading** appears in the top, left of the printout and reads “Print Example.”
- The **date** appears in the top, right of the printout. TOPS Pro automatically inserts both the date

printed and the date modified.

 **Note:** At this time, there is no way to exclude the date, user name or page number from the printout.

- **Area 1** displays a graphic of the Primary Pack
- **Area 2** displays a graphic of the Intermediate Pack 3D View together with the package instruction.
- **Area 3** displays a graphic of the Case 3D view and package instruction.
- **Area 4** displays a graphic of the UnitLoad 3D view and package instruction.
- **Area 5** displays statistics of the Unitload.
- The **Close button** takes you back to the analysis view.
- The **Zoom button** magnify the panel and get a closer, more detailed look at the output. Zoom also allows you to annotate your printout.
- The **Print button** sends the output to the selected printer.
- The **Email button** opens your mail application and attaches a standard printout as a (.jpg) to be emailed directly to another person.

 **Note:** For more information, please refer to Chapter 2, The Basics.

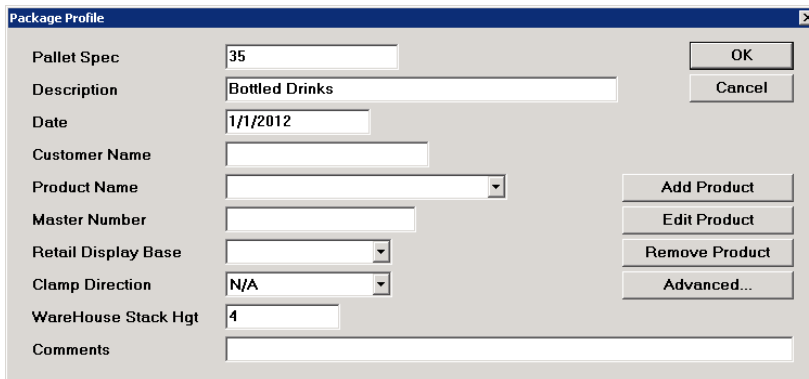
- The **PDF button** allows you to save the current report into a PDF file.
- The **Add/Edit text button** allows you add/edit annotation and/or simple lines and arrows to the output.

 **Note:** To change the logo in the report, please refer to page 2-37.

Print Preview – Package Profile

For a package profile, TOPS Pro allows you to print a pre-defined report. To display the Print Preview for a package profile, start from the Control Panel and follow these instructions:

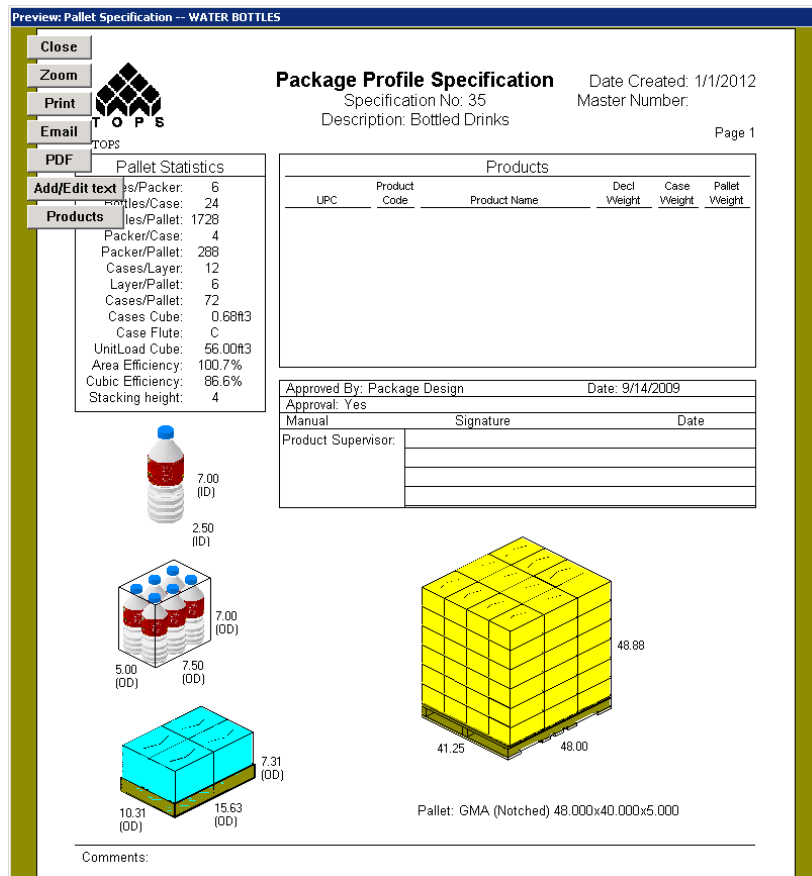
1. Go to the Menu Bar and open the File menu.
2. Select Print Preview, then select Package Profile. The Package Profile dialog box appears, as pictured below.



We are using the Water Bottles analysis in the previous example to create a package profile.

3. Use the following fields to enter package profile parameters. Use the Tab key to move from field to field. For the purpose of this example, we will enter the following parameters:
 - **Pallet Spec:** Enter the specification number for the pallet style. By default, TOPS Pro suggests a unique spec ID.
 - **Description:** Enter a description of the package profile being created.
 - **Date:** Enter the current date to specify when the package profile was created.
 - **Customer Name:** Enter a customer name for this product package profile if desired.
 - **Product Name:** Use the drop-down list to select a product name associated with the package profile or type in the first few letters of the product.
 - 📌 **Note:** The drop-down list displays products that have been added to this profile. You will use this field to edit or delete a product.
 - **Master Number:** Enter the master number associated with the package profile.
 - 📌 **Note:** You can use this field for any numeric value. To rename the field, use the Text Modification dialog box. Please refer to Appendix B, Dialog Boxes.
 - **Retail Display Base:** Not implemented.
 - **Clamp Direction:** Use the drop-down list to select the clamp direction associated with the package profile.
 - 📌 **Note:** The printout will show clampability arrows on the unitload according to your input here. Unlike the clampable option on the UnitLoad Options dialog box, the clamp direction does not affect the calculations.
 - **Warehouse Stack Hgt:** Enter the maximum stacking height for your warehouse.
 - 📌 **Note:** Like the Master Number field, you can use this field for any numeric value.

- **Comments:** Enter the text of any comments that are relevant to the package profile.
4. After completing the package profile parameters, click OK. The Print Preview panel appears, as pictured below.



Notice the following things about the Print Preview panel:

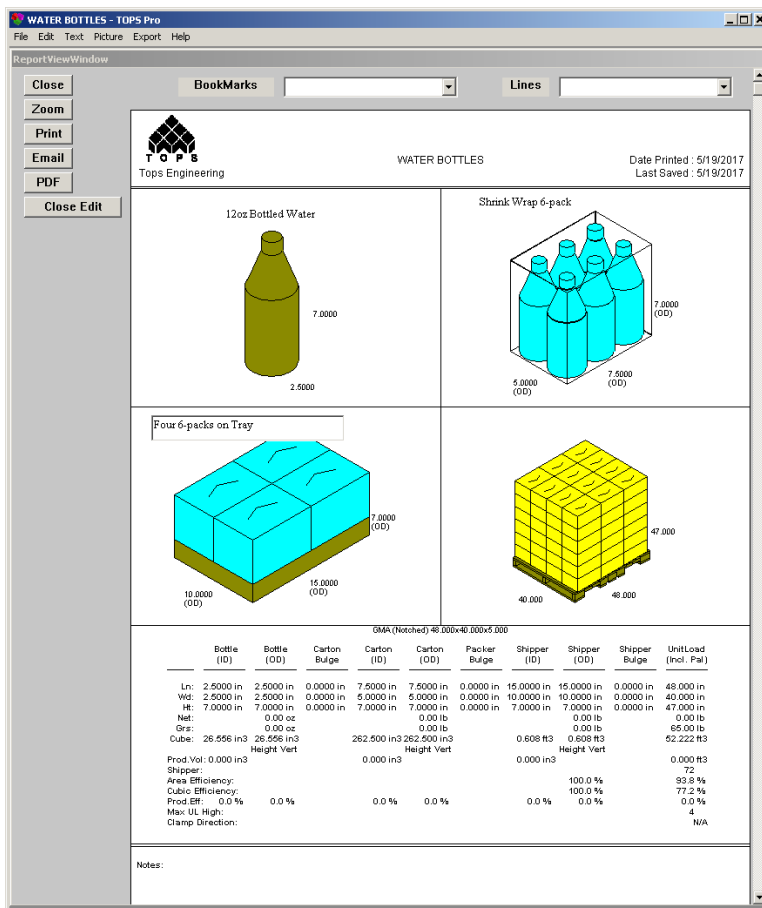
- The **pallet specification number, description, date created** and **master number** appear in the top of the printout. These items match the information you entered on the Package Profile dialog box.
 - A series of **pallet statistics** appears in the top, left of the printout.
 - The **Products section** displays a variety of information about the products included in the package profile.
 - A number of **graphic views** appear in the bottom and left portions of the panel.
 - The **Comments area** displays any comments you entered on the Package Profile dialog box.
 - The **Zoom button** allows you to magnify the panel and get a closer, more detailed look at the output.
 - The **Print button** sends the output to the printer.
 - The **Email button** saves the report as a JPEG and attaches it to your email client.
 - The **PDF button** Save the report to a PDF file in a specified directory.
 - The **Add/Edit text button** allows you add/edit annotation and/or simple lines and arrows to the output.
5. To print the output, click Print. The system sends the print preview output to the printer.

Annotate a Printout with Text

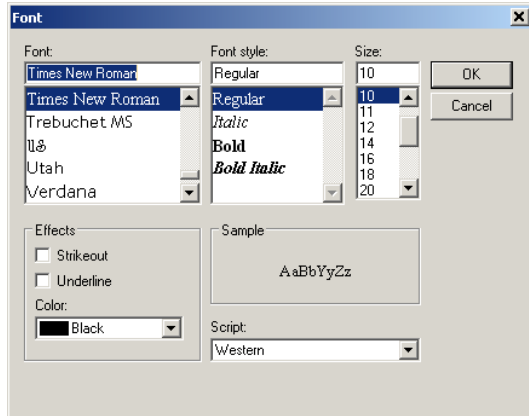
After you have designed and generated your analysis output or the package profile, the system allows you to annotate a printout with text before you print it. This allows you to customize and enhance the output's presentation.

To add text to the analysis output, start from the Print Preview panel and follow these instructions:

1. Click Add/Edit. The system magnifies the Print Preview panel.
2. Click on the area of the output where you want to enter text. The system displays a text input field (□). Type any text at the blinking cursor. Notice that you can “drag” the entry field to any position on the screen with the move cursor (⌘).
 - In Area 1 (primary pack), click above the graphic and enter this text: “12oz Bottled Water.”
 - In Area 2 (top right), click above the graphic and enter this text: “Shrink Wrap 6-pack.”
 - In Area 3 (bottom right), click above the graphic and enter this text: “Four 6-packs on Tray.”



4. To change the font and/or font size, highlight the text and click the right mouse button to access the Font menu. The Font dialog box appears, as pictured next.

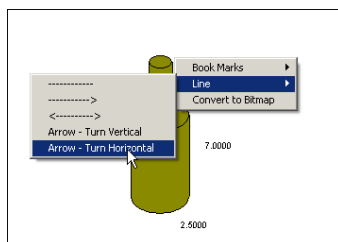


5. Use the Font dialog box to select the font, font style and/or size and click OK. TOPS Pro returns you to the Print Preview panel.
6. Drag the text fields so they are positioned where you want them.
7. After adding the text, click Print. The system sends the analysis output to the printer.

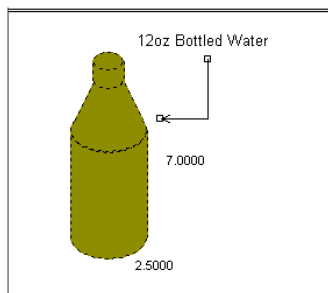
Insert Arrows or Lines on a Printout

To add lines or arrows on the printout, use the right-click menu or the Lines drop-down menu while in the Edit screen. Follow these steps to add arrows pointing the annotated texts added to the graphics in each area.

1. Click the right mouse button while in the zoom in or edit mode.
2. A small menu pops up, select Line and then Arrow, Turn Horizontal as pictured below.



3. Bring the mouse cursor starting from the annotated text towards the bottle as shown below.



4. Release the mouse button to add the turned arrow.

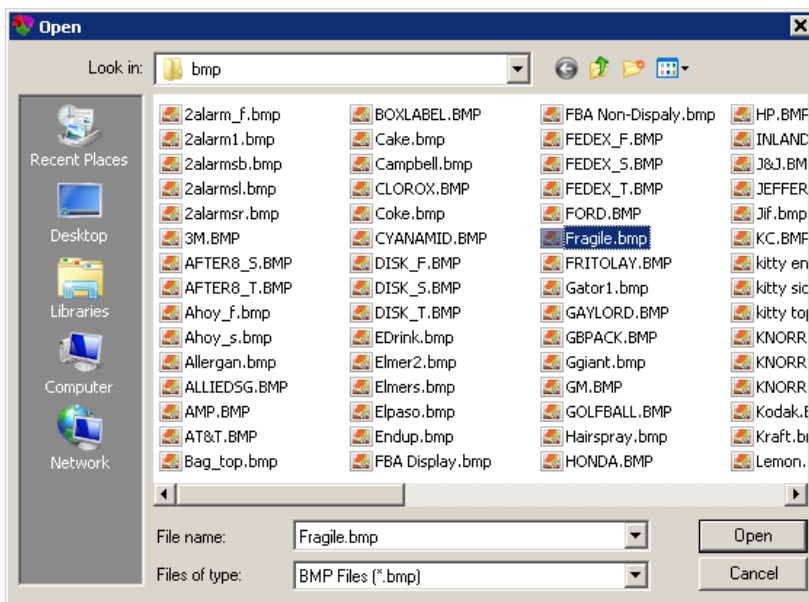
Use the same method to insert straight arrows or lines in the printout.

Annotate a Printout with External Graphics

After you have designed and generated your analysis output, the system allows you to add text or other graphics to the output before you print it. This allows you to customize and enhance the output's presentation.

To add a graphic image to the output, start from the Print Preview panel and follow these instructions:

1. Click Add/Edit to enter edit mode.
2. Go to the Menu Bar and open the Edit Menu.
3. Select Paste BMP File. The Open (File) dialog box appears.



Notice that this dialog box displays a list of bitmap files.

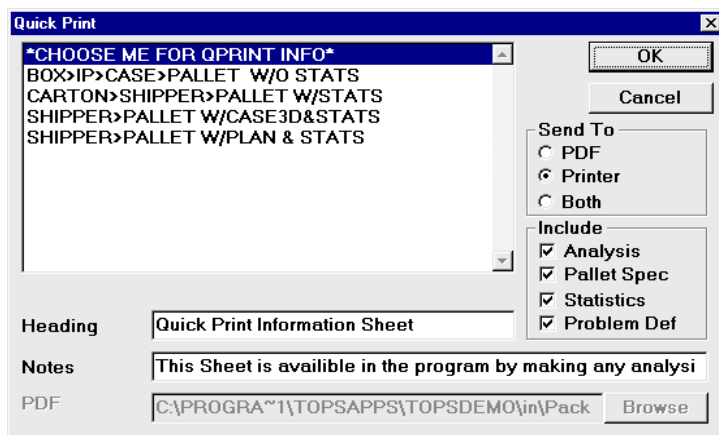
4. Select the tops.bmp file and click OK.
5. When the graphics appears on the Print Preview screen, you can drag the image with move cursor (↔) to the area where you want it to appear, or size it by dragging one of the four corners around the image.
6. After adding the graphic, click the Print button. The system sends the analysis output to the printer.
7. Click Close Edit to exit edit mode or click Close to leave Print Preview.

Quick Print

The Quick Print feature creates and uses a standardized printing template and print output for an analysis, based on the selected template. This feature allows you to print output for an analysis without manually defining parameters on the Print Parameters dialog box.

To print output using the Quick Print feature, start from the Analysis View and follow these instructions:

1. Go to the UnitLoad View and make sure it is the currently active pane with a highlighted title bar.
2. Click the Print button and select QPrint. The Quick Print dialog box appears, as pictured below.



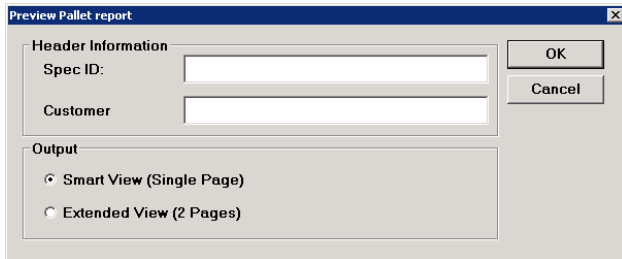
3. Select the template you want to use to print the analysis.
 - Note:** The window contains a list of standardized printing templates. Each template has a standard print output coded for it. This feature allows you to print output for an analysis without manually defining parameters on the Print Parameters dialog box. For information about creating Quick Print templates, please refer to Chapter 15, Supervisor Functions.
4. Use the following fields to enter Quick Print parameters. Use the Tab key to move from field to field.
 - **Send To:** Select an option (PDF, Printer or Both) to specify a print destination.
 - **Include:** Select one or more options (Analysis, Pallet Spec, Statistics, Problem Def) to specify what will be included in the printout.
 - **Heading:** Enter the text of the heading that will appear at the top of the printout.
 - **Notes:** Enter the text of any notes that will appear at the bottom of the printout.
 - **PDF:** If you select PDF or Both in the Send To field, use the Browse button to select a PDF file to print to.
 - Note:** This option is integrated with and requires the Adobe Acrobat software product. Without Acrobat, the PDF option will not work.
5. After completing the Quick Print parameters, click OK.

To create a Quick Print template, please refer to Chapter 15, Supervisor Functions.

Pallet Report

The Pallet Report has a predefined format and provides summary and efficiency data on the shipcase and pallet level of the analysis. In the Extended View, it includes the Wal-Mart efficiency factors for selling unit and pallet unit cube utilization.

1. With the analysis open, go to the File menu on the menu bar
2. Select Print Preview and then Pallet Report. The following dialog box will open.

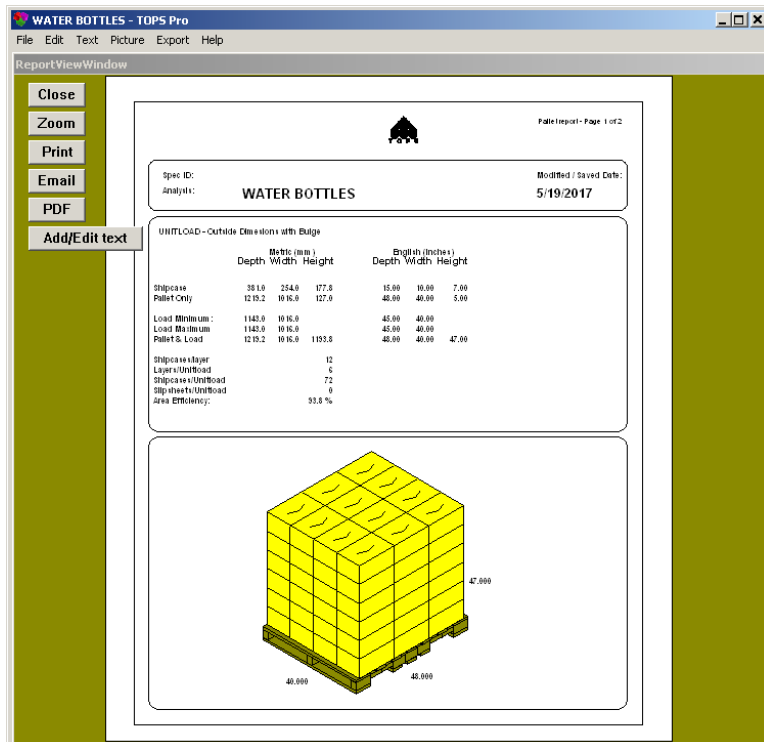


- **Spec ID:** Enter a code to identify the specification, if desired.
- **Customer:** Enter the customer name for the product, if applicable. This will be placed as the title for the report.

Output: Select between Smart View and Extended View for the report.

Pallet Report - Smart View

The Smart View is a single page report providing simple pallet load information including dimension of shipcase and overall dimension of the pallet load in both English and metric unit plus Ti-High details and a 3D illustration of the pallet load.



Pallet Report - Enhanced View

The Enhanced View provides a more comprehensive summary of the data together with efficiency data regarding shipcase and pallet utilization.

The first page outlines the physical structure of the unitload and Ti-High details. The second page details dimensions, weights for all items on the load as well as efficiency factors in area and volume usage and cube utilization.

ReportViewWindow
Pallet report - Page 2 of 3

Close

Zoom

Print

Email

PDF

Add/Edit text

Prev Page

Spec ID:
Analysis:
WATER BOTTLES
Modified / Saved Date:
5/19/2017

UNITLOAD - Outside Dimensions with Pallet

	Metric (mm)			English (Inches)		
	Depth	Width	Height	Depth	Width	Height
Product	0.0	0.0	0.0	0.00	0.00	0.00
Primary Pack	68.6	68.6	177.8	2.69	2.69	7.00
Inner Pack	190.6	127.0	177.8	7.50	5.00	7.00
Shipcase	361.0	264.0	177.8	14.20	10.39	7.00
Pallet Only	1219.2	1016.0	127.0	48.00	40.00	5.00
Load Minimum:						
Load Maximum:						
Pallets Load	1219.2	1016.0	1193.0	48.00	40.00	47.00

UNITLOAD - Weight

	kg		lb	
	Net	Gross	Net	Gross
Product	0.00	0.00	0.00	0.00
Primary Pack	0.00	0.00	0.00	0.00
Inner Pack	0.00	0.00	0.00	0.00
Shipcase	0.00	0.00	0.00	0.00
Pallet Only		29.48		65.00
Load Only		0.00		0.00
Pallets Load	0.00	29.48	0.00	65.00

EFFICIENCY FACTORS

Max Unitload: 1295.4 mm
Height: 61.00 In

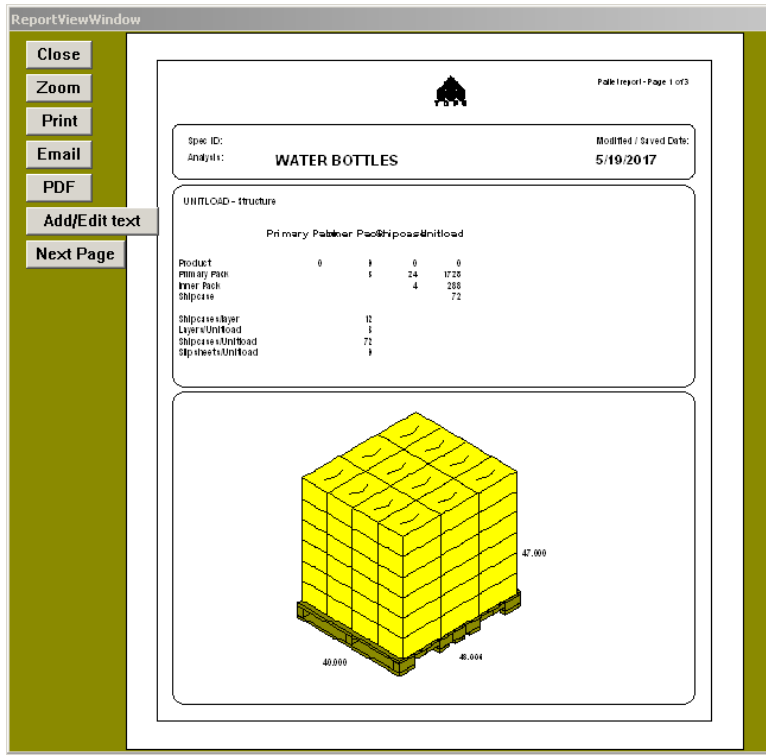
Area Efficiency: 84 %
Volume Eff: 77 %

Product Cube: 0.00 mm³
Primary Pack Cube: 436179.00 mm³
Shipcase Cube: 26,566 In³
Shipcase Cube: 17206418.00 mm³
1060,000 In³

VOLUME EFFICIENCY FACTORS

Consumer Measuring Unit: 0

Shipping Unitcube Utilization: 0.00 %
Pallet Unitcube Utilization: 76.2 %

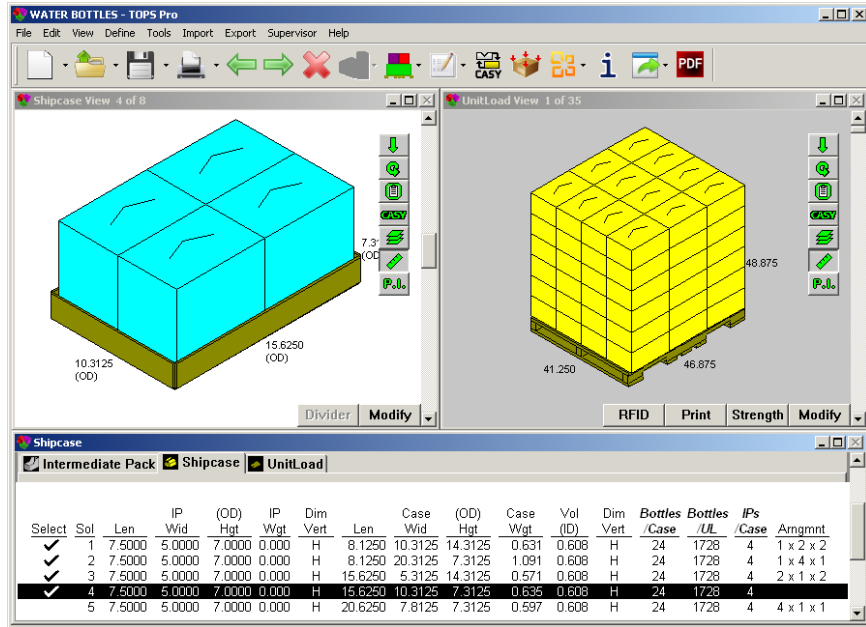


Combined Report: Compare Solution

The combined report function for solutions allows you to select up to five (5) solutions within the same stage of the analysis and place them side-by-side for comparison.

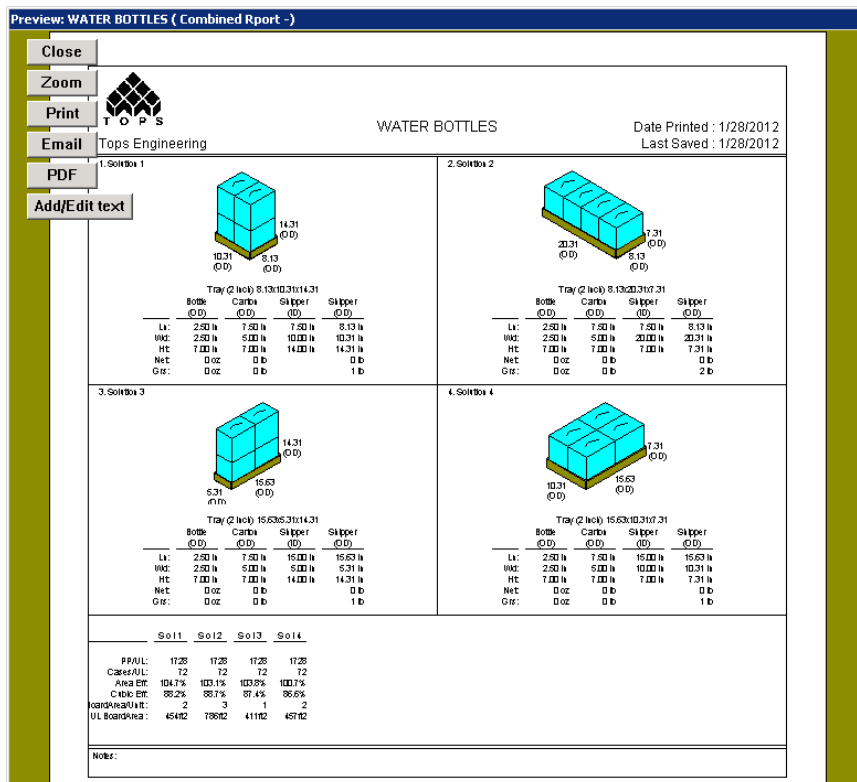
Using the same analysis Water Bottles as our example, we will create two combined reports, one at the shipcase stage and one at the unitload stage.

1. Go to the File menu, select Open option.
2. Highlight Water Bottles at the bottom of the Approved list and click OK to open.
3. Click the Cancel (✖) button on the tool bar to go access the Control Panel.
4. Click the Calc button to re-generate the solutions for the analysis.
5. Select the 6-pack (3x2x1) solution for the intermediate package and click Next (➡) on the tool bar to go to the shipcase stage of the analysis. There are four shipcase solutions.
6. We will select all four solutions to create a combined report. To select, double click on each analysis in the Solution List Pane until a check mark appears against each solution under the Select column on the far left as shown on the next page.

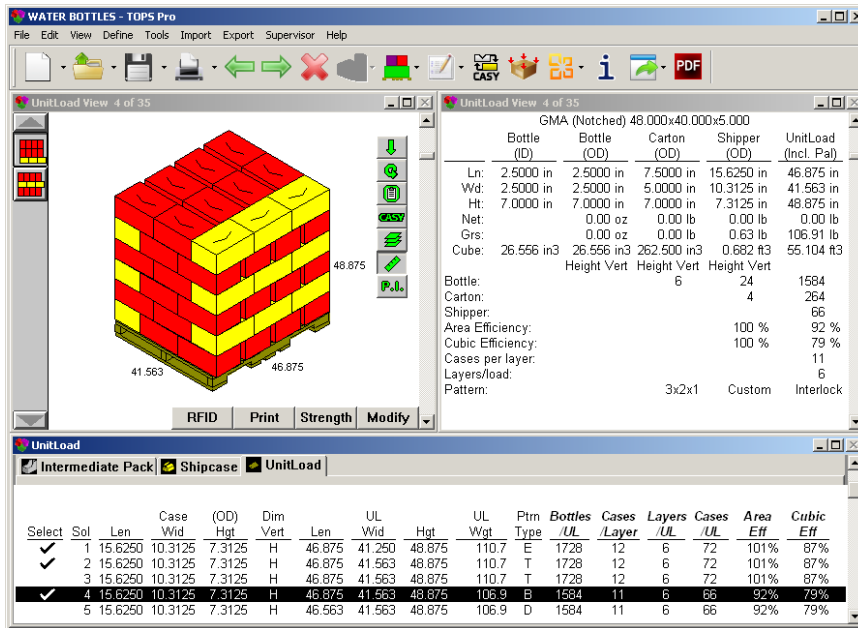


- With the four solutions selected, go to the File menu, select Print Preview, then Compare Solutions.
- The combined report, showing all four shipcase solutions, together with the comparison statistics for the shipcase, will be generated as shown here.

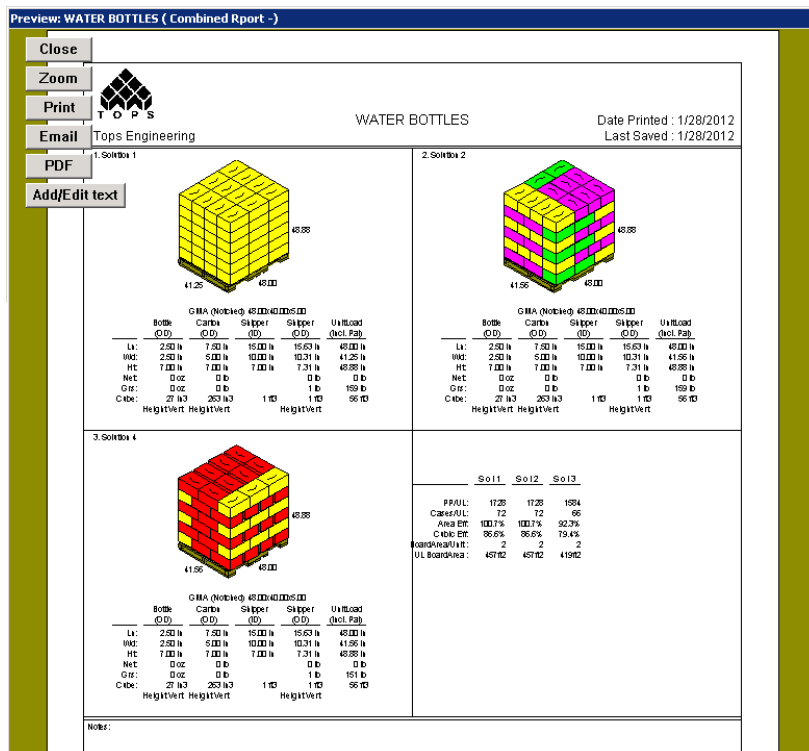
Note: You can also create the same report using the right click menu. With the mouse in the solution list pane as shown above, right-click the mouse button to access a pop-up menu, then select Preview Multiple Solution.



9. At the Print Preview screen, you can print, email or edit as desired.
10. Click Close to return to the analysis view.
11. Let's select shipcase solution 4 and click Next (→) to move on to the unitload analysis.
12. At the unitload view screen, double click solutions 1, 2 and 4 as shown on the next page.



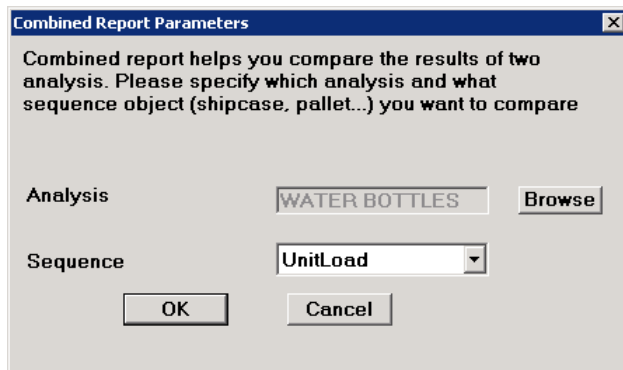
13. To create the combined report, go to the File menu, select print Preview, then Compare Solutions or use the right click menu as described in Step 8 to create the combined report pictured below.



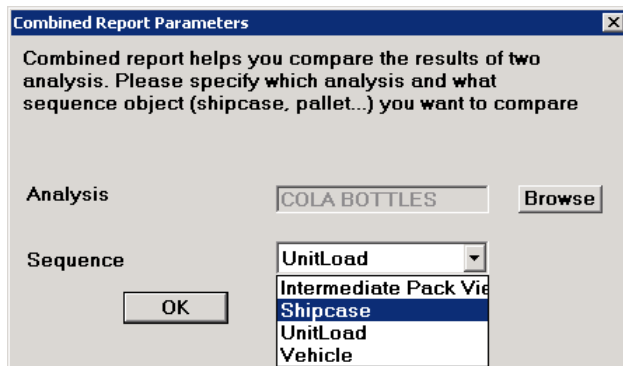
Combined Report: Compare Analysis

The combined report function places any two analyses side-by-side for comparison. Users can specify which sequence of the analysis (intermediate pack, shipcase or unitload) to appear in the report. To create a combined report to compare across analyses, follow these instructions.

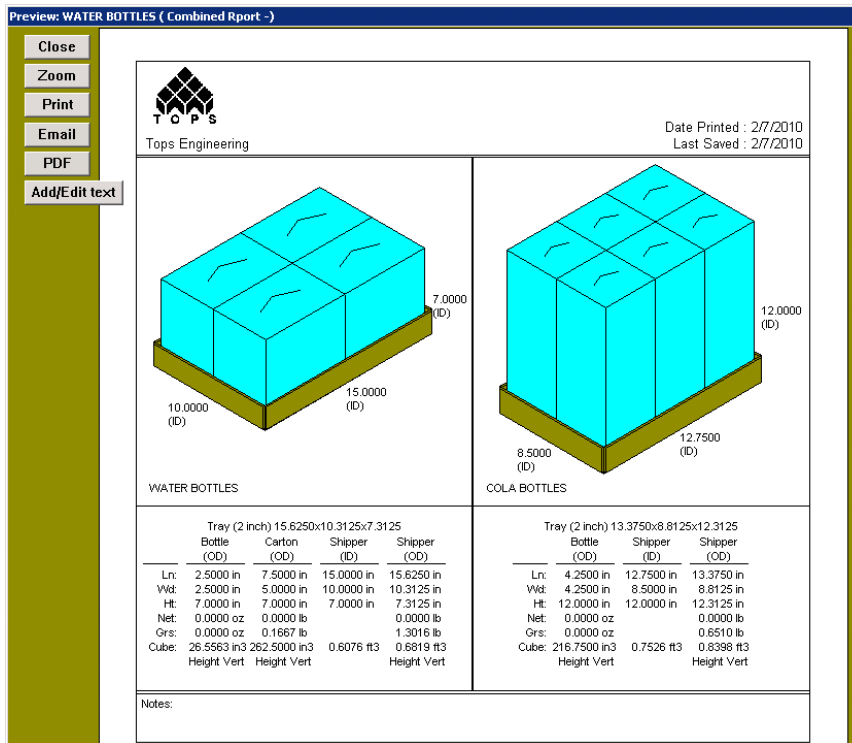
1. Go to the File menu, select Open the first analysis. In this example, highlight Water Bottles analysis from the list.
2. Go to File menu again, select Print Preview, then Combined Report.
3. The Combined Report Parameters dialog box, as pictured on the next page, will open.



4. **Analysis:** Click Browse to select a second analysis to compare.
5. **Sequence:** Select from the drop down list box the sequence to appear in the report.
6. Click Browse to select a second analysis for comparison. Here, select the Cola Bottles analysis from the list.
7. For the sequence for comparison, click the drop-down list to select Shipcase.





8. Click OK and the combined report will appear in the preview screen as pictured on the next page.
9. You can choose to edit, zoom, print or email from the comparison report preview.



Combined Report for Knocked-Down and Erected Boxes

Users can use the combined report to include both knocked-down and erected palletizations of a shipcase.

To use the Combined Report feature for this purpose, both analyses must have the same name, with one exception. At the end of the erected analyses name, put "{Box}" and at the end of the knocked-down analyses name, put "{KD}"; for example, Sample{Box} and Sample{KD}.

 **Note:** If the analysis has been saved with one of those two tags in the name, a button  appears on the Windows Tool bar to facilitate switching between the two analyses. (Note that this feature is not available to LoadStak licensees.)

To access this special Combined Report feature, follow these instructions:

1. Correctly name the analyses, using the guidelines above.
2. Use one of two options:
 - Open the File menu, select Print, then select Combined Report.
 - Open the File menu, select Print Preview, then select Combined Report.
3. The Combined Report Print Preview panel appears.
4. Annotate or add graphics as necessary.
5. After completing the annotations or graphics, click Print. TOPS Pro sends the Combined Report to the printer.

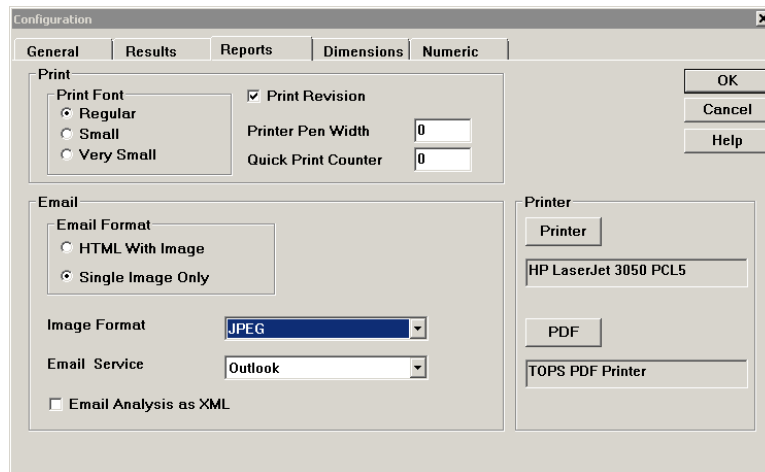
If you need assistance, contact TOPS Technical Support.

Printer Width

The printer width refers to the thickness of the lines in a graphic or text when you print an analysis. The default for printer width is zero, which is a hairline width. You might want to make the printed lines thicker; for example, to improve fax documents. **Note:** If the Show Graphics feature is turned on, the printer width will have no effect.

To change the printer width, follow these instructions:

1. From the Menu Bar, open the Tools menu.
2. Select Configuration and go to the Reports tab.



3. In the Printer Pen Width field, enter a value to specify the line thickness with which you want to print. A line thickness of 4-7 is usually a good width.
4. If you are satisfied with the printer width, click OK. The system saves the updated configuration to the database and returns you to the previous screen.

12 Designing Box Styles

TOPS Pro contains a number of pre-defined box styles in its database, but also allows you to design box styles to meet your unique needs. When you design a box style, you will use one of the following basic box drawing styles:

- Common Footprint Standard
- Display Case
- Display Tray
- HSC
- HSC with Top
- Octagonal
- RSC
- Shrinkwrap
- Shroud
- Solid
- Strap Bundle
- Tear Out
- Tray
- Tray/HSC
- Tuck
- Wrap Around

These basic box drawing styles are your starting point. Every box style in TOPS Pro is drawn as a variation of one of these nine box drawing types. However, note that thicknesses and export name are common to all box drawing styles. You will design a new box style primarily by revising the thicknesses built into the box style. This chapter provides guidelines for working with the nine basic box drawing styles.


General Guidelines

As you design box drawing styles in TOPS Pro, use the following guidelines:

Understand the assumed caliper of flutes.

The various flutes shipped with TOPS Pro and their corresponding calipers are listed in the table to the right. So, for a standard RSC there would be two thicknesses added along the length and width of a case, and four thicknesses added to the height of the case.

Assuming the case was constructed of C-flute material, this would result in an ID-to-OD adjustment of 5/16" (2 x 5/32") along the length and width, and 5/8" (4 x 5/32") added to the height.

 **Note:** If your company assumes that the ID/OD allowance for a C-flute RSC is 3/8", 3/8" and 3/4" instead of 5/16", 5/16" and 5/8", then you will most likely want to adjust the default caliper of C-flute from 5/32" to 3/16."

Shipped Flute Calipers

Flute	Caliper
A	0.18750
B	0.12500
C	0.15625
E	0.06300
F	0.06300
C/B	0.26700
A/C	0.26700
A/B	0.26700
E/B	0.00000

To do so, enter the TOPS Pro Configuration program, open the Define menu and select Flutes. On the Define Flute dialog box, change the thickness field to 3/16." All newly created work will use 3/16" for the caliper of the C-flute.

Calculate thicknesses for a standard box style.

For box styles that use only one type of material (a standard container), count the number of thicknesses in each direction: length, width and height. You will enter the number of thicknesses for each direction on the Define Case Styles dialog box. TOPS Pro will calculate the inside/outside thickness adjustment as the number of thicknesses x the caliper of the material.

Calculate thicknesses for a non-standard container

For a non-standard container (one that mixes materials), you will have to make some adjustments. For example, the thickness of a telescoping box style with mixed material is non-standard, with different calipers for the top and bottom box material. In this case, calculate the thicknesses as follows:

1. Measure the inside/outside dimensions of the box.
2. Calculate the difference between the inside/outside dimensions for all three directions: length, width and height.
3. Divide each direction by the thickness of the flute you plan to use for this box. (TOPS recommends the B-flute in that it is a nice round 1/8th of an inch thick).
4. The resulting value, including decimals, is the number of thicknesses along the length, width and height for the box drawing style.

If you need assistance with this process, please contact TOPS Technical Support.


Calculate thicknesses for a non-corrugated material.

Suppose you are designing a milk crate, with an open top and wall made of one-inch thick plastic. The difference between inside and outside dimensions is two inches along length and width, and one inch along the height. Assume you will use a B-flute when you use this box style. Calculate how many B-flutes will be big enough to account for the walls of the milk crate. Therefore, you will design the box with 16 thicknesses along the length and width and eight thicknesses along the height.

Select a drawing style.

As you design a box drawing style, the g.o.d. feature draws the box. You want the picture to be as accurate as possible to your finished product. On the Define Case Styles dialog box, go through the drawing styles and find the existing box style that best matches your needs.


Once you have selected the box style that comes closest to being drawn the way you would like, examine the drawing style and parameters and use them as a base for creating your new style. When designing a new box style, TOPS recommends that you give it a new description different than those shipped by TOPS. That way, when you upgrade, it will be possible to determine whether TOPS changed its data or you did.

 **Note:** Appendix E, Box Styles, assists you in selecting a drawing style. You may also print a database of box styles through the File menu, selecting Print Databases, then Box Styles. TOPS Pro will print all the box drawing styles in the database.

Box Style Drawing Parameters

In the following sections, the parameters to illustrate each box style will be explained. However, only the drawing parameters will be described. These common parameters at the top half of each dialog box will not be repeated for each style:

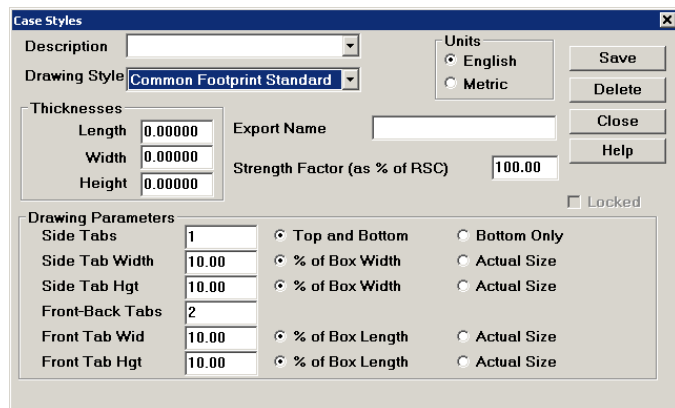
- **Description:** Enter the name for the box style.
- **Drawing Style:** Select the box style from the drop list used to illustrate the new box style created.
- **Thicknesses Length/Width/Height:** These are self-explanatory and you should enter the thicknesses along the length, width and height of the box.
- **Export Name:** Enter the export name for the new box style. (This is optional).
- **Strength Factor (as % of RSC):** Enter the stacking strength of the box, as a percentage, in relation to an RSC box.

 **Note:** The parameters in the following sections are drawing parameters only; they are not used in to construct the box style.

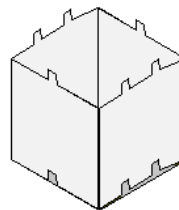
It is recommended to enable the g.o.d. window to see a depiction of the current box style. You will find this option under the Tools > Configuration Menu, under the General tab.

To design a box, go to the Define menu and select the Box Styles option:

Common Footprint Standard



The screenshot shows the 'Case Styles' dialog box with the 'Common Footprint Standard' style selected. The 'Description' field is empty. The 'Drawing Style' is set to 'Common Footprint Standard'. The 'Units' are set to 'English'. The 'Thicknesses' section shows Length, Width, and Height all set to 0.00000. The 'Export Name' field is empty. The 'Strength Factor (as % of RSC)' is set to 100.00. The 'Drawing Parameters' section includes: Side Tabs (1), Side Tab Width (10.00), Side Tab Hgt (10.00), Front-Back Tabs (2), Front Tab Wid (10.00), and Front Tab Hgt (10.00). The 'Top and Bottom' radio button is selected for Side Tabs, and '% of Box Width' is selected for Side Tab Width and Side Tab Hgt. For Front-Back Tabs, '% of Box Length' is selected for both Front Tab Wid and Front Tab Hgt. There are 'Save', 'Delete', 'Close', and 'Help' buttons on the right side of the dialog.

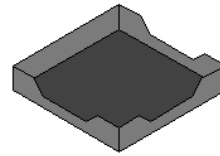


- **Side Tabs:** Select whether these tabs appear on the top and/or bottom side, then enter the number of tabs on the side of the box.
- **Side Tab Width and Height:** Select either Actual Size or % of Box Width, then enter the width and height of the tab.
- **Front-Back Tabs:** Enter the number of tabs on the front and back sides of the box.
- **Front-Back Tab Width and Height:** Select either Actual Size or % of Box Length, then enter the width and height of the tab.

Display Case

The 'Case Styles' dialog box for 'Display Case' includes the following settings:

- Description: [Dropdown]
- Drawing Style: Display Case
- Units: English (selected), Metric
- Thicknesses: Length 0.00000, Width 0.00000, Height 0.00000
- Export Name: [Text Box]
- Strength Factor (as % of RSC): 100.00
- Locked:
- Drawing Parameters:
 - Tray Height: 2.0000 (Actual Size selected, % of Box Height unselected)
 - Show Window on: Front only (selected), Front and Back unselected
 - Show Window on: Left and Right sides (selected), None unselected
 - Window Height: 30.00 (% of Tray Height selected, % of Length/Width unselected)
 - Top Width: 60.00 (% of Length/Width selected, % of Length/Width unselected)
 - Bottom Width: 40.00 (% of Length/Width selected, % of Length/Width unselected)

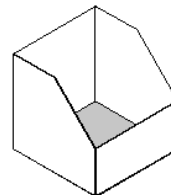


- **Tray Height:** Select either Actual Size or % of Box Height, then enter a value to define the size of the tray height.
- **Window:** Select Front only, Front and Back, Left and Right sides or None to define which sides will be lowered for display purposes.
- **Window Height:** Defines what portion of the sides will be lowered.
- **Top Width:** Defines what the top width of the side.
- **Bottom Width:** Defines the bottom width of the side.

Display Tray

The 'Case Styles' dialog box for 'Display Tray' includes the following settings:

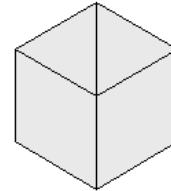
- Description: [Dropdown]
- Drawing Style: Display Tray
- Units: English (selected), Metric
- Thicknesses: Length 0.00000, Width 0.00000, Height 0.00000
- Export Name: [Text Box]
- Strength Factor (as % of RSC): 100.00
- Locked:
- Drawing Parameters:
 - Tray Height: 50.00 (% of Box Height selected, Actual Size unselected)
 - Tray Width: 50.00 (% of Box Width selected, Actual Size unselected)



- **Tray Height:** Select either Actual Size or % of Box Height, and enter a value to define the size of the tray height.
- **Tray Width:** Select either Actual Size or % of Box Height, and enter a value to define the width of the tray.

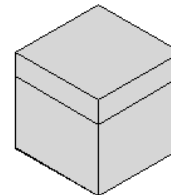
HSC

The screenshot shows the 'Case Styles' dialog box with the 'Drawing Style' set to 'HSC'. The 'Thicknesses' section has Length, Width, and Height all set to 0.00000. The 'Strength Factor (as % of RSC)' is set to 100.00. The 'Units' section has 'English' selected. The 'Drawing Parameters' section is empty. Buttons for Save, Delete, Close, and Help are visible.



HSC with Top

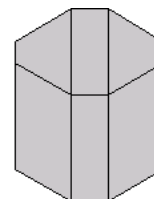
The screenshot shows the 'Case Styles' dialog box with the 'Drawing Style' set to 'HSC with top'. The 'Thicknesses' section has Length, Width, and Height all set to 0.00000. The 'Strength Factor (as % of RSC)' is set to 100.00. The 'Units' section has 'English' selected. The 'Drawing Parameters' section has 'Cover Height' set to 0.00 and '% of Box Height' selected. Buttons for Save, Delete, Close, and Help are visible.



- **Cover Height:** Enter the height of the cover as an overall percentage of the box.

Octagonal

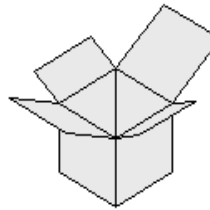
The screenshot shows the 'Case Styles' dialog box with the 'Drawing Style' set to 'Octagonal'. The 'Thicknesses' section has Length, Width, and Height all set to 0.00000. The 'Strength Factor (as % of RSC)' is set to 100.00. The 'Units' section has 'English' selected. The 'Drawing Parameters' section has 'Cut off Length' set to 30.00, '% of Box Width' selected, and 'Covered?' set to 'No'. Buttons for Save, Delete, Close, and Help are visible.



- **Cuff off Length:** Enter the length for the cut off (measured from the corner of a rectangular box) to make the octagonal box. Specify if the cut off length is in actual size (inches if in English and mm if in Metric) or as a percentage of the box width. For the latter option, it should be less than 50%.
- **Covered:** Specify whether the box has a cover or not by clicking the corresponding radio button.

RSC

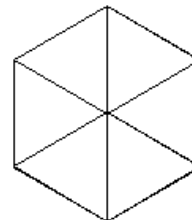
The screenshot shows the 'Case Styles' dialog box with the 'RSC' drawing style selected. The 'Description' field is empty. The 'Units' section has 'English' selected. The 'Thicknesses' section has 'Length', 'Width', and 'Height' all set to 0.00000. The 'Export Name' field is empty. The 'Strength Factor (as % of RSC)' is set to 100.00. The 'Drawing Parameters' section is expanded, showing 'Major Flap' (0.0000), 'Minor Flap Length' (100.00), 'Back Flap Angle' (30.5), 'Front Flap Angle' (30.5), and 'Minor Flap Angle' (53.26). The 'Flap Gap' is selected as '% of Box Width'. The 'Back Flap Angle' is selected as 'Degrees'. The 'Front Flap Angle' is selected as 'Degrees'. The 'Minor Flap Angle' is selected as 'Degrees'. The 'Locked' checkbox is unchecked.



- **Major Flap:** Select either % of Box Width or % of Box Length, then enter a value to define the size of the major flap.
- **Minor Flap:** Select either Flap Gap or % of Box Width, then enter a value to define the size of the minor flap.
- **Back Flap Angle:** Select either Degrees or Radians, then enter a value to define the back flap angle.
- **Front Flap Angle:** Select either Degrees or Radians, then enter a value to define the front flap angle.
- **Minor Flap Angle:** Select either Degrees or Radians, then enter a value to define the minor flap angle.

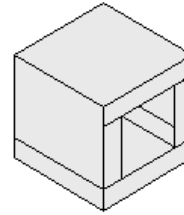
Shrinkwrap

The screenshot shows the 'Case Styles' dialog box with the 'Shrinkwrap' drawing style selected. The 'Description' field is empty. The 'Units' section has 'English' selected. The 'Thicknesses' section has 'Length', 'Width', and 'Height' all set to 0.00000. The 'Export Name' field is empty. The 'Strength Factor (as % of RSC)' is set to 100.00. The 'Drawing Parameters' section is collapsed. The 'Locked' checkbox is unchecked.



Shroud

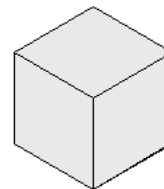
The screenshot shows the 'Case Styles' dialog box with the 'Shroud' drawing style selected. The 'Description' field is empty. The 'Units' section has 'English' selected. The 'Thickenesses' section has 'Length', 'Width', and 'Height' all set to 0.00000. The 'Export Name' field is empty. The 'Strength Factor (as % of RSC)' is set to 100.00. The 'Drawing Parameters' section has 'Tray Height' set to 2.0000 with 'Actual Size' selected. 'Shroud Opening' has 'Along Length' selected. 'Upper Bar Width' is set to 2.0000 with 'Actual Size' selected. 'Side Bar Width' is set to 2.0000 with 'Actual Size' selected. There are buttons for 'Save', 'Delete', 'Close', and 'Help', and a 'Locked' checkbox.



- **Tray Height:** Select either Actual Size or % of Box Height, then enter a value to define the size of the tray height.
- **Shroud Opening:** Select either Along Width or Along Length to specify where the shroud opening will appear.
- **Upper Bar Width:** Select either Actual Size or % of Box Height, then enter a value to define the size of the upper bar width.
- **Side Bar Width:** Select either Actual Size or % of Box Height, then enter a value to define the size of the side bar width.

Solid

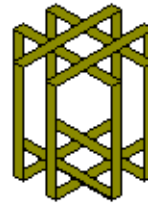
The screenshot shows the 'Case Styles' dialog box with the 'Solid' drawing style selected. The 'Description' field is empty. The 'Units' section has 'English' selected. The 'Thickenesses' section has 'Length', 'Width', and 'Height' all set to 0.00000. The 'Export Name' field is empty. The 'Strength Factor (as % of RSC)' is set to 100.00. The 'Drawing Parameters' section has 'Show Ends' and 'Show Sides' both with 'No' selected. There are buttons for 'Save', 'Delete', 'Close', and 'Help', and a 'Locked' checkbox.



- **Shows Ends:** Select Yes to display the ends of the box.
- **Show Sides:** Select Yes to display the sides of the box.

Strap Bundle

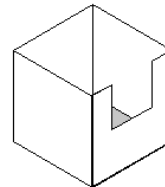
The screenshot shows the 'Case Styles' dialog box with the 'Strap Bundle' drawing style selected. The 'Description' field is empty. The 'Units' section has 'English' selected. The 'Thicknesses' section has 'Length', 'Width', and 'Height' all set to 0.00000. The 'Export Name' field is empty. The 'Strength Factor (as % of RSC)' is set to 100.00. The 'Drawing Parameters' section has 'Length Straps' set to 2, 'Width Straps' set to 2, and 'Strap Width' set to 1.00. The 'Locked' checkbox is unchecked. Buttons for 'Save', 'Delete', 'Close', and 'Help' are visible on the right.



- **Length Straps:** Enter a value to define number of straps along the length of the box.
- **Width Straps:** Enter a value to define the number of straps along the width of the box.
- **Strap Width:** Enter a value to define the width of the straps.

Tear Out

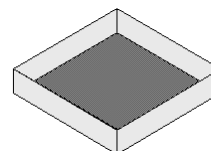
The screenshot shows the 'Case Styles' dialog box with the 'Tear Out' drawing style selected. The 'Description' field is empty. The 'Units' section has 'English' selected. The 'Thicknesses' section has 'Length', 'Width', and 'Height' all set to 0.00000. The 'Export Name' field is empty. The 'Strength Factor (as % of RSC)' is set to 100.00. The 'Drawing Parameters' section has 'Tray Width' set to 50.0000, 'Tray Height' set to 50.0000, and radio buttons for '% of Box Width', '% of Box Height', 'Actual Size', and 'Actual Size'. The 'Locked' checkbox is unchecked. Buttons for 'Save', 'Delete', 'Close', and 'Help' are visible on the right.




- **Tray Width:** Select either Actual Size or % of Box Height, then enter a value to width of the tear-out portion of the tray.
- **Tray Height:** Select either Actual Size or % of Box Height, then enter a value to define the height of the tear-out portion of the tray.

Tray

The screenshot shows the 'Case Styles' dialog box with the 'Tray' drawing style selected. The 'Description' field is empty. The 'Units' section has 'English' selected. The 'Thicknesses' section has 'Length', 'Width', and 'Height' all set to 0.00000. The 'Export Name' field is empty. The 'Strength Factor (as % of RSC)' is set to 100.00. The 'Drawing Parameters' section has 'Tray Height' set to 2.0000, and radio buttons for 'Actual Size' and '% of Box Height'. The 'Locked' checkbox is unchecked. Buttons for 'Save', 'Delete', 'Close', and 'Help' are visible on the right.

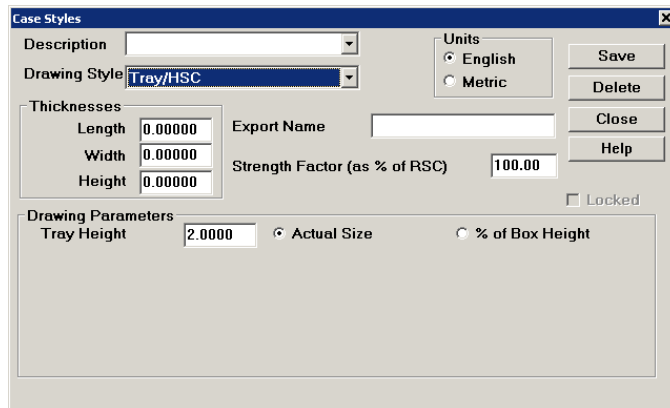


- **Tray Height:** Select either Actual Size or % of Box Height, then enter a value to define the size of the tray height.

 **Note:** When filling trays designed with this box drawing style, TOPS Pro will automatically size the height of the tray to match the height of the product within the tray, plus the thicknesses along the tray height.

Also, if the resulting height of the tray being designed is smaller than the specified height of the tray walls, TOPS Pro will reduce the drawn height of the walls. That is, if you put a two-inch-high product into a three-inch-height tray, the walls will be only two inches high (actually two inches plus the number of thicknesses of the material at the chosen caliper).

Tray/HSC



Case Styles

Description: []

Drawing Style: **Tray/HSC**

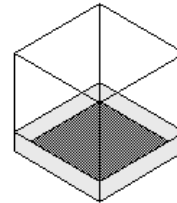
Units: English Metric

Thicknesses: Length: 0.00000, Width: 0.00000, Height: 0.00000

Export Name: []

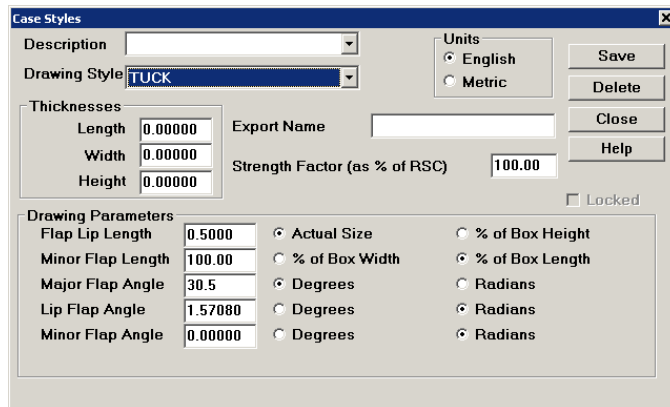
Strength Factor (as % of RSC): 100.00

Drawing Parameters: Tray Height: 2.0000 Actual Size % of Box Height



- **Tray Height:** Select either Actual Size or % of Box Height, then enter a value to define the size of the tray height.

Tuck



Case Styles

Description: []

Drawing Style: **TUCK**

Units: English Metric

Thicknesses: Length: 0.00000, Width: 0.00000, Height: 0.00000

Export Name: []

Strength Factor (as % of RSC): 100.00

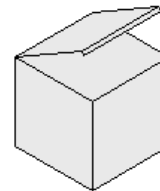
Drawing Parameters: Flap Lip Length: 0.5000 Actual Size % of Box Height

Minor Flap Length: 100.00 % of Box Width % of Box Length

Major Flap Angle: 30.5 Degrees Radians

Lip Flap Angle: 1.57080 Degrees Radians

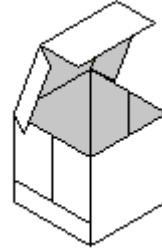
Minor Flap Angle: 0.00000 Degrees Radians



- **Flap Lip Length:** Select either Actual Size or % of Box Height, then enter a value to define the size of the flap lip length.
- **Minor Flap:** Select either % of Box Width or % of Box Length, then enter a value to define the size of the minor flap.
- **Major Flap Angle:** Select either Degrees or Radians, enter a value to define the major flap angle.
- **Lip Flap Angle:** Select either Degrees or Radians and enter a value to define the lip flap angle.
- **Minor Flap Angle:** Select Degrees or Radians and enter a value to define the minor flap angle.

Wrap Around

The screenshot shows the 'Case Styles' dialog box with the 'Wrap Around' drawing style selected. The 'Thicknesses' section has Length, Width, and Height all set to 0.00000. The 'Drawing Parameters' section has Major Flap at 50.00, Flap Angle at 70.0, Lip Flap Angle at 20.0, Minor Flap at 25.00, and Flap Gap at 0.00. The 'Strength Factor (as % of RSC)' is set to 100.00. The 'Units' section has 'English' selected. The 'Locked' checkbox is unchecked.



- **Major Flap Length:** Select either Actual Size or % of Box Height, then enter a value to define the size of the major (front) flap lip length.
- **Flap Angle:** Select either Degrees or Radians, then enter a value to define the major flap angle.
- **Lip Flap Angle:** Select either Degrees or Radians, then enter a value to define the lip flap angle.
- **Wraparound Sitting:** Select either Along Length or Along Width to specify the wraparound sitting.
- **Minor Flap Length:** Select either Actual Size or % of Box Height, then enter a value to define the size of the minor (side) flap lip length.
- **Flap Gap:** Select either Actual Size or % of Box Height, then enter a value to define the space between the side flaps.

TOPS Pro contains a number of pre-defined divider styles in its database, but you can design divider styles to meet your unique needs. When you design a divider style, you will use one of seven basic divider drawing styles:

- 2-Way Divider
- 2-Way Air Cell
- Z Partition
- U Partition
- U Simple
- Zig Zag
- Other Partitions
- U Over
- Custom

These basic divider drawing styles are your starting point. This chapter provides guidelines for working with the six basic divider drawing styles.

General Guidelines

As you design divider drawing styles in TOPS Pro, use the following guidelines:

- **Define number of thicknesses.**


On the Define Dividers dialog box, if you leave thicknesses zero (0), TOPS Pro will automatically calculate the number of thicknesses along the length and width.

- **Define an arrangement.**

On the Define Dividers dialog box, if you leave the arrangement zero (0), TOPS Pro will autosize the divider to fit the quantity of items that go into the divider. If you are calculating stacking strength, be sure to always enter a specific value for the arrangement. This is because stacking strength usually varies depending on the arrangement. If you are not calculating stacking strength, it is OK to leave the arrangement zero x zero.

- **Select a drawing style.**

As you design a divider drawing style, the g.o.d. feature draws the divider. You want the picture to be as accurate as possible to your finished product. On the Define Dividers dialog box, go through the drawing styles and find the divider that best matches your needs.

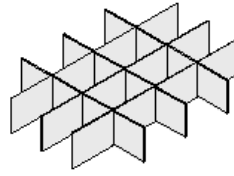
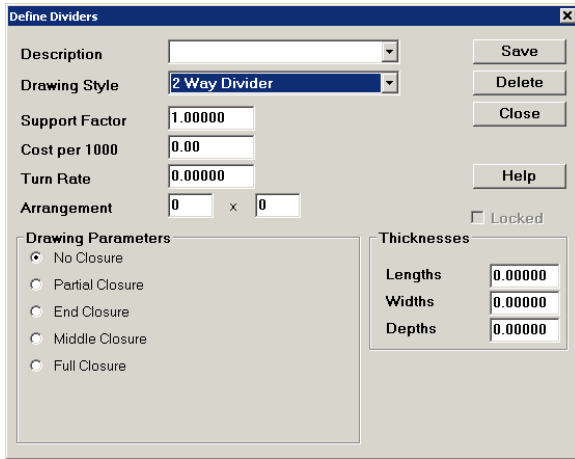
 **Note:** For easy reference, please refer to Appendix F, Divider Styles. As an option, go to the Menu Bar, open the File menu, select Print Databases, then select Dividers. TOPS Pro will print all the divider drawing styles in the database.

Check the drawing parameters and revise them as necessary to meet your needs. When you have designed a new divider, give it a description and save it to the database.

Be aware that the drawn dividers in TOPS Pro are limited to the simplest row/column patterns, with all items in the arrangement oriented the same way.

2-Way Divider

The 2-Way Divider drawing style, pictured below, is designed with the parameters displayed in the Define Dividers dialog box.

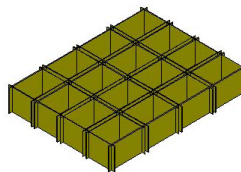
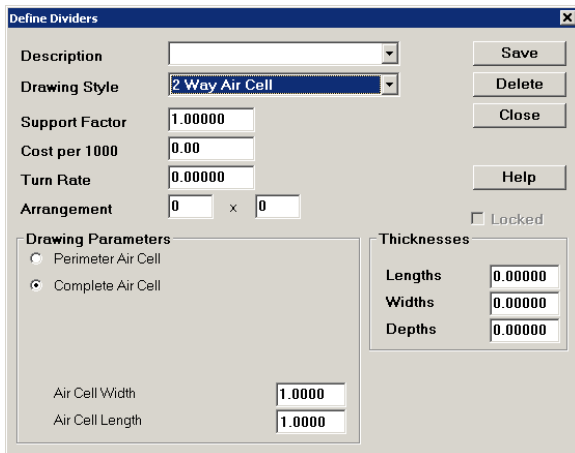


To use the 2-Way divider, work with the following parameters:

- **Support:** Enter the support factor provided by the divider.
- **Cost per 1000:** Enter the cost per 1000 units of the divider.
- **Turn Rate:** Enter the turn rate for the divider.
- **Arrangement:** Enter the arrangement of primary containers within the divider. For example, if the divider will accommodate three rows of 10 containers, enter 3 and 10.
- **Drawing Parameters:** Select a type of closure (No, Partial, End, Middle or Full) to specify how to draw the divider.
- **Thicknesses Lengths/Widths/Depths:** Enter the number of thicknesses along the length, width and depth of the divider.

2-Way Air Cell

The 2-Way Air Cell drawing style, pictured below, is designed with the parameters displayed in the Define Dividers dialog box.

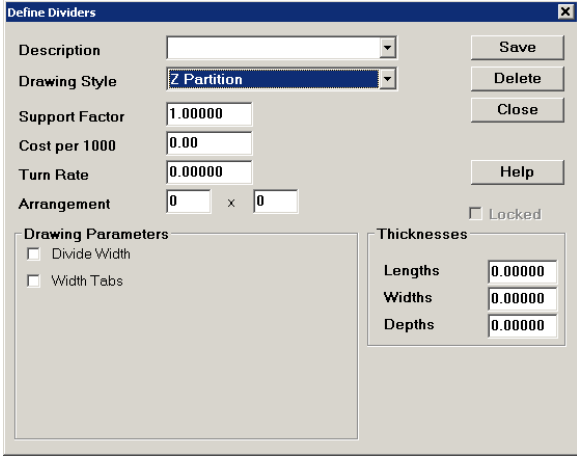


To use the 2-Way Air Cell, work with the following parameters:

- **Support:** Enter the support factor provided by the divider.
- **Cost per 1000:** Enter the cost per 1000 units of the divider.
- **Turn Rate:** Enter the turn rate for the divider.
- **Arrangement:** Enter the arrangement of primary containers within the divider. For example, if the divider will accommodate three rows of 10 containers, enter 3 and 10.
- **Drawing Parameters:** Select an option (Perimeter Air Cell or Complete Air Cell) to specify how TOPS Pro will draw the divider.
- **Air Cell Width:** Enter the width of the air cell.
- **Air Cell Length:** Enter the length of the air cell.
- **Thicknesses Lengths/Widths/Depths:** Enter the number of thicknesses along the length, width and depth of the divider.

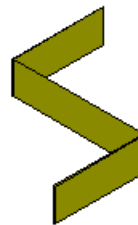
Z Partition

The Z Partition drawing style, pictured below, is designed using the parameters displayed in the Define Dividers dialog box.



The screenshot shows the 'Define Dividers' dialog box with the following settings:

- Description: [Empty]
- Drawing Style: Z Partition
- Support Factor: 1.00000
- Cost per 1000: 0.00
- Turn Rate: 0.00000
- Arrangement: 0 x 0
- Locked:
- Drawing Parameters: Divide Width, Width Tabs
- Thicknesses: Lengths: 0.00000, Widths: 0.00000, Depths: 0.00000

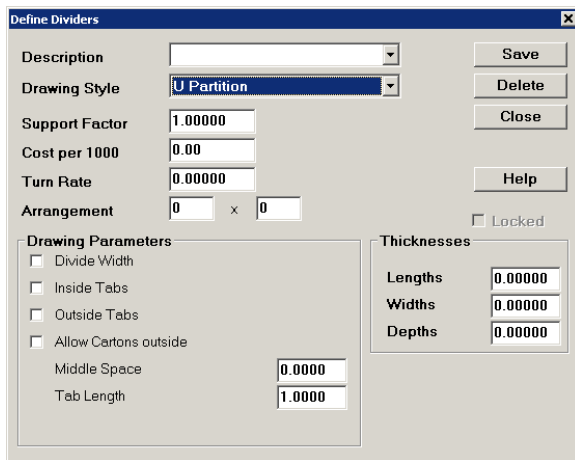


To use the Z Partition divider, work with the following parameters:

- **Support:** Enter the support factor provided by the divider.
- **Cost per 1000:** Enter the cost per 1000 units of the divider.
- **Turn Rate:** Enter the turn rate for the divider.
- **Arrangement:** Enter the arrangement of primary containers within the divider. For example, if the divider will accommodate three rows of 10 containers, enter 3 and 10.
- **Divide Width:** Check the box to part the divider along the width.
- **Width Tabs:** Check the box to add tabs to the width of the divider.
- **Thicknesses Lengths/Widths/Depths:** Enter the number of thicknesses along the length, width and depth of the divider.

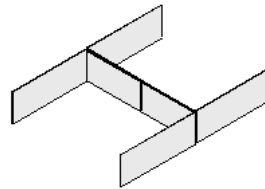
U Partition

The U Partition drawing style, pictured below, is designed using the parameters displayed in the Define Dividers dialog box.



The screenshot shows the 'Define Dividers' dialog box with the following settings:

- Description: (empty)
- Drawing Style: U Partition
- Support Factor: 1.00000
- Cost per 1000: 0.00
- Turn Rate: 0.00000
- Arrangement: 0 x 0
- Locked:
- Drawing Parameters:
 - Divide Width:
 - Inside Tabs:
 - Outside Tabs:
 - Allow Cartons outside:
 - Middle Space: 0.0000
 - Tab Length: 1.0000
- Thicknesses:
 - Lengths: 0.00000
 - Widths: 0.00000
 - Depths: 0.00000

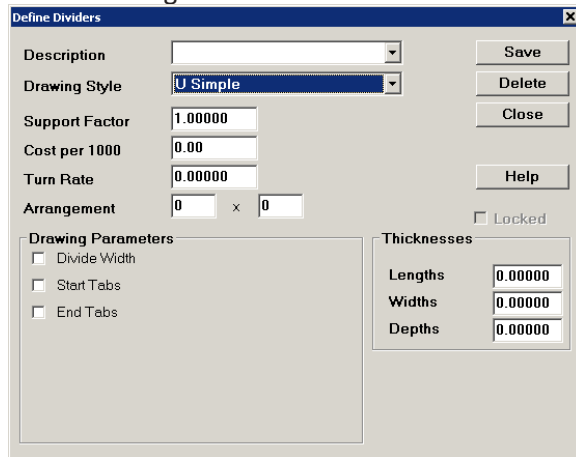


To use the U Partition divider, work with the following parameters:

- **Support:** Enter the support factor provided by the divider.
- **Cost per 1000:** Enter the cost per 1000 units of the divider.
- **Turn Rate:** Enter the turn rate for the divider.
- **Arrangement:** Enter the arrangement of primary containers within the divider. For example, if the divider will accommodate three rows of 10 containers, enter 3 and 10.
- **Divide Width:** Check the box to part the divider along the width.
- **Inside/Outside Tabs:** Check the box to add tabs to the inside/outside of the divider.
- **Allow Cartons Outside:** Check the box to allow cartons on the outside of the divider.
- **Middle Space:** Enter the middle space of the divider in inches.
- **Tab Length:** Enter the length of the tabs in inches.
- **Thicknesses Lengths/Widths/Depths:** Enter the number of thicknesses along the length, width and depth of the divider.

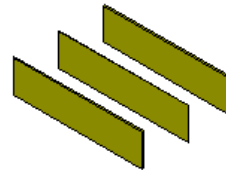
U Simple

The U Simple drawing style, pictured below, is designed using the parameters displayed in the Define Dividers dialog box.



The screenshot shows the 'Define Dividers' dialog box with the following settings:

- Description: (empty)
- Drawing Style: U Simple
- Support Factor: 1.00000
- Cost per 1000: 0.00
- Turn Rate: 0.00000
- Arrangement: 0 x 0
- Locked:
- Drawing Parameters:
 - Divide Width:
 - Start Tabs:
 - End Tabs:
- Thicknesses:
 - Lengths: 0.00000
 - Widths: 0.00000
 - Depths: 0.00000

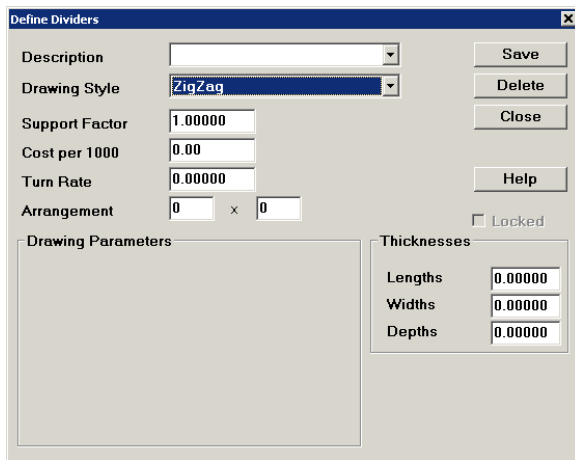


To use the U Simple, work with the following parameters:

- **Support:** Enter the support factor provided by the divider.
- **Cost per 1000:** Enter the cost per 1000 units of the divider.
- **Turn Rate:** Enter the turn rate for the divider.
- **Arrangement:** Enter the arrangement of primary containers within the divider. For example, if the divider will accommodate three rows of 10 containers, enter 3 and 10.
- **Divide Width:** This option draws the divider across the width of the shipcase. (As the default, TOPS Pro draws the divider across the length.)
- **Start Tabs:** This option draws the divider with a tab at the starting point of the divider.
- **End Tabs:** This option draws the divider with a tab at the ending point of the divider.
- **Thicknesses Lengths/Widths/Depths:** Enter the number of thicknesses along the length, width and depth of the divider.

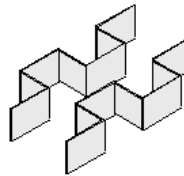
Zig Zag

The Zig Zag drawing style, pictured below, is designed using the parameters displayed in the Define Dividers dialog box.



The screenshot shows the 'Define Dividers' dialog box with the following settings:

- Description: [Empty]
- Drawing Style: ZigZag
- Support Factor: 1.00000
- Cost per 1000: 0.00
- Turn Rate: 0.00000
- Arrangement: 0 x 0
- Thickesses: Lengths: 0.00000, Widths: 0.00000, Depths: 0.00000



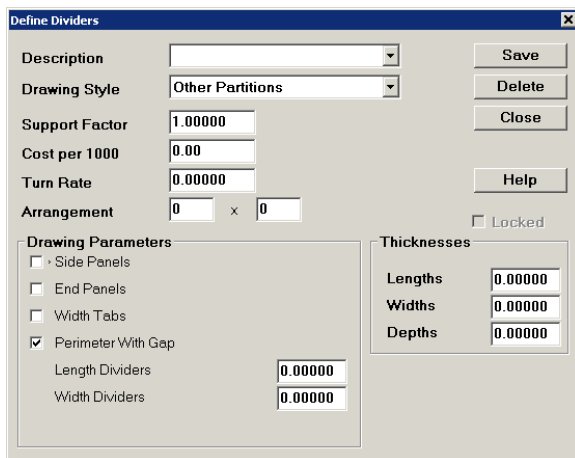
To use the Zig Zag divider, work with the following parameters:

Support: Enter the support factor provided by the divider.

- **Cost per 1000:** Enter the cost per 1000 units of the divider.
- **Turn Rate:** Enter the turn rate for the divider.
- **Arrangement:** Enter the arrangement of primary containers within the divider.
For example, if the divider will accommodate three rows of 10 containers, enter 3 and 10.
- **Thickesses Lengths/Widths/Depths:** Enter the number of thickesses along the length, width and depth of the divider.

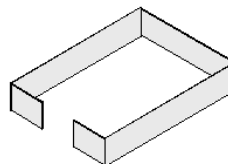
Other Partitions

The Other Partitions drawing style, pictured below, is designed using the parameters displayed in the Define Dividers dialog box.



The screenshot shows the 'Define Dividers' dialog box with the following settings:

- Description: [Empty]
- Drawing Style: Other Partitions
- Support Factor: 1.00000
- Cost per 1000: 0.00
- Turn Rate: 0.00000
- Arrangement: 0 x 0
- Thickesses: Lengths: 0.00000, Widths: 0.00000, Depths: 0.00000
- Drawing Parameters: Side Panels, End Panels, Width Tabs, Perimeter With Gap, Length Dividers: 0.00000, Width Dividers: 0.00000



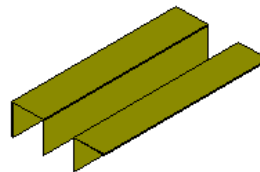
To use the Other Partitions divider, work with the following parameters:

- **Support:** Enter the support factor provided by the divider.
- **Cost per 1000:** Enter the cost per 1000 units of the divider.
- **Turn Rate:** Enter the turn rate for the divider.
- **Arrangement:** Enter the arrangement of primary containers within the divider. For example, if the divider will accommodate three rows of 10 containers, enter 3 and 10.
- **Side/End Panels:** Check the box to draw the divider with side or end panels.
- **Width Tabs:** Check the box to draw the divider with width tabs.
- **Perimeter With Gap:** Check the box to draw the divider perimeter with a gap.
- **Length/Width Dividers:** Enter the length and width dividers in inches.
- **Tab Length:** Enter the length of the tabs in inches.
- **Thicknesses Lengths/Widths/Depths:** Enter the number of thicknesses along the length, width and depth of the divider.

U Over

The U Over drawing style, pictured below, is designed using the parameters displayed in the Define Dividers dialog box.

Parameter	Value
Description	
Drawing Style	U Over
Support Factor	1.00000
Cost per 1000	0.00
Turn Rate	0.00000
Arrangement	0 x 0
Divide Width	<input type="checkbox"/>
Lengths	0.00000
Widths	0.00000
Depths	0.00000



To use the U Over divider, work with the following parameters:

- **Support:** Enter the support factor provided by the divider.
- **Cost per 1000:** Enter the cost per 1000 units of the divider.
- **Turn Rate:** Enter the turn rate for the divider.
- **Arrangement:** Enter the arrangement of primary containers within the divider. For example, if the divider will accommodate three rows of 10 containers, enter 3 and 10.
- **Divide Width:** This option draws the divider across the width of the shipcase. (As the default, TOPS Pro draws the divider across the length.)
- **Thicknesses Lengths/Widths/Depths:** Enter the number of thicknesses along the length, width and depth of the divider.

Custom

This option allows you to define or modify a custom divider via a graphical editor.

The screenshot shows the 'Define Dividers' dialog box with the following parameters:

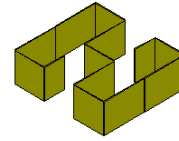
- Description: 3x2 Divider
- Drawing Style: Custom
- Support Factor: 1.00000
- Cost per 1000: 0.00
- Turn Rate: 0.00000
- Arrangement: 3 x 2
- Locked:
- Drawing Parameters: Divider in edge
- Thickenesses: Lengths: 0.00000, Widths: 0.00000, Depths: 0.00000

To use the Custom divider, work with the following parameters and then click the Modify button:

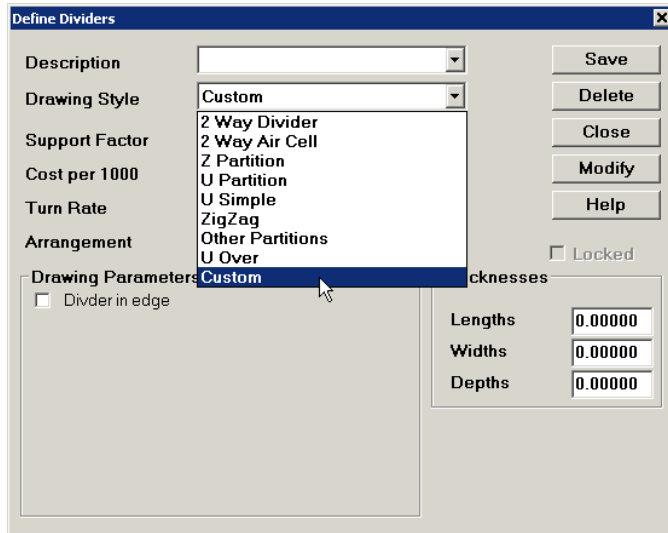
- **Description:** Enter a name to be used for the new custom divider.
- **Support:** Enter the support factor provided by the divider.
- **Cost per 1000:** Enter the cost per 1000 units of the divider.
- **Turn Rate:** Enter the turn rate for the divider.
- **Arrangement:** Enter the arrangement of primary containers within the divider. For example, if the divider will accommodate three rows of 2 containers, enter 3 and 2.
- **Divider in edge:** Check this box if the divider partitions are to be used along the edge of the shipcase. You can always remove them in the graphical editor.
- **Thickenesses Lengths/Widths/Depths:** Enter the number of thickenesses along the length, width and depth of the divider.
- **Delete Button:** Delete the current divider. You will be prompted for a confirmation to permanently remove the divider from the database. Click Delete to confirm.
- **Modify Button:** Click to open the divider custom design screen as described in the next section.

Create a Custom Divider

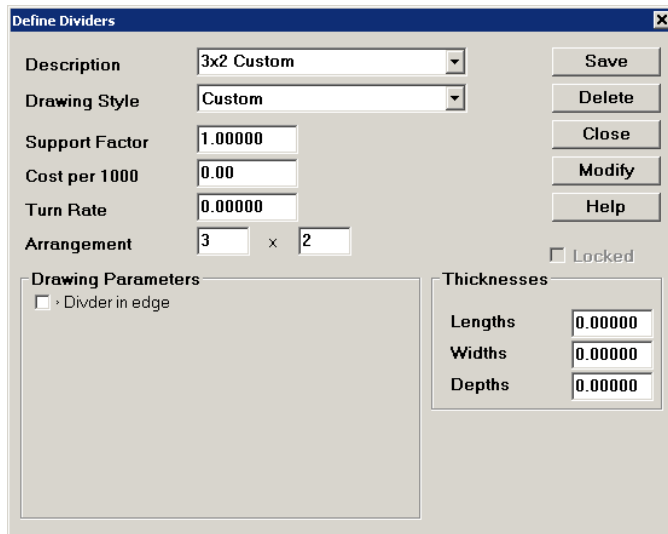
Follow these steps to create a custom 3x2 divider as shown here:



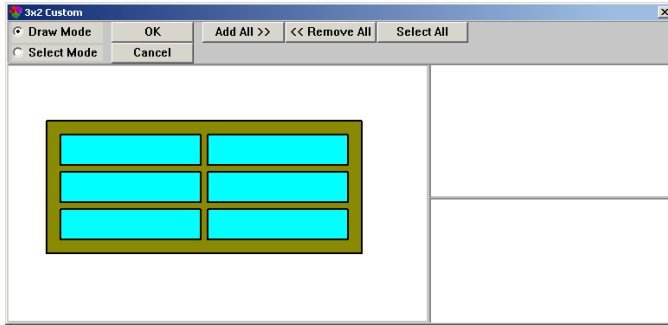
1. Go to the Define menu and select Dividers.
2. Select Custom from the Drawing Style list box



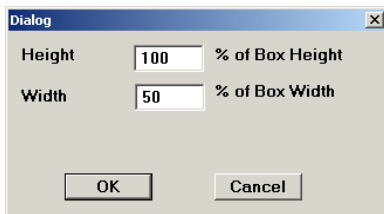
3. Enter the name of the divider "3x2 Custom" in the Description field; arrangement of 3x2 and check the box to enable Divider in edge.



4. Click Modify. You will be prompted whether to save the changes, click Yes to continue.
5. Click oOK to confirm going to custom design.
6. This will open the divider editor as illustrated as followed.



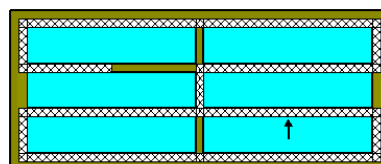
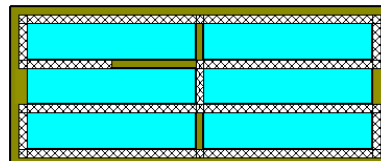
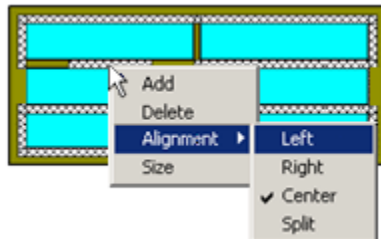
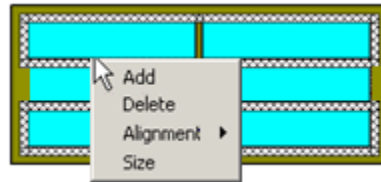
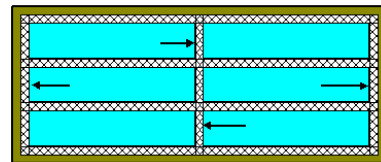
7. Enable Draw Mode and click the Add All>> button to add all possible partitions around and between the cells.
8. Click the four highlighted sections (by arrows) shown on the right to remove those partitions.
9. With the mouse cursor placed on the section indicated by the arrow, click the right mouse button to access the edit menu as shown here and select Size.
10. At the pop-up dialog as shown below, enter 50% of Box Width to change the size of that cell partition.

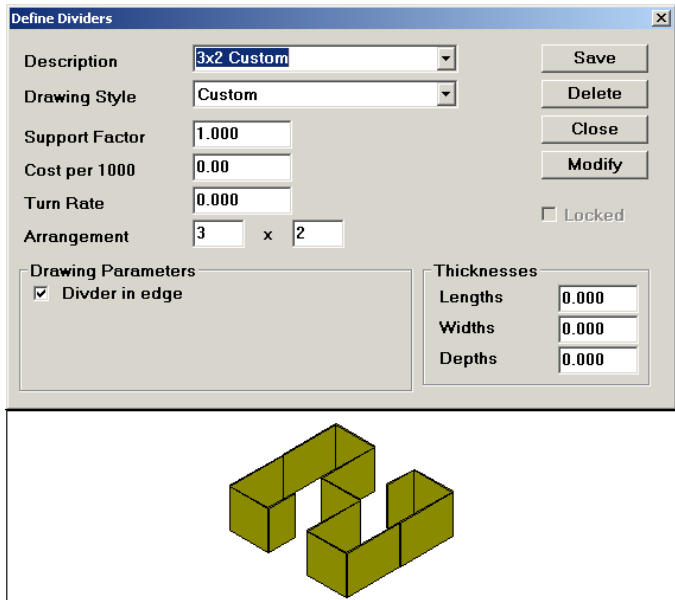
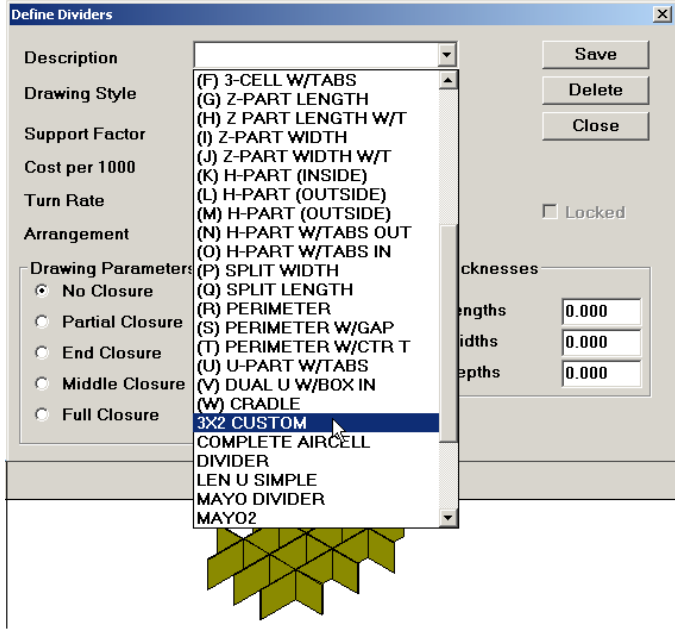



11. With the mouse cursor at newly sized partition, access the right click menu, select Alignment and then Left as shown on the right.

The result of the realigned partition is show here.

12. Repeat step 9 through 11 to bring the highlighted partition (with arrow point at the bottom graphic) to 50% box width and then aligning right to get to the final divider.
13. Click OK to exit the Define Divider function.
14. To view the newly created divider, go to Define Menu and select Dividers. Click the drop list for Description and scroll down to "3x2 Custom"






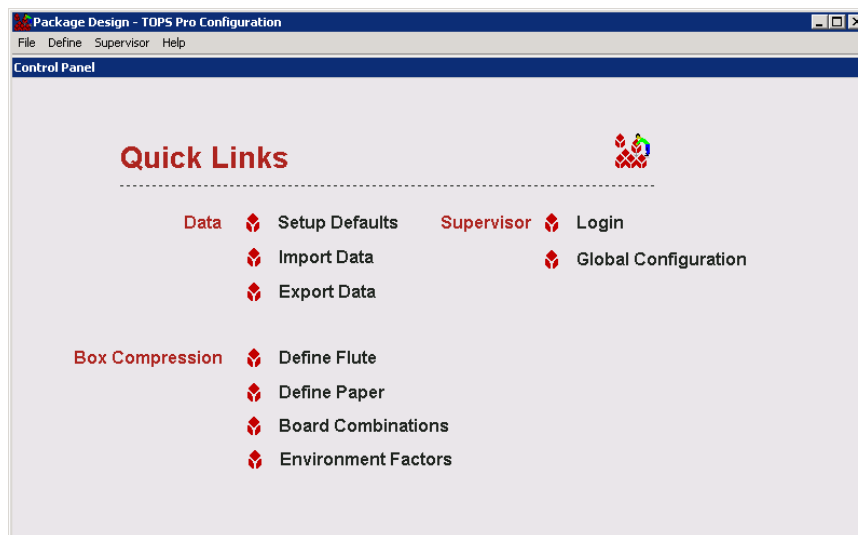
 **Note:** This divider is only applicable to shipcase containing multiple of 6 items.

14


TOPS Pro Config Program File

The TOPS Pro Config program file discussed in this chapter is separate from the TOPS Pro operating program. This Config program allows users to setup system defaults as well as define data for box compression, or stacking strength analysis. To access the TOPS Pro Configuration program, go to the TOPS Pro Applications group under the System Start menu and click the TOPS Pro Config icon . Starting in version 6.8X, you can launch TOPS Pro Config from TOPS Pro via the Supervisor > Launch Config.exe menu.

After logging in, you will see the Control Panel of the Configuration program as pictured below.



This chapter outlines the Menu Bar in the TOPS Pro Configuration program, along with a brief description of the options available with each menu. These options are also available via the direct links from the Control Panel as pictured above.

 **Note:** Much of the Configuration functionality is covered in Chapter 15 – Supervisor Functions. Rather than duplicate a lot of information, this chapter briefly describes the features and functions of the Configuration program and refers you to other places in the manual for more detailed information.

For more information on each parameter found in the dialog boxes under each menu function, please refer to Appendix B, Dialog Boxes.

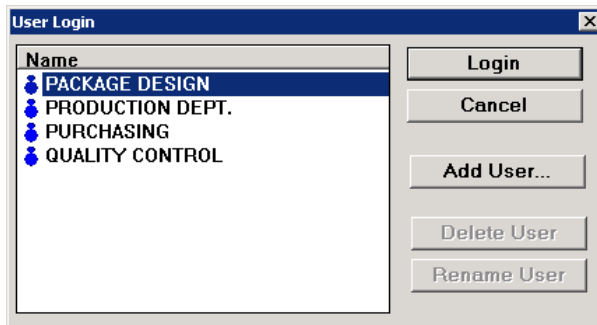
File Menu

The File menu provides the following options:

- User Login
- User List
- Import (Import Data quick link)
- Export (Export Data quick link)
- Exit

User Login

The User Login option displays the User Login dialog box and allows you to login to the system.



- **Add User:** Add a new user to the user list. Type in a new name and click OK to add.
- **Delete User:** Available only when logged in as Supervisor. Highlight a name in the User list and click Delete.
You will be prompted to confirm the deletion, as this will also delete all analyses owned by this user. Click Yes to delete the analyses, or click No to keep the analyses but delete the user. Cancel to exit without making any change or deleting the user.
- **Rename User:** Available only when logged in as Supervisor. Highlight a name in the User list and click the Rename User button. Type in a new user name in the pop up dialog to replace the existing name.
You will be prompted whether to rename analyses associated with the existing user to the new user, click Yes to do so, No to keep analyses under the existing user name. Click Cancel to exit without renaming either user or analyses.

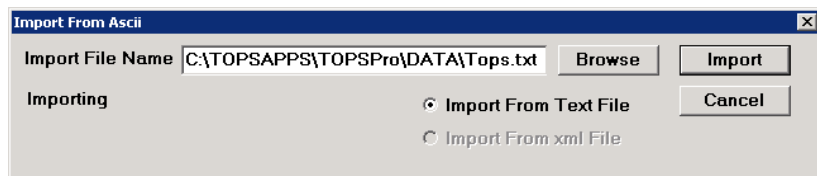
User List

This option displays the User List dialog box, which shows the users currently logged onto the system. This feature is critical for network users who have a limited number of TOPS Pro software licenses. For example, if you have two licenses and two users are logged on, then a third user will not be able to logon until one of the current users logs off.

You may need to log someone out if he or she logged into TOPS Pro Configuration and did not exit the system normally (e.g., in the event of a crash or power failure). If you are unable to enter TOPS Pro Configuration to logout a missing user, you can always login as that user, replace that user, then exit.

Import

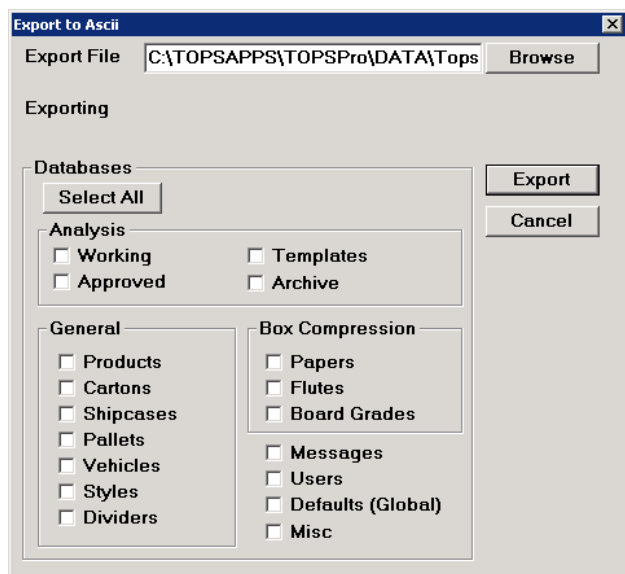
The Import option displays the Import from ASCII dialog box, which allows you to import an ASCII comma delimited text file into the TOPS Pro System. You can use this function to import shipcases and other containers into the TOPS Pro System.



- **Browse Button:** Click to specify the location of the ASCII text file to be imported.
- **Import Button:** Click the start the import action.

Export

The Export function opens the Export to ASCII dialog box, which allows you to export selected data from the TOPS Pro Configuration program to an ASCII comma delimited text file for use by other applications.



- **Browse Button:** Click to specify the location of the ASCII text file to be exported and saved.
- **Selected All Button:** Click to export all data within the TOPS Pro and Configuration programs. Upon clicking this button, all check boxes except for Messages and Defaults (Global) will be enabled with a “✓” mark.
- **Analysis/General/Box Compression/Messages:** To export selected data, place “✓” mark against the desired items by clicking the corresponding boxes.
- **Export Button:** Click when ready to export the selected data.

Exit

The Exit option closes the TOPS Pro Configuration program.

Define Menu

The Define menu provides the following options:

- Configuration
- Language
- Defaults
- Environment Factors (Environment Factors quick link)
- Box Design Factors
- Board Combinations (Board Combinations quick link)
- Paper (Define Paper quick link)
- Flutes (Define Flute quick link)

Configuration

The Configuration option displays the Configuration dialog box, which allows you to define, select and de-select a range of options. The configuration settings are organized under different tabs:

- **General Tab:** Configures the graphic display settings for different elements in TOPS Pro.
- **Results Tab:** Setup optional settings for the analysis folder path, auto recovery and data archive.
- **Reports Tab:** Controls font size and pen settings on report as well as default report image formats.
- **Dimensions Tab:** Specify if inside and/or outside dimension will be displayed in reports and their unit of measure.
- **Numeric Tab:** Specify if and when to use fractions, and control the number of decimal places to be used for different data types.
- **Statistics Tab:** Available only when logged in as Supervisor. You can select the rows and columns of data that will appear in the statistics section of the program and report.
- **Global Tab:** Available only when logged in as Supervisor, these functions allow you to control how TOPS Pro will run and will apply to all users of the program.

Language

The Language option displays a menu with a variety of languages to choose from. It also has an Edit option, which displays the Text Modification dialog box and lets you perform language editing on selected words. For more information about the Modification, please refer to Appendix B, Dialog Boxes.

Defaults

The Defaults option displays the Defaults dialog box, which has different variations and allows you to enter default values for the following:

- Button Menu Styles
- Product
- Primary Package
- Intermediate Pack View
- Shipcase
- Pallet
- Vehicle
- Carton/Bag Sizing
- Intermediate Sizing

- Shipcase sizing
- Unitload sizing
- Vehicle load sizing
- Stack Strength
- Print
- Shipcase Patterns
- UL Patterns
- TV Patterns
- Pallet Spec

Environment Factors

The Environment Factors option displays the Environment Factors dialog box, which lets you assign numeric safety factors to a range of environmental factors including humidity, storage time, pallet spacing and whether the unitloads use interlocking patterns.

Box Design Factors

The Box Design Factors option displays the Box Design Factors dialog box, which lets you enter default values for box design factors such as length-to-width ratio, shape factors, printing factors and flap gap factors.

Board Combinations

The Board Combinations option displays the Board Combinations dialog box, which lets you define default board grades, as well as to change, delete or mark them unavailable. Use this option to define a board's ECT or cost per 1,000 square feet.

Paper

The Paper option displays the Define Paper dialog box, which lets you define default parameters for different types of paper including RCF, weight, cost and type.

Flutes

The Flutes option displays the Define Flute dialog box, which lets you enter default parameters for different types of flutes including allowance for scoring and specifics like flute constant, paper thickness, weight, etc.

Supervisor Menu

The Supervisor menu provides the following options:

- Login/Logout (Login quick link)
- Global Configuration (Global Configuration quick link)
- Maintenance Control
- Check and Fix Database

Login/Logout

The Login/Logout option displays the Supervisor Login dialog box, which allows you to login to the system as a supervisor. This is required in order to perform the following tasks:

- Approve analyses
- Rename and delete users
- Change Supervisor login password
- Change statistics settings
- See all users' work
- Log off other users
- Change Quick Print templates

Global Configuration

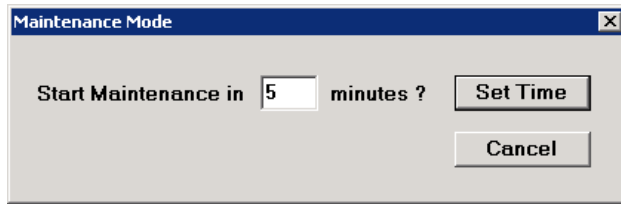
The Global Configuration option displays the Global Configuration dialog box, which allows the Supervisor to define a global setup for your TOPS Pro software. The configuration settings are organized under different tabs:

- **General Tab:** Configures the graphic display settings for different elements in TOPS Pro.
- **Results Tab:** Setup optional settings for the analysis folder path, auto recovery and data archive.
- **Reports Tab:** Controls font size and pen settings on report as well as default report image formats.
- **Dimensions Tab:** Specify if inside and/or outside dimension will be displayed in reports and their unit of measure.
- **Numeric Tab:** Specify if and when to use fractions and to control the number of decimal places to be used for different data types.
- **Statistics Tab:** Visible to the Supervisor only, this tab allows the supervisor to specify what data will be included in the statistics section of the analysis report.
- **Global Tab:** Visible to the Supervisor only, this tab lets the supervisor setup specifics on user accounts, database control and availability of certain functionalities.

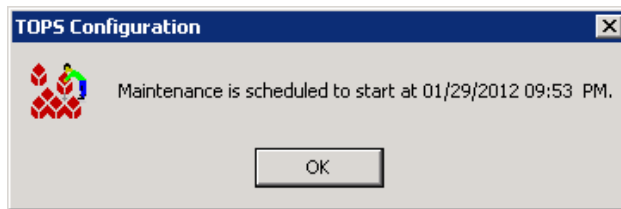
Maintenance Control

The Maintenance Control option allows the supervisor to notify network users when TOPS will be shut down for maintenance or upgrade. It gives users time to work on an analysis and save it before the program shuts down. Follow these steps to use software Maintenance Control:

1. Click the Login Quick Link and login as Supervisor.
2. Go to the Supervisor menu and select Maintenance Control. This opens the Maintenance Mode dialog box as shown below.

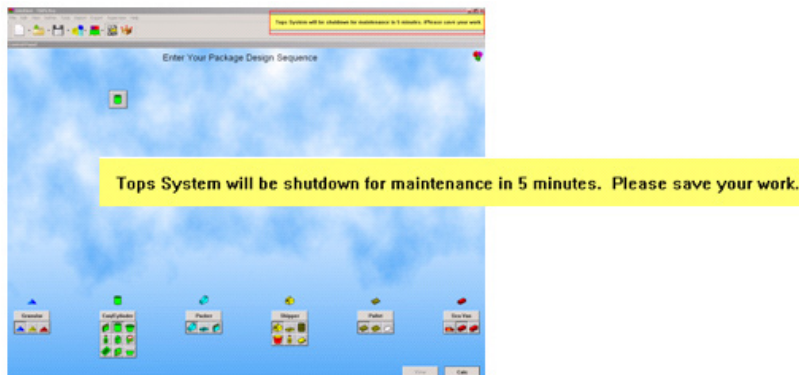


3. Enter the time in minutes to schedule maintenance and click the Set Time button. You will see a message confirming the start time for maintenance.



4. Click OK to confirm.

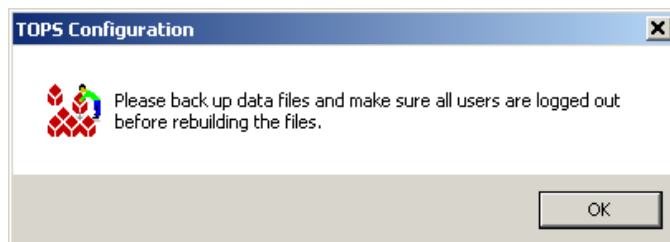
A warning will appear on the upper right side of the program, notifying users that they only have 5 minutes left before the program closes and maintenance begins.

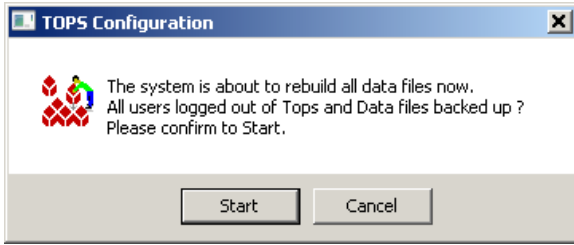


While on Maintenance, users will not be able to access the program. However, when maintenance is done, the supervisor can allow users on a network to get back into the program by following the steps above and clicking on Done Maintenance.

Check and Fix Database

This option enables the supervisor to check and rebuild the TOPS Pro database in the event of file corruption. This function requires all users to be logged out of the system.





After all users are logged out of TOPS, click the Start button.

15

Supervisor Functions

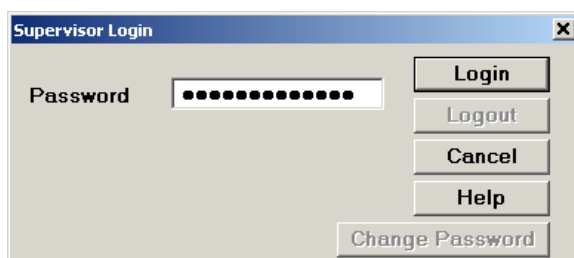
This chapter discusses the functions available to a supervisor or under the Supervisor menu in the TOPS Pro System. They include the following:


- Login/logout as a supervisor
- Change your password
- Add a user to the system
- Delete a user from the system
- Rename a user in the system
- Approve or deny an analysis
- Open and transfer other users' analyses
- Set up an analysis template
- Set up a Quick Print template
- Define global configuration settings
- Set up the way statistics are displayed in the system
- Set License
- Launch TOPS Pro Config

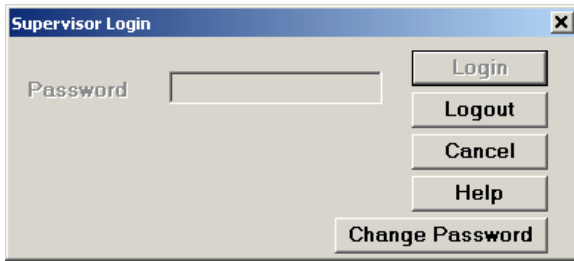
Login/Logout

Before you can perform any of the supervisor functions in either TOPS Pro or the TOPS Configuration program, you have to login as a supervisor. Start from the Menu Bar and follow these instructions:

1. Open the Supervisor menu.
2. Select Login/Logout. The Supervisor Login dialog box appears, as pictured below.



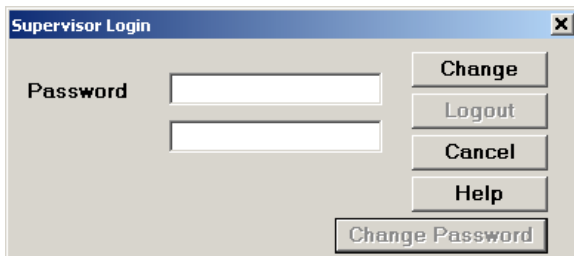
3. Enter the supervisor password.
 -  **Note:** The default password is “tops software.” Note the space between “tops” and “software.”
4. Click Login. TOPS Pro logs you into the system as a supervisor. Once logged in, you should see the TOPS Pro title bar changes to “Untitled/or analysis name – TOPS Pro (Supervisor).”
5. To logout of the system once you have logged in, go back to the Login/Logout function under the Supervisor menu, click the Logout button and TOPS Pro will log you out of the Configuration program.



Change Password

Once you are logged in as a supervisor, you can change the login password if you want. To change the password, start from the Supervisor Login dialog box and follow these instructions:

1. Click Change Password. The Supervisor Login dialog box redisplay, as pictured below.



2. Enter the old password in the first Password field.
3. Enter the new password in the second Password field.
4. Click Change. The Confirm Password dialog box appears, as pictured below.



5. Enter the new password in the Password field.
6. Click OK and TOPS Pro changes the password and issues a message to this effect.

Logoff a User

This function allows you to log off a user from the system, which is critical for a network license whose number of simultaneous users is controlled by the number of licenses/seats purchased. For example, if you have a two-user network license and two users are already logged on, then a third user will not be able to logon until one of the current users logs off.

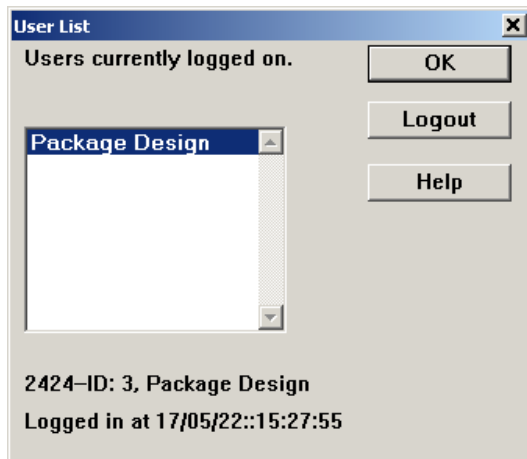
You may find it necessary to log off someone if he or she logged onto TOPS Pro, then did not exit the system normally (e.g., in the event of a crash or power failure). Use these guidelines:

- If you are unable to enter TOPS Pro to log off a missing user, you can always login as that user, replace that user, then exit.

- If password access is enabled, the supervisor password grants access to users.
- You can also log off users from the TOPS Configuration program.

To log off a user from the system, start from the Menu Bar and follow these instructions:

1. Use one of two options:
 - In the TOPS Pro system, open the Tools menu.
 - In the TOPS Configuration program, open the File menu.
2. Select User List. The User List dialog box appears, as pictured below.



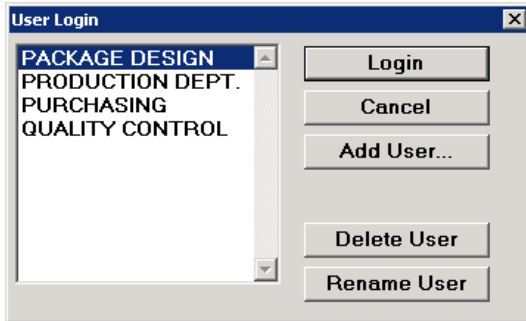
The User List dialog box displays all users currently logged onto the system. The list above contains one user, but there can be as many users as there are purchased TOPS Pro software licenses.

3. Select the user you want to log out of the system.
4. Click Logout. TOPS Pro asks if you are sure you want to log the user out of the system.
5. Click Logout. The User List dialog box redisplay with an updated list of users logged onto the system. The user you just logged out is deleted from the list.

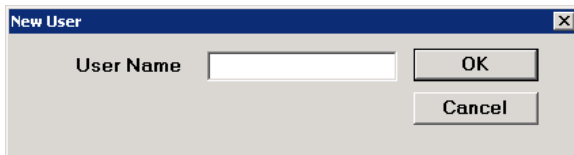
Add a User to the System

To add a user to the system, you have to Login as Supervisor. Start from the Menu Bar and follow these instructions:

1. Open the File menu.
2. Select User Login. The User Login dialog box appears, as pictured below.



3. Click the Add User button. The New User dialog box appears, as pictured below.



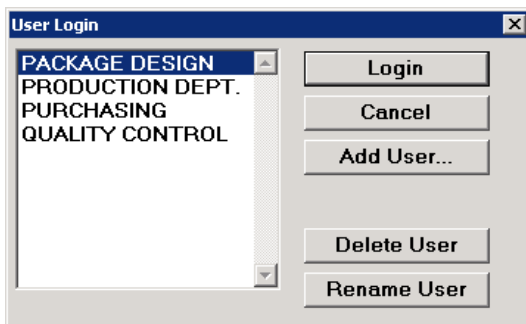
4. Enter the name of the user you want to add to the system.
5. Click OK. The User Login dialog box redisplay with the new user added to the user list.

 **Note:** At this time, there is no way to prevent any user from adding a user to the system.

Delete a User from the System

To delete a user from the system, start from the Menu Bar and follow these instructions:

1. Open the File menu.
2. Select User Login. The User Login dialog box appears, as pictured below.

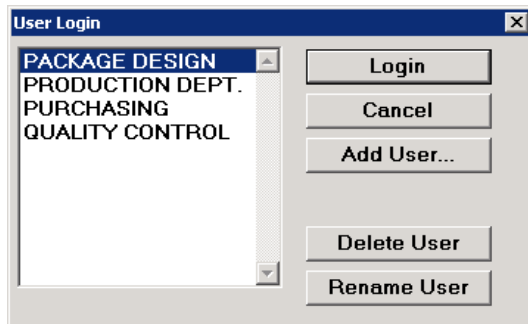


3. Highlight the user to be deleted and click the Delete User button.
4. You will be prompted to confirm the deletion as this will also delete all analyses owned by this user. Click Yes to delete the analyses, No to keep the analyses but delete the user and Cancel to exit without making any change or deleting the user.

Rename a User in the System

To rename a user in the system, start from the Menu Bar and follow these instructions:

1. Open the File menu.
2. Select User Login. The User Login dialog box appears.




3. Highlight the user to be renamed and click the Rename User button. The New User dialog box appears, as pictured below.



4. Enter the new (edited) name of the user you want to rename in the system.
5. You will be prompted whether to rename all analyses associated with this existing user to the new user, click Yes to do so, No to keep analyses under the existing user name. Click Cancel to exit without renaming either user or analyses.

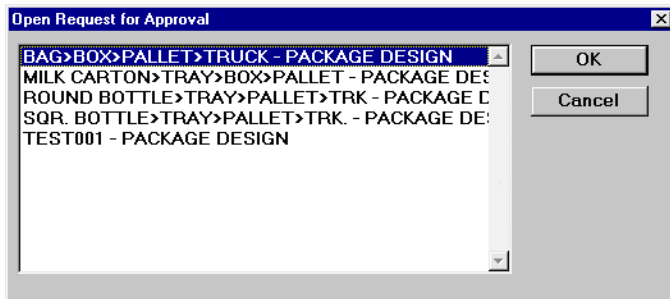
Approve an Analysis

When a user performs an analysis and saves it to the database, he or she will request approval for that analysis with the Request Approval option on the File menu. TOPS Pro takes that request for approval and places it in a queue of analyses waiting to be approved or denied by a supervisor.

 **Note:** You might be able to approve your own analysis. This depends on the global setting “User Approval” in the TOPS Pro Config program. If this option is checked, you can approve your own work; otherwise, you will need to submit them to the Supervisor for approval.

To approve an analysis, start from the Menu Bar and follow these instructions:

1. Open the Supervisor menu and login as Supervisor, if you are not allowed to approve your own work.
2. Select Open Request. The Open Request for Approval dialog box appears, as shown in the next illustration.



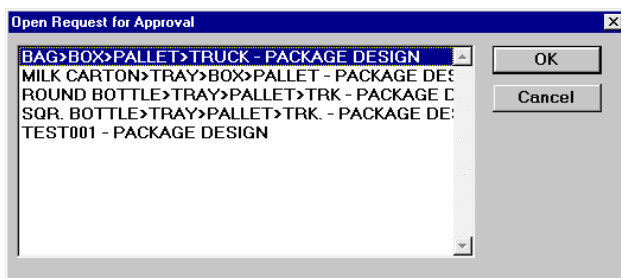
3. Select an analysis you want to examine for approval or denial.
4. Click OK. TOPS Pro opens the selected analysis in the Analysis View.
5. Examine the analysis to decide if you want to approve or deny it.
6. To approve the analysis, open the Supervisor menu.
7. Select Approve. TOPS Pro asks if you want to approve the selected analysis.
8. Click OK. TOPS Pro moves the analysis from the Request Approval queue and into the Approved portion of the database. All approved analyses are marked with an **A** in the file list.

Deny Approval of an Analysis

When a user performs an analysis and saves it to the database, he or she will request approval for that analysis with the Request Approval option on the File menu. TOPS Pro takes that request for approval and places it in a queue of analyses waiting to be approved or denied by a supervisor.

To deny approval of an analysis, start from the Menu Bar and follow these instructions:

1. Open the Supervisor menu and login as Supervisor, if you are not allowed to approve your own work.
2. Select Open Request. The Open Request for Approval dialog box appears, as pictured below.



3. Select the analysis you want to examine for approval or denial.
4. Click OK. TOPS Pro opens the selected analysis in the Analysis View.
5. Examine the analysis to decide if you want to approve or deny it.
6. To deny approval of the analysis, open the Supervisor menu.
7. Select Deny Approval. TOPS Pro asks if you want to deny approval of the selected analysis.
8. Click OK. TOPS Pro removes the analysis from the Request Approval queue and back into the Working portion of the database. All working analyses are marked with a **W** in the file list.

Transfer Other Users' Analyses

If TOPS Pro is set up to allow all users to see each other's analyses, you can transfer analyses among users. If not, you will need to login as a supervisor.

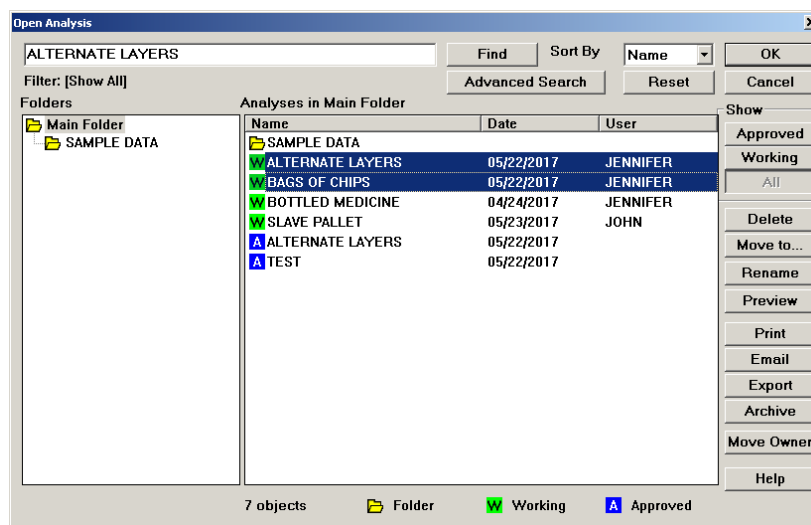
When you login as a supervisor, TOPS Pro allows you to open and view all analyses for all users. TOPS Pro also allows you to transfer an analysis from one user to another. To transfer an analysis, follow these instructions:

1. Login as the user to which you want to transfer the analysis. For example, if you want to transfer an analysis from Package Design to Purchasing, login as Purchasing.
2. Login as a supervisor.
3. Open the analysis you want to transfer.
4. Open the File menu and select Save As. The Analysis Save As dialog box appears.
5. Click OK. TOPS Pro saves the analysis to the database and in the process transfers the analysis from the previous user to the current user.

Transfer Analyses Using Move Owner

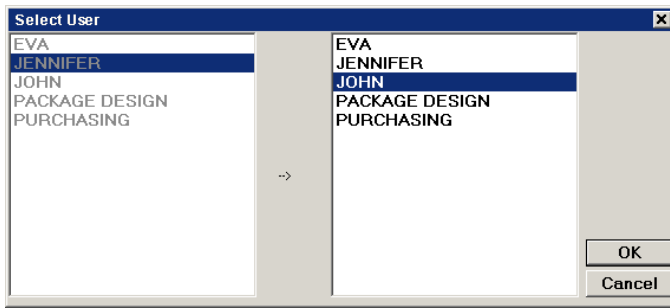
In version 6.8X, a supervisor can quickly move analyses among users using the Move Owner function under the File Menu.

1. Login as the user whose analyses are to be moved to another user(s). For example, if you want to transfer analysis from Jennifer to another user, login as Jennifer, as in the following example.
2. Login as a supervisor in order to access the Move Owner function.
3. Go to the File menu, select Open.
4. Highlight Jennifer's analyses to be moved. To select multiple analyses, hold down the [Ctrl] key while clicking on the analysis name.



5. When done with selection, click the Move Owner button.
6. At the Select User dialog box, highlight the name of the new user (John), to be assigned the

selected analyses.



7. Click OK to return to the Open Analysis dialog box. TOPS Pro saves the analyses to the database and in the process assigns new user of the selected analyses.

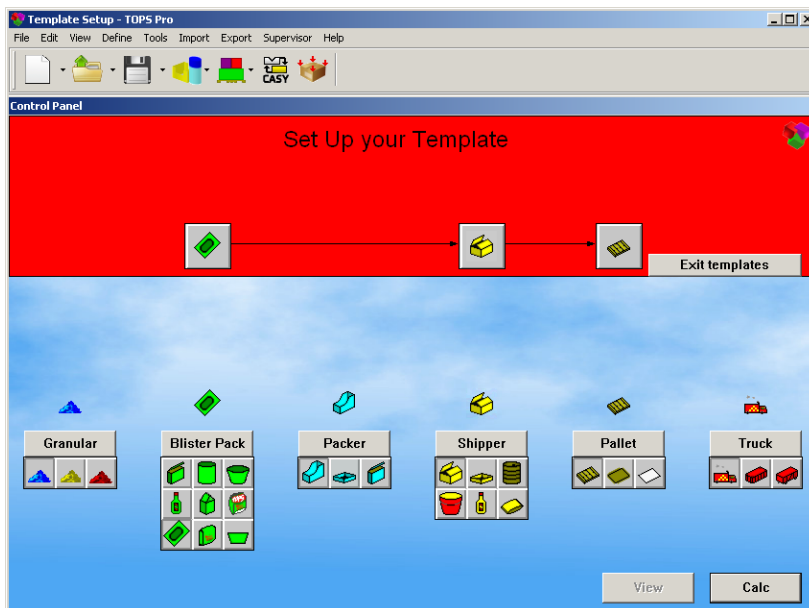
Set Up an Analysis Template

TOPS Pro allows you to setup templates for analyses that you frequently perform. You can save these in the template toolbar to the left of the Control Panel. When you click on a template button, TOPS Pro will automatically insert the corresponding icons in the package design sequence and open the parameters dialog box for data entry.

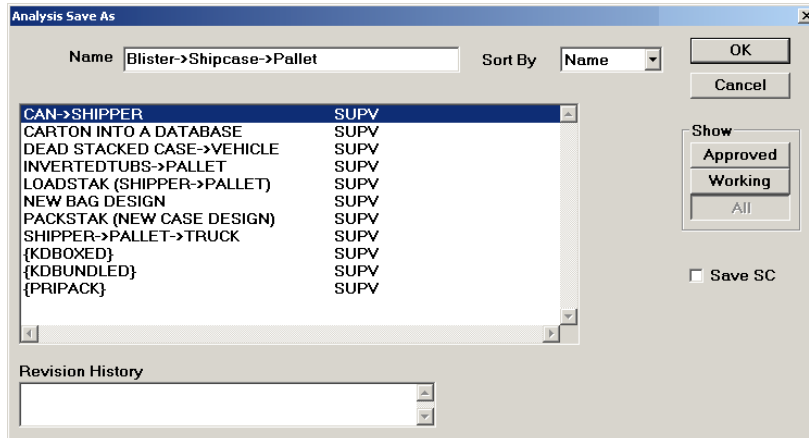
To set up an analysis template, start from the Menu Bar:

1. Select Template Setup from the Supervisor menu. The top portion of the Control Panel will have a red background. You are now in “edit template” mode, which allows you to open, save and change templates.
2. Create a design sequence for an analysis. There is no need to define the parameters at this time, you only need to specify the stages to be included.

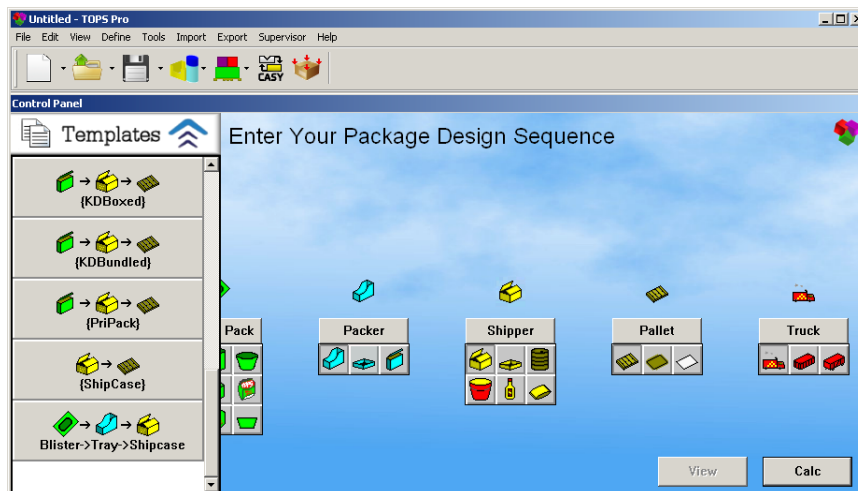
In this example, we are creating a template for package blister packs that will go into shipcases and then onto pallets.



- To save the design sequence as a template, go the File menu and select Save As Template.
- Enter the name for the template in the Name field and click OK to return to the Control Panel.



- Click “Exit templates.”
- The new sequence will now be available in the Template Toolbar.




Delete an Analysis Template

To delete an existing template, you will need to login as Supervisor.

- Go to the Supervisor menu, select Login/Logout.
- Enter password “tops software” and click Login.
- Go to File menu and select New via Template. The Open Analysis dialog box opens.
- Highlight the template to be removed and click the Delete button.

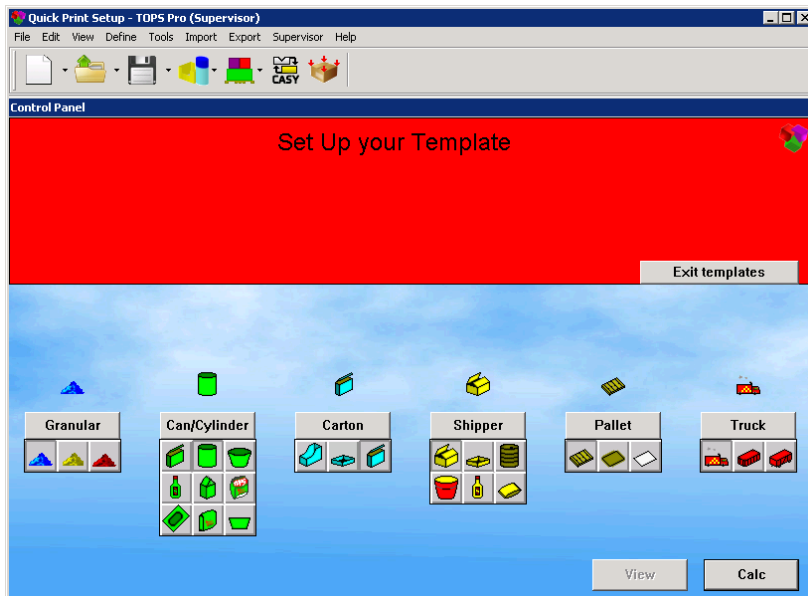
Set Up a Quick Print Template

As you work with TOPS Pro day-to-day, you will find that you perform and print some analyses on a frequent basis. TOPS Pro allows you to setup a Quick Print template for these routine printouts. Instead of manually setting up print parameters, Quick Print builds the printout automatically.

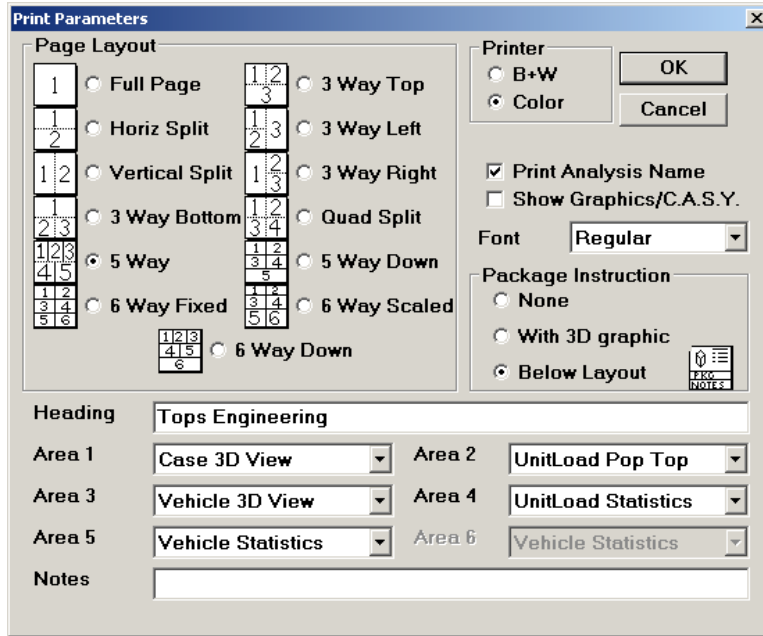
 **Note:** TOPS can customize each of these templates for you, or you can create your own templates from scratch. For more information on how to access the Quick Print templates, please refer to Chapter 11, Printing.

To set up a Quick Print template, start from the Menu Bar:

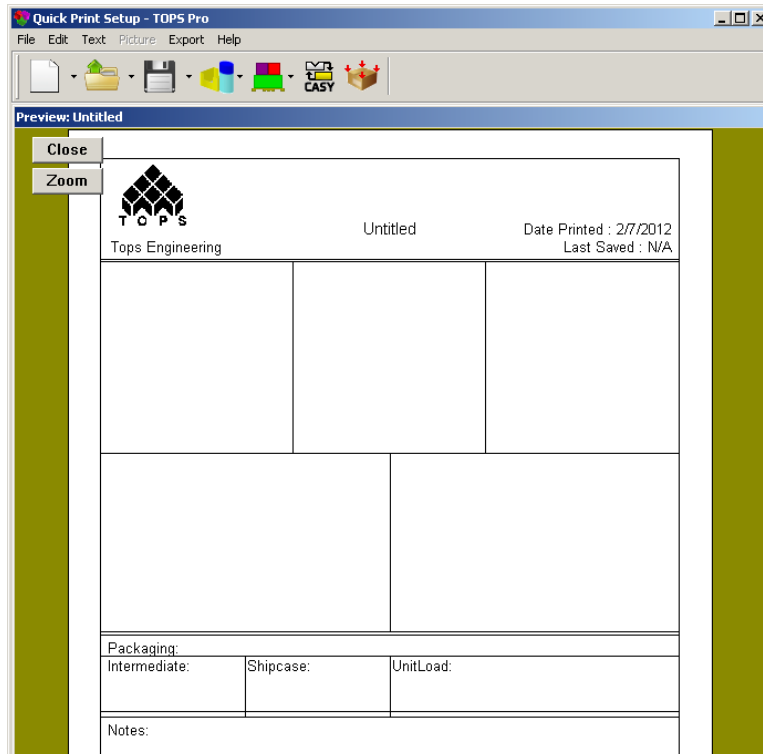
1. Select QPrint Template from the Supervisor menu. The top portion of the Control Panel will have a red background. You are now in “edit template” mode, which allows you to open, save and change templates.



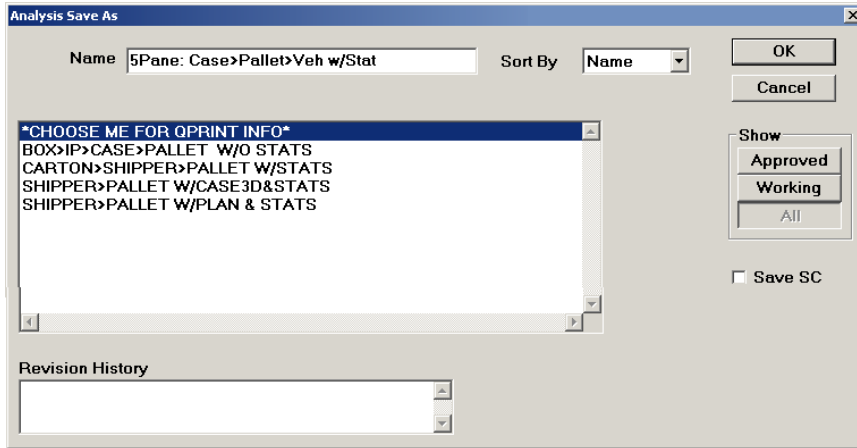
2. Create the design sequence for an analysis. There is no need to define the parameters at this time, you only need to specify the stages to be included.
3. When done with the analysis, open the File menu.
4. Select Print Preview, then select Analysis. The Print Parameters dialog box appears.
5. Use the Print Parameters dialog box to set up report template. Please refer to Chapter 11 on how to setup the report.



- Click OK. The Print Preview Screen appears.



- Use the Print Preview Screen to add any annotations or graphics, if desired.
- Save the Quick Print template by going to the File menu and select Save As. This opens the Analysis Save As dialog box as shown next.

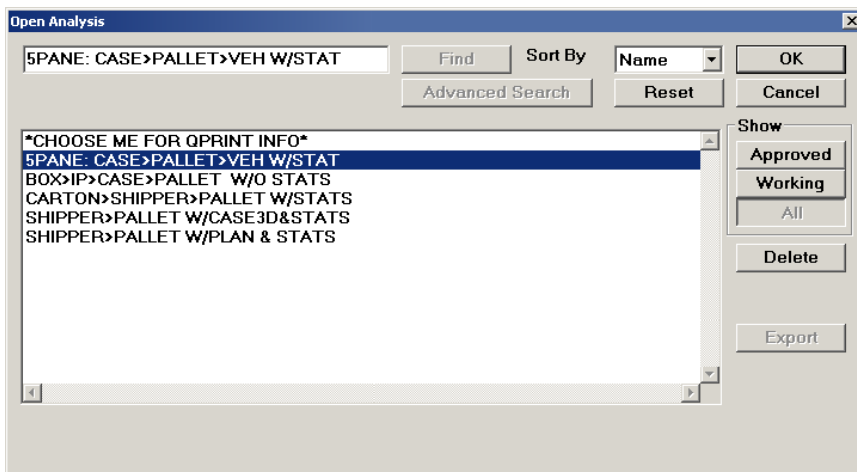


9. Enter a name for the Quick Print template in the Name field and click OK to save.
10. Click Close in the Preview screen to return to the Control Panel.
11. In the Control Panel, click “Exit templates.”
12. Click on Yes when prompted to save changes. The Control Panel redisplay in its normal colors.

Delete a Quick Print Template



To delete an existing Quick Print template, you will need to login as Supervisor.

1. Go to the Supervisor menu, select Login/Logout.
2. Enter password “tops software” and click the Login button.
3. Go to the Supervisor menu, select QPrint Template.
4. Go to File menu and select Open. The Open Analysis dialog box opens and is as shown next.
5. Highlight the QPrint template to be removed and click Delete.



6. Click the Delete button at the confirmation dialog box.
7. Click OK to exit.

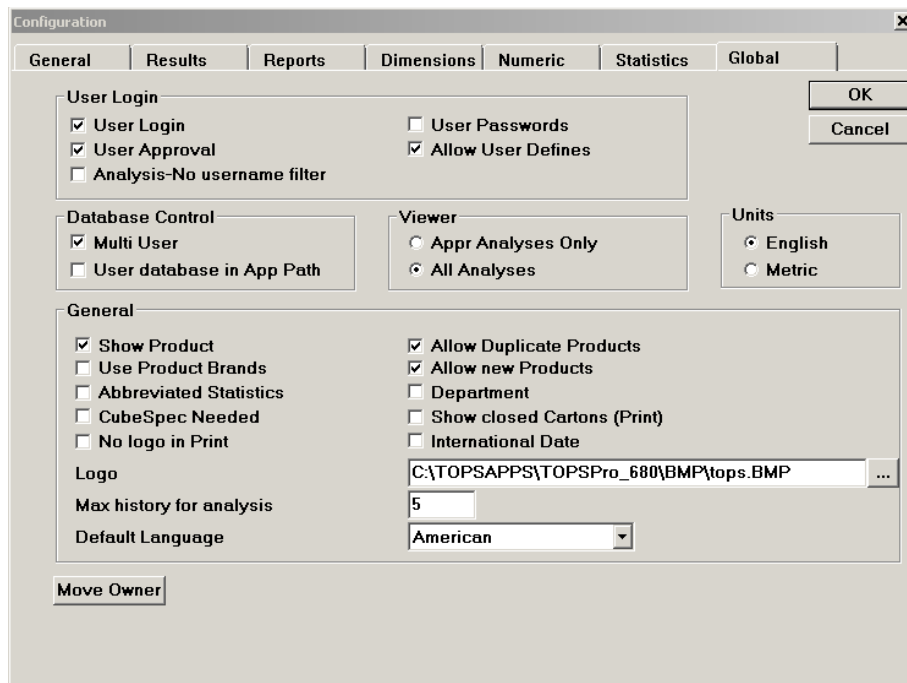
Global Configuration

In the TOPS Configuration program (started with  shortcut), a supervisor can select and de-select a number of configuration options that are not available in the TOPS Pro (started with  shortcut) for Windows program or to anyone other than a supervisor. This function allows you to define a global configuration for your TOPS Pro system.

To define a global configuration, start from the TOPS Pro Configuration program and follow these instructions:

1. Click Login Quick Link or open the Supervisor menu and select Login/Logout.
2. Type in the Supervisor password (“tops software”) and click Login.
3. Click the Configuration quick link or go to the Supervisor menu and select Configuration.

When the Configuration dialog box appears, click on the Global tab on the far right, as pictured here.



Global Tab: This tab displays configuration settings that affect how the TOPS Pro software runs. For example, whether or not to allow users to approve their own analyses, allow duplicate products in a Package Profile or use a logo in reports, etc.

These parameters affect all existing and/or new users. Be aware that if you change these parameters, in order for the changes to “stick,” all users in TOPS Pro and TOPS Configuration must exit the respective systems.

For detailed information about the Global Configuration dialog box, please refer to Appendix B, Dialog Boxes.

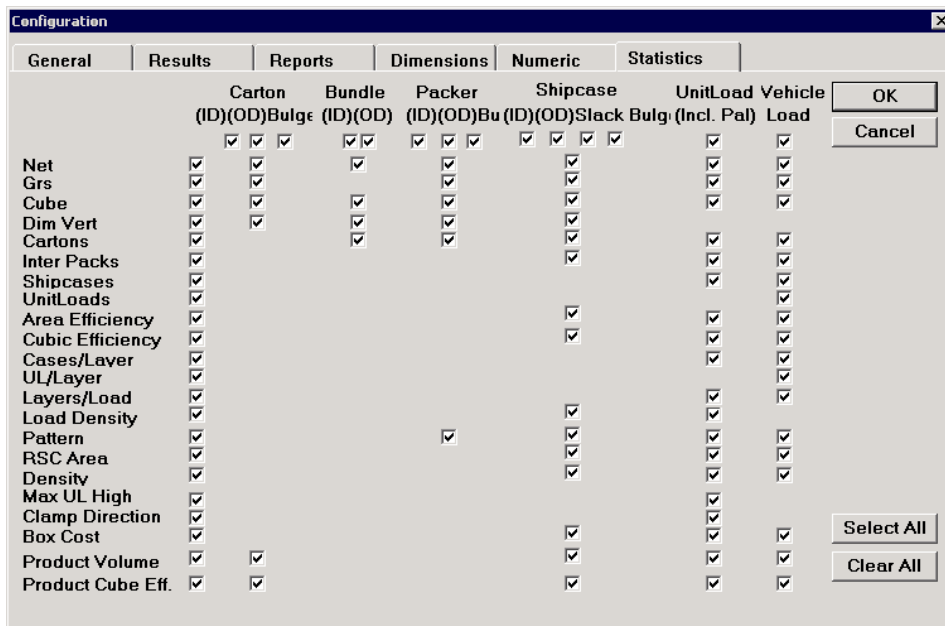
Set Up Statistics

TOPS Pro allows a supervisor to select the amount of statistical data that will display in the various Statistics View panes. This helps eliminate unnecessary data from your reports.

You can set this function in either the TOPS Pro and TOPS Configuration program. The statistics setup affects all users. Be aware that when you set up or change statistics parameters, in order for them to function, all users in TOPS Pro and TOPS Configuration must exit the respective systems.

To set up statistics, follow these instructions:

1. Login as a supervisor.
2. Use these guidelines to open the Statistics dialog box:
 - In the TOPS Pro system, open the Tools menu and select Configuration and click on the Statistics tab.
 - In the TOPS Configuration program, open the Supervisor menu, select Configuration and click on the Statistics tab.



3. Select the various data in the Statistics View panes that you want.
4. Click OK. TOPS Pro saves your statistics setup to the database.

For detailed information about the Statistics Setup dialog box, please refer to Appendix B, Dialog Boxes.

Set License

This supervisor function resets the license on your TOPS Pro software. You will only use this function upon instruction from TOPS technical support team. It provides easy access to the licensing screen in case you upgrade your network license or want to change the licensee information.

Set TOPS License

TOPS Pro Version - 6.805 [Apr 25 2017]

Company Name: TOPS Customer

Serial Number: 1234567 3002011 0444333 0937467 00

Key: 296203304-0

Verification Code:

Apply Exit EMAIL Help

License Information

Number of Users: 2

Network / Standalone: Network

Functionality: S - T

Customization: None

Default Language: American

Def Units: English Metric

This dialog box is the same as the one you see upon initial installation and setup of the TOPS program.

- **Company Name:** Enter the registered licensee name. Make sure to enter the name EXACTLY as provided to you. If you receive a checksum error when you setup the license, this means the Company Name you entered does not match the one provided to you.
- **Serial Number:** Enter the serial number provided to you by TOPS. The first 7-digit will be your short form serial number as marked on the face of your TOPS software CD or plastic CD case.
- **Key:** Provide this number to TOPS when you contact us to setup the license. This number changes with dates.
- **Verification Code:** This will be provided to you when you contact us to setup the license.
- **Apply button:** After all the information has been entered, click this button to complete license setup. You will see a message "Successfully Set License" if all data are entered correctly. Check the License Information section at this time to verify your license configuration: stand-alone versus network and the number of users if yours is a network license.
- **License Information:** Show the details for your registered license: number of users (concurrent if network), stand-alone or network and the TOPS module.

16 RFID Analysis

This chapter introduces the basic functions of the RFID location optimizer in TOPS Pro, which allows users to optimize pallet patterns for maximum RFID readability.

To use the RFID optimizer, first create a Shipcase → Pallet analysis as described in earlier chapters of the User Guide. In this example, we will use the following shipcase and pallet parameters:

- **Shipcase Length (in):** Enter 16
- **Shipcase Width (in):** Enter 10
- **Shipcase Height:** Enter 10
- **Pallet:** Use the default GMA (Notched) with the default settings

You will get the solutions as pictured below.

The screenshot displays the TOPS Pro software interface. The main window shows a 3D model of a pallet loaded with red and yellow shipcases. The dimensions of the pallet are 42,000 x 50,000 x 55,000. The software title is 'Untitled - TOPS Pro'. The menu bar includes File, Edit, View, Define, Tools, Import, Export, Supervisor, and Help. The toolbar contains various icons for file operations and analysis. The 'UnitLoad View 1 of 37' window shows a 3D model of the pallet. The 'UnitLoad View 1 of 37' window displays the following data:

Shipper (ID)	Shipper (OD)	Shipper Bulge	UnitLoad (Incl. Pal)
Ln: 15.6875 in	16.0000 in	0.0000 in	50,000 in
Wd: 9.6875 in	10.0000 in	0.0000 in	42,000 in
Ht: 9.3750 in	10.0000 in	0.0000 in	55,000 in
Net:	0.00 lb		0.00 lb
Grs:	0.00 lb		65.00 lb
Cube:	0.825 ft ³	0.926 ft ³	66.840 ft ³
Height Vert			
Shipper:			65
Area Efficiency:	0.00 %		108.33 %
Cubic Efficiency:	0.00 %		106.21 %
Cases per layer:			13
Layers/load:			5
Pattern:			Interlock
RSC Area:	7.22 ft ²		489 ft ²
Density (gr/cc):			0.0000

The 'UnitLoad' window at the bottom shows a table of unitload solutions:

Select	Sol	Case Wgt	Vol (ID)	Board Area	Dim Vert	Len	UL Wid	UL Hgt	UL Wgt	Ptm Type	Cases /Layer	Layers /UL	Cases /UL	Area Eff	Cubic Eff
1	0.000	0.825	7.22	H	50,000	42,000	55,000	65.0	B	13	5	65	108.33%	106.21%	
2	0.000	0.825	7.22	H	48,000	40,000	55,000	65.0	C	12	5	60	100.00%	98.04%	
3	0.000	0.825	7.22	H	48,000	42,000	55,000	65.0	T	12	5	60	100.00%	98.04%	
4	0.000	0.825	7.22	H	50,000	42,000	55,000	65.0	T	12	5	60	100.00%	98.04%	
5	0.000	0.825	7.22	H	48,000	42,000	55,000	65.0	T	12	5	60	100.00%	98.04%	
6	0.000	0.825	7.22	H	50,000	42,000	55,000	65.0	W	12	5	60	100.00%	98.04%	

Note that the thumbnails for Unitload list (under Tools, Configuration, General tab) is disabled to show more solutions on the screen.

Click the RFID button to access these two functions.

- **Sort by RFID:** Sorts the unitload solutions according to the amount of RF blockage, from the least to the greatest.
- **RFID:** Takes the current pallet pattern and displays it in the RFID Dialog Box. Here you can select various options regarding the location and placement of the RFID tags on the shipcases. You also have the option to rotate shipcases within the pallet pattern to maximize RF readability.

Sort by RFID

To obtain the best pattern for RFID tag placement (on shipcases), click the “Sort by RFID” button, you will see the solution as pictured below.

The screenshot displays the TOPS Pro software interface. The main window shows a 3D visualization of a unit load (UL) on a pallet, with dimensions 42,000 x 50,000 x 55,000. The unit load is composed of red and yellow shipcases. The interface includes a menu bar (File, Edit, View, Define, Tools, Import, Export, Supervisor, Help) and a toolbar with various icons. The right pane shows the 'UnitLoad View 1 of 37' with a detailed data table for the selected unit load.

GMA (Notched) 48.000x40.000x5.000			
Shipper (ID)	Shipper (OD)	Shipper Bulge	UnitLoad (Incl. Pal)
Ln: 15.6875 in	16.0000 in	0.0000 in	50.000 in
Wd: 9.6875 in	10.0000 in	0.0000 in	42.000 in
Ht: 9.3750 in	10.0000 in	0.0000 in	55.000 in
Net: 0.00 lb			0.00 lb
Grs: 0.00 lb			65.00 lb
Cube: 0.825 ft ³	0.926 ft ³		66.840 ft ³
Height Vert			
Shipper:			65
Area Efficiency:	0.00 %		108.33 %
Cubic Efficiency:	0.00 %		106.21 %
Cases per layer:			13
Layers/load:			5
Pattern:			Interlock
RSC Area:	7.22 ft ²		469 ft ²
Density (gr/cc):			0.0000

Select	Sol	Case Wgt	Vol (ID)	Board Area	Dim Vert	Len	Wid	Hgt	UL Wgt	Ptn	Cases /Layer	Layers /UL	Cases /UL	Area Eff	Cubic Eff	RFID Blockage
25	0.000	0.825	7.22	H	46.000	36.000	55.000	65.0	D	10	5	50	83.33%	81.70%	0.00%(R)	
27	0.000	0.825	7.22	H	50.000	36.000	55.000	65.0	T	10	5	50	83.33%	81.70%	0.00%(R)	
36	0.000	0.825	7.22	H	36.000	36.000	55.000	65.0	D	8	5	40	66.67%	65.36%	0.00%(B)	
1	0.000	0.825	7.22	H	50.000	36.000	55.000	65.0	T	10	5	50	83.33%	81.70%	20.00%(L)	
2	0.000	0.825	7.22	H	46.000	36.000	55.000	65.0	W	10	5	50	83.33%	81.70%	20.00%(L)	
3	0.000	0.825	7.22	H	42.000	42.000	55.000	65.0	W	8	5	40	66.67%	65.36%	20.00%(L)	

This will add an extra (last) column of statistics to the UnitLoad List pane with heading **RFID Blockage**. The unitload solutions are sorted such that patterns with the least RFID blockage will appear on the top of the list.

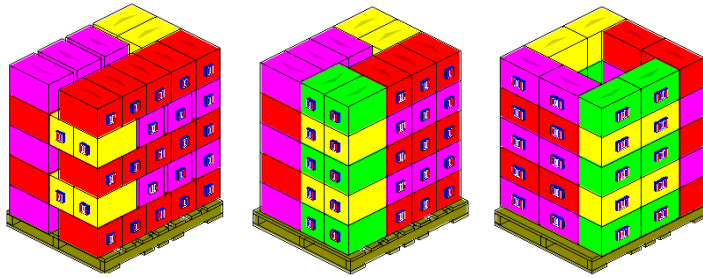
The letter in brackets to the right of the RFID factor represents the shipcase face on which the tag is located. This will be the face where the tag will have maximum readability. The percentage (%) represents the maximum amount of blockage that a shipcase in the current pattern would have using the default values.

(F) – Front
(B) – Back

(L) – Left
(R) – Right

(T) – Top
(BT) – Bottom

The top 3 solutions will appear as below:



Sol	Case Wgt	Vol (ID)	Board Area	Dim Vert	Len	UL Wid	UL Hgt	UL Wgt	Pttn Type	Cases /Layer	Layers /UL	Cases /UL	Area Eff	Cubic Eff	RFID Factor
25	0.000	0.825	7.22	H	50.00	36.00	55.00	65.0	T	10	5	50	83.33%	81.70%	0.00%(L)
27	0.000	0.825	7.22	H	46.00	36.00	55.00	65.0	W	10	5	50	83.33%	81.70%	0.00%(L)
36	0.000	0.825	7.22	H	42.00	42.00	55.00	65.0	W	8	5	40	66.67%	65.36%	0.00%(F)

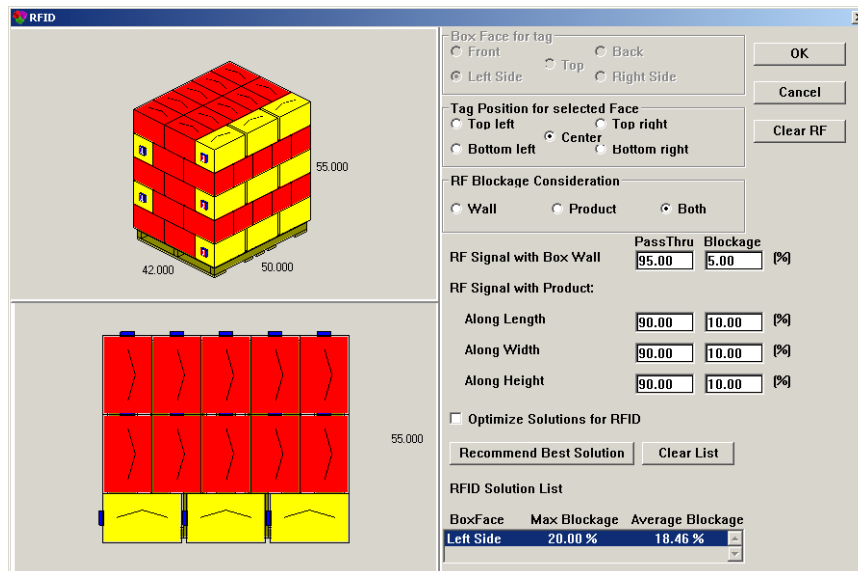
Notice that the 3 solutions all have a RFID factor of 0%, meaning that none of the RFID tags on the shipcases are obstructed from the scanner. To get back to your original sort order, click the “Sort by Eff” (Efficiency) button in the unitload view pane.

RFID Analysis

The RFID button optimizes placement of RFID tags for an existing pallet pattern.

To illustrate this function, we use the first unitload solution in the current analysis. Make sure you highlight the first solution and click the RFID button in the unitload view pane. The RFID Dialog Box, as shown below opens.

 **Note:** The small dark rectangles in the Unitload Plan View at the bottom represent the RFID tags.

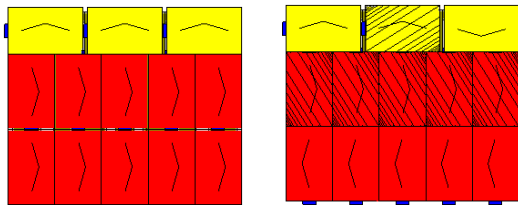


The following list gives a brief overview of the different options in RFID:

- **Box Face for tag:** Specify the shipcase face where the tag will be placed.

- **Tag Position for selected Face:** Select where on the selected shipcase face the tag will be placed.
- **RF Blockage Consideration:** Specify the blockage factor which TOPS Pro should consider when placing RFID tags: product, the box or both.
- **RF Signal with Box Wall:** Enter an estimate in percentage (%) the amount of RF pass through or blockage imposed by the walls of the shipcase.
 - 📌 **Note:** You will need to enter only one of the two values, the other percentage will be populated automatically based on a total of 100%.
- **RF Signal with Product:** Enter an estimate in percentage (%) the amount of RF blockage imposed by the contents inside the shipcase along the Length, Width and Height of the shipcase.
 - 📌 **Note:** You will need to enter only one of the two numbers for each line, the other percentage will be populated automatically based on a total of 100%.
- **Optimize Solutions for RFID:** If checked, this option enables rotation of shipcases on the current pallet pattern by 180 degrees to obtain the most visibility to the RFID tags.

The illustrations below show how optimizing the solution by rotating the shipcase at the top by 180 degrees cuts average RF blockage from 18.46% to 9.23% for the current example.



📌 **Note:** The shaded shipcases are the ones with maximum RF blockage.

- **Recommend Best Solution/Recalc Recommendations:** Click this button to have TOPS Pro start RFID tag optimization based on the options selected above for the current pallet pattern. The results are displayed in the RFID Solution List. If you have changed any parameters, click this button again (now labeled as Recalc Recommendations) to recalculate the solutions.
- **RFID Solution List:** Displays the list of RFID tag placement solutions, sorted by the amount of RF blockage.

In the RFID Solution List below, it lists the maximum and average blockage when the tags are placed on the left, right, front, and top face of the shipcase respectively. You can click on each solution to have the 3D and plan views of the unitload.

BoxFace	Max Blockage	Average Blockage
Left Side	20.00 %	9.23 %
Right Side	20.00 %	9.23 %
Front Face	40.00 %	12.31 %
Back Face	40.00 %	12.31 %
Top Face	80.00 %	80.00 %

17 Eco Savings Report

The Eco Savings Report lets you compare up to 5 solutions based on the effects that different package size, case size and pallet and vehicle loads have on the environment in terms of carbon emission, corrugated and packing material usage.

To begin, first create the analysis and enter the package dimensions and sizing that you would like to evaluate. Then setup the cost parameters for the analysis. Once these are setup, you can compare the eco savings data among various solutions in different stages.

Please follow these instructions to go through an example.

Create the Analysis

1. Go to the File menu, select Open.
2. At the Open Analysis dialog box, highlight Cookies (Boxed and Palletized) and click OK to open.

TOPS will open the analysis with the previously saved solution.

3. Click the Cancel button (✖) in the Tool Bar to go back to the Control Panel.
4. Click the Calc button to re-generate all solutions.

Set up Cost Factors

1. Go to the Tools menu, then ESR and select ESR Configuration. You will see the Eco Savings Report (ESR) dialog box as pictured below.

Containers			
Route	[Dropdown Menu]		
	40 ft. HC	40 ft.	20 ft.
Cost / Container	0.00	0.00	0.00
CO2 emissions per container	0.00	0.00	0.00

Trucks	
Cost / mile	0.00
Average Miles / trip	0.00
CO2 emissions / mile	0.00

Packaging	
Corrugated Cost	0.00
Misc. Packing Cost / Case	0.00
Pallet Cost	0.00
Misc. Packing Cost / Pallet	0.00

Units Cost: [Input Field]

Buttons: OK, Cancel, Help

- Let's set up a route called Route1 and input the data as pictured below.

Containers			
Route	40 ft. HC	40 ft.	20 ft.
Route1			
Cost / Container	875.00	800.00	600.00
CO2 emissions per container	50.00	50.00	35.00

Trucks	
Cost / mile	3.20
Average Miles / trip	500.00
CO2 emissions / mile	12.00

Packaging	
Corrugated Cost	1.50
Misc. Packing Cost / Case	2.00
Pallet Cost	25.00
Misc. Packing Cost / Pallet	3.50

Units Cost	
Units Cost	3.0

- When done, click OK to save the parameters into the TOPS database.

Select the Solutions

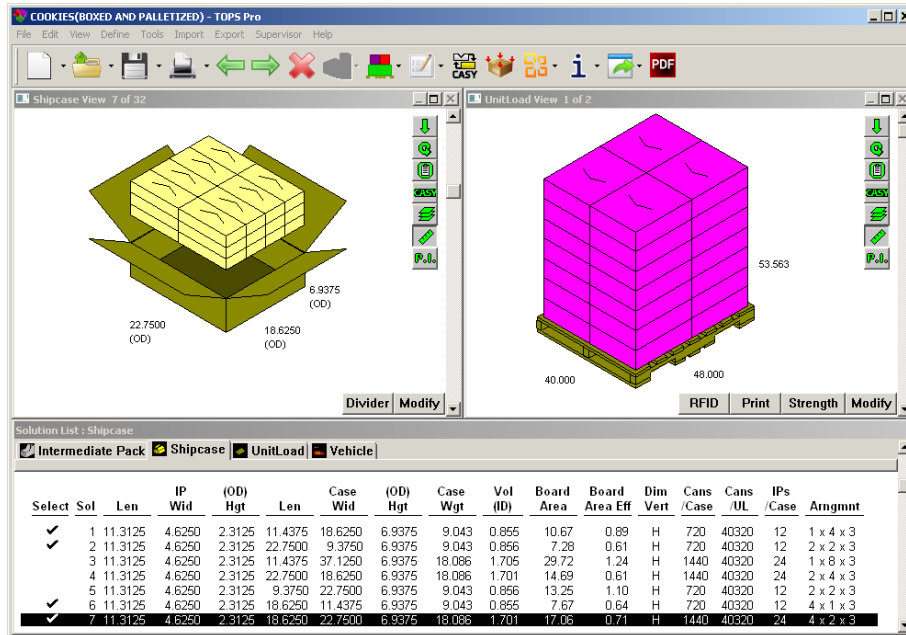
- Select the Intermediate pack solution as pictured below and proceed to the shipcase stage by clicking Next (➡) on the Tool Bar.

Select	Sol	Len	IP Wid	IP Hgt	IP Wgt	Dim Vert	Cans /IP	Cans /Case	Cans /UL	IPs /Case	IPs /UL	Cases /UL	Uls /Veh.	Arrgmt
1	5.6875	9.1250	2.3125	0.835	H	60	720	40320	12	672	56	56	15 x 4 x 1	
2	7.5625	6.8750	2.3125	0.784	H	60	720	40320	12	672	56	56	20 x 3 x 1	
3	11.3125	4.6250	2.3125	0.754	H	60	720	40320	12	672	56	56	30 x 2 x 1	

- In the Shipcase Solution View, we will create the Eco Savings Report by comparing the first, second, sixth and seventh shipcase solution.
- Select the shipcase solution by double clicking the solution, a check mark appears under the

Select column in the solution view once the solution is selected.

- Continue step 10 until all 4 solutions are selected as pictured below.



- Go to the Tools menu, select ESR and then ESR for Analysis.

- A pop-up dialog box appears to prompt for additional parameters. Select Route1 from the Route field and enter other relevant information as pictured below.

- Click OK to view the report for the four selected shipcase solutions and associated pallet solution as on the following pages.

COOKIES(BOXED AND PALLETIZED) - TOPS Pro

File Edit Text Picture Export Help









ReportViewWindow

Close
Zoom
Print
Email
PDF
Add/Edit text
Statistics
Chart

TOPS
Tops Engineering

COOKIES(BOXED AND PALLETIZED)

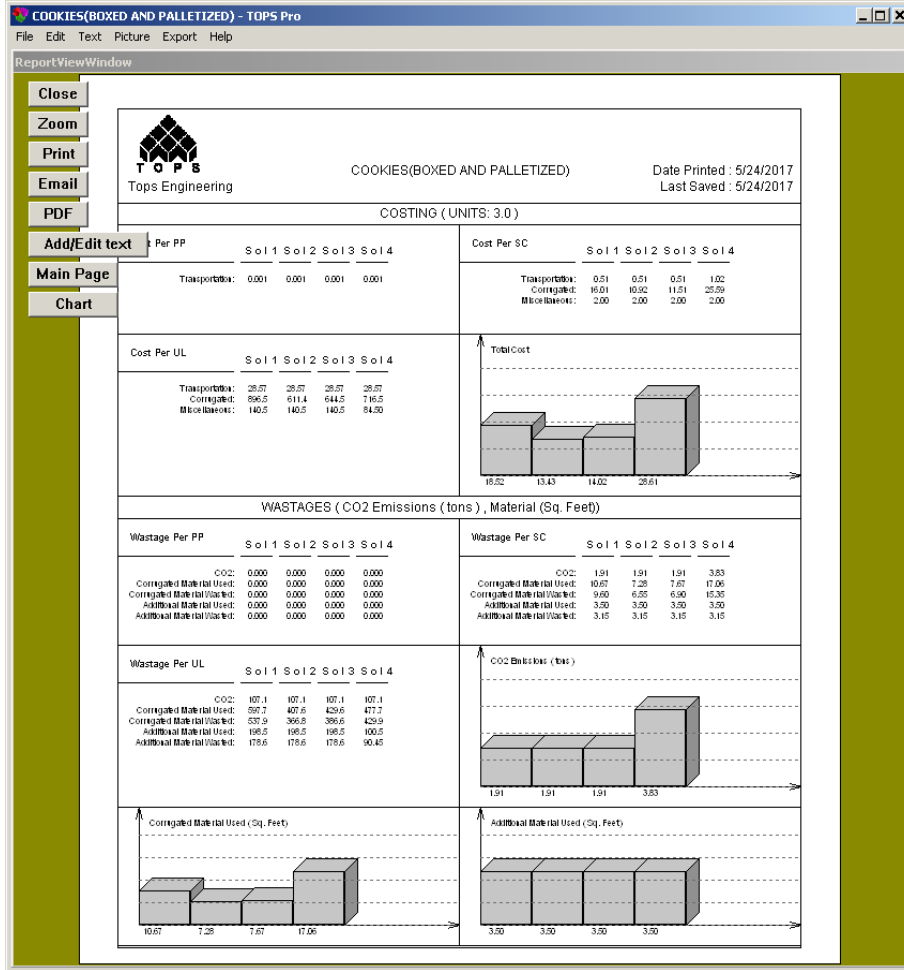
Date Printed : 5/24/2017
Last Saved : 5/24/2017

<p>1.Soln 1</p>  <p>POC (FEFCO 020) 11.4375x18.6250x6.9375 Dim: 11.4375 X 18.6250 X 6.9375 Net: 7.200 Grt: 9.040 Total Count: 720 Cost: 29.57</p>	<p>1.Soln 1</p>  <p>GMA (North) 48.000x40.000x5.000 Dim: 48.000 X 40.000 X 5.263 Net: 403.200 Grt: 571.400 Layers: 7 Cases/Layer: 8 Total Count: 40320 Cost: 46.88</p>
<p>2.Soln 2</p>  <p>POC (FEFCO 020) 22.7500x9.3750x6.9375 Dim: 22.7500 X 9.3750 X 6.9375 Net: 7.200 Grt: 9.040 Total Count: 720 Cost: 29.57</p>	<p>2.Soln 1</p>  <p>GMA (North) 48.000x40.000x5.000 Dim: 48.000 X 40.000 X 5.263 Net: 403.200 Grt: 571.400 Layers: 7 Cases/Layer: 8 Total Count: 40320 Cost: 41.49</p>
<p>3.Soln 3</p>  <p>POC (FEFCO 020) 18.6250x11.4375x6.9375 Dim: 18.6250 X 11.4375 X 6.9375 Net: 7.200 Grt: 9.040 Total Count: 720 Cost: 29.57</p>	<p>3.Soln 1</p>  <p>GMA (North) 48.000x40.000x5.000 Dim: 48.000 X 40.000 X 5.263 Net: 403.200 Grt: 571.400 Layers: 7 Cases/Layer: 8 Total Count: 40320 Cost: 42.08</p>
<p>4.Soln 4</p>  <p>POC (FEFCO 020) 18.6250x22.7500x6.9375 Dim: 18.6250 X 22.7500 X 6.9375 Net: 14.400 Grt: 18.080 Total Count: 1440 Cost: 57.14</p>	<p>4.Soln 1</p>  <p>GMA (North) 48.000x40.000x5.000 Dim: 48.000 X 40.000 X 5.263 Net: 403.200 Grt: 571.400 Layers: 7 Cases/Layer: 4 Total Count: 40320 Cost: 84.73</p>

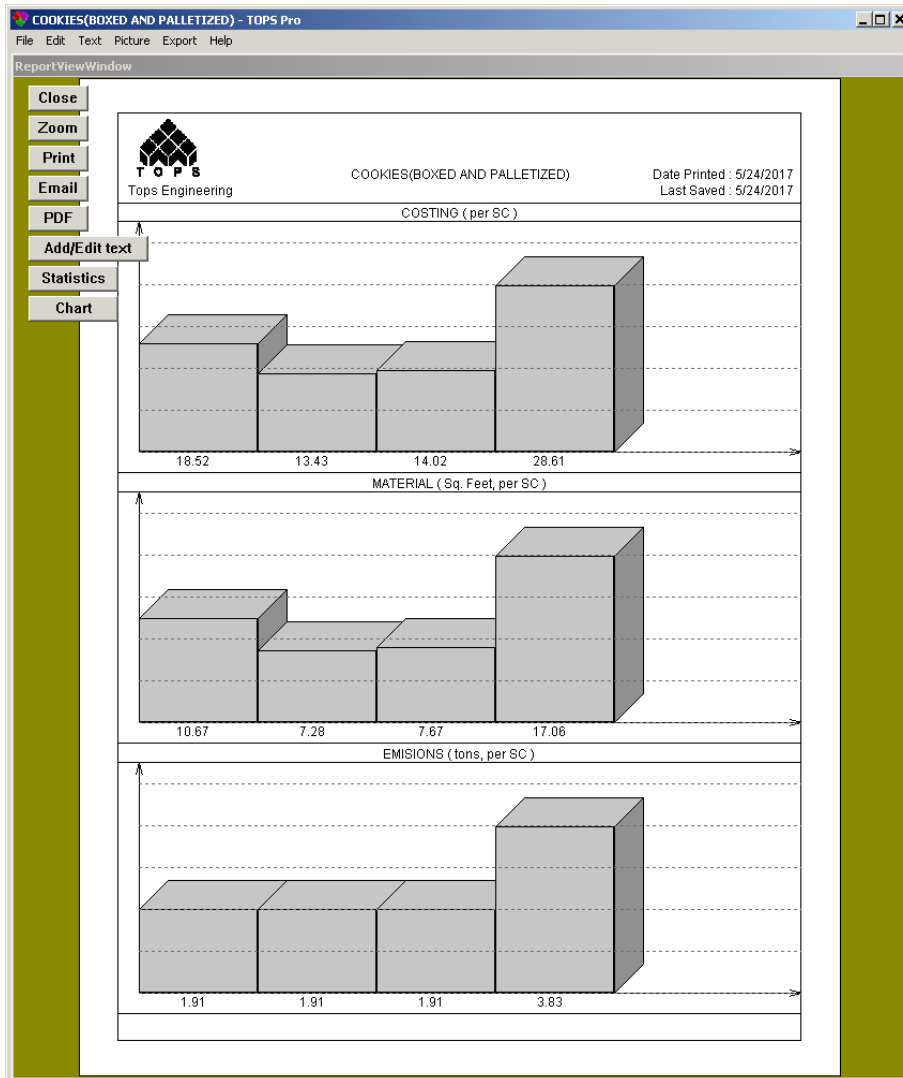
	Sol 1	Sol 2	Sol 3	Sol 4
UL Area:	56	56	56	56
PPAUL:	40320	40320	40320	40320
Cases/UL:	56	56	56	56
Area Eff:	88.8%	88.9%	88.8%	88.3%
Case Eff:	84.3%	84.6%	84.3%	84.1%
Board Area/UL:	1	1	1	1
UL Board Area:	59802	40882	43082	47882

Note:

8. To view the ESR statistics, click the Statistics button.



9. To compare the Unitload and/or Transit Vehicle stages, click Close to return to the solution view.
10. Use the Next button (➡) to proceed to the Unitload stage.
11. Repeat steps 10 through 15 to select multiple solutions and generate the reports as described.
12. To view the ESR chart comparing sustainability measures, click the Chart button.




13. Notice that the ESR provides the following comparison data:

Costs

Transportation Cost
 Corrugated Cost
 Miscellaneous Cost
 Total Cost

Usage/Waste

CO2 Emissions
 Corrugated Material Used
 Corrugated Material Wasted
 Additional Material Used
 Additional Material Wasted

The Send to MS Office function under the Export menu as well as on the tool bar () lets you export the current analysis to a MS Word or MS Excel file using a pre-defined template. This chapter will discuss the following topics:

- Export an analysis to a predefined Word template from TOPS
- Export an analysis to a predefined Excel template from TOPS
- Create a new Word template for use with TOPS data
- Create a new Excel template for use with TOPS data

MS Office Templates

TOPS Pro comes with pre-formatted Word and Excel templates to display graphics and statistics from a TOPS analysis. These templates contain special bookmarks (for Word) and field names (for Excel) to refer different data from the analysis. Please refer to Appendix G for a list of bookmarks and field names used for Word and Excel respectively.

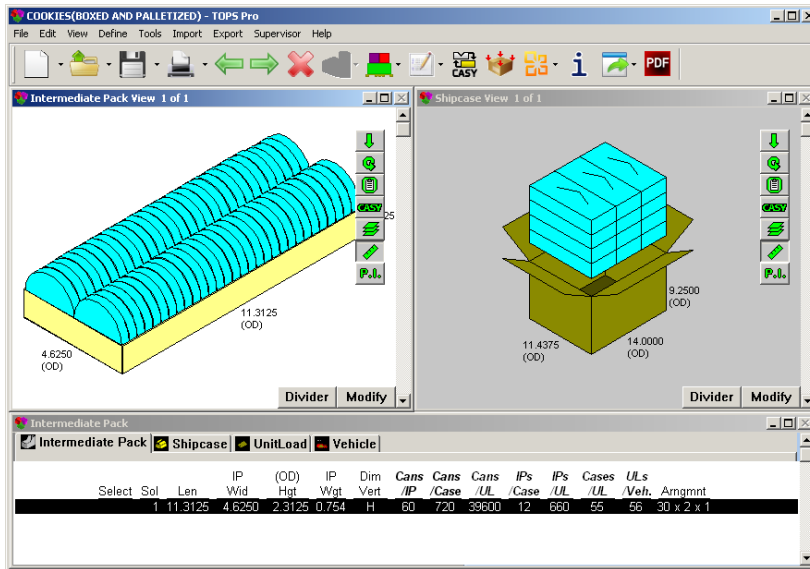
The MS Office templates for TOPS are saved in the `\TOPSAPPS\TOPSPro_VERSION#\MSWord\` folder and can be easily modified to display data in the desired format. You can also design new templates from an existing document and apply relevant bookmarks or field names at the corresponding locations.

For any newly created templates, they have to be saved in the same folder as referenced above in order for TOPS to display them as available selections in the Select template to export dialog box.

Export to MS Word

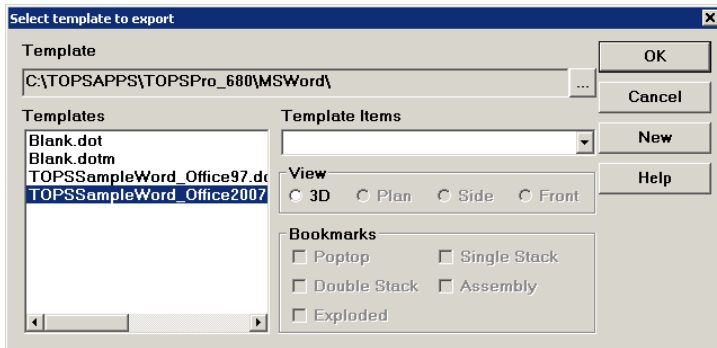
In this example, we will use sample analysis Cookies(Boxed and Palletized) to illustrate the send to MS Office function. Other analysis will work the same way but the number of graphics exported might vary based on the analysis.

1. Go to the File menu and select Open.
2. At the Open Analysis dialog box, select Cookies(Boxed and Palletized) under SAMPLE DATA folder click OK.
3. The saved analysis will be opened as pictured below.



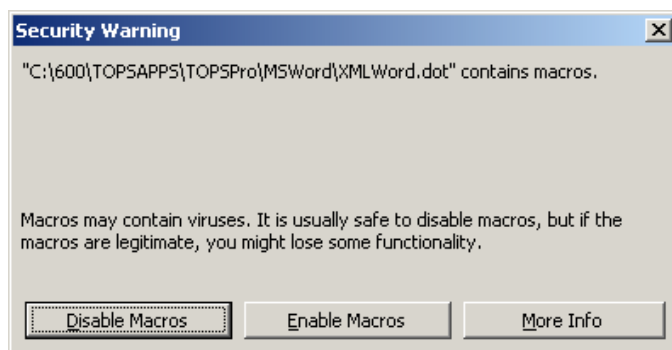
Note: If your screen layout looks different from the one above, go to the View menu and select “Split Screen”.

- Go to the Export menu and select Send to MS Office or click the icon on the tool bar and select Send to Word. This opens the Select template to export dialog box as pictured below.

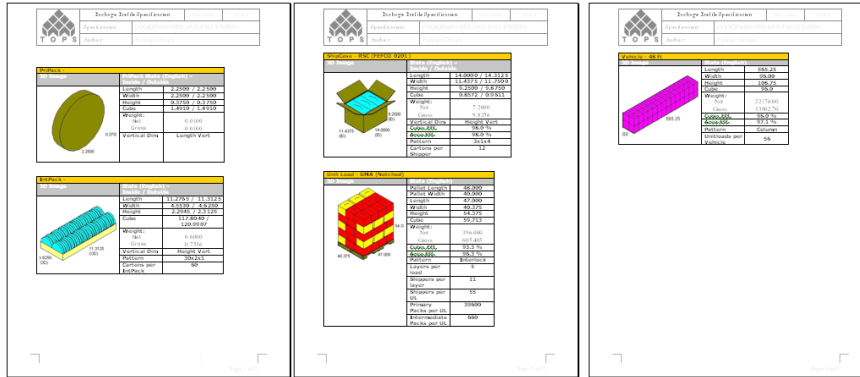


- Highlight TOPSSampleWord_Office2007.dotm and click OK.
- TOPS will instruct your system to open MS Word.

Note: You might see a security warning as shown below depending on the security setting in your MS Word.




- Click Enable Macros if you see the above message to proceed with data export from TOPS to Word.
- MS Word will start placing different data at assigned locations and when done, you will see a three page document as pictured below.




- Save the document as desired using Word's File and Saved As function.

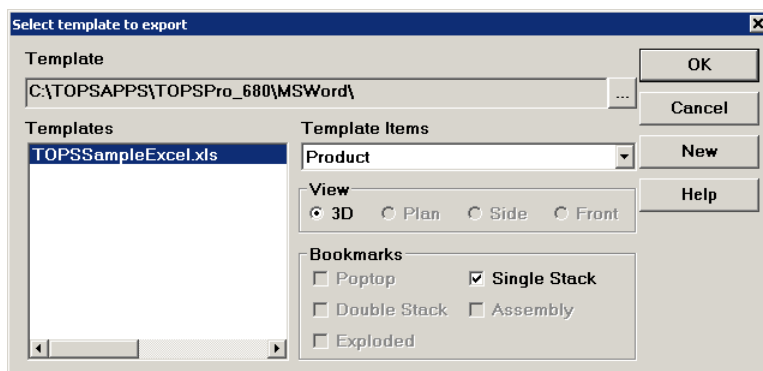
To enable Macros in MS Word 2007, please follow these steps:

- Click the Microsoft Office Button , and then click on Word Options.
- Click Trust Center, click Trust Center Settings, and then click Macro Settings.
- Click Enable all macros.

Export to MS Excel

In this example, we will again, use sample analysis Cookies (Boxed and Palletized) to illustrate the send to MS Office function.

- Go to the File menu and select Open.
- At the Open Analysis dialog box, select Cookies(Boxed and Palletized) in the Sample Data folder and click OK.
- The saved analysis will be opened.
- Go to the Export menu and select Send to MS Office or click the  icon on the tool bar and select Send to Excel. This opens the Select template to export dialog box as pictured below.



5. Highlight TOPSSampleExcel.xls and click OK.
6. TOPS will instruct your system to open MS Excel.
7. MS Excel will start placing different data at assigned locations and when done, you will see a worksheet with the following layout.

INPUT									
Primary Pack	Intermediate Pack	Shipcase	Unitload	Vehicle					
Length	2.25 in	Length	11.31 in	Length	14.31 in	Length	48.00 in	Length	970.00 in
Width	2.25 in	Width	4.63 in	Width	1.75 in	Width	40.39 in	Width	96.00 in
Height	38 in	Height	2.31 in	Height	3.88 in	Height	54.39 in	Height	100.00 in
Dim Vgt	Length Vgt	Dim Vgt	Height Vgt	Dim Vgt	Height Vgt	Dim Vgt	-	Dim Vgt	Height
Net Wgt	.01 oz	Net Wgt	.60 oz	Net Wgt	7.20 lb	Net Wgt	336.00 lb	Net Wgt	23276.00 lb
Gross Wgt	.01 oz	Gross Wgt	.75 oz	Gross Wgt	8.83 lb	Gross Wgt	639.41 lb	Gross Wgt	33962.70 lb
					RSC (FEFCO 0281)		GMA (Matched)	48 ft	

OUTPUT									
Primary Pack	Intermediate Pack	Shipcase	Unitload	Vehicle					
Volume	143 in ³	120.89 in ³	36 in ³	59.71 in ³	96.00 in ³				
Area Eff	-	-	98.00 %	98.30 %	97.30 %				
Cases Eff	-	-	98.00 %	93.30 %	96.00 %				
Cases Per Layer	1.00	60.00	3.00	11.00	29.00				
Layers Per Load	-	1.00	1.00	5.00	2.00				
Pattern	-	3B2x1	3A1x4	Interlock	Column				
RSC Area	-	60.00	7.83	430.53	-				
Count	-	60.00	12.00	55.00	56.00				

8. Save the document as desired using Excel's File, Saved as function.

Create a Custom Word Template

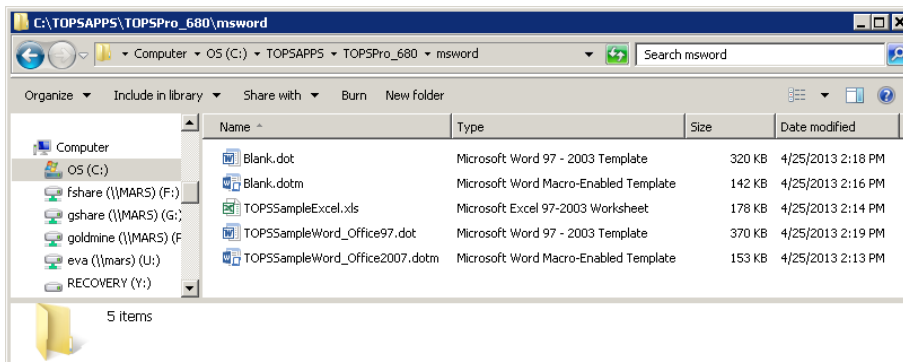
To create a custom Word template for TOPS Pro, these are the steps you should follow:

- Copy an existing Word template from TOPS system.
- Format the document to the report format as desired.
- Place data and graphic using TOPS bookmarks in corresponding locations.
- Save the document as a Word template in \TOPSAPPS\TOPSPro\msword folder.

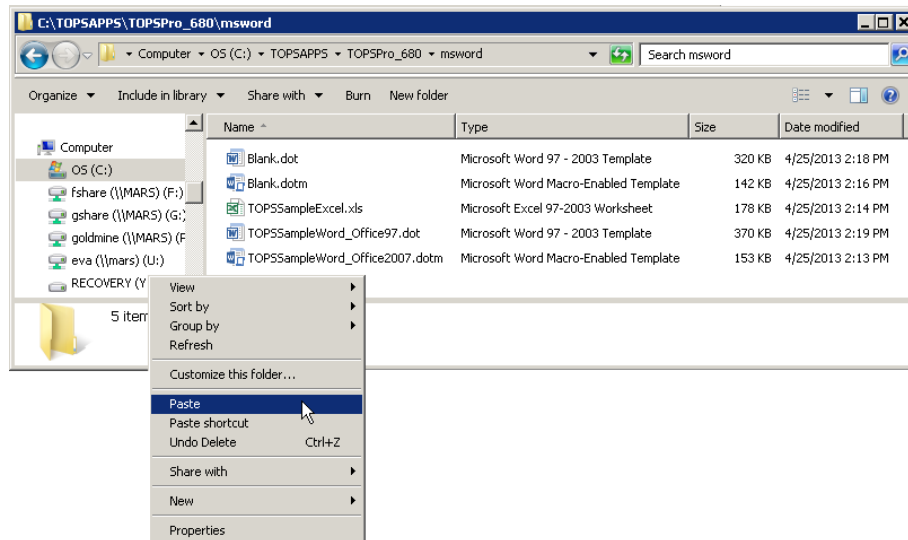
Followed are the instructions in more detail:

Copy Blank.dot to MyTemplate.dot

1. Depending on the Windows OS you are running, click the icon on the task bar or right click the Computer icon on your desktop and select Open.
2. Navigate to the folder where document templates for TOPS Pro were installed (default is \TOPSAPPS\TOPSPRO_xxx\msword\ folder), similar to a screen as pictured below.



3. Right click on the document Blank.dotm and select Copy at the pop-up dialog box.
4. With the mouse button anywhere in the folder list, right click the mouse button and select Paste at the pop-up dialog box as pictured below.




5. A new file call Blank - Copy.dotm will be created.
6. Right click on the new file Copy of Blank.dot and select rename at the pop-up dialog box.
7. When the filename is highlighted, edit the text to “MyTemplate.dotm” and press Enter on the keyboard.

We have just created a new blank template file named MyTemplate.dotm in the \TOPSAPPS\TOPSPro_xxx\msword\ folder.

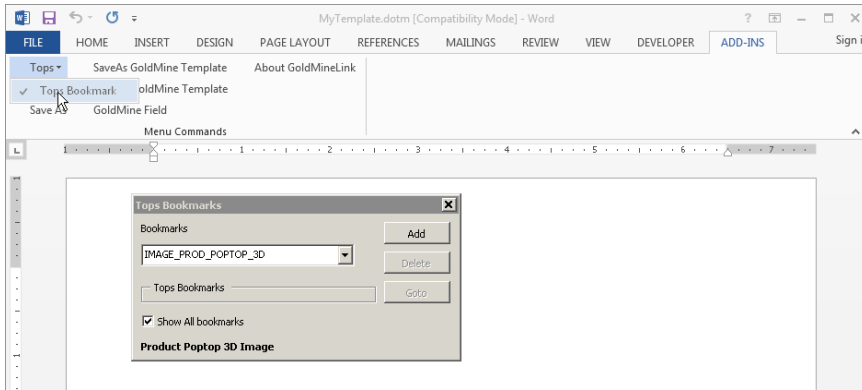
Format the Template

In this illustration, we are using Word 2013. If you are using other versions of Word, please use the corresponding commands.

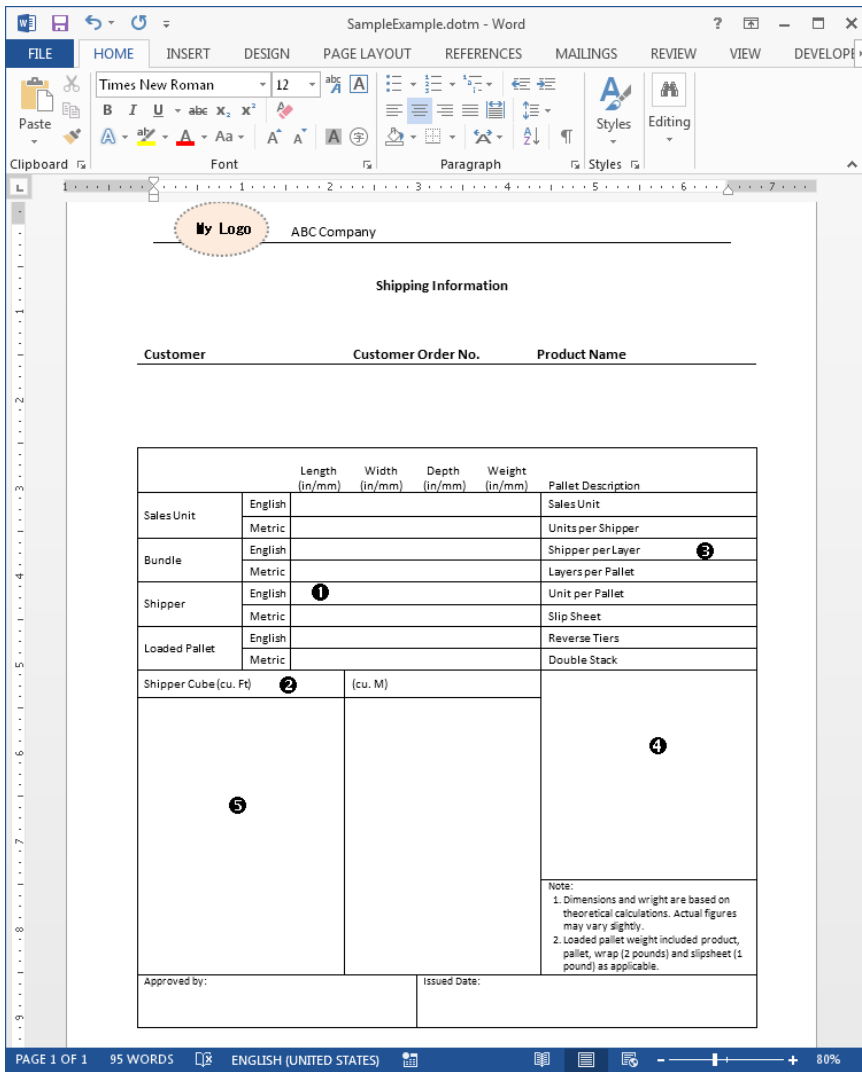
1. Right click the file MyTemplate.dot and select Open in the pop-up menu to open it in Word.

 **Note:** Make sure that you open the dot file as instructed or directly from within Word. **Double clicking a dot file would only create a new document file based on the dot file but not opening the dot file.**

2. Click on Enable Macros to use macros created for the template file. You will see a new blank document opened in Word.
3. Open the ADD-INS menu and you will find Tops with a drop down option to open Tops Bookmarks as pictured on the next page.




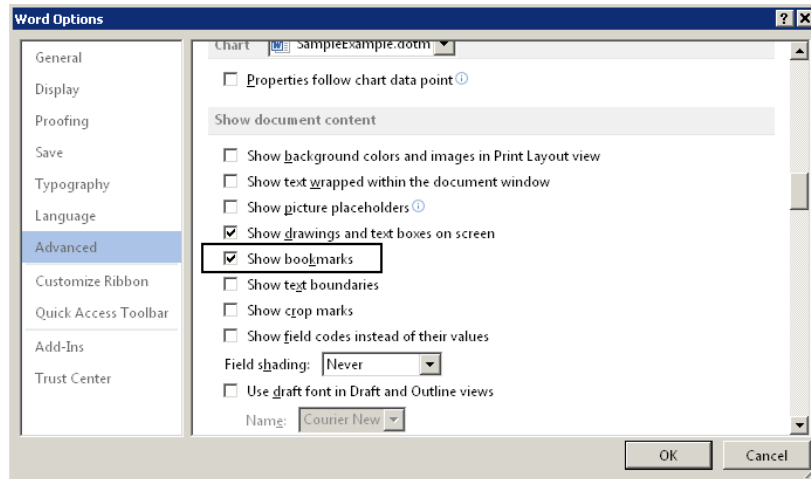
4. Format the new Word report as needed. In the sample report below, the different areas contain statistics and images from TOPS as pictured below.



Add Tops Bookmarks

To add the graphics and statistics in the marked area, we will use the Tops Bookmarks saved in this word template file. A list of Tops bookmarks is available in Appendix G.

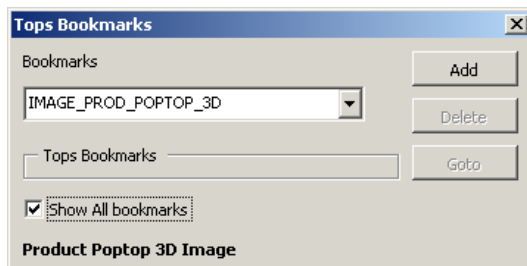
Before adding the bookmarks, please make sure bookmarks (I) are visible within Word. Go to File menu and select Options. In windows 2007, click the Microsoft Office button  and then Word Options. Click Advanced and then scroll down to the Show document content section and check “Show Bookmarks.”



In this example, we will add the following bookmarks in the highlighted areas of the report as shown on the previous page:

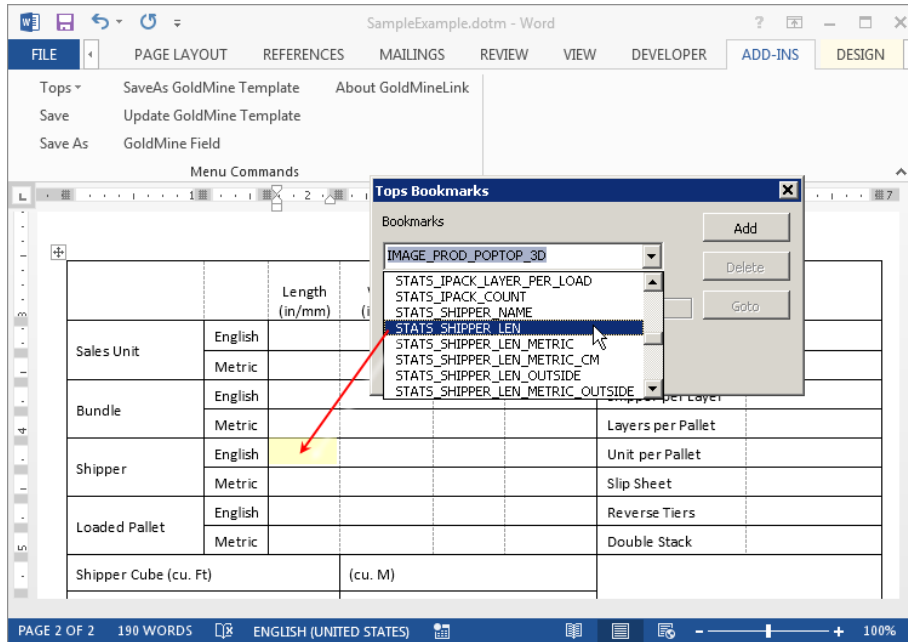
- Area 1: Shipcase length in inches (STATS_SHIPPER_LEN)
- Area 2: Shipcase cube in cubic inches (STATS_SHIPPER_CUBE)
- Area 3: Number of shipcase per layer (STATS_UL_PER_LAYER)
- Area 4: Unitload 3D view (IMAGE_UL_SINGLE_STACK_3D)
- Area 5: Intermediate Pack 3D view (IMAGE_IP_SINGLE_STACK_3D)

1. To insert Shipcase length in inches, click in the area marked **CE**, go to Tops menu and click on Tops Bookmarks. The Tops Bookmarks dialog box, as pictured below, appears.

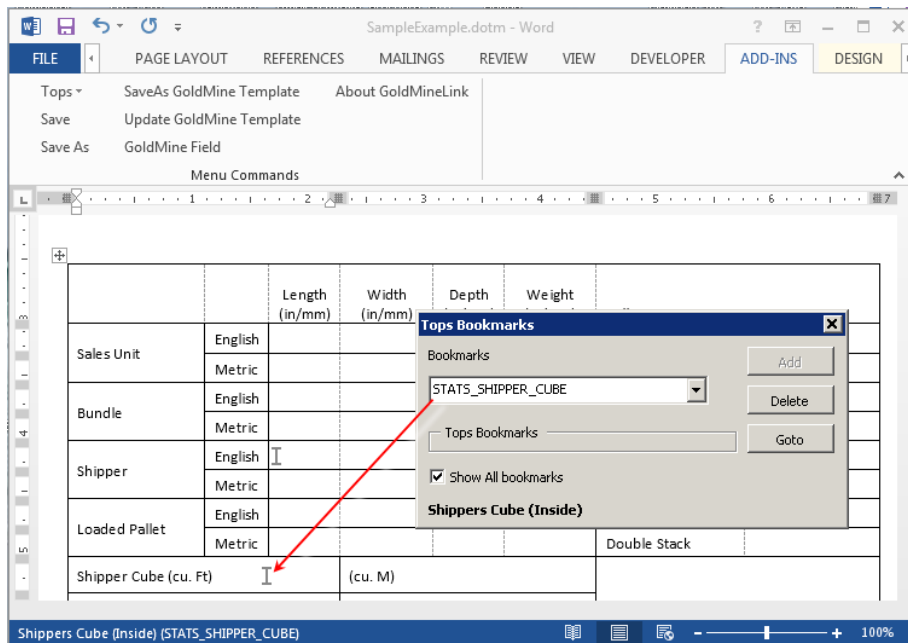


Notice that you can also check the Show All bookmarks option in this dialog box to show added bookmarks in the document.

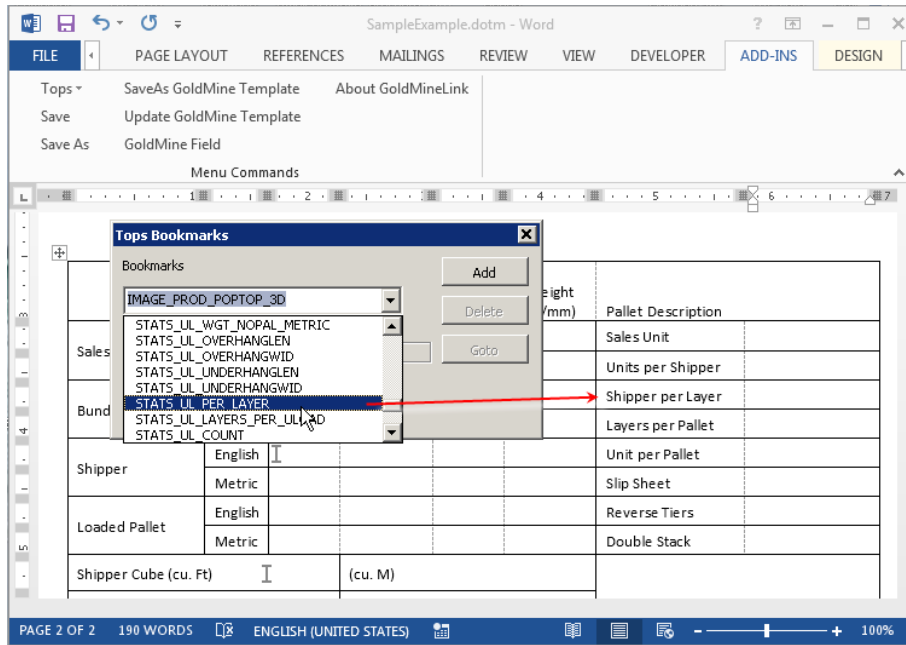
2. Click on the drop-down list, scroll though the list and highlight STAT_SHIPPER_LEN; click on the Add button as pictured below.



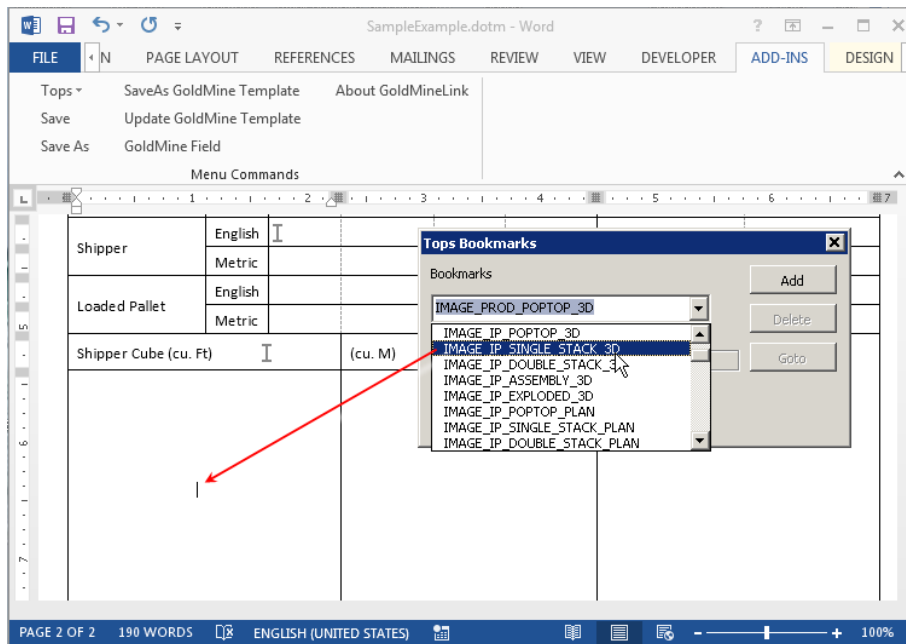
3. The text cursor (|) now changes to a bookmark indicator (I) in the highlighted above.
4. Now select bookmark STATS_SHIPPER_CUBE from the list, click on the Shipper Cube field, area and click on the Add button in the TOPS Bookmarks dialog to add the bookmark.



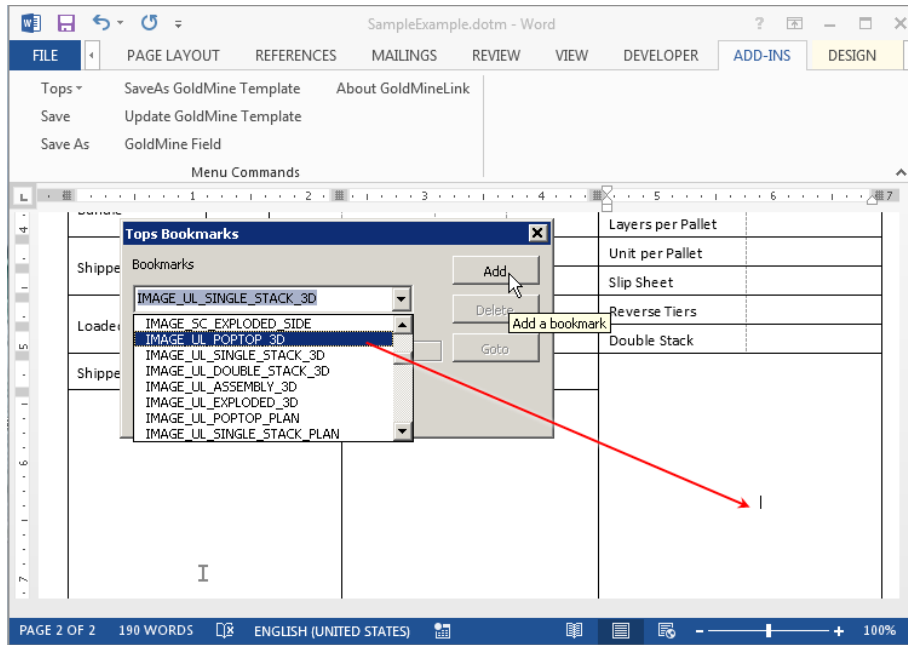
5. To add shipper per unitload layer, select STATS_UL_PER_LAYER from the list, click on the area as pictured below and click the Add button in the TOPS Bookmarks dialog to add the bookmark.



- To add the intermediate pack 3D graphic, select `IMAGE_IP_SINGLE_STACK_3D` from the list, click on the area as pictured below and click on the Add button in the TOPS Bookmarks dialog to add the bookmark.

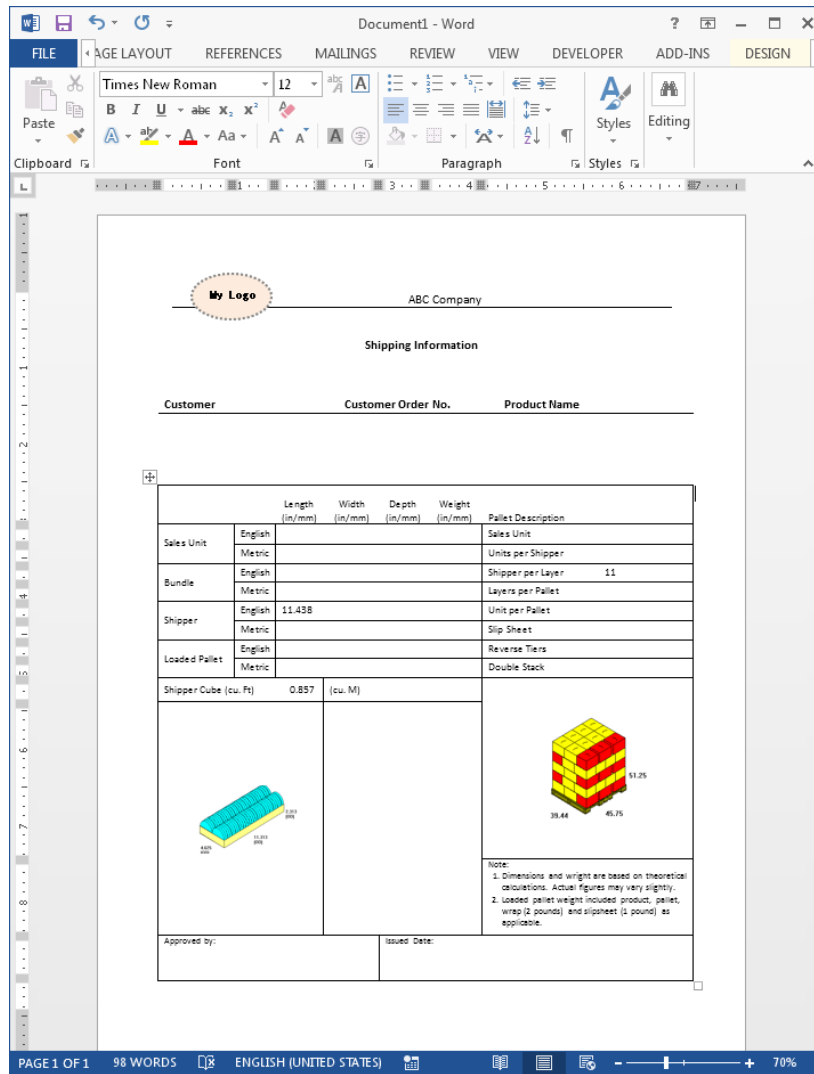


- To add the unitload 3D graphic, select `IMAGE_UL_SINGLE_STACK_3D` from the list, click on the area as pictured below and click on the Add button in the TOPS Bookmarks dialog to add the bookmark.



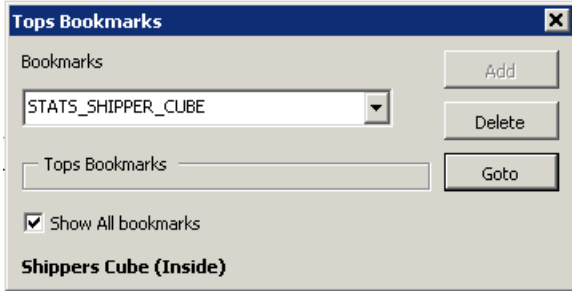
8. After all 5 bookmarks have been added, go to Word's File menu and select Save to save the changes to the MyTemplate.dot file. Exit MS Word. This template is now ready for use in TOPS.
9. Now go back to TOPS Pro, with the current analysis Cookies (Boxed and Palletized) still open, go to the Export menu and select Export to MS Office. You should now see the MyTemplate.dot under the list of available Templates.
10. Highlight MyTemplate.dot and click OK.
11. MS Word will open with the Security Warning message. Click on Enable Macros and a new document using the selected template will be open as pictured on the next page.

Note the five areas we have bookmarked are now populated with the corresponding data and graphics.



Tips on Using Bookmarks in MS Word

- The Word's menu bar is only available when you open the template file in the \TOPSAPPS\TOPSPro_XXX\msword\ but not a word document based on the TOPS template file.
- If you want to review an assigned bookmark in a Word template, go to Tops menu and open Tops Bookmarks. Place the text cursor next to the bookmark, the Tops Bookmarks dialog box will display the name of the bookmark.
- To delete an assigned bookmark, follow tip #2 above and then click Delete. The bookmark cursor (I) will be removed.
- The status of the Add, Delete and Goto buttons (active or being grayed out) gives you a hint if the selected bookmark has been assigned in the template.



- When the Add button is active, the selection has not been bookmarked
- When the Add button is inactive (gray out), the selected bookmark exists in the current document. Click on the Goto button to bring the text cursor to the selected bookmark, then click on the Delete button should you want to remove the bookmark.

Create a Custom Excel Template

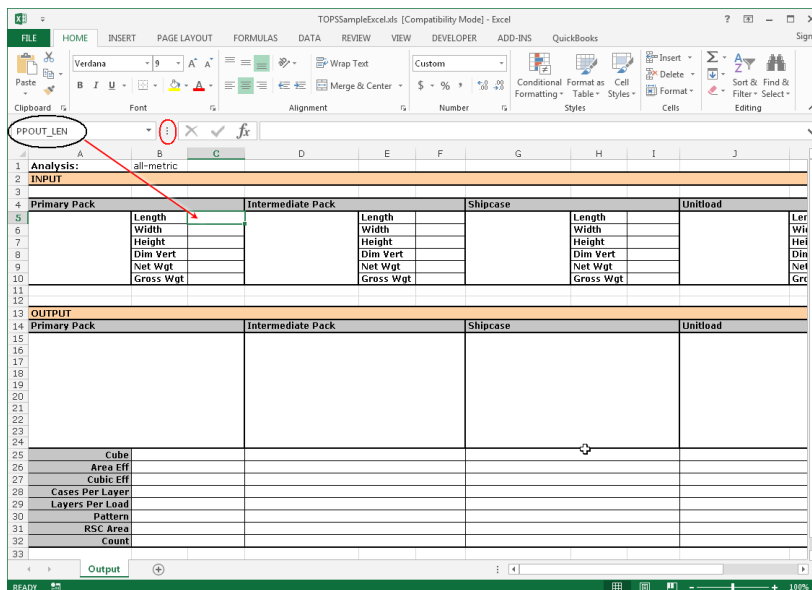
In MS Excel, TOPS data, including both images and statistics, are placed into designated cells defined by **Range Names**. These names are similar to bookmarks in MS Word and given cell references for placement of different data.

The TOPSSampleTemplate.xls provided with TOPS Pro contains defined names for most statistics and 3D images from different stages of a TOPS analysis. The easiest way is to adapt this template and redefine the cell reference for data placement.

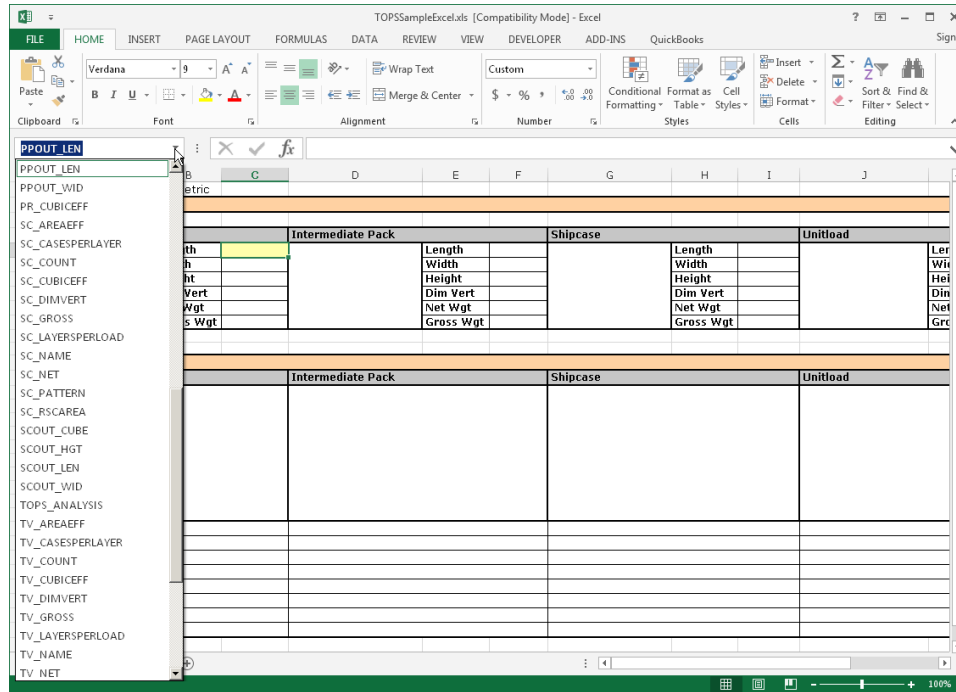
Create & Format a New Worksheet in Excel Template

The following instructions are based on MS Excel 2013. If you are using another version of Excel, please use the corresponding commands.

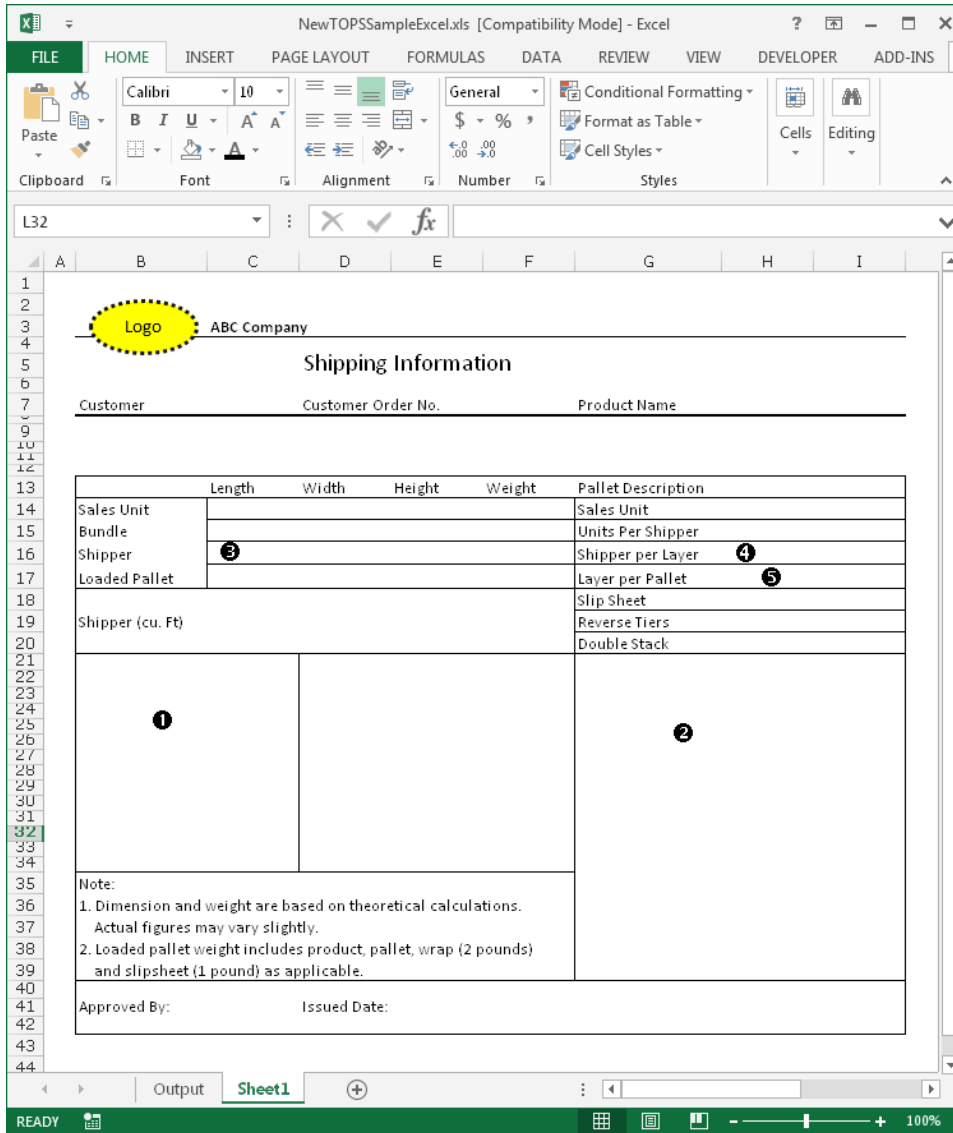
1. Open Excel, go to the File menu, select Open and browse to the \TOPSAPPS\TOPSPro_xxx\msowrd\ folder to open TOPSSampleExcel.xls.



- The circled area is the Name Box and displays any name defined for the active cell (C5 in this example). If you click the drop down triangle next to the Name Box, you will see a list of names defined in the current workbook.
- If you could not see the full text strings in the Name Box, click and drag the sizing icon (⋮) to extend the width of the field. When you click on any of these names, Excel will go to the cell or cell range where the name is referenced. For example, the name PPOUT_LEN highlighted below refers to the cell C5 for length of the primary pack.



- Go to File menu, select Save As. Browse to the same folder \TOPSAPPS\TOPSPro_xxx\msword\ and enter "NewTOPSSampleExcel.xls" in the File name field. Click Save to save the sample template under the new name.
- Now insert a new worksheet in current workbook by clicking the (+) icon next to the current worksheet name (Output). A new worksheet called Sheet1 will be added.
- Go to Sheet1 and create the report layout as desired. An example similar to the one created in MS Word example is pictured on the next page.

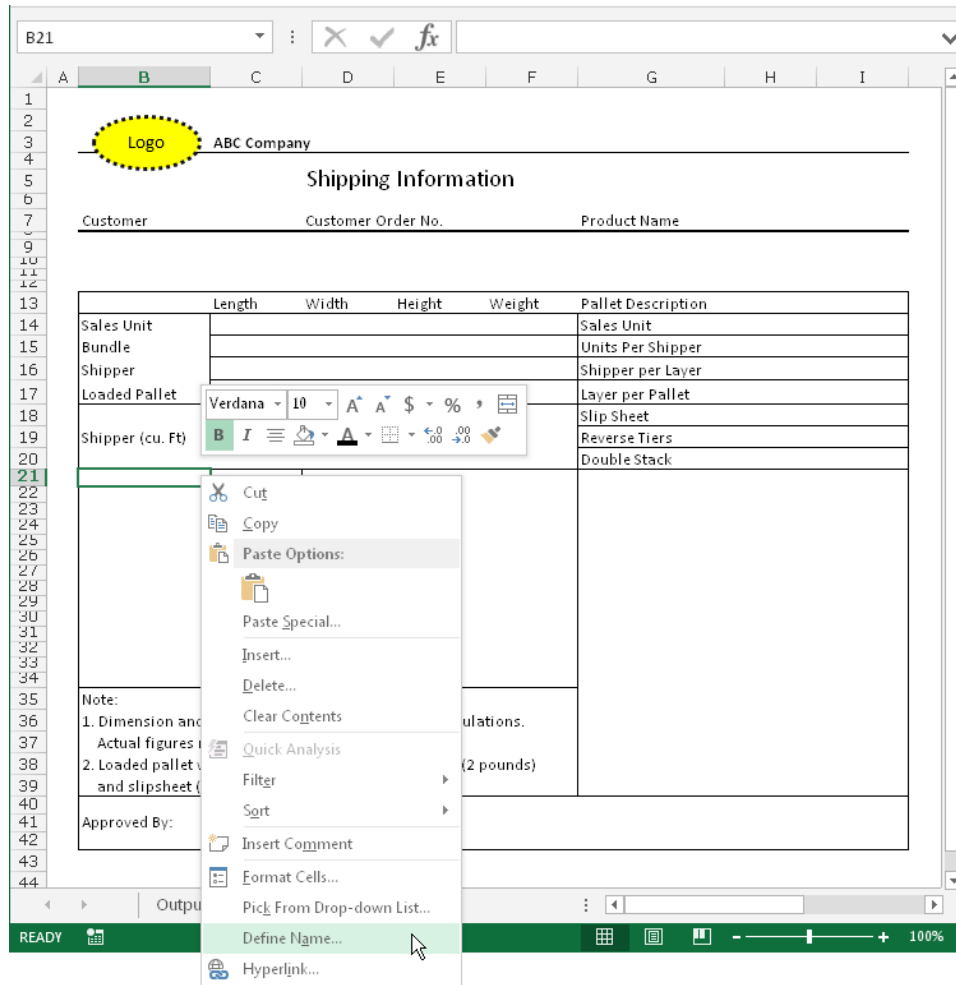


Assign New Cell References

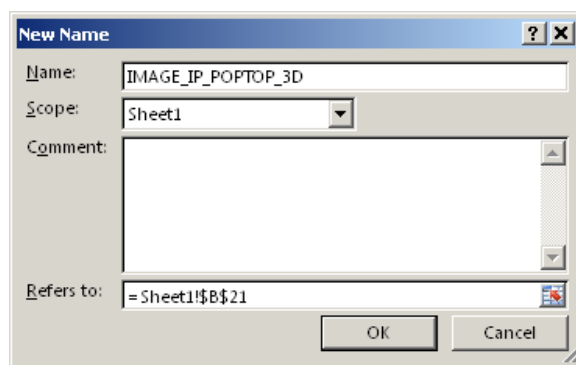
We will add these graphics and statistics to the new template:

- Area 1 (cell B21): Intermediate Pack pop top 3D view (IMAGE_IP_POPTOP_3D)
- Area 2 (cell G21): Unitload 3D view (IMAGE_UL_SINGLE_STACK_3D)
- Area 3 (cell C16): Shipcase outside length dimension (SCOUT_LEN)
- Area 4 (cell H16): Number of shipcase per layer (UL_CASESPERLAYER)
- Area 5 (cell H17): Number of shipcase layer per pallet (UL_LAYERSPERLOAD)

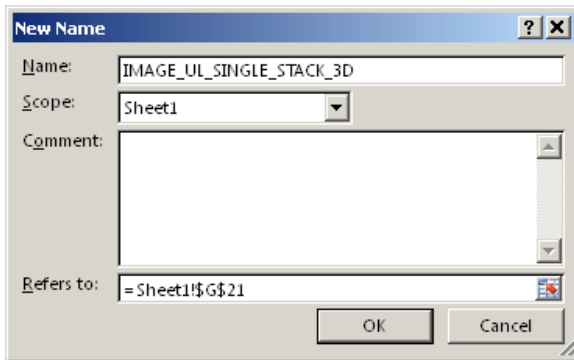
1. Highlight cell B21, click the right mouse button and select Define Name... in the pop-up menu.



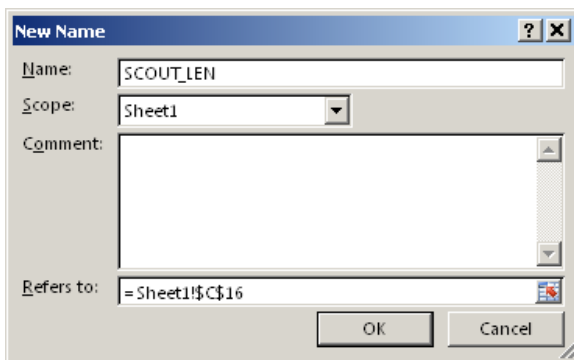
- At the New Name dialog box as shown below, enter the image name IMAGE_IP_POPTOP_3D to be placed in that cell. At the Scope field, use the drop down to select Sheet1 and click OK to exit.



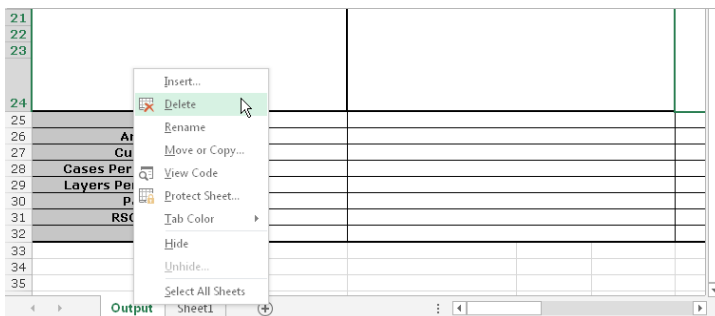
- Repeat step 1 and 2 for Area 2, to add image IMAGE_UL_SINGLE_STACK_3D to cell G21.




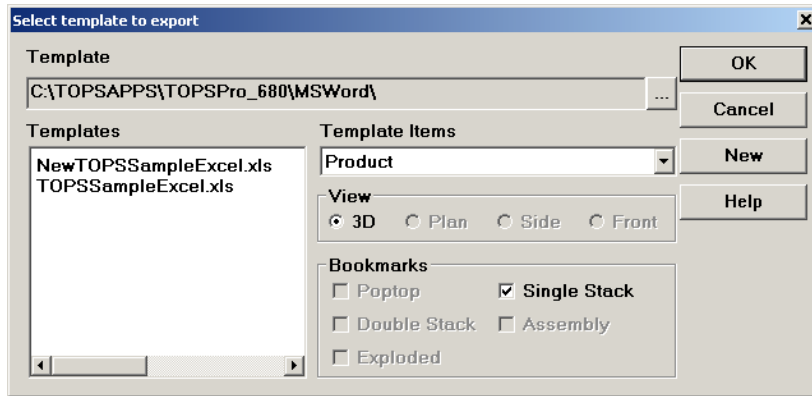
4. Repeat step 1 and 2 for Area 3, adding statistic SCOUT_LEN to cell C16.



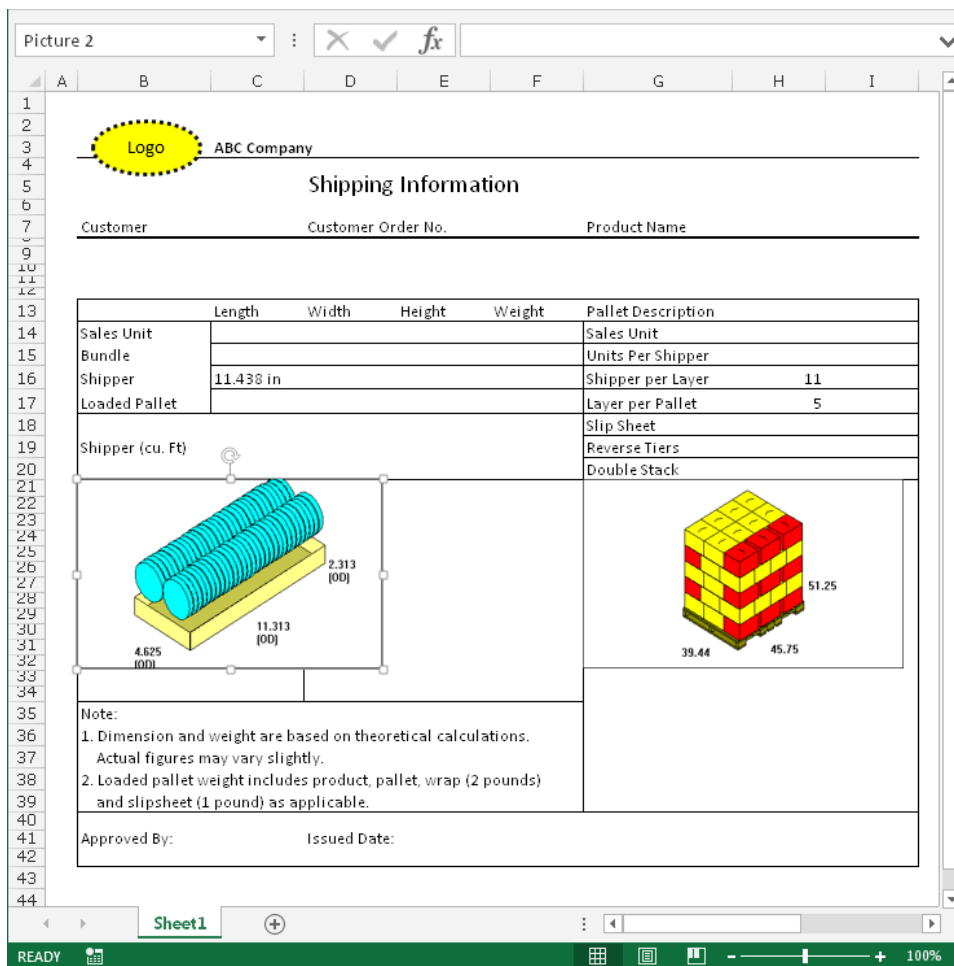
5. Repeat steps 1 and 2 and assign UL_CASESPERLAYER to H16 and UL_LAYERSPERLOAD to cell H17 respectively.
6. Delete the Output worksheet.



7. Save the workbook and exit MS Excel.
8. Now, go back to TOPS Pro and open analysis "Cookies (Boxed and Palletized)".
9. Click on the  icon on the tool bar and select Send to Excel. The Select template to export dialog opens as shown in the next illustration.



10. Select NewTOPSSampleExcel.xls and click the OK button.
11. MS Excel will open displaying the contents of the worksheet as pictured below. You can size the images accordingly to fit in the report.



Tips on Using TOPS Templates in MS Excel

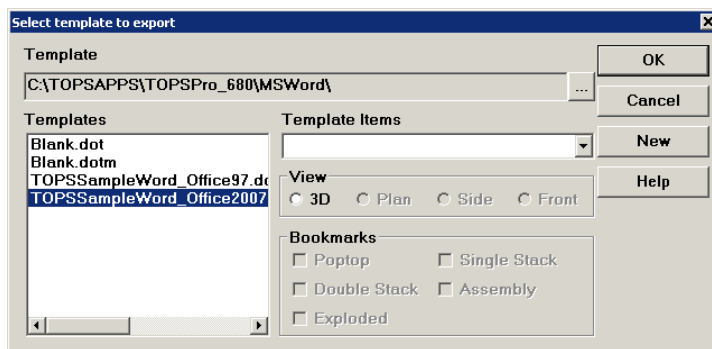
- Make sure all Excel templates are saved in the \TOPSAPPS\TOPSPro_xxx\msword\ folder in order to appear in the template list in TOPS Pro.
- Do not delete any Defined Names in the workbook.
- If you need images that are not currently defined, please contact TOPS technical support.

New Custom Export Template

TOPS Pro offers a quick and easy way to export selected TOPS data to MS Word and Excel without having to work with bookmarks or defined names. Once exported to MS Word or Excel, the data can be easily reformatted to create custom reports.

To use the New Export function, follow these steps:

1. Go to the Export Menu and select Send to MS Office.
2. Click the New button to open the custom export dialog box as displayed on the facing page.

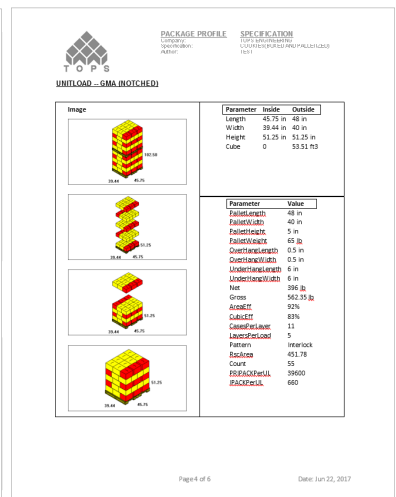
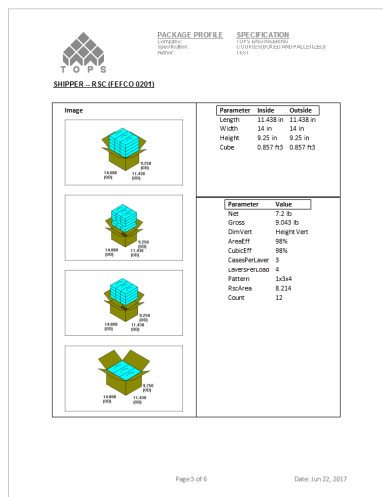
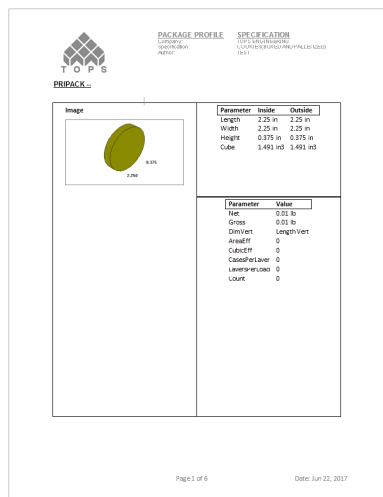


3. Select the data to be exported to MS Word or Excel.
 - **Export Data:** Specify which MS application the data to be exported to, Word or Excel.
 - **Select All:** Click the Select All button to quickly select all available data to be exported.
 - **UnSelect All:** Click the UnSelect All button to remove all data selection.
 - **Data Parameters:** The data are organized according to the design sequence: Product, Intermediate pack, shipcase, unitload and vehicle. Check against the boxes to specify the data to be exported:
 - **Inside:** Inside dimension of the item.
 - **Outside:** Outside dimension of the item.
 - **Export Information:** Varies by item and may include weight, efficiency data, quantity, arrangement, and other related statistics.
 - **View:** Select one of the item views from 3D, Plan (overhead view), side of front.
 - **Report Type:** Check against the available graphical report types available for the selected view.


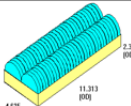
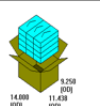
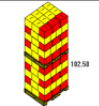
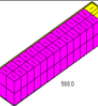





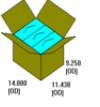
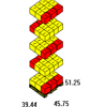





- After all selections are set, click OK to export and view the data in the selected MS office program.

The layout of the Word export will be similar to the pages as illustrated here, with one page displaying information for each item of the design sequence.



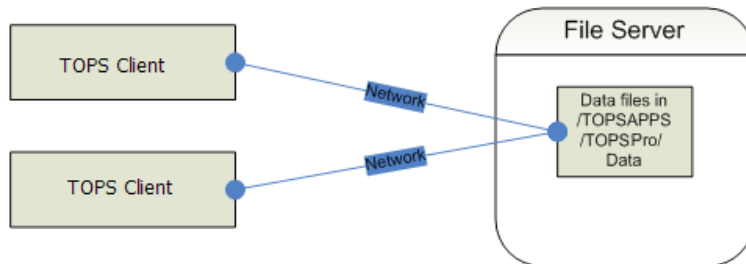
Sample Excel export file:

	A	B	C	D	E	F	G	H	I	J	K	L					
1																	
2																	
3		Parameter	Inside	PRIPACK	Outside	Inside	IPACK	Outside	Inside	SHIPPER	Outside	Inside	UNITLOAD	Outside	Inside	VEHICLE	Outside
4		Len	2.25 in	2.25 in	11.276 in	11.313 in	11.438 in	11.438 in	11.438 in	11.438 in	11.438 in	45.75 in	48 in	48 in	568 in	570 in	
5		Wid	2.25 in	2.25 in	4.553 in	4.625 in	4.625 in	14 in	14 in	39.44 in	40 in	39.44 in	40 in	40 in	96 in	98 in	
6		Hgt	0.375 in	0.375 in	2.295 in	2.313 in	2.313 in	3.25 in	3.25 in	51.25 in	51.25 in	51.25 in	51.25 in	51.25 in	102.5 in	100 in	
7		Cube	1.431 in ³	1.431 in ³	117.804 in ³	120.391 in ³	120.391 in ³	0.857 ft ³	0.857 ft ³	0	0	53.51 ft ³	0	53.51 ft ³	83.7 ft ³	83.7 ft ³	
8		Parameter	Value	Parameter	Value	Parameter	Value	Parameter	Value	Parameter	Value	Parameter	Value	Parameter	Value	Parameter	Value
9		Net	0.01 lb	Net	0.6 lb	Net	7.2 lb	Net	7.2 lb	PalletLength	48 in	Net	22176 lb	Net	22176 lb	Gross	31431.7 lb
10		Gross	0.01 lb	Gross	0.754 lb	Gross	3.042 lb	Gross	3.042 lb	PalletWidth	40 in	Gross	568.95 lb	Gross	568.95 lb	AreaEff	96%
11		DimVert	Length Vert	DimVert	Height Vert	DimVert	Height Vert	DimVert	Height Vert	PalletHeight	5 in	AreaEff	65 lb	CubicEff	30%	Count	56
12		AreaEff	0	AreaEff	0	AreaEff	96%	AreaEff	96%	PalletHeight	65 lb	CubicEff	30%	CasesPerLayer	28	LayersPerLoad	2
13		CubicEff	0	CubicEff	0	CubicEff	96%	CubicEff	96%	UnderhangLength	6 in	Pattern	Interlock	Count	56		
14		CasesPerLayer	0	CasesPerLayer	60	CasesPerLayer	0	CasesPerLayer	0	UnderhangWidth	6 in	Count	56				
15		LayersPerLoad	0	LayersPerLoad	1	LayersPerLoad	4	LayersPerLoad	4	Net	336 lb						
16		Count	0	Count	60	Count	12	Count	12	Gross	568.95 lb						
17										AreaEff	92%						
18										CubicEff	83%						
19										CasesPerLayer	11						
20										LayersPerLoad	5						
21										Pattern	Interlock						
22										RocArea	45178						
23										Count	55						
24										PRIPACKPerUL	33600						
25										IPACKPerUL	660						
26																	
27																	
28																	
29			Image	Image	Image	Image	Image	Image	Image	Image	Image	Image	Image	Image	Image	Image	Image
30																	
31																	
32																	
			COOKIES(BOXED AND PALLETIZED)														

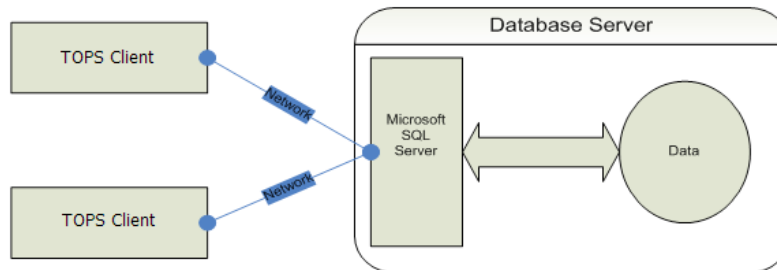
19

TOPS Pro Enterprise Client Version

In the standard version of TOPS Pro, all data and analyses are saved in a tree database and the program accesses the data files saved in the “DATA” folder. If the “DATA” folder resides on a network drive, each user needs to have “WRITE” permission to all data files. In addition, each instance of TOPS requires a separate connection to the network server and handles its own data exchange with the database.



The TOPS Enterprise Client version uses Microsoft **SQL** or **Oracle** Server database to manage data. Users have no direct access to files on the server, as these database servers handle all the data exchange between TOPS clients and database.



The TOPS Enterprise Client version can be installed over an existing standard installation of TOPS Pro or as a new installation. If you are upgrading from the standard version, you will receive:

- The new executable to overwrite the existing TOPS program.
- Scripts to help you create the database on MS SQL server or Oracle database.
- Detailed instructions to import data from existing TOPS database, if applicable.

Benefits

- **Optimized Database**

For companies with lots of analyses, the database engine used by the standard TOPS version might result in data fragmentation overtime. The data files keep growing and the performance of software might get slow. The Enterprise Client version uses SQL Database Server which is optimized for large amount of data with its built-in file management function.

- **Better Performance**

The SQL Server manages all connections between TOPS clients and the central database instead of having each TOPS user making a separate connection. The multiple connections coordinated by SQL can share resources and boost performance.

- **Data Security**

Regular TOPS requires each user has an account on the file server and each account must have write privilege to the data folder. The Enterprise SQL version uses the authorization mechanism of MS SQL Server. Clients do not have direct access to any file on the server.

- **Ease of Maintenance**

TOPS provides scripts to take advantage of the built-in functionality of MS SQL Server for periodically cleaning up old manifest data. MS SQL Server also has powerful tools to easily backup or duplicate database.

- **Expandability and Flexibility**

With minor changes, SQL version of TOPS can support other popular databases like Oracle or IBM DB2.

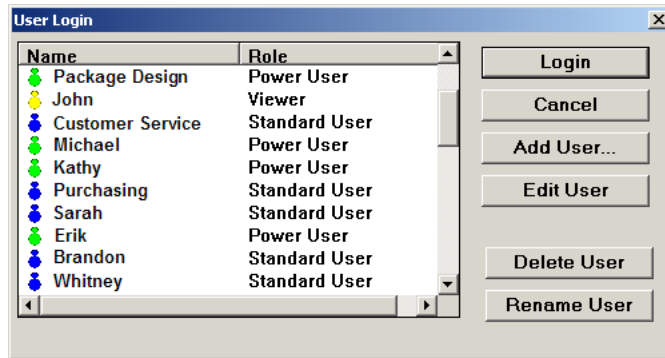
Who can Benefit from TOPS Enterprise Client Version

TOPS Pro Enterprise Client version is designed for customers with at least five users working collaboratively on enterprise wide packaging and palletization solutions.

Companies with thousands of existing analyses will also benefit from the Enterprise version, which offers an interface table to SQL and allows for easy data export to other subsystems.

Additional Functionalities

- **Secured Single Sign-on:** Users can log into TOPS Pro using their Windows login name, eliminating a separate login when accessing TOPS Pro. This is a global setting that can be enabled via TOPS Configuration settings, accessed by system supervisor only.
- **Secured User Roles:** TOPS Program supervisor can assign users with different user roles for different access rights to TOPS:



- **Viewer:** Access to TOPS Viewer program only; this ensures selected uses can only open and view existing analyses but not making any modifications.
- **Standard User:** This group of users will be granted rights to create analyses but with no authority to change configuration settings, import/export, or define products.
- **Power User:** These users can access all functionalities except for global configurations.
- **Supervisor:** The supervisor has full access to all functions of TOPS.
- **License Manager:** TOP Enterprise Client version comes with a License Manager which enables users to detach one license from the work group and place it temporarily onto a separate machine. If the detached license is not put back to the network within 30 days, it will expire automatically and the number of seats on the network will revert back to its original count.
- **Enhanced Analysis Management:** For better work collaboration, users can use the Check In/ Check Out function to control work flow of analyses. A revision history is also available for each analysis to provide a time-line of changes made.
- **Shipcase Search:** Searches through existing analyses any shipcase bearing similar dimensions to the one being used in the current analysis. Users can specify the amount of deviation from current shipcase for TOPS to search through the database or archived analyses.

System Requirements


TOPS Enterprise Client version supports Microsoft SQL server 2000 and above, Oracle server 9i and above.

- **Client Hardware Requirements:**

- Processor: x86 or x64 (1 GHz or higher)
- RAM: 1 GB or more
- Hard Disk Space: 500 MB or more
- Video Card: 1024x768 or higher at 16-bit color or higher

- **Client Software Requirements:**

- Operating System: Windows XP/Vista/Windows 7, 8 or 10
- DirectX: 6.0 or above
- OLE DB Provider: No additional component required for MS SQL Server. Oracle client full installation is required to setup the Oracle OLEDB provider if the database server is Oracle.
- Database component: MDAC 2.8 or above. This is already built into Windows XP, Vista and Windows7. It only needs to be installed for earlier version of Windows.

 **Note:** TOPS Pro does NOT require Microsoft .Net platform. However, it can work on any PC with Microsoft .Net platform.

If you need more information, please contact your MVP Account Manager or our sales team.

A

Frequently Asked Questions

➤ **When I try to run TOPS Pro, I get an error message that says, “Maximum of 1 user(s) already logged in.” But I know that no one else is using the program. What’s going on?**

This message most often appears when someone has logged into TOPS Pro and crashed out of the program instead of exiting normally. TOPS Pro thinks the user is still logged in. If someone attempts to login as the same person, TOPS Pro will warn them with the message, “User already logged in. Replace?” Answer Yes to log out of the system and allow the new user to login.

If you login as someone other than the user who crashed out, TOPS Pro issues the message, “Maximum of N users already logged in.” The “N” value is normally one (1) unless you have purchased additional user licenses. You can get around this message with one of two options

- Login as the same person that crashed, then log him/ her out
- Login as supervisor in the TOPS Pro Config program, open the File Menu and Select User List to Logout any extra user (s)

➤ **What function do the pattern styles have? These are displayed after you press the Options button in the Shipcase Parameters dialog box (also the Unitload Parameters and Transit Vehicle Parameters dialog boxes).**

The pattern style check boxes determine the arrangements that TOPS Pro will attempt to use when placing your carton/shipcase/ pallet into its respective shipcase/pallet/vehicle. Depending on your situation, you may choose to check additional patterns to attempt to get a tighter load. You may uncheck some patterns because you want simpler patterns; e.g., perhaps your stacking machine can handle only simple 1-block patterns.

➤ **I cannot find yesterday’s work. What happened to it?**

You have probably logged in with a user name other than one you used when you saved the analyses. Each user’s analyses are only visible to him/ her and to someone logged as Supervisor. If you login in as Supervisor, open the File menu and select Open, you can see everyone’s work with their corresponding name. For more information, please refer to Login/Logout as a Supervisor.

➤ **How do I tell what version of TOPS Pro I have?**

In either TOPS Pro or the TOPS Configuration program, open the Help menu and select About. A dialog box appears with version information and the name of the company who purchased the copy.

➤ **Can I have the program print fractions instead of decimals?**

To use fractional output, follow these instructions:

1. Open the Tools Menu and select Configuration.
2. Under the Numeric tab, check against the boxes for the parameters to be displayed in fractions.


All fractions will be to the nearest 1/2, 1/4, 1/8, 1/16, 1/32 and 1/64. Note that this will only change the output and display of a value. The numbers that are stored and manipulated are the actual

decimal values – not their “nearest fractional” equivalents.

Hint: Even when not in fractional mode, the program will accept fractional input and convert the value to its exact decimal equivalent, just as if you had typed in the decimal value in the first place. Simply hit the spacebar (or the decimal point) and type the fraction after the whole number. That is, the value 4 1/8 and 4.1/8 becomes 4.125 after leaving the field. However, values imported from external sources must be in decimal form for TOPS Pro to recognize them.

➤ I want my outputs in decimal format, how do I change the number of decimals for my results?

Open the Tools Menu, select Configuration and click on the Numeric tab. Under the Decimals section, change the appropriate numbers.

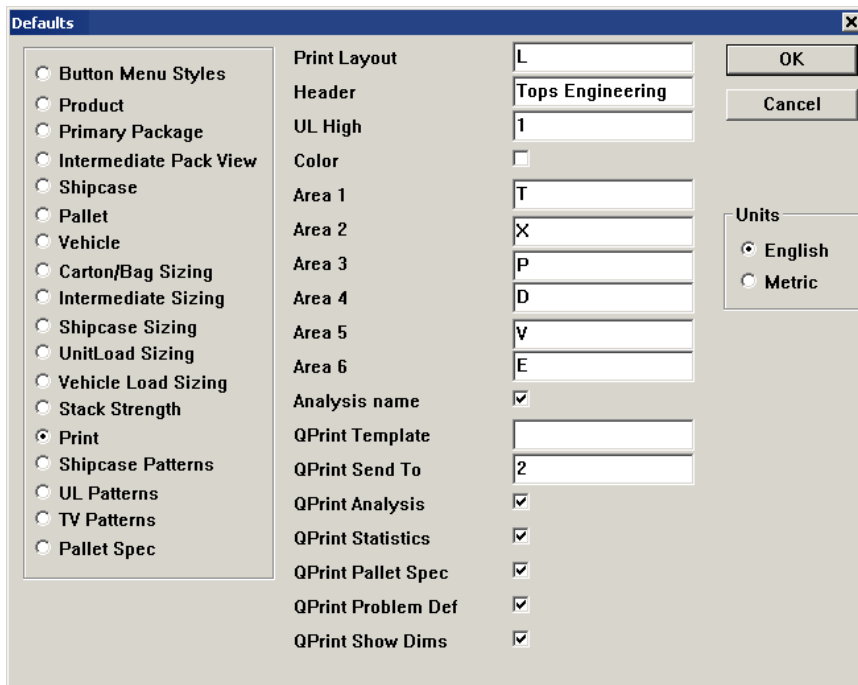
 **Note:** Adjustments to these values only change the output and display of the numbers. The numbers stored and manipulated are their actual decimal values, not the “rounded” display equivalents.

➤ How do I change the default printing arrangements in my analysis reports?

The default print arrangement is defined in TOPS Configuration program. To change the defaults, follow these steps:


1. Run the TOPS Pro Configuration program and Login as Supervisor.
2. Click the Setup Defaults quick link under the Data section or go to the Define menu and select Defaults.
3. Click on the radio button for Print.

TOPS Pro displays the default printing arrangement as shown below. You can assign different default graphics or statistics in each of the 6 print areas using the single-letter abbreviations illustrated on the facing page.

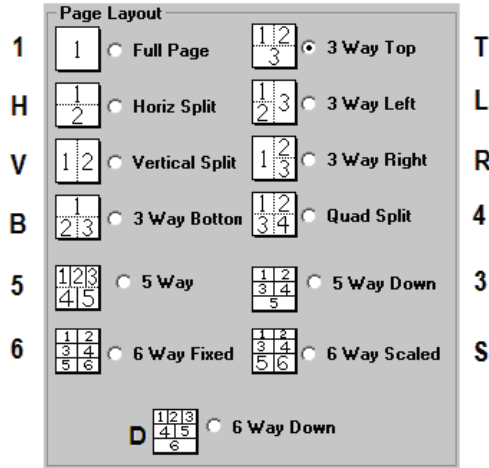


Category	Setting	Value
Print	Print Layout	L
	Header	Tops Engineering
	UL High	1
	Color	<input type="checkbox"/>
	Area 1	T
	Area 2	X
	Area 3	P
	Area 4	D
	Area 5	V
	Area 6	E
	Analysis name	<input checked="" type="checkbox"/>
	QPrint Template	
	QPrint Send To	2
	QPrint Analysis	<input checked="" type="checkbox"/>
	QPrint Statistics	<input checked="" type="checkbox"/>
	QPrint Pallet Spec	<input checked="" type="checkbox"/>
	QPrint Problem Def	<input checked="" type="checkbox"/>
	QPrint Show Dims	<input checked="" type="checkbox"/>

Units:
 English
 Metric

 **Note:** The letters are case sensitive. Use uppercase “N” (none) in an Area field to get an empty pane.

Codes for Print Layout:



Codes for Area 1 – 6:

	Primary Pack	Bundle Pack	Intermediate Pack Case	Case	Unitload	Vehicle
3D	x	b	i	D	3	V
Plan		j	p	A	T	L
Dual Plan					U	
Pop Top					P	
Side		g	s	G	S	I
Front		e	f	B	F	R
Statistics			t	C	X	E
Current View	u	k	w	W	I	H
No View	N					

➤ How do I change the graphical drawing (g.o.d) window images?

The (g.o.d.) system’s static pictures are stored as bitmaps in the Pict directory, which is located off of your TOPS Pro directory. You can use the Windows Paintbrush to change, edit or replace the pictures.

➤ Ich bin Berliner; I am a Berliner. Ich sprache ein kleinste Englisch; I speak a little English. Was kannst du auf mir tunnen? What can you do for me?

The TOPS Pro software comes in several languages, including English, Japanese, Spanish, Finnish, French, Portuguese, Chinese and German. In addition, each language is fully configurable, so if you do not like the way we said it, you can change it.

The Text Modification dialog box lets you perform language editing. Use these guidelines:

- To choose a language, open the Tools menu and select Language
- To change individual words, open the Tools menu, select Language, then select Edit. Locate the word you want to change using the arrow options. Then, on the New String fillable box, type the new name, click Update and OK.

➤ **The lines on TOPS Pro’s reports are too fine. When I fax the reports, the lines are so narrow they almost disappear and have gaps. How do I fix this?**

1. Open the Tools menu and select Configuration.
2. Go to the Reports tab and change the Printer Pen Width; larger numbers indicate thicker lines.

This only affects printed output. The Print Preview and other on-screen drawings will still appear with normal (one-dot width) lines.

➤ **How do I change the colors of the cartons, shippcases, etc? When I print in color, some colors are so dark they print nearly black.**

To select color, open the Tools menu and select Color Selection. Color changes are specific to each user name, not each analysis.

➤ **What is “pitch?”**

Ever tried to stack cups? Some cups will stack very closely together; others will barely fit into one another. Pitch is the distance by which a cup sticks out from the cup underneath it. The more it sticks out, the greater the pitch. A pitch of zero assumes that the tubs/buckets are not nested at all.

➤ **I use dividers and box styles different than the ones that come with the program. How can I make my own?**

You can define your own box styles, dividers and pallets from the Define menu options. Also, in the TOPS Configuration program, the Define menu provides a wider range of things you can define, such as papers, board combinations, flutes and environmental factors. Any and all data that can influence your single-box compression and stacking strength results is fully configurable.

For more information, please refer to Chapter 12, Designing Box Styles, Chapter 13, Designing Divider Styles and Chapter 5, Package Pattern and Divider Editor.

➤ **What is Secondary Pallet Pattern and how do I use it?**

The “secondary pattern” is used to create mixed-layer pallet patterns. These are alternating layer pallet patterns in which some of the layers may be “borrowed” from other pallet patterns. To use this feature, follow these instructions:

1. Find a non-multi-dimensional pallet pattern to use as a secondary pattern.
2. Open the Edit menu and click Select as Secondary Pattern.
3. Now view another solution from the solution list.
4. Open the Edit menu, select Layer Parameters, then select which layer(s) you want to use as Secondary Pattern.
5. As you scroll through the other patterns, you will see a mixture of pallet layers. Note that the statistics will not be accurate for alternating layer unitloads, but will reflect the original unitload before mixing the layers.

➤ **I am trying to remove all the TOPS Pro files after uninstalling. What do I need to delete?**

Other than the files in the TOPS Pro directory and its subdirectories, TOPS Pro makes the following adjustments to your system:

- It creates a TOPSPRO.INI file in the local Windows directory

- It creates the icons/shortcuts used to start the program

➤ How is RSC board area calculated?

$$(2L + 2W) (W + H)$$

➤ How does the program estimate the weight of my box?

TOPS Pro estimates the weight of a newly designed carton/case or a packed carton/case as follows:

- For Cartons: $\{((\text{Length} * \text{Width} * 2) + (\text{Length} * \text{Height} * 2)) + (\text{Width} * \text{Height} * 2)\} / 144 * \{(\text{Caliper} / .024 * 100) / 1000\}$
- For Shippers or Intermediate Packs: $\{((\text{Length} * \text{Width} * 2) + (\text{Length} * \text{Height} * 2)) + (\text{Width} * \text{Height} * 2)\} / 144 * \{(\text{Caliper} / .018 * 100) / 1000\}$
- For Corrugated cases: $\{((\text{Length} * \text{Width} * 2) + (\text{Length} * \text{Height} * 2)) + (\text{Width} * \text{Height} * 2)\} / 144 * \{(\text{LBSper1000ft}^2) / 1000\}$

➤ What are the TOPS Pro Command Line Parameters?


The following command line parameters work with TOPSPRO.EXE, CONFIG.EXE and VIEWER.EXE.

- **-DBPath="C:\APPS\TOPSPRO\DATA"**: Overrides any entries in the INI file.
- **-ini="C:\WINDOWS\TOPSPRO.INI"**: Use the specified INI file instead of the default TOPS.INI in the Windows Directory. Avoid sharing INI files.
- **-u "User Name"**: Automatically login under the name "User Name."
- **-a "Analysis Name"**: Bring up the specified analysis. Approved analyses are opened first (if there is one).
- **-print**: Auto-print and exit. Used with -a.
- **-printcs**: Auto-print package profile and exit. Used with -a.
- **-viewcs**: Auto-view package profile. Used with -a.

➤ How do I calculate Stacking Strength?

TOPS Pro uses the McKee Formula to calculate stacking strength. First, create your analysis in TOPS Pro, then calculate it. Make sure to have the weight entered in for shipcase. Next, go to the Tools/Stacking Strength menu. From there, enter your factors into the screen, then click OK to view the stacking strength results.

➤ How do I insert pads between layers, or add caps to a pallet pattern?

After you have calculated a pallet pattern, click on the Unitload window to highlight it. Next, go to the Edit/Layer Parameters menu. Here add what you like to your layers or pallet patterns. You can also click the  button in the unitload view window to quickly access the Layer Parameters menu.

➤ How do I use the modify feature to create alternate pallet patterns?

Before you use the Modify feature, we suggest you turn off the Layer Rotation feature. Follow these instructions:

1. From the Edit menu, select Layer Parameters.
2. In the Layer Parameters dialog box, look at the Rotate column and delete any check marks you see. (Once your pallet pattern is column-stacked it will be much easier to deal with).

3. Click OK to close the Layer Parameters dialog box.

For detailed instructions on how to modify a pallet pattern, please refer to Chapter 5, Package Pattern and Divider Editor.


➤ How do I specify what dimension (inside versus outside) and unit of measure to display on Cartons, Intermediate Packs, and Shipcases?

1. Open the Tools menu and select Configuration.
2. Go to the Dimensions tab.
3. Check the radio buttons that correspond with which inside dimensions you would like to see. (Carton, IP, or Cases).

➤ How do I create PDF documents from TOPS Pro?

Direct PDF outputs are available from TOPS Pro version 5.60 and later. PDF outputs are only available for reports, but not individual images in the solution views. To use this, follow these instructions:

1. Highlight the graphics in the solution view you want to export.
2. Go to the Export menu and select PDF. You can also use the right click menu, select Save Image and then PDF.
3. At the Get Export File Name dialog box, select the directory path and enter the name for the PDF output file.
4. The analysis report, in the predefined print preview format will be created.
5. You can also access the Get Export File Name dialog box from the Print Preview screen. Just go to Export menu and select PDF or click the PDF button directly.

The new PDF button  on the Windows toolbar allows you to create an analysis report, pallet report or package profile. Just click the button and select the report type.

➤ How do I print a list of shipcases or pallets I have saved in TOPS Pro?

You can print databases from TOPS Pro. Go to the File/Print Databases menu and select Shipcases, Pallets or other databases, such as Cartons, Products, Vehicles, etc.

➤ How do I login as Supervisor?

In TOPS Pro, the Supervisor user has the rights to delete users, see all analysis files and other handy things. To login as a Supervisor, follow these instructions:

1. Login as any user.
2. Open the Supervisor menu and select the Login\Logout option.
3. Enter the supervisor's password. (The default Supervisor password is "tops software").

➤ How do I change the defaults in TOPS Pro?

All defaults in TOPS Pro are set in the TOPS Pro Configuration program. Here you can change just about anything from the default pallet overhang to how your printouts look. Follow these instructions:

1. Login to TOPS Pro Configuration program as Supervisor.

2. Open the Define menu and select an option.

➤ **How do I replace the default TOPS logo with my company logo?**

1. Open the TOPSPRO.INI file from your Windows folder.
2. Look for the line that reads “Logopath.”
3. Change the path to point to the location of your BMP file (e.g., C:\temp\tops.bmp).

➤ **How do I turn on user passwords?**

1. Login to TOPS Pro Configuration as the Supervisor.
2. Open the Supervisor menu and select Global Configuration.
3. Go to the Global tab and place a check mark against the User Passwords option.

➤ **Is there any way to change the arrow shape that shows the shipper flaps to a simple straight line?**

The direction where the arrow is pointing indicates the front of the carton or shipcase. To disable this function, go to the Tools Menu and select Configuration. Under the General tab, remove the “ü” next to “Show Face Direction”. This will turn off the face direction arrow and put it back as a flap line indicator.

➤ **Why can I only view part of the graphics in the solution screen?**

This might happen in Vista and it can usually be corrected by lowering your color settings from 32 bit to 16 bit. In order to make this change, right click anywhere on the desktop. When the option menu appears choose ‘Personalize.’ This will bring up a new box and you should see ‘Display Settings’ within there. You should be able to make this change inside the ‘Display Settings’ area.

➤ **Why do I keep getting an error saying please enter valid characters or N8068NF?**

Often times the Description of trucks or shippers that were imported into your new version of TOPS Pro contain invalid characters, sometimes from previous versions of TOPS. One common example is the (ft’) sign.

1. In the Vehicle Parameters dialog box select “New Veh.”
2. In the Define Vehicle dialog box select the vehicle you are going to use from the Description field.
3. Remove the (ft’) sign from the description and click on Save.
4. Now if you choose, you can go back to the description box and select the vehicle with an invalid description and delete it.

➤ **I try to get 224 cases per pallet with 7 layers and 32 per layer. I made that clear in my pallet selection but it does not work, why is that?**

It is caused by some of the patterns currently selected. Open the UnitLoad Option dialog by clicking the Options button in the UnitLoad Parameters dialog box, unselect ‘Soldiered’ and all of the ‘Multi-*’ pattern styles.

➤ **I want to use the Unitload View in TOPS as part of a Corel drawing but the BMP or JPEG file I**

exported is of low resolution and the lines are jagged. Is there a way to get a better image?

For bitmap files like BMP and JPEG, the image size is dictated by how big the window is when you save the file. Try maximizing the unit load view when you issue the save command. Another way to get a better image is to save the image as a line drawing. That means you will need to save the image as a WMF file. To do so, right click while under unitload view, select Save Image and then WMF file.

➤ **How does TOPS calculate Area and Cubic efficiency for unitloads?**

For area efficiency = $L(OD) * W(OD) * (\text{no. of shippers per layer}) / L * W$ of pallet).

Cubic efficiency = $L(OD) * W(OD) * H(OD) * \text{Qty on unitload} / L * W * \text{loadable height of unitload}$ (this is the max allowable height - pallet height).

➤ **How does TOPS calculate Area and Cubic efficiency for shipcase?**

- Area efficiency = area using outside*qty / inside dimension of shipcase.
- Cubic efficiency = volume using OD*qty / vol of shipcase using ID.

B

Dialog Boxes

This chapter provides a quick and easy way to locate information on individual dialog boxes and their respective functions.

For each dialog box, this appendix provides the following information:

- The function of the dialog box
- A graphic image of the dialog box
- Instructions on how to access the dialog box
- Descriptions of major fields on the dialog box (repetitive and obvious fields will not be described)
- Any special features included on the dialog box

In addition, this appendix addresses features that are common to many dialog boxes, such as the Graphic Online Display (g.o.d.) feature and routine function buttons.

Common Features


This section presents three common features that you will use with many dialog boxes:

- Graphic Online Display (g.o.d.) feature
- Bulge factor, both positive and negative
- Function buttons – OK, Cancel, Save and Delete

Graphic Online Display (g.o.d.) Feature

Many dialog boxes allow you to define parameters for the various items in an analysis. For example, as indicated in the title, you will use the Shipcase Parameters dialog box to define shipcase specifications. TOPS Pro displays a graphic illustration of a shipcase in the bottom, right-hand corner of the screen that allows you to see exactly what your shipcase looks like as you define it. This illustration is referred to as the Graphic Online Display, or g.o.d. feature.

As you define the length, width and height dimensions for the shipcase, the g.o.d. feature redisplay to reflect those dimensions. For example, if you increase the length, TOPS Pro redraws the shipcase to increase the length precisely, based on your input. . If you make a mistake, you will be able to see it and correct it before you calculate the analysis.

 **Note:** To see your changes take effect, you might need to refresh the display by pressing the Tab key, then the Shift and Tab keys simultaneously.

Bulge Factor

Bulge is the space inside a container that can be measured as positive or negative. A number of dialog boxes allow you to account for the bulge factor as you define parameters for an item (bottle, can, shipcase, etc).

If a container expands when you fill it with product, the result is a positive bulge. If a container is compressed when it is packed, the result is a negative bulge. The bulge factor allows you to shift the amount of space a container takes up without changing its reported size. Let's consider two

examples.

Positive Bulge

A gallon bottle of bleach may have a designed diameter of seven inches. However, once the liquid is poured into the bottle, the bottle may expand (bulge) another quarter-inch. By adding a bulge of 0.25 inches along the diameter of the bottle, TOPS Pro will design the bottle as if it has a diameter of 7.25 inches, but will report its size as a seven-inch bottle.

Negative Bulge

Suppose you are packing rolls of paper towels into a bundle; each roll has a diameter of six inches. However, once the rolls are packed they might compress up to an inch, resulting in a negative bulge of one inch. TOPS Pro will report the rolls as having a six-inch diameter, but in fact the rolls will take up only five inches in the bundle.

Printing Bulge Data

TOPS Pro does not usually report bulge data. If you want the system to report bulge data, follow these instructions:

1. From the Menu Bar, open the Supervisor menu, select Login/Logout and login as a supervisor.
2. Open the Tools menu and select Configuration.
3. Click on the Statistics button.
4. Check the Bulge box under the appropriate column to print bulge data.

Common Buttons and Functions

Many dialog boxes feature routine function buttons that are common throughout the system. Some of these common buttons are listed below:

- **OK:** Stores your entries and edits to memory. Closes the active dialog box and takes you back to the previous dialog box or screen.
- **Cancel:** Closes the active dialog box and takes you back to the previous dialog box or screen.
- **Save:** Saves your entries and edits to the database.
- **Delete:** Erases all your entries and edits and restores the previous parameters.
- **Units Function:** Specifies the unit of measure in English or Metric. You can use the Global Configuration to set the unit of measure globally within TOPS or specify the unit in each screen.
- **Dimensions (Length, Width, Height and Weight):** These are self-explanatory and will not be included for explanation under each dialog box.
- **Dimensions:** Select either Inside or Outside to specify how the carton dimensions are measured.
- **Graphic Button:** Displays the Assign Graphics dialog box, where you can select and display a graphic image on the carton.
- **Add Products Button:** Displays the Primary Pack Products dialog box, where you can specify the product parameters and quantity of product being placed into a primary pack.

About TOPS Pro

Function: This dialog box provides you with information about your TOPS Pro software and how to contact TOPS for support and assistance.

To access, from the Help menu, select About.



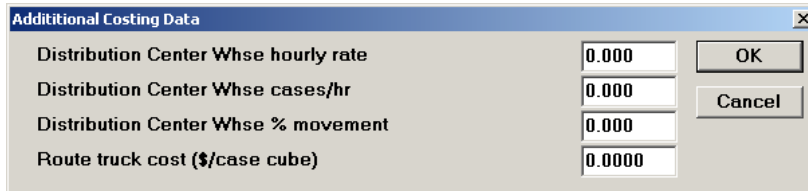
You will find the following information useful when calling in for support:

- **TOPS Pro Version:** The version of TOPS Pro software you are currently running.
- **Registered to:** The official licensee of the TOPS Pro software.
- **Serial #:** The serial number of your TOPS software. When calling in for support, we only need the first 7 digits of this serial number.
- **Simultaneous Users:** The number of concurrent users available for your TOPS Pro software. This number will be 1 for stand-alone license and varies for Network license depending on the number of seats you have purchased.
- **Current User:** The login name of the current user.
- **TOPS Protected:** This shows whether the license is a stand-alone or network license.
- **Command Line:** Display any command line instructions when you launch TOPS. The most common command line instruction is to tell TOPS the location of your TOPSPRO.INI file where TOPS basic setup information is saved.
- **App Path:** Display where your TOPS Pro software was installed.
- **Database Path:** Display where your TOPS data folder is located.
- **Language Path:** Display where the language files of your TOPS program are located.
- **INI Path:** Display where your TOPSPRO.INI file is located.

Additional Costing Data

Function: Enter additional costing data related to a number of items. Additional Costing Data applies to bags only.

To access, from the Define menu, select Bag Costing. Within the Costing Data dialog box, click on the More button.



Field	Value
Distribution Center Whse hourly rate	0.000
Distribution Center Whse cases/hr	0.000
Distribution Center Whse % movement	0.000
Route truck cost (\$/case cube)	0.0000

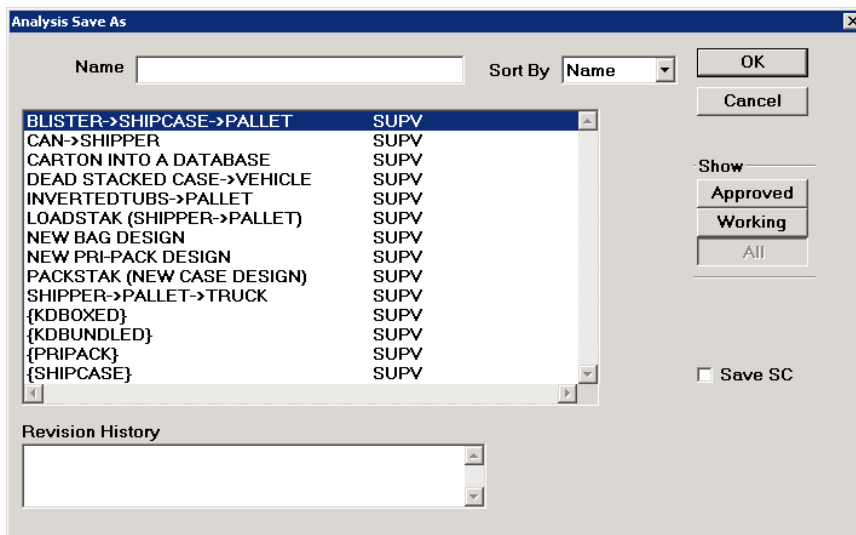
Field Descriptions and Instructions

- **Distribution Center Whse hourly rate:** Enter the hourly expenses accrued by your distribution center.
- **Distribution Center Whse cases/hr:** Enter the number of cases per hour that your distribution center currently handles.
- **Distribution Center Whse % movement:** Enter the percentage of cases in your distribution center that are moved per hour.
- **Route truck cost (\$/case cube):** Enter the transportation costs per case associated with your delivery trucks.

Analysis Save As (Template)

Function: Save the design sequence of the current analysis as a template for future use.


To access, go to the Menu Bar, open the File menu and select Save as Template.



Name	Status
BLISTER->SHIPCASE->PALLET	SUPV
CAN->SHIPPER	SUPV
CARTON INTO A DATABASE	SUPV
DEAD STACKED CASE->VEHICLE	SUPV
INVERTEDTUBS->PALLET	SUPV
LOADSTAK (SHIPPER->PALLET)	SUPV
NEW BAG DESIGN	SUPV
NEW PRI-PACK DESIGN	SUPV
PACKSTAK (NEW CASE DESIGN)	SUPV
SHIPPER->PALLET->TRUCK	SUPV
{KDBOXED}	SUPV
{KDBUNDLED}	SUPV
{PRIPACK}	SUPV
{SHIPCASE}	SUPV

Field Descriptions and Instructions

- **Name:** Enter the name of the template for the design sequence.
- **Sort By:** This function will sort the existing templates in the list by Name, User or Date. Select the sort option using the drop down list box.
- **Show:** The option is not applicable to templates.
- **Revision History:** Enter any notes related to revisions to the analysis.

 **Note:** When you perform a Print Preview for the analysis, TOPS Pro attaches the revision history notes to the bottom of the screen if the Print Revision option is activated on the Configuration Screen.

The Print Preview will display up to five lines of revision history text. After the revision history exceeds five lines, adding more text will delete your oldest revision history entry.


- **Save SC:** The option is not applicable to templates.
- **New Folder:** This button prompts you to create a new folder.

Analysis Search

Function: Search for a specific analysis record in specific situations: (1) when the list of analysis names is too large; (2) when you cannot remember the exact name of the analysis; (3) when you are trying to find an analysis that has certain products attached through its packaging profile.

The search function works in conjunction with the Open and Export Analysis dialog box;. It limits the display of analyses on that dialog box to only those analyses that match your search criteria. TOPS Pro performs a case-insensitive search for partial matches within a field.

For example, if you enter “bag” in the Analysis Name field, TOPS Pro might find analyses with the names, “**Bag**>Truck,” “New **Baggage**” and “**Bags**.” If you enter “48 CNT” in the Description field, TOPS Pro might find analyses with packaging profiles that have “48 CNT” somewhere in their Description fields; for example, “Cereal, **48 cnt**” or “**48 cnt** - Hammers.” If you enter search criteria in more than one field, TOPS Pro searches for only those analyses that match **all** your criteria.

 **Note:** On the Open Analysis dialog box, the Reset button “resets” the search to everything.

Use one of these two options to access the dialog box:


- From Export Menu, select Analysis to open the Export Analysis dialog box, click the Search button.
- From the File menu, select Open. From the Open Analysis dialog box, click on the Advanced Search button.

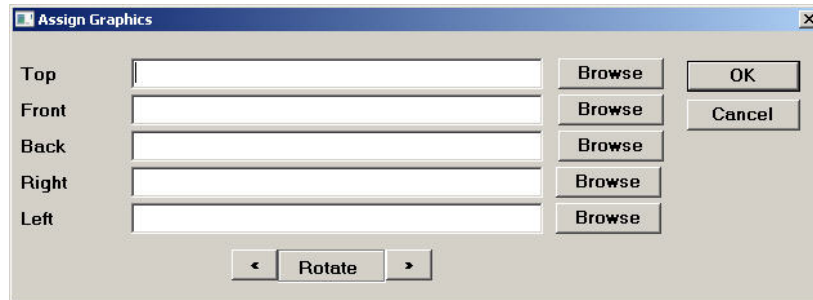
Field Descriptions and Instructions

- **Analysis Name:** Enter the name or the first few letters, of the analysis.
- **Profile #:** Enter the profile number used in the packaging profile for the analysis, if any.
- **User Name:** Enter the name of user whose analyses you need to search.
- **Modify Time:** Enter a date range here to search within a specific time frame for when an analysis was created or last modified.
- **Comments:** Enter comment details used in the packaging profile for the analysis.
- **Customer:** Enter the Customer name used in the package profile for the analysis.
- **Product Code:** Enter the product code for a product attached to the packaging profile for the analysis.
- **UPC Code:** Enter the UPC code for a product attached to the packaging profile for the analysis.
- **Description:** Enter the description used in the packaging profile for the analysis.
- **Approved:** Uncheck the box to hide the approved indicator.
- **Work in Progress:** Uncheck the box to hide the unapproved indicator.

Assign Graphics

Function: Select a graphic image to be displayed on a carton.

 **Note:** To display graphics on unitload cases, the Show Graphics option located on the View menu must be turned on.




When available, for example, from the following dialog boxes, click the Graphic button to open the dialog box:

- Define Carton
- Define Shipping Case
- Intermediate Pack Parameters
- Mike Carton Parameters
- Shipcase Parameters
- Define Shipcase dialog box in MixPro

Field Descriptions and Instructions

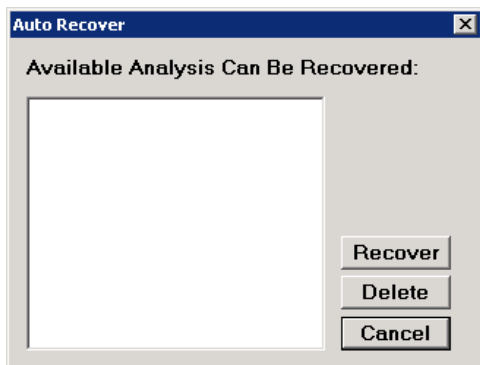
- **Top:** Click the Browse button to select the graphic image (bitmap file) that will appear on the top of the item (carton, shipcase, etc).
- **Front:** Click the Browse button to select the graphic image (bitmap file) that will appear on the front of the item (carton, shipcase, etc).
- **Back:** Click the Browse button to select the graphic image (bitmap file) that will appear on the back of the item (carton, shipcase, etc).
- **Right / Left Side:** Click the Browse button to select the graphic image (bitmap file) that will appear on the side of the item (carton, shipcase, etc).
- **Rotate Buttons:** These buttons correspond to the graphic image displayed in the g.o.d. feature at the bottom of the dialog box. Click the left Rotate button to rotate the graphic counter-clockwise by 90 degrees. Click the right Rotate button to rotate the graphic clockwise by 90 degrees.

 **Note:** To turn on the g.o.d. display, go to Tools menu, select Configuration and check the option "Show g.o.d. window."

Auto Recover

Function: Recover any analyses not previously saved before you exit TOPS.

To access, go to the Tools Menu and select Recover Analyses.




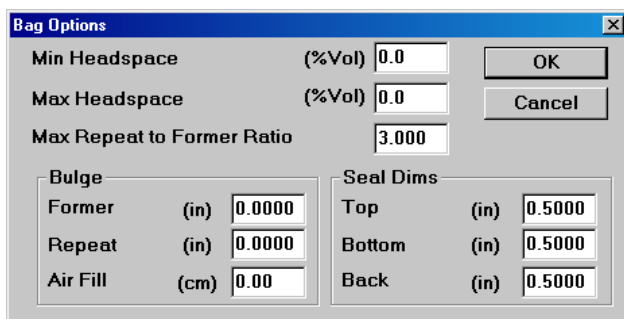
Field Descriptions and Instructions

- **File List:** When available, you will see a list of analyses not previously saved. This may be the result of the program crashing or a power outage.
- **Recover:** Click this button to recover the highlighted analysis in TOPS. You can then resume and save your work.
- **Delete:** Click this button to delete the highlighted analysis.

Bag Options

Function: Define additional parameters for a bag, including minimum/maximum headspace, maximum repeat to former value, bulge and seal dimensions. To access the Bag Options dialog box, click the Options button from the Bag Parameters dialog box.

 **Note:** This dialog box displays a different set of fields (see picture below) depending on whether you selected Former-Repeat-Air Fill or Length-Width-Height in the Based On field on the Bag Parameters dialog box.



Bag Options Dialog Box for bags based on Former-Repeater-Air Fill

Bag Options Dialog Box for bags based on Length-Height-Width

Headspace

Headspace applies only when you are putting bulk product into a bag. Minimum and maximum headspace refers to the volume of air needed inside the bag prior to sealing. For example, when you fill a bag with potato chips, you will want to add headspace to the bag to prevent the chips from being crushed or broken. The headspace dimension will give the bag additional “wasted” space above the contents of the bag.

Field Descriptions and Instructions

The following three fields (**Min Headspace**, **Max Headspace** and **Max Repeat to Former Ratio**) are used only to design a new bag. These fields do not display for a fixed bag.

- **Min Headspace:** Enter a percentage of the bag’s volume to specify the minimum headspace allowed in the bag.
- **Max Headspace):** Enter a percentage of the bag’s volume to specify the maximum headspace allowed in the bag.
- **Max Repeat to Former Ratio:** This value forces the repeat dimension of the bag to be less than X times the former dimension of the bag, where X is the value you will enter in this field.
- **Note:** This feature weeds out bag designs that are extremely elongated. If your bag is naturally very long, you might need to increase this value.
- **Bulge:** Enter the different distances for a flattened bag in inches or millimeters, depending on the bag specifications:


When bag parameters are based on FxRxA, enter the **Bulge Former**, the distance across a flattened bag, **Bulge Repeat**, the distance between cuts of a flattened bag and **Bulge Air Fill**, the thickness of the filled bag respectively.

When bag parameters are based on LxWxH, enter **Bulge Length**, **Bulge Width** and **Bulge Height** of a flattened bag respectively.

- **Seal Dims:** Enter the top, bottom and back of the seal respectively.

Bag Parameters

Function: Define parameters for different types of bags. For example, the Former-Repeat-Air Fill feature allows you to design a potato chip bag. The Length-Width-Height feature allows you to design a candy bar bag. A bag may contain only bulk product. Further, a bag must always be inserted into another container; the bag element cannot be the last stage of an analysis.

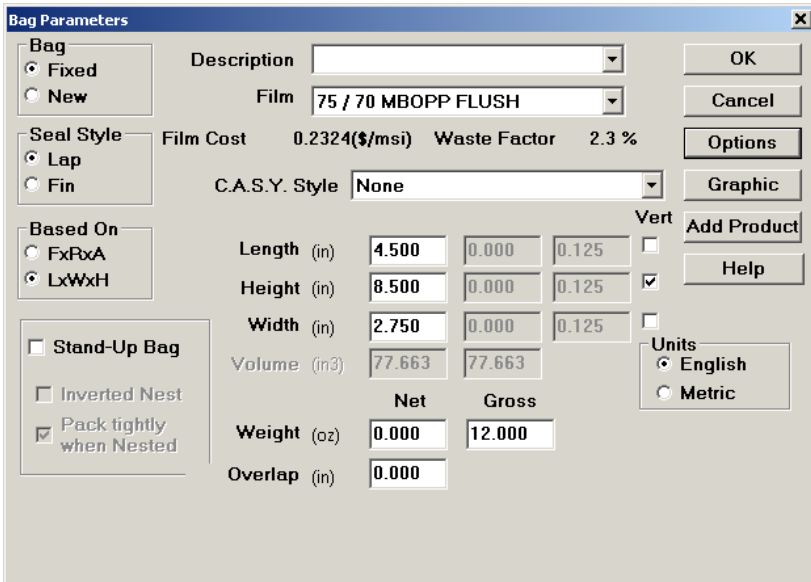
 **Note:** The Bag Parameters dialog box displays in a variety of ways, each with a slightly different set of fields, depending on a few variables:

- If you select the green Film Bag icon from the Primary Pack Button-Style Menu, the Film type and Film Cost fields will be active in the Bag Parameters dialog box.
- If you select the yellow Bag icon from the Shipcase Button-Style Menu, the Bag Parameters dialog box does not provide the film-related fields.
- If you enter bag parameters based on Former-Repeat-Air fill (F□R□A), the dialog box displays fields for Former, Repeat and Air Fill.
- If you enter bag parameters based on Length-Width-Height (L□W□H), the dialog box displays fields for Length, Width and Height.

To access, use one of two options from the Control Panel:

- Click the Film Bag icon  or click the Bag icon .

The Bag Parameters dialog box below shows all options being active:




Primary Pack vs. Shipcase Bag Parameters

Both the Primary Pack and Shipcase elements of an analysis include a Bag Parameters icon. Be aware of one important difference: If you need to design a new bag, use the Carton/Film Bag parameters. The Shipcase/Bag element will not accept bulk product and allows you to work with fixed bags only. The Shipcase/Bag element will not allow you to design a new bag. Also, both the Primary Pack bag and the Shipcase bag can be loaded onto a pallet.

Bags Shaped Like Cartons

If your bag has a rectangular shape, like a carton, use the Primary Pack parameters to design the bag. For example, the best way to design a dog food bag is to use the Milk Carton parameters. For a flour bag, use a Primary Pack with the bag_top.bmp graphic pasted on top.

 **Note:** TOPS Pro uses the shapes you see for aesthetic purposes only. If you are using Milk Carton or Bag shapes, there are no inside/outside dimensions. If you decide to use a Carton, the dialog box does allow for inside/outside dimensions.

Field Descriptions and Instructions

- **Bag:** Select either Fixed or New to specify the type of bag you want to use in your analysis.


A **fixed analysis** requires you to enter the dimensions of a fixed bag.

A **new analysis** will create a new bag based on other information you enter on the screen. The new analysis will require you to enter minimum, maximum and incremental dimensions for the bag.

- **Seal Style:** Select either Lap or Fin to specify how the bag will be sealed.
- **Based On:** Select either FxRxA or LxWxH to specify whether the bag is defined by Former-Repeat-Air Fill or Length-Width-Height.

For example, FxRxA defines a potato chip bag. LxWxH defines a candy bar bag.


- **Description:** Select from the drop-down list the film bags to be used if previously defined in the database.
- **Film:** Select the film style to be used for the bag.

 **Note:** TOPS Pro assumes film thickness to be inconsequential. Also, the drop-down list contains film types that are already set up in the database. If the film type you want is not on the list, you can add it to the database using the Define Film dialog box. For more information, please refer to page 345.

- **Stand-Up Bag:** Enables the stand-up bag option.
- **Inverted Nest:** Enables inverted nesting.
- **Pack Tightly when Nested:** Enables the pack tightly option when using enabling the Inverted Nest option.
- **Film Cost:** Displays the film cost and waste factor for the selected film.
- **C.A.S.Y. Style:** Select a CASY style to display for the bag.

The following three fields: **Former**, **Repeat** and **Air Fill**, display only if you select Based On FxRxA. Also, if you selected New Bag, you will need to enter **Minimum**, **Maximum** and **Incremental** dimensions for these three fields.

- **Former:** The distance across a flattened bag.
- **Repeat:** The distance between cuts of a flattened bag.
- **Air Fill:** The thickness of the filled bag.

 **Note:** If you need to convert the air fill value to inches, select LxWxH in the Based On field, enter air fill in inches, then switch Based On back to FxRxA.

The following three fields: **Length**, **Width** and **Height**, display only if you select LxWxH in the Based On field. Also, if you selected New Bag, you will need to enter **Minimum**, **Maximum** and **Incremental** dimensions for these three fields.

- **Length:** The length of the bag.
- **Height:** The height of the bag which does not include end seams.
- **Width:** The width of the bag.
- **Volume:** Enter the actual volume of the bag in inches cubed or liters, depending on your Units.
 - 📌 **Note:** If you selected New Bag, enter two volume dimensions, **Minimum** and **Maximum**, and adjust the bag's volume to eliminate any undesired dimensions.

If you selected Fixed Bag, TOPS Pro will automatically calculate the volume of the bag.

- **Net Weight:** The net weight of the bag.
 - 📌 **Note:** This value allows you to work with product and headspace related to the bag.
- **Overlap:** The amount of overlapping seal at the end of the bag.
- **Add Product:** Opens the Primary Pack Products dialog box to specify the products going into the primary pack. The data will be used to calculate Wal-Mart efficiency values in the Pallet report statistics.
- **Vert:** Check a box beside one of three fields: Former, Repeat or Air Fill, to specify the vertical dimension of the bag **relative to the ground**.
 - 📌 **Note:** If you check Repeat Vertical, then TOPS Pro will design the bag on end. If you check Air Fill Vertical, then TOPS Pro will design the bag lying down.

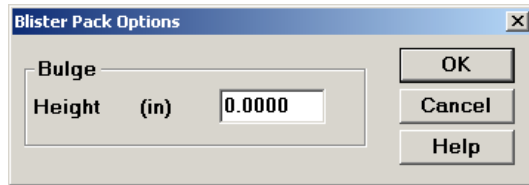
The following two **Volume** fields display only for a bulk product-into-bag analysis.

- **Volume based on size:** Displays the volume of the bag based on size. TOPS Pro automatically calculates this value.
- **Volume based on weight:** Displays the volume of the bag based on weight. TOPS Pro automatically calculates this value.
- **Options Button:** Displays the Bag Options dialog box, which allows you to enter additional dimensions for a bag.

Blister Pack Options

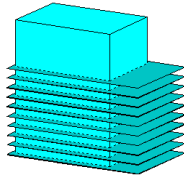
Function: Define the height of bulge for a blister pack.

To access, open the Blister Pack Parameters dialog box and click the Options button.




Field Descriptions and Instructions

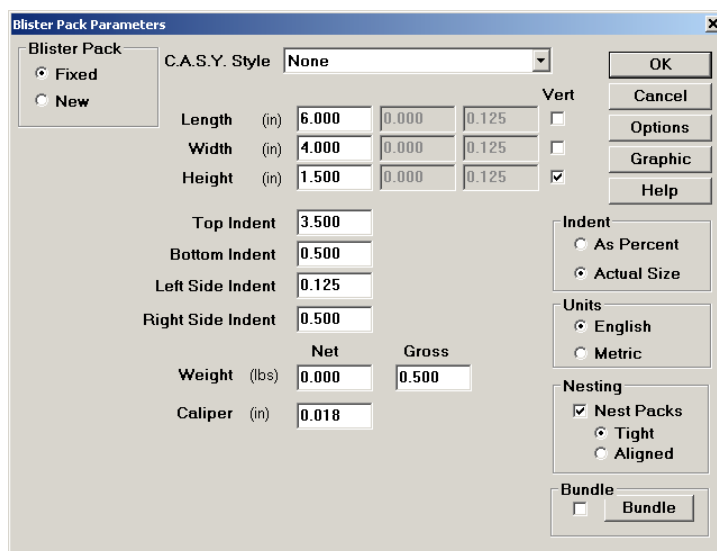
- **Height:** Enter the height of bulge for the blister pack. You can also use this parameter to nest blister shells together for packing. To do so, enter a negative number and make sure the absolute value is smaller than the height of the blister pack. The result will be a stack of blisters nested as illustrated below.



Blister Pack Parameters

Function: Define parameters for blister packs.

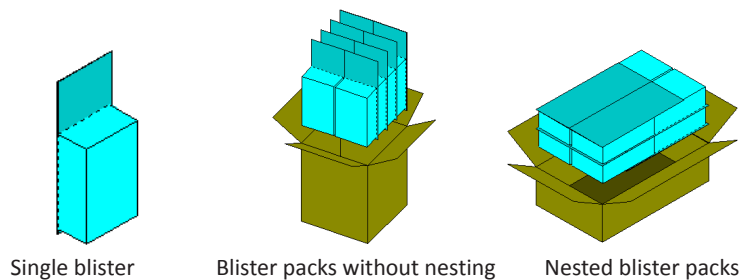
To access, click the Blister Pack icon  to open the Blister Pack Parameters dialog box.



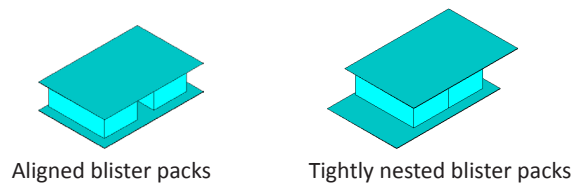
Field Descriptions and Instructions

- **Blister Pack:** Select Fixed to enter fixed dimensions or select New to enter a range of blister pack dimension for TOPS to evaluate.

- **C.A.S.Y. Style:** Selects a CASY style to display for the blister pack.
- **Length:** The length of the blister package including the backing cardboard.
- **Width:** The width of the blister package including the backing cardboard.
- **Height:** The height of the of the blister package including the backing cardboard.
- **Top Indent:** The position of the blister from the top edge of the package.
- **Bottom Indent:** The position of the blister from the bottom edge of the package.
- **Left Side Indent:** The position of the blister on the left side of the blister.
- **Right Side Indent:** The position of the blister on the right side of the blister.
- **Vert:** Checks a box beside one of three fields: Length, Width or Height ,to specify the vertical dimension of the blister pack relative to the ground.
- **Indent:** Selects whether the blister indent is expressed as a percentage of the overall package size or in actual dimension.
- **Nesting:** Check this box to nest inverted blister packs in the carton/shipcase. The pictures below illustrate the blister pack, blister packs in shipcase and nested blister packs in shipcase.



If the blister is small (relative to the size of the backing cardboard), you can choose to have the cardboard Aligned instead of Tight as illustrated below.



- **Bundle Button:** Opens the Bundle Parameters window. For more information on this function, see Bundle Parameters dialog box. When this option is checked, the bundle function will be used.

Board Combinations

Function: Define default board grades, as well as change, delete or mark them unavailable. Use this option to define a board's ECT or cost per 1,000 square feet.

To access the dialog box, open the TOPS Configuration program. From the Menu Bar, open the Define menu and select Board Combinations or click the Board Combination quick link in the Control Panel.

Flute Type	Thickness (in)	Edge Crush (lb/in)	HFF (%)	Cost/1000ft2
<input checked="" type="checkbox"/> A	0.1910	27.0	0.900	0.00
<input checked="" type="checkbox"/> B	0.1120	27.0	0.900	0.00
<input checked="" type="checkbox"/> C	0.1520	27.0	0.900	0.00
<input checked="" type="checkbox"/> E	0.0650	27.0	0.900	0.00
<input type="checkbox"/> A	0.0000	0.0	0.000	0.00

Field Descriptions and Instructions

- **Description:** Select a type of board.
 - 🔑 **Note:** When naming a new board combination, do not include the papers in the board name. TOPS Pro will automatically add the papers to the board name.
- **Double Wall:** Check the box to specify a double-wall board.
 - 🔑 **Note:** For the next two fields, **Inside** and **Outside Liners**, you must use the drop-down list to select a value, even if the correct value is already displayed in the field. TOPS Pro will not calculate the Edge Crush values unless you select these fields.

Also, for the next three fields, **Inside** and **Outside Liners** and **Inside Mediums**, you can add or change papers using the Define Paper dialog box.

- **Inside Liners:** Select an inside paper liner for the board.
- **Outside Liners:** Select an outside liner for the board.
- **Inside Mediums:** Select an inside corrugated paper/medium for the board.
- **Flute Type:** Select one or more flute types.
 - Note:** If you do not see the flute type you want, contact TOPS Technical Support.
- **Thickness:** Enter the thickness of the flute in inches or millimeters, depending on the Units selected.

- **Edge Crush:** Enter the edge crush test value for the flute in pounds per inch or kilograms per millimeter, depending on the Units selected.
 - ✍ **Note:** If you want TOPS Pro to calculate the ECT value, click the Recalculate button.
- **HFF:** Enter the horizontal flute factor as a percentage.
- **Cost/1000ft²:** Enter the flute cost per 1,000 square feet or square meters, depending on the Units selected.
- **Available:** Check the box to indicate that this board type is available.
 - Note:** If you leave this field unchecked, the board combination will remain in the database, but will not appear in any reports.
- **Locked:** Indicates that only a supervisor can enter or change parameters on this dialog box.

For the following, TOPS Pro calculates values based on the component papers. Please refer to Chapter 9, Stacking Strength.

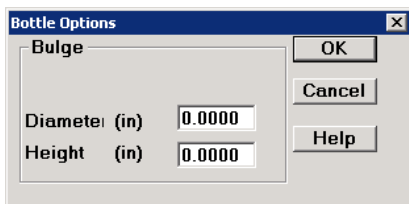
- **ECT Button:** Recalculates the edge crush test value for the board.
- **Cost:** Recalculates the cost per 1,000 square feet of the board.

Bottle Options

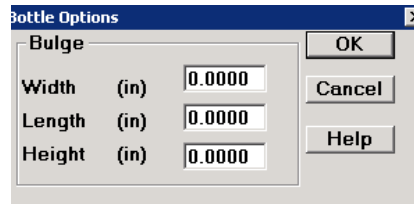
Function: Enter bulge dimensions for a bottle.

✍ **Note:** This dialog box displays a different set of fields, as pictured below, depending on whether you selected Round, Oval or Rectangular in the Body Shape field on the Bottle Parameters dialog box.

To access the Bottle Options dialog box, click the Options button from the Bottle Parameters dialog box.



Bottle Options Dialog Box/Round Body Shape




Bottle Options Dialog Box/Oval or Rectangular Body Shape


Field Descriptions and Instructions

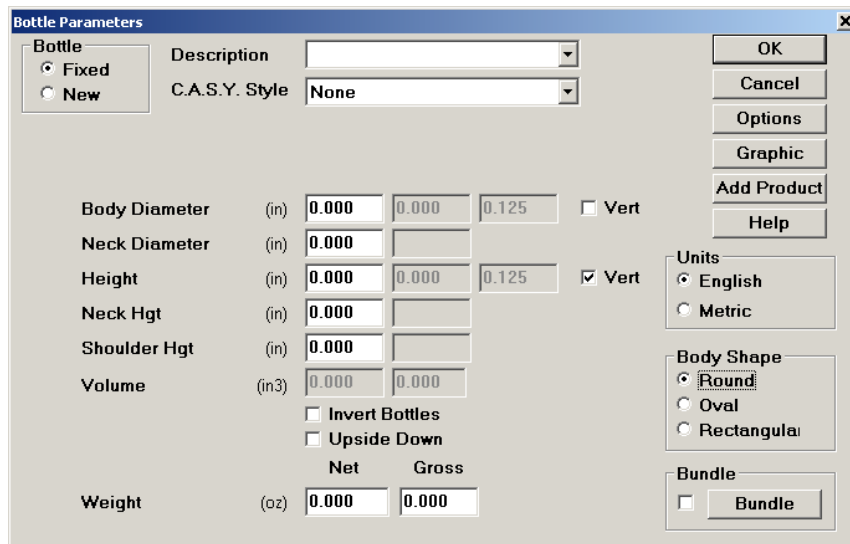
- **Diameter:** For round bottles, enter the bulge diameter for the bottle.
- **Width:** The bulge width for rectangular bottles.
- **Length:** The bulge length for rectangular bottles.
- **Height:** The bulge height for round or rectangular bottles.
 - ✍ **Note:** TOPS Pro does not usually report bulge data. For information about how to report bulge data, please refer to page 282.

Bottle Parameters

Function: Define parameters for different types of bottles (perfume bottles, shampoo bottles, etc). You can also use bottle parameters to design shapes for toilet tissue and paper towel rolls.

To access the Bottle Parameters dialog box, click the Bottle Parameters icon  at the Control Panel.

 **Note:** If your analysis includes a bottle, the bottle element must be the first stage of the analysis. Further, the bottle element cannot be the last stage of the analysis.



Bottle Parameters

Bottle: Fixed New

Description:

C.A.S.Y. Style:

Body Diameter (in): Vert

Neck Diameter (in):

Height (in): Vert

Neck Hgt (in):

Shoulder Hgt (in):

Volume (in3):

Invert Bottles

Upside Down

Weight (oz):

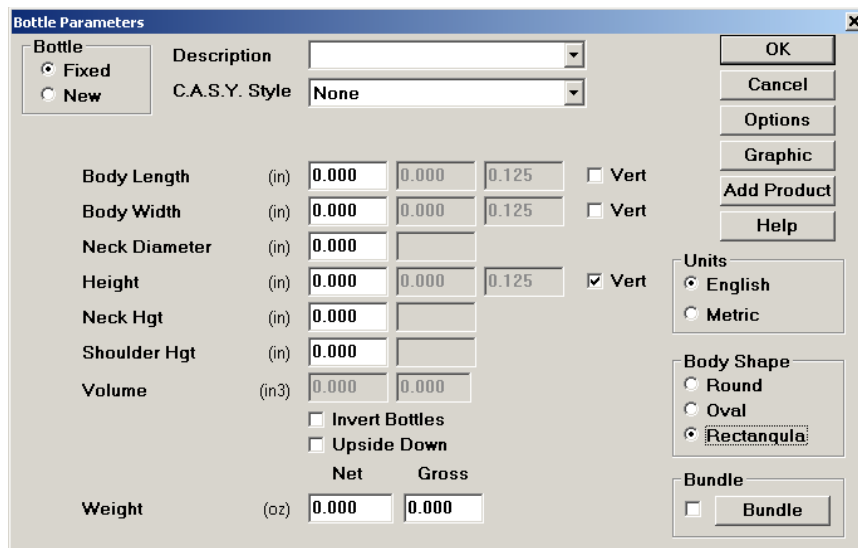
Units: English Metric

Body Shape: Round Oval Rectangular

Bundle: Bundle

Buttons: OK, Cancel, Options, Graphic, Add Product, Help

Bottle Parameters Dialog Box/Round Body Shape



Bottle Parameters

Bottle: Fixed New

Description:

C.A.S.Y. Style:

Body Length (in): Vert

Body Width (in): Vert

Neck Diameter (in):

Height (in): Vert

Neck Hgt (in):

Shoulder Hgt (in):

Volume (in3):

Invert Bottles

Upside Down

Weight (oz):

Units: English Metric

Body Shape: Round Oval Rectangular

Bundle: Bundle

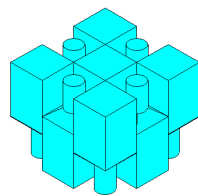
Buttons: OK, Cancel, Options, Graphic, Add Product, Help

Bottle Parameters Dialog Box/Oval or Rectangular Body Shape

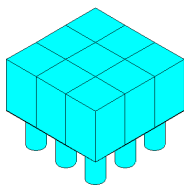
Field Descriptions and Instructions

- **Description:** Select a predefined bottle from the drop list, if available.
- **C.A.S.Y. Style:** Select a CASY style to display for the bottle.
- **Body Diameter:** Enter the body diameter for round bottles.

- **Body Length:** Enter the body length for oval or rectangular bottles.
- **Body Width:** Enter the body width of the bottle.
- **Neck Diameter:** Enter the neck diameter of the bottle (top rim).
 - 🔑 **Note:** For a round bottle, the neck diameter should be less than the body diameter. For an oval or rectangular bottle, the neck diameter should be less than the smaller of length or width. This value must be greater than zero, but it can be very small (for example, .001).
- **Height:** Enter the height of the bottle, including body, shoulder and neck.
- **Neck Hgt:** Enter the neck height of the bottle.
 - 🔑 **Note:** The neck height is the distance from the top of the bottle to the top of the shoulder. Neck height must be greater than zero. This value must be greater than zero, but it can be very small (for example, .001).
- **Shoulder Hgt:** Enter the shoulder height of the bottle.
 - 🔑 **Note:** The shoulder height is the distance between the neck and the base of the bottle, and represents the transition point of the bottle. This value must be greater than zero, but it can be very small (for example, .001).
- **Volume:** For reference only, the volume of the bottle is calculated automatically based on the dimension of the bottle.
- **Invert Bottles:** Check this box to invert alternate bottles or check the **Upside Down** option to load all bottles upside down.



Invert Bottles




Upside Down Bottles

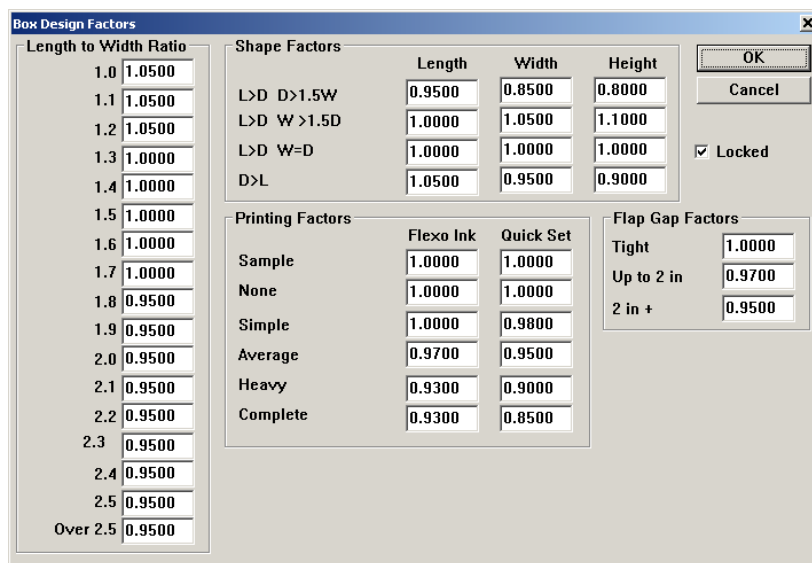
- **Vert:** Check a box beside one of four fields: Body Diameter, Body Length, Body Width or Height, to specify the vertical dimension of the bottle **relative to the ground**.
 - Note:** This field allows you to change the vertical position of the bottles as they are placed into a tray, shipper, pallet or truck. Further, at this time TOPS Pro does not allow you to indicate which direction a bottle will be “pointed;” that is, which end is pointed up or to the left or right.
- **Net Weight:** Enter the net weight of the bottle.
- **Gross Weight:** Enter the gross weight of the bottle.
- **Body Shape:** Select either Round, Oval or Rectangular to specify the body shape of the bottle.
 - Note:** Oval bottles are packed as if they were rectangular; i.e., they are not staggered.
- **Options Button:** Displays the Bottle Options dialog box, which allows you to enter bulge dimensions for a bottle.
- **Bundle Button:** Opens the Bundle Parameters window. For more information on this function, see Bundle Parm dialog box. When this option is checked, bundle function is enabled.

Box Design Factors

Function: Change the default stacking strength values for box design factors such as length-to-width ratio, shape factors, printing factors and flap gap factors.


To access, open TOPS Configuration program. From the Menu Bar, open the Define menu and select Box Design Factors.

 **Note:** For detailed information about box design factors as they relate to stacking strength, please refer to Chapter 9, Stacking Strength.



Length to Width Ratio		Shape Factors			Printing Factors		Flap Gap Factors			
1.0	1.0500	L>D D>1.5W	Length 0.9500	Width 0.8500	Height 0.8000	Sample	Flexo Ink 1.0000	Quick Set 1.0000	Tight	1.0000
1.1	1.0500	L>D W>1.5D	1.0000	1.0500	1.1000	None	1.0000	1.0000	Up to 2 in	0.9700
1.2	1.0500	L>D W=D	1.0000	1.0000	1.0000	Simple	1.0000	0.9800	2 in +	0.9500
1.3	1.0000	D>L	1.0500	0.9500	0.9000	Average	0.9700	0.9500		
1.4	1.0000					Heavy	0.9300	0.9000		
1.5	1.0000					Complete	0.9300	0.8500		
1.6	1.0000									
1.7	1.0000									
1.8	0.9500									
1.9	0.9500									
2.0	0.9500									
2.1	0.9500									
2.2	0.9500									
2.3	0.9500									
2.4	0.9500									
2.5	0.9500									
Over 2.5	0.9500									


Field Descriptions and Instructions

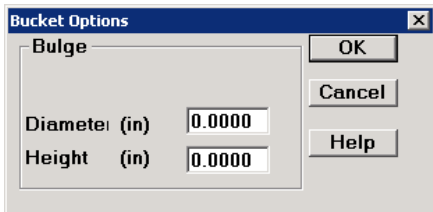
- **Length to Width Ratio:** Displays a list of length-to-width ratios ranging from 1.0 to over 2.5. For each length-to-width ratio, enter the safety factor value.
- **Shape Factors:** Enter the shape factor when length/width/ height is the vertical dimension for the following shape scenarios:
 - L > D and D > 1.5W
 - L > D and W > 1.5D
 - L > D and W = D
 - D > L
- **Printing Factors:** Enter the printing factor when Flexo/Quick printing is used for the following box printing scenarios: Sample | None | Simple | Average | Heavy | Complete
- **Tight:** Enter the flap gap factor if the flaps are tight when closed.
- **Up to 2 in:** Enter the flap gap factor if the flaps leave a space of up to two inches when closed.
- **2 in +:** Enter the flap gap factor if the flaps leave a space of more than two inches when closed.
- **Locked:** Indicates that only a supervisor can enter or change parameters on this dialog box.
 -  **Note:** A value of one (1) in these fields means that this scenario will have no effect on the stacking strength calculation. Any number multiplied by one (1) equals that number, so there is no change to the result. A value of less than one (1) has a negative effect on the result; a value greater than one (1) has a positive effect.

Bucket Options

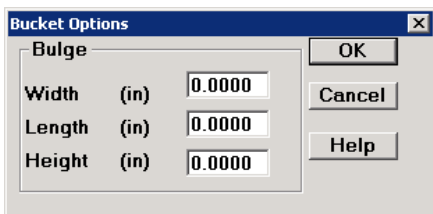
Function: Enter bulge dimensions for a bucket.

To access Bucket Options dialog box, click the Options button from the Bucket Parameters dialog box.

 **Note:** This dialog box displays a different set of fields, as pictured below, depending on whether you selected Round or Rectangular in the Body Shape field on the Bucket Parameters dialog box.



Bucket Options Dialog Box/Round Body Shape




Bucket Options Dialog Box/Rectangular Body Shape

Field Descriptions and Instructions


- **Diameter:** Enter the bulge diameter for round buckets.
- **Width:** Enter the bulge width for rectangular buckets.
- **Length:** Enter the bulge length for rectangular buckets.
- **Height:** Enter the bulge height for round or rectangular buckets.

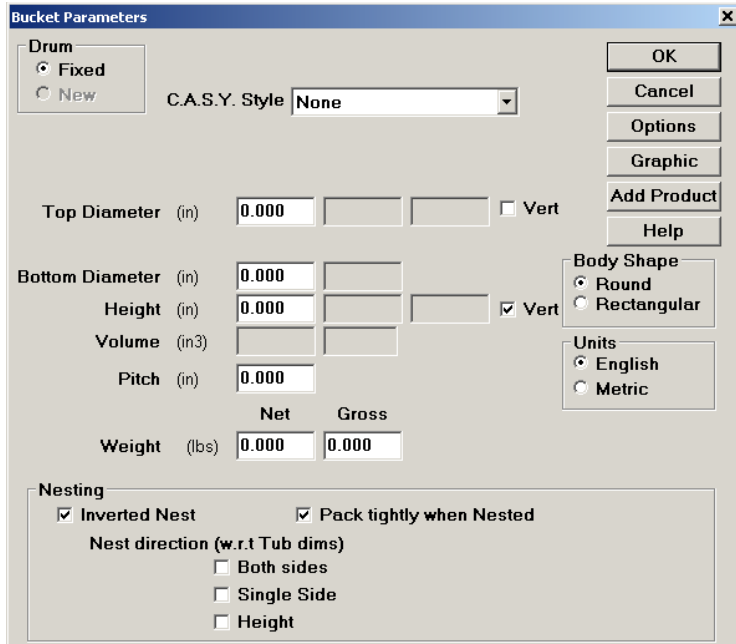
Bucket Parameters

Function: Define parameters for different types of round or rectangular buckets. With the round bucket parameters, you can design hub caps, plates, flower pots, etc. With the rectangular bucket parameters, you can design trays, cookie sheets, etc.

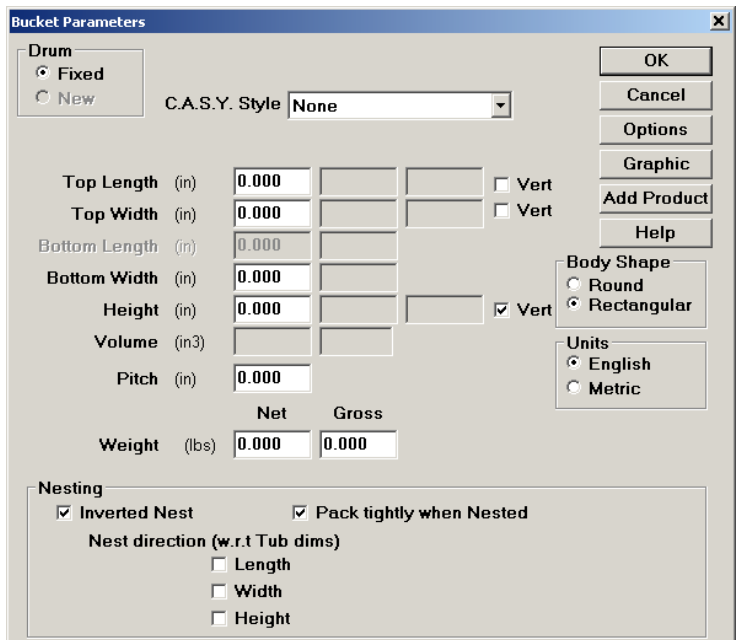
 **Note:** When you use a bucket in an analysis, TOPS Pro will not allow you to place any items inside the bucket. Further, the bucket itself can be placed only on a pallet or in a vehicle. If you are thinking of placing a bucket inside a shipper, use a tub instead. (The tub comes from the Primary Pack (green) Button-Style Menu.)

Also, this dialog box displays a different set of fields, as displayed below and on the next page, depending on whether you select Round or Rectangular in the Body Shape field.

From the Control Panel, click the Bucket Parameters icon  to access the Bucket Parameters dialog box.



Bucket Parameters Dialog Box/Round Body Shape



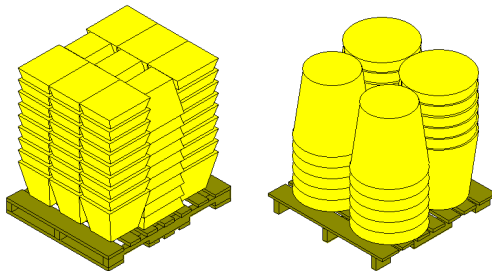
Bucket Parameters Dialog Box/Rectangular Body Shape

Field Descriptions and Instructions

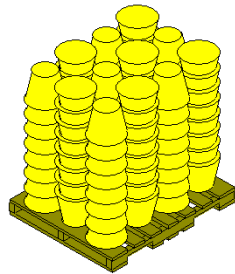
- **C.A.S.Y. Style:** Select a CASY style to display for the bucket.
- **Top Diameter:** Enter the top diameter or rim for round buckets.
- **Bottom Diameter:** Enter the bottom diameter for round buckets.
- **Top Length:** Enter the top length for rectangular buckets.
- **Top Width:** Enter the top width for rectangular buckets.
- **Bottom Length:** Displays the bottom length for rectangular buckets. TOPS Pro automatically

calculates this value based on the proportions of top to bottom width.

- **Bottom Width:** Enter the bottom width for rectangular buckets
- **Height:** Enter the height for round or rectangular buckets.
- **Pitch:** Enter the distance between stacked buckets.
 - ✍ **Note:** Pitch allows you to define the dimensions of the buckets so they can be stacked inside one another. This value represents the distance between the rims of the nested buckets; that is how far one bucket protrudes from the one it is placed into. If you leave pitch at zero, TOPS Pro assumes that the buckets do not nest inside one another.
- **Inverted Nest:** Check the box to load nested buckets in inverted **rows** as the illustrations below:



- **Pack tightly when Nested:** This option can tightly pack flower pots, plumbing parts, water glasses and more by removing any space between the objects.
- **Nest direction (w.r.t Tub dims):** This allows you to choose the different variations of nesting within the shipcase. Check available nested directions from **Both Sides, Single Side** and/or **Height**. The picture below shows nesting in both directions.



- **Vert:** Check a box beside one of four fields (Top Length, Top Width, Top Diameter or Height) to specify the vertical dimension of the bucket **relative to the ground**.
- **Weight:** Enter the weight of the bucket.
- **Body Shape:** Select either Round or Rectangular to specify the body shape of the bucket.
- **Options Button:** Displays the Bucket Options dialog box, which allows you to enter bulge parameters for a bucket.

Bundle Parameters

Function: Enter parameters for bundling primary packs.

To access, click the Bundle button from any primary pack parameter dialog box.

The screenshot shows the 'Bundle Params' dialog box. It features a 'Material' section with 'Corrugated' selected. The 'Style' is 'STANDARD REVERSE TUCK' and the 'Flute' is 'C Flute'. There are three 'Slack' fields (Length, Width, Height) all set to 0.000. The 'Dim Vert' section has 'Bundle' selected. The 'Arrangement' section shows 'Length' as 4, 'Width' as 3, and 'Height' as 1, with 'Along Length' selected. The 'Bundle Size' is displayed as 16.000 X 12.000 X 4.000. Buttons for OK, Cancel, Graphic, and Help are located on the right side.

Field Descriptions and Instructions

- **Material:** Select either Corrugated or Other to specify the material used to make the bundle.
 - ✍ **Note:** The type of material is important to determine stacking strength and board thickness.
- **Style:** Select a pre-defined style or type in the first few letters of the style.
- **Flute/Caliper:** Select the flute size or caliper for corrugated or other material used for casing the bundle.

The following three fields: **Slack Length**, **Slack Width** and **Slack Height**, refer to the extra (wasted) space you intend to include in the bundle configuration. For example, you might figure in two inches of slack space at the top (height) to more easily insert items into the bundle.


- **Slack Length:** Enter the extra space intended for the length of the bundle.
- **Slack Width:** Enter the extra space intended for the width of the bundle.
- **Slack Height:** Enter the extra space intended for the height of the bundle.
- **Dim Vert:** Select either PriPack or Bundle besides one of three fields (Length, Width or Height) to specify the vertical dimension of the bundle **relative to the ground**.
 - ✍ **Note:** If you use height as the vertical dimension, you can select both PriPack and Bundle.

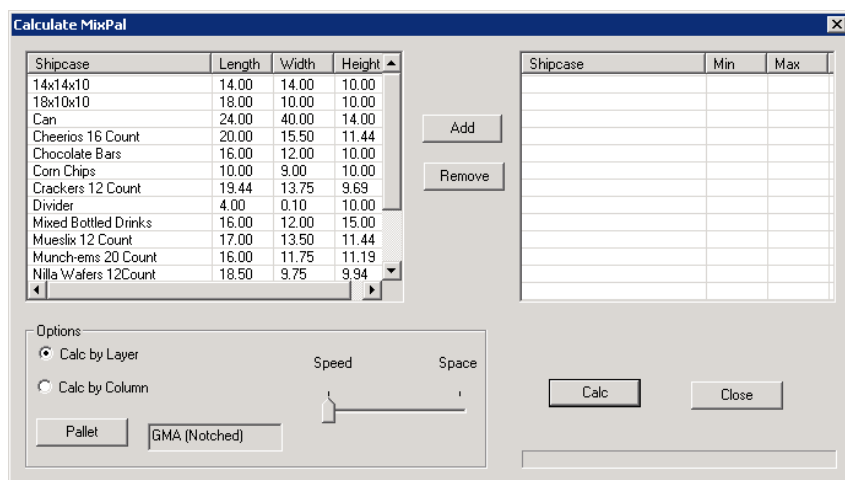
In packaging, height (depth) is normally the distance through the flaps. Length is the greater of the two remaining dimensions.

The following four fields: **Length**, **Width**, **Height** and **Along Length/Width**, allow you to define the bundle arrangement.

- **Length:** Enter the number of primary packs to be arranged along the length of the bundle.
- **Width:** Enter the number of primary packs to be arranged along the width of the bundle.
- **Height:** Enter the number of primary packs to be arranged along the height of the bundle.
- **Along Length/Width:** Specify whether the bundle will be arranged along its length or width.
- **Bundle Size:** Displays the overall dimensions of the bundle based on the specified arrangement.
- **Graphic Button:** Displays the Assign Graphics dialog box, which allows you to select and display a graphic image on the bundle.

Calculate MixPal

Function: This dialog box allows you to use Mixpro to automatically generate mix pallet for display based on layer or column optimization. To access, click the MixPro icon  in the tool bar and select MixPro Mixed Pallet Editor. When the MixPro program opens, click the Calc Wizard button.

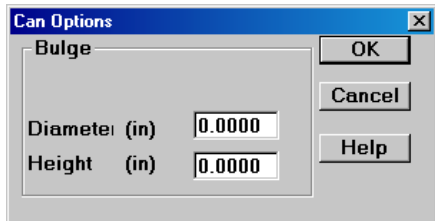


- **Add Button:** Click to add the highlighted shipcase from the left side to the load list on the right hand side.
 - **Note:** Shipcases added to the load list on the right will have a minimum quantity of 1 and maximum quantity of 99. To adjust these quantities, click the quantity value and type in a new number.
- **Remove Button:** Click to remove highlighted shipcase from the load list on the right back to the left side. This will remove the shipcase from being placed on the mix pallet.
- **Calc by Layer:** Select this option to generate the mixed load by optimizing layer.
- **Calc by Column:** Select this option to optimize the mixed load by column.
- **Pallet Button:** Click to open the Pallet Parameters dialog box where you can select a pallet to be used for this mixed pallet. Enter also any allowable overhangs, weight and height limit for the pallet load to be created.
- **Speed-Space Optimization:** This controls how optimized the mixed pallet will be created using the selected shipcases. Set this to speed on the left as the mixed pallet load is normally quite straight forward.
- **Calc:** Click to start the calculation.

Can Options

Function: Enter bulge dimensions for a can (cylinder).

From the Can Parameters dialog box, click the Options button to access the Can Options dialog box.





Field Descriptions and Instructions

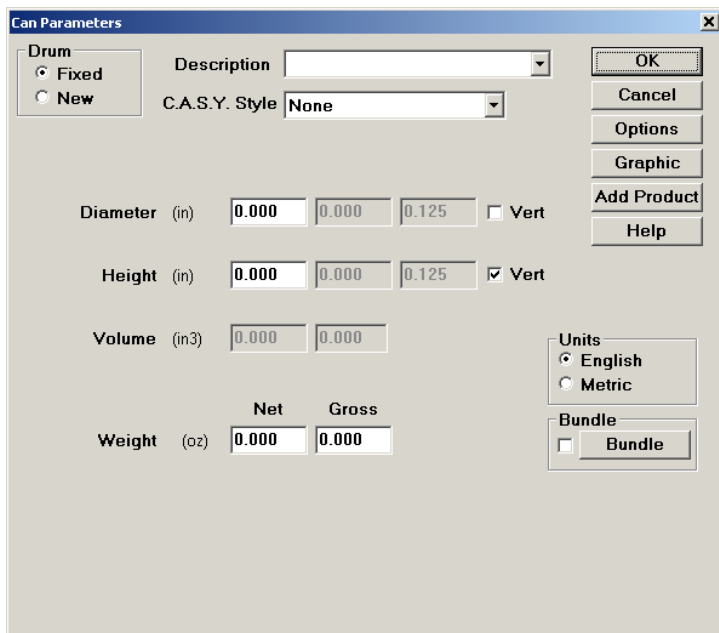
- **Diameter:** Enter the bulge diameter for the can.
- **Height:** Enter the bulge height for the can.

Can Parameters

Function: Define parameters for different types of cans (soup cans, cookie cans, etc). You will also use Can Parameters to define round tubs and round bottles, canisters or drums.


 **Note:** If your analysis includes a can, the can element must be the first stage of the analysis. Further, the can element cannot be the last stage of the analysis.

 **Note:** TOPS Pro does not currently stagger cylinders while on their side, although this functionality may be added in the future.



Designing Soda Cans

Be aware that if you are designing a soda can, it may be better to use bottle parameters because a soda can has a neck, shoulder and body, just like a bottle.

From the Control Panel, click the Can Parameters icon  to access the Can Parameters dialog box. Field Descriptions and Instructions

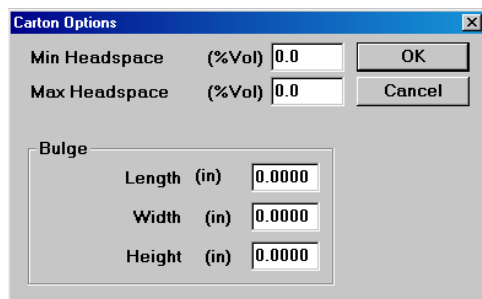
Description: Select from the drop list a predefined can, if available.

- **C.A.S.Y. Style:** Select a CASY style to display for the can.
- **Diameter:** Enter the diameter of the can.
 - ✎ **Note:** This dimension is used for a can that has a uniform diameter from top to bottom. If your can has different diameter measurements at the top and bottom, use the Tub or Bucket in your analysis.
- **Height:** Enter the height of the can.
- **Vert:** Check a box beside one of two fields, Diameter or Height, to specify the vertical dimension of the can **relative to the ground**.
- **Net Weight:** Enter the net weight of the can.
- **Gross Weight:** Enter the gross weight of the can.
- **Options Button:** Displays the Can Options dialog box, which allows you to enter bulge dimensions for a can.
- **Bundle Button:** Opens the Bundle Parameters window. For more information on this function, see Bundle Parm dialog box. When this option is checked, bundle function is enabled.

Carton Options

Function: Enter additional dimensions for a carton, such as headspace and bulge.

From the Carton Parameters dialog box, click on the Options button to access the Carton Options dialog box.



Headspace

When you create a new carton designed to contain a bulk product, such as cereal, you will need to allow for headspace at the top of the carton. Minimum and maximum headspace refers to the volume of air needed inside the carton prior to sealing.

For example, when you fill a carton with cereal, you will want to add headspace to the carton to

prevent the cereal from being crushed or broken. The headspace dimension will give the carton additional “wasted” space above the contents of the carton.


Field Descriptions and Instructions

The following two fields, **Min Headspace** and **Max Headspace**, display only if you selected New Carton on the Carton Parameters dialog box.

- **Min Headspace:** Enter a percentage of the carton’s volume to specify the minimum headspace allowed in the carton.
- **Max Headspace:** Enter a percentage of the carton’s volume to specify the maximum headspace allowed in the carton.
- **Bulge Length, Width and Height:** The amount of bulge allowed in the carton’s length, width and height dimensions.

Carton Parameters


Function: Define parameters for different types of cartons.

From the Control Panel, click on the Carton Parameters icon  to access the Carton Parameters dialog box.


Field Definitions and Instructions

- **Carton:** Select Fixed, New or KnockDown to specify the type of carton you want to use in your analysis.

A **fixed analysis** requires you to enter the dimensions of an existing carton. A **new analysis** will create a new carton based on other information you enter on the screen. A **KnockDown** will create a flats based on the dimension of an erected carton.

- **Description:** Select a pre-defined carton from the drop-down list for a Fixed Carton analysis only.
 **Note:** The drop-down list contains carton types that are already set up in the database.

If the carton type you want is not on the list, you can add it to the database using the Define Carton dialog box.


 **Note:** If you select a pre-defined carton, TOPS Pro will automatically insert dimensions in the Length, Width and Height fields, as well as any pre-defined graphics. If you select User Defined, you will need to manually enter dimensions in the Length, Width and Height fields

- **Style:** Select the style of the carton.
- **C.A.S.Y. Style:** Select a CASY style to display for the carton.

For the following three fields, **Length**, **Width** and **Height**, if you selected New Carton, you will need to enter **Minimum**, **Maximum** and **Incremental** dimensions.

- **Length:** The length of the carton.
- **Width:** The width of the carton.
- **Height:** The height of the carton.

For the following **Volume** field, if you selected New Carton, the system will prompt you to enter **Minimum** and **Maximum** volume dimensions.

- **Volume:** The volume of the carton (volume of inside of box).
 **Note:** This field allows you to adjust the carton's volume to eliminate any undesired dimensions. If you selected Fixed Carton, TOPS Pro will automatically calculate the volume of the carton.
- **Vert:** Check a box beside one of three fields, Length, Width or Height, to specify the vertical dimension of the carton **relative to the ground**.
- **Net Weight:** Enter the net weight of the carton.
- **Gross Weight:** Enter the gross weight of the carton. Gross weight must be greater than or equal to net weight.
- **Caliper:** Enter the caliper of the carton. This is the thickness of the cardboard used for the carton.
Note: The caliper is used to calculate the inside vs. outside dimensions of the carton.

The following two **Volume** fields display only for a bulk product into a new carton analysis.

- **Volume based on size:** Displays the volume of the carton based on size. TOPS Pro automatically calculates this value.
- **Volume based on weight:** Displays the volume of the carton based on weight. TOPS Pro automatically calculates this value.
- **Options Button:** Displays the Carton Options dialog box, which allows you to enter additional parameters for a carton, such as minimum/maximum headspace and bulge dimensions.
- **Knockdown Button:** Available when KnockDown carton is selected, click this button to automatically calculate the length, width and height parameters of an erected RSC box or folded carton to its knockdown dimensions as explained below:

	Erected Box	Knock Down
Length (L)	14 in	= L+W = 24 in
Width (W)	10 in	= 2*C = 0.1 in
Height (H)	8 in	= W+H = 18 in

Caliper (C) 0.05 in

- **Bundle Button:** Opens the Bundle Parameters window. For more information on this function, see Bundle Parm's dialog box. When this option is checked, bundle function is enabled.

Case Styles

Function: Define parameters for a new case (one that is not already defined in the system). This dialog box also allows you to change parameters for an existing case.

To access the Case Styles dialog box, open the Define Menu from the Menu Bar and select Box Styles.

Field Descriptions and Instructions

- **Description:** For a new case, type in a description. For an existing case, select a pre-defined case or type in the first few letters of the case.
 - ✍ **Note:** If you select a pre-defined case, TOPS Pro will automatically insert values in the various dimension fields. If you select User Defined in the Shipcase Parameters dialog box, you will need to manually enter dimensions.
- **Drawing Style:** Select a pre-defined drawing style as illustrated by the g.o.d. image.
- **Thickenesses - Length:** Enter the number of thickenesses along the length of the case. This corresponds to the number of times you will encounter any wall of the box along the length direction. This is normally two for length.
- **Thickenesses - Width:** Enter the number of thickenesses along the width of the case. This corresponds to the number of times you will encounter any wall of the box along the width. This is normally two for width.
- **Thickenesses - Depth:** Enter the number of thickenesses along the depth of the case. This corresponds to the number of times you will encounter any wall of the box along the height. This is normally four.
- **Export Name:** Enter the export name for the case.
- **Strength Factor (as % of RSC):** In the TOPS system, stacking strength is only available to RSC boxes. This Strength Factor is used to provide strength analysis for non-RSC boxes and is

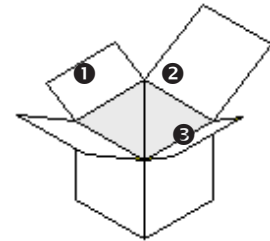
expressed as a percentage when compared to that of an RSC box. For example, if stacking strength for this box is 90 percent when compared to that of an RSC box, enter 90.00.

- **Locked:** Check the box to indicate that only a supervisor can enter or change parameters on this dialog box.

The available drawing parameters vary according to the drawing style selected and are listed as below.

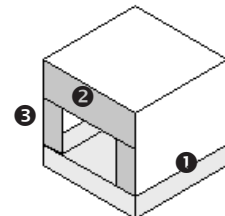
For RSC Boxes

- **Major Flap:** This is the distance between the two major flaps ❶ when the box is closed. Select either Flap Gap or % of Box Width, then enter a value to define the size of the major flap. Use a value of 0.0 as Flap Gap or 50% Box Width to ensure the major flaps meet halfway and close the box completely
- **Minor Flap ❷ :** Select either % of Box Width or % of Box Length, then enter a value to define the size of the minor flap. The illustration (above right) represents a 100% box width.
- **Back Flap Angle:** Use this to define how far back the back flap ❶ will be illustrated within TOPS. Select either Degrees or Radians, then enter a value to define the back flap angle.
- **Front Flap Angle:** Use this to define the front flap ❸ angle. Select either Degrees or Radians, then enter a value.
- **Minor Flap Angle:** Select either Degrees or Radians, then enter a value to define the front flap angle to illustrate the drawing of the two minor flaps ❷.



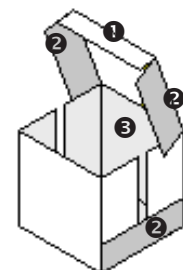
For Shrouded Box, Trays

- **Tray Height ❶ :** Select either in Actual Size or as a % of Box Height, this is bottom portion of the shrouded box and is obvious for trays.
- **Shroud Opening:** Select if the opening is along the width of length of the box.
- **Upper Bar Width ❷ :** Select either in Actual Size or as a % of Box Height, enter a value to represent the top shrouded portion for the box.
- **Side Bar Width ❸ :** Select either in Actual Size or as a % of Box Height, enter a value to represent the two side bars for the box.



For Wrap Around Boxes

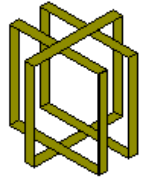
- **Major Flap ❶ :** Select either in Actual Size or as a % of Box Height, enter a value to represent the size of the major flap as pictured to the right.
- **Flap Angle:** Use this to define how far up the cover will be illustrated for this box type. Select either Degrees or Radians, then enter a value.
- **Lip Flap Angle:** Use this to define the angle the three lip flaps of the cover. Select either Degrees or Radians, then enter a value.
- **Wrapwnd Sitting:** Select to illustrate the box opening along the length of width of the box.
- **Minor Flap:** Select either in Actual Size or as a % of Box Height, enter a value to represent the size of the three minor flaps.



- **Flap Gap:** Select either in Actual Size or as a % of Box Height, enter a value to represent any space ❸ between the material which make up the side wall.

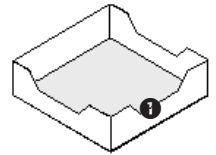
For Strapped Bundle

- **Length Straps:** The number of straps (2 shown here) along the length of the bundle.
- **Width Straps:** The number of straps (1 shown here) along the Width of the bundle.
- **Strap Width:** The width of the straps.



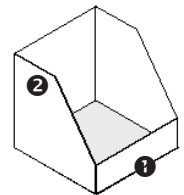
For lay Case

- **Show Window on:** Select either to show a window only at the front ❶ or at both front and back.
- **Show Window on:** Select either to show windows on both left and right sides as pictured here or none at all.
- **Window Height:** Enter a value to represent the size of all windows as a % of the tray Height
- **Top Width:** Enter a value to represent the top width of all windows as a % of the tray Length/width.
- **Bottom Width:** Enter a value to represent the bottom width of all windows as a % of the tray Length/width.



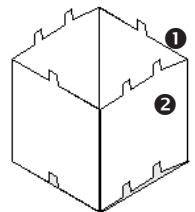
For Display Tray/ Tear Out

- **Tray Height:** Select either as a % of Box Height or in Actual Size, enter a value for the height of the tray ❶.
- **Tray Width:** Select either as a % of Box Height or in Actual Size, enter a value for the width of the tray ❷.



For Common Footprint Standard

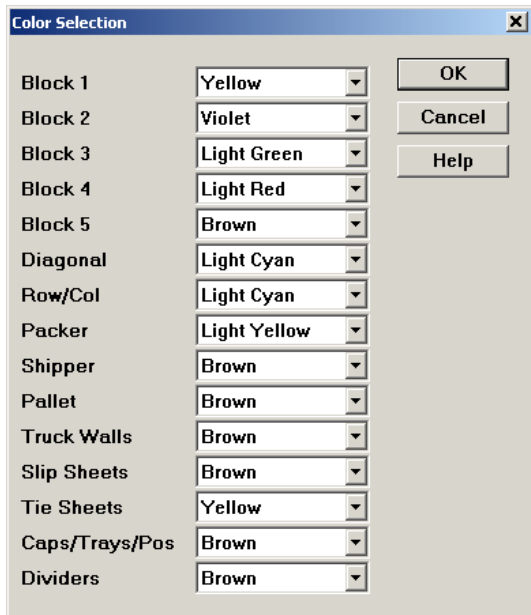
- **Side Tabs:** Enter the number of side tabs ❶ and select if they are for both Top and Bottom or just Bottom Only.
- **Side Tab Width:** Enter the size of the side tab as a % of Box Width of Actual Size.
- **Side Tab Height:** Enter the height of the side tab as a % of Box Width of Actual Size.
- **Front-Back Tabs:** Enter the number of front and back tabs ❷ to be used for the box.
- **Front Tab Width:** Enter the size of the side tab as a % of Box Width of Actual Size.
- **Front Tab Height:** Enter the height of the side tab as a % of Box Width of Actual Size.



Color Selection

Function: Select a color for a number of images in the system – blocks, packers, shippers, etc. Color Selection is most often used to select lighter colors for printing in color.

From the Menu Bar, open the Tools menu and select Color Selection to access the dialog box.



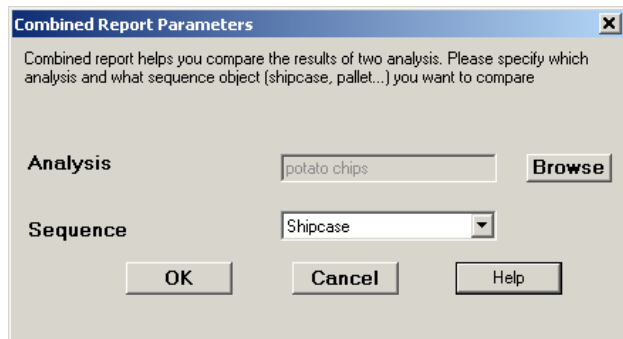
Field Descriptions and Instructions

The dialog box displays a number of images in the system such as blocks, packers, shippers, etc. To select a color for a particular image, use the drop-down list next to the image to select a specific color or type in the first few letters of the color.

 **Note:** Color selections are specific to the user, not to the analysis.

Combined Report Parameters

Function: The combined report function places two analyses side-by-side. Users can specify which sequence of the analysis (intermediate pack, shipcase or unitload) to appear in the report. To access, go to the File menu, select Print or Print Preview, and then Combined Report.




Field Descriptions and Instructions

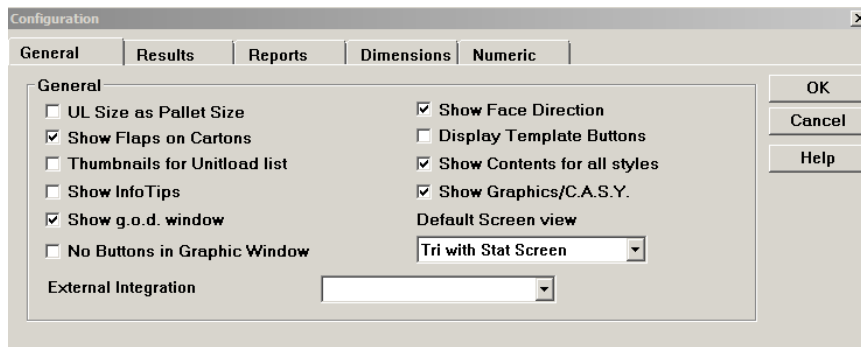
- **Analysis:** Click the Browse button to select a second analysis to compare to the currently opened analysis.
- **Sequence:** Select from the drop-down list the sequence with the analysis to appear in the report.

Configuration

Function: Define the configuration of your TOPS Pro system by selecting and de-selecting a range of options. From the Menu Bar, open the Tools menu and select Configuration.

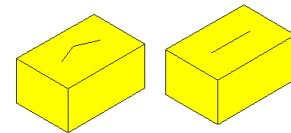
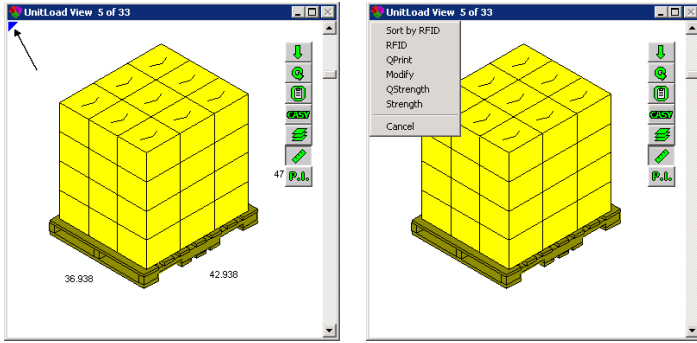
 **Note:** The Statistics and Global tabs are only available when you run TOPS Pro Config program and login as Supervisor.



General Tab



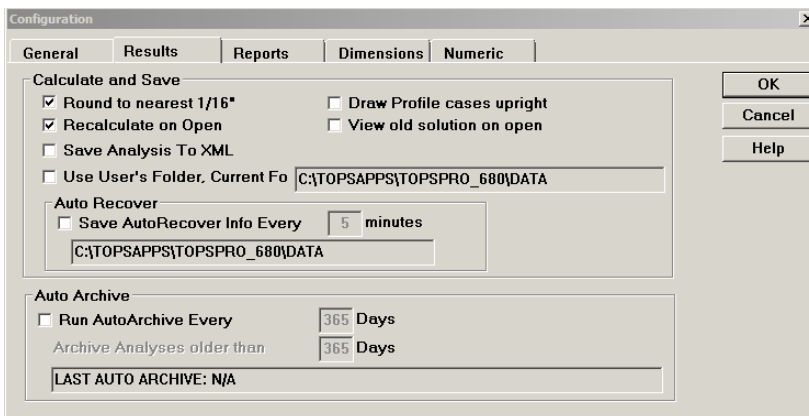
- **UL Size as Pallet Size:** Use these guidelines:
 - Leave the box unchecked if you would like TOPS Pro to report the actual size of the unitload, that is, the actual dimensions of the stack shipcases.
 - If you check the box, TOPS Pro reports the size of the unitload versus pallet, whichever is larger.
 - For example, if you have a load that does not overhang the pallet and you are interested in the dimensions of the stacked shipcases, you can uncheck this option. Otherwise, the length and width listed on the unitload will reflect the pallet dimensions.
- **Show Flaps on Cartons:** Displays the flaps on cartons. (Some users may wish to hide the flaps in the display).
- **Thumbnail for Unitload list:** Displays thumbnail images of pallet patterns on a Unitload List. (The default is to show thumbnails for unitload list).
- **Show Info Tips:** Activates popup information tips in the system.
- **Show g.o.d. window:** Displays the g.o.d. window for the various parameter dialog boxes. It is recommended to enable this option so you can easily see what each parameter is referring to.
- **No Buttons on Graphic Window:** Hides the buttons (e.g. Divider, Modify, Print, Strength, etc) at the bottom of each graphics pane. When the buttons are hidden, their functions can be accessed via a short cut menu located at the top left hand corner of each graphic pane.

To access, highlight the graphic pane (now with a blue title bar) and bring the mouse cursor to the triangle at the top left hand corner to bring down the short cut menu.



- **Show Face Direction:** Displays the hash mark (a large open V) to indicate the display face of a shipcase. (The default is to show the face direction as shown on the left carton.)
- **Display Template Buttons:** Displays the Template Toolbar ( Templates ) on the left side of the Control Panel. Click this toolbar to expand and view the available templates.
- **Show Contents for all styles:** Displays the contents of all styles of containers. When enabled, you still need to issue the command of Show Contents under the View menu or the right click pop-up menu.
 - 📌 **Note:** Normally, TOPS Pro will let you show the contents of trays and shrinkwrap containers because they do not have flaps that protrude. With this feature turned on, you can try it for any style of container, even those for which it might not look good.
- **Show Graphics/C.A.S.Y.:** Displays paste-on graphics on the front, back or top of your shipcases, or to display a CASY style designed for a container. For a faster display, leave this feature turned off.
- **Default Screen View:** Use this dropdown selector to specify the default screen view among split screen, tri-screen, tri-screen with statistics, quad-screen or hex screen. The actual screen views available will depend on the number of stages in the design sequence. For example, the hex screen will not be available for shipcase to pallet analysis (2-stage).
- **External Integration:** Choose from these options: Artios, Load Plan, None.

Results Tab




- **Round to nearest 1/16":** Check the box to round solutions to the nearest 1/16 of an inch when TOPS Pro calculates an analysis.
- **Recalculate on Open:** Recalculate a solution when you open it, if there is no viewed answer.

- **Save Analysis to XML:** When checked, this option allows you to also save TOPS analyses in XML format in the ...\\DATA\\xml\\ folder. This is similar to the Save As XML command under the File menu except that this option will automatically save all analyses as XML.
- **Draw Profile cases upright:** Draw cases in an upright position on the packaging profile.
- **View old solution on Open:** View an old solution when you open that solution record, if a solution record exists.
- **Use User's Folder, Current Folder:** This option allows you to save your analyses to a folder named \\TopsData\\ under your local document (My Documents) folder.

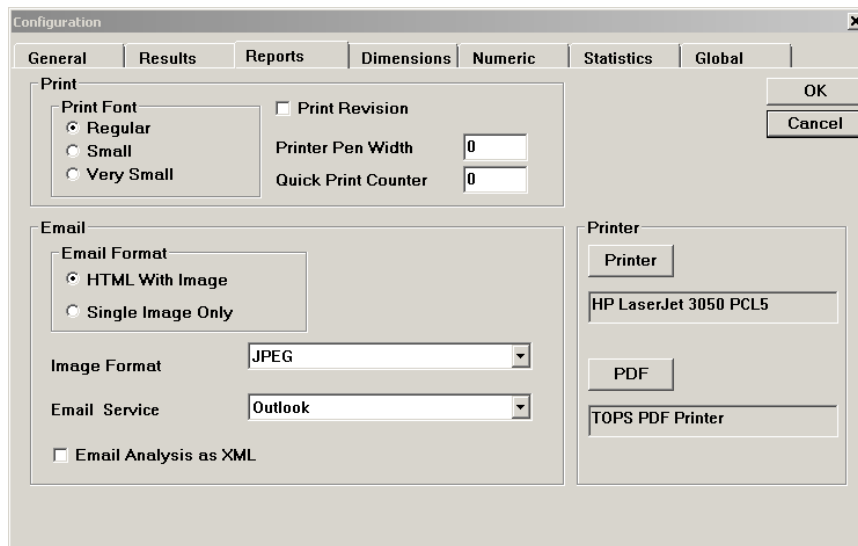
If left unchecked, analyses will be saved in the default data folder where the TOPS installation has been installed, that is, ...\\TOPSAPPS\\TOPSPro\\DATA\\.

- **Save AutoRecover Info Every () Seconds:** This setting turns on the AutoRecover feature so a user's work is saved automatically. This ensures work is not lost if there is a power outage or system crash. When enabled, enter the time lapse between each automatic save.
- **Run AutoArchive Every () Days:** Lets you archive infrequently used analyses and remove them from the active file list after a predetermined amount of time.


Enter the frequency in number of days to run auto archive and specify what analyses to archive by their creation date.

 **Note:** Archived analyses can be restored any time and posted back to the main folder for review. To restore archived analyses, go to the File menu and then select Open Archive. At the dialog box, highlight the analyses to be restored and click the Restore button. You can then specify the location where the analysis will be restored to.

Reports Tab

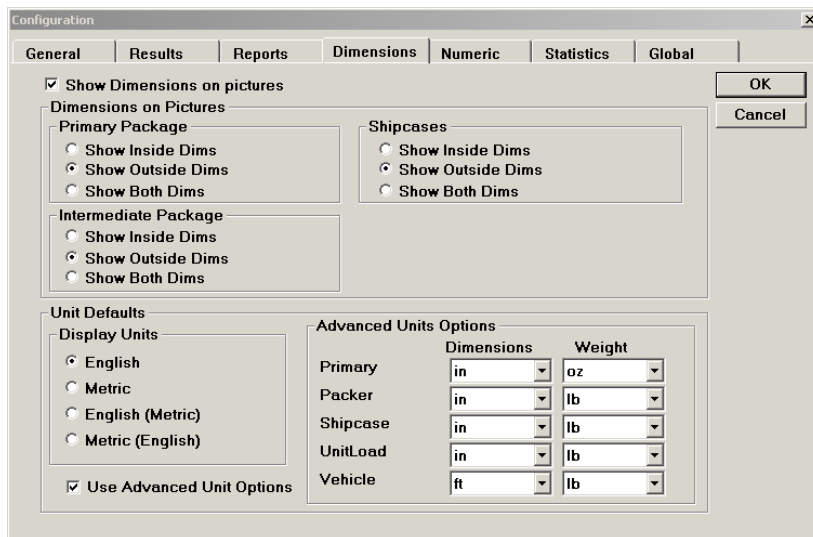


- **Print Font:** Used to specify the size of the Print Front.
- **Print Revision:** Print any revision history entered for an analysis.

 **Note:** The Analysis Save As dialog box has a field labeled “Revision History” that allows you to enter revision notes for the analysis. When you perform a Print Preview for the analysis, the revision history notes are attached to the bottom of the screen – if the Print Revision option is activated.

- **Printer Pen Width:** Enter the output of the printer's line width. If you want your printouts to have a darker, thicker line, increase the pen width. A printer pen width of 4 to 7 is good.
 - 📌 **Note:** If the Show Graphics function is turned on, TOPS Pro ignores printer pen width. To use the printer pen width function, be sure to turn off the Show Graphics function on the View menu.
- **Quick Print Count:** Enter the beginning number of a Quick Print counter sequence.
 - 📌 **Note:** TOPS Pro tracks the number of times you have created PDF files and increments the counter by one each time a new file is created.
- **Email Format:** Allows you to specify whether the email format will be HTML With Image or Single Image Only.
- **Image Format:** This setting will determine the default image format (JPEG, PDF or PNG).
- **Email Service:** Select the type of email client used from options: Outlook, Thunderbird, SMTP Server or Save to Local.
- **Email Analysis As XML:** Email analysis in XML format instead of TXT.
- **Printer:** Specify the default printers for paper and PDF outputs.

Dimensions Tab



- **Show Dimensions on pictures:** Display the dimensions on the graphic images associated with an analysis.

When enabled, specify whether to display inside, outside or both inside and outside dimensions on the graphics. Click the corresponding radio buttons for each stage of the analysis including primary package, intermediate package and shipcases.
- **Unit Defaults:** The **Display Units** controls what units of measure to display. Click the radio button to select among English, Metric, English with Metric in parenthesis or Metric with English in parenthesis.
- **Use Advanced unit Options:** Click this option to enable Advanced Unit Options. This will allow you to specify independent unit settings for Primary, Packer, Shipcase, UnitLoad and Vehicle.

Numeric Tab

Configuration

General Results Reports Dimensions **Numeric** Statistics Global

Output Fractions on

Graphic Screens Dialog Boxes
 Graphic Print Text Screens
 Graphics on Pallet Spec Lists
 Text Print Component Spec
 Text on Pallet Spec Spreadsheet File

OK
Cancel

Decimals

	English	Metric
Carton	4	2
Packer	4	2
Shipper	4	2
UnitLoad	3	1
Vehicle	2	0
Weight	2	0
Cube	3	0

- **Output Fractions on:** Allow the user to enable the output of fractions. Place check mark (✓) against items accepting fraction outputs.
- **Decimals:** Allow you to specify the number of decimal places a value will be rounded to when displayed or printed for a particular item, in both English and Metric units.

For example, if you enter 4 for a carton, TOPS Pro will display the solution as .1234. If you enter 2, TOPS Pro will display the solution as .12. These settings change the way numbers are displayed – not the actual values.

Statistics Tab

Function: Set up rows and columns of statistics that will display in the various Statistics View panes. This helps you eliminate unnecessary data from your reports. To include the data in the statistics, make sure the corresponding boxes are checked.

Note: The Statistics tab in the Configuration dialog box is only available in the TOPS Pro Config program after you login as the Supervisor.

Configuration

General Results Reports Dimensions Numeric **Statistics** Global

	Carton (ID)(OD)	Bundle Bulge (ID)(OD)	Packer (ID)(OD)Bu	Shipcase (ID)(OD)Slack	UnitLoad Bulge(Incl. Pal)	Vehicle Load
Net	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Grs	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Cube	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Dim Vert	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Cartons	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Inter Packs	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Shipcases	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
UnitLoads	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Area Efficiency	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Cubic Efficiency	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Cases/Layer	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
UL/Layer	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Layers/Load	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Load Density	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Pattern	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
RSC Area	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Density	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Max UL High	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Clamp Direction	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Box Cost	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Product Volume	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Product Cube Eff.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

OK
Cancel

Select All
Clear All

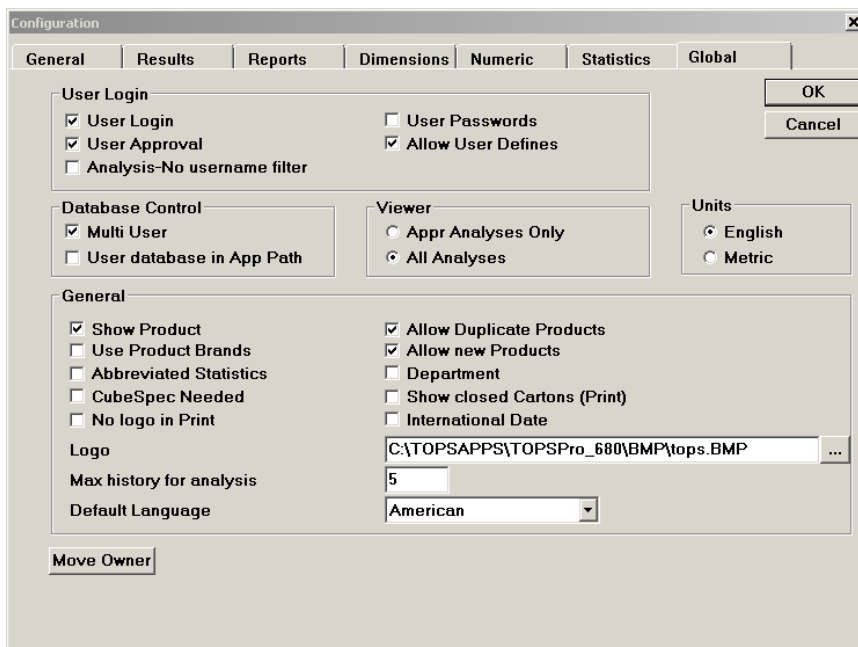
- There is a list of items on the left side of the dialog box: Net, Grs, Cube, Dim Vert, etc.
- There are a number columns across the top of the dialog box: Carton, Bundle, Packer, Shipcase, UnitLoad and Vehicle Load.
- Under the Carton, Bundle, Packer and Shipcase columns are a number of sub-columns: ID, OD and/or Bulge, Slack sub-columns.
- Each report item in the list on the left has one or more statistics switches attached to it, which are represented by the checkboxes. For example, the Dim Vert item has four statistics switches: Carton OD, Bundle OD, Packer OD and Shipcase OD.
- To turn on the statistics switches for an item, check the box for that item. TOPS Pro automatically turns on the switches for the statistics attached to that item. For example, if you check the box for the Dim Vert item, TOPS Pro automatically turns on the three statistics switches attached to it. Likewise, you can turn on the switches attached to the items at the top of the dialog box.

If the statistics setup is the way you want it, click OK. TOPS Pro saves the setup and returns you to the Configuration dialog box.

Global Tab


The Global tab in the Configuration dialog box is only available in the TOPS Pro Config program after you login as the Supervisor.

The settings in the Global tab affect how the TOPS Pro software runs. These parameters affect all existing and/or new users. Be aware that if you change these settings, in order for the changes to “stick,” all users in TOPS Pro and TOPS Config programs must exit the respective systems.



- **(User Login) User Login:** Display the User Login dialog box at the start of the program.
- **Important:** TOPS strongly recommends that this option be turned on!
- **(User Login) User Passwords:** Turn on a password setting for all users.
- **(User Login) User Approval:** Allow users to approve their own analyses, as opposed to requiring

supervisor approval.


 **Note:** For more information about the approval process, please refer to Chapter 15, Supervisor Functions.

Checking this box allows users to change or add items to the product database in the Define Menu. When this box is unchecked, only a supervisor can make changes.

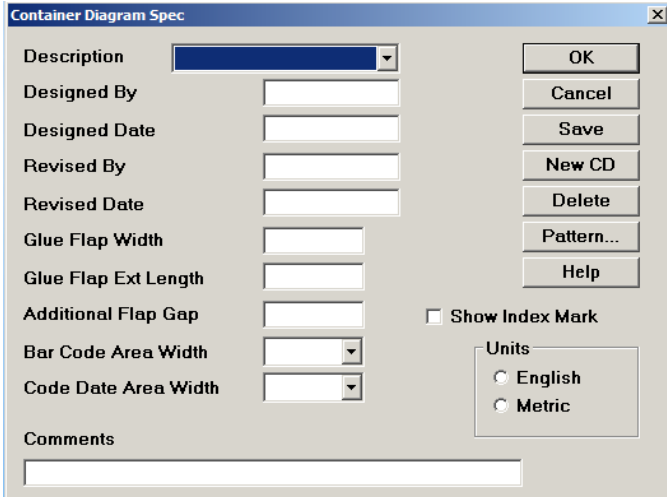
- **(User Login) Allow User Defines:** Limit the changes to the Define dialog boxes; reverts to supervisor only.
- **(User Login) Analysis-no username filter:** Disable the use of username to filter analyses in the database.
- **(Database Control) Multi User:** Check the box to turn on record locking for the databases. This option is automatically turned on for networks.
- **(Database Control) User database in App Path:** Save all data to the directory path where the TOPS system has been installed.
- **(Viewer) Appr Analyses Only:** Show only approved analyses when running the TOPS Pro Viewer program (available in TOPS network version only).
- **(Viewer) All Analyses:** Show all analyses, including both approved and working ones when running the TOPS Pro Viewer program (available in TOPS network version only).
- **(General) Show Product:** Display the Product Button-Style Menu, which includes the Granular, Bulk and Powder icons. Leaving this option turned off saves space on the Control Panel.
- **(General) Allow Duplicate Products:** Allow products with the same product code in a single Package Profile.
- **(General) Use Product Brands:** Use product brands or duplicate Divisions.
- **(General) Allow New Products:** Allow the user to add products or change a package profile after it has been approved, without requiring new approval.
- **(General) Abbreviated Statistics:** Shorten statistics for vehicle solutions and exclude some rows of statistics.
- **(General) Department:** Show a department in reports.
- **(General) CubeSpec Needed:** Specify that a package profile is required before you can request approval of an analysis.
- **(General) Show closed Cartons (Print):** Check the box if you do not want illustrate carton flaps in Print reports for primary packs and shipcase.
- **(General) No Logo in Print:** Remove logos in TOPS reports.
- **(General) International Date:** Display dates in the international (DD/MM/YY) format, rather than the American (MM/DD/YY) format.
- **(General) Logo:** Enter the location of the image file to be used as logo in reports.
- **(General) Max history for analysis:** Enter the maximum number of modification history to be tracked for the analyses.
- **(General) Default Language:** Select the default language used in TOPS Pro Viewer for users not logging into the system.
- **Move Owner:** Move all analyses from one user to another.

Container Diagram Spec

Function: Enter or update specifications for a specific container diagram.



 **Note:** To create a container diagram, you must first complete a package analysis and save it to the database. Then go to the Menu Bar, open the File menu, select Print Preview, then select Package Profile. After the Print Preview displays, click the Close button. At this time, go to the Menu Bar, open the File menu and select Container Diagram. Once defined, the Container Diagram can be previewed and printed using the File > Print Preview function.

This function is customized for a specific customer. Please contact TOPS if you have any questions.



Field Descriptions and Instructions

All the selections below that you check, will be printed on the reports:

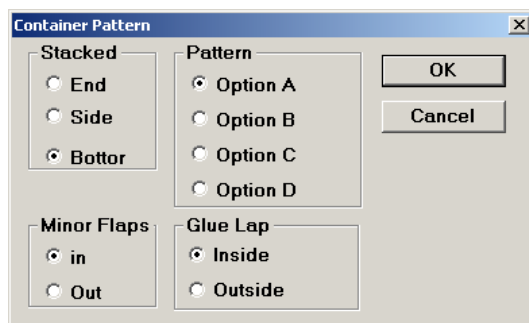
- **Description:** Select a description of the container diagram or type in the first few letters of the description.
- **Designed By:** Enter the name of the person who designed the container diagram. **Designed Date:** Enter the date the container diagram was designed.
- **Revised By:** Enter the name of the person who revised the container diagram.
- **Revised Date:** Enter the date the container diagram was revised.
- **Glue Flap Width:** Enter the width of the glue flap in inches or millimeters, depending on the Units selected.
 -  **Note:** The glue flap is used to glue the end panels of a shipping case together.
- **Glue Flap Ext Length:** Enter the extended length of the outside box flaps in inches or millimeters, depending on the Units selected.
- **Additional Flap Gap:** Enter the gap between the outside box flaps in inches or millimeters, depending on the Units selected.
 -  **Note:** Remember that this value affects stacking strength. Consider this before you change the value.
- **Bar Code Area Width:** Select the width of the bar code.

- **Code Date Area Width:** Select the width of the code date area.
- **Comments:** Enter any comments that are relevant to the container diagram.
- **Show Index Mark:** Check the box to show an index mark for location of the UPC code on the container diagram.
- **Units:** Select either English or Metric to specify how the container units will be measured.
- **New CD Button:** Allows you to create a new, blank container diagram.
- **Pattern Button:** Displays the Container Pattern dialog box, which allows you to define the pattern for a container.

Container Pattern

Function: As part of the Container Diagram function, this dialog box allows you to define a container pattern, including how the container is stacked, location of minor flaps, glue lap and pattern options.

From the Container Diagram Spec dialog box, click the Pattern button to access the Container Pattern dialog box




Field Descriptions and Instructions

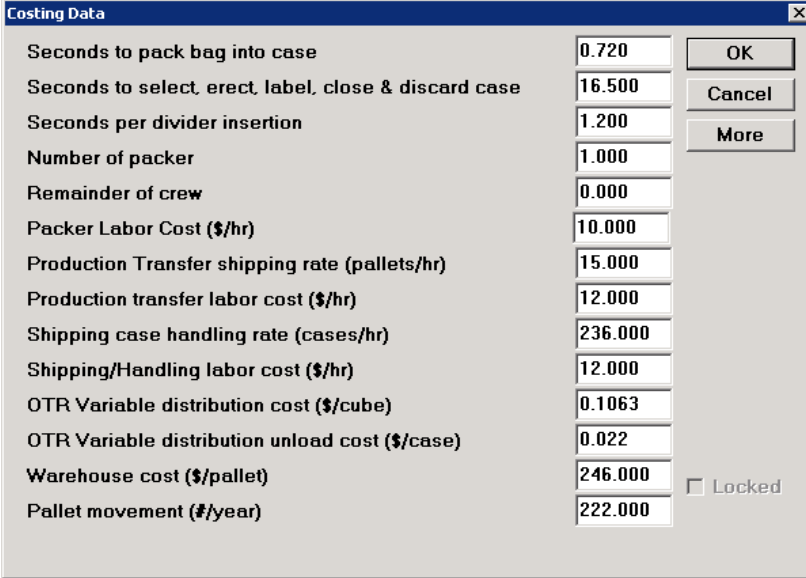
- **Stacked:** Select End, Side or Bottom to specify how the container will be stacked.
- **Pattern:** Select an option to specify the container pattern.
- **Minor Flaps:** Select either In or Out to specify how the minor flaps will be positioned.
- **Glue Lap:** Select either Inside or Outside to specify where the glue lap will be positioned.

Costing Data

Function: Enter costing data related to a number of bag-related items.

 **Note:** Costing Data applies only to an analysis that loads bags into an intermediate packer or shipcase, then onto a pallet.

To access, from the Menu Bar, open the Define Menu and select Bag Costing.



Field	Value	Control
Seconds to pack bag into case	0.720	OK
Seconds to select, erect, label, close & discard case	16.500	Cancel
Seconds per divider insertion	1.200	More
Number of packer	1.000	
Remainder of crew	0.000	
Packer Labor Cost (\$/hr)	10.000	
Production Transfer shipping rate (pallets/hr)	15.000	
Production transfer labor cost (\$/hr)	12.000	
Shipping case handling rate (cases/hr)	236.000	
Shipping/Handling labor cost (\$/hr)	12.000	
OTR Variable distribution cost (\$/cube)	0.1063	
OTR Variable distribution unload cost (\$/case)	0.022	
Warehouse cost (\$/pallet)	246.000	<input type="checkbox"/> Locked
Pallet movement (#/year)	222.000	

Field Descriptions and Instructions

- **Seconds to pack bag into case:** Enter the number of seconds it takes to pack a bag into a shipcase.
- **Seconds to select, erect, label, close & discard case:** Enter the number of seconds it takes to select, erect, label, close and discard the shipcase.
- **Seconds per divider insertion:** Enter the number of seconds it takes to insert a divider into the shipcase.
- **Number of packer:** Enter the number of people who are working as packers.
- **Remainder of crew:** Enter the number of people who comprise the remainder of the crew.
- **Packer Labor Cost (\$/hr):** Enter the packer labor cost in dollars per hour.
- **Production Transfer shipping rate (pallets/hr):** Enter the production transfer shipping rate in number of pallets per hour.
- **Production transfer labor cost (\$/hr):** Enter the production transfer labor cost in dollars per hour.
- **Shipping case handling rate (cases/hr):** Enter the shipcase handling rate in number of cases per hour.
- **Shipping/Handling labor cost (\$/hr):** Enter the shipping and handling labor cost in dollars per hour.
- **OTR Variable distribution cost (\$/cube):** Enter the OTR variable distribution cost in dollars per cube.

- **OTR Variable distribution unload cost (\$/case):** Enter the OTR variable distribution unload cost in dollars per case.
- **Warehouse cost (\$/pallet):** Enter the warehouse cost in dollars per pallet.
- **Pallet movement (#/year):** Enter the number of pallets that are moved in a year.
- **Locked:** Check the box to indicate that only a supervisor can enter or change parameters on this dialog box.
- **More Button:** Displays the Additional Costing Data dialog box, which allows you to enter more costing data.

Defaults (Button Menu Styles)

Function: Enter default items and values for a number of button style menus. These default values will auto-populate the files in each of the parameter dialog box.

To access, open TOPS Configuration program. From the Menu Bar, open the Define Menu and select Defaults or click the Setup Defaults quick link in the Control Panel. On the Defaults dialog box, select Button Menu Styles.

The screenshot shows the 'Defaults' dialog box with the 'Button Menu Styles' section selected. The dialog box contains a list of menu items on the left and a table of default values on the right. The 'Units' section is also visible, with 'English' selected.

Menu Item	Default Value
Carton-Carton	Standard Reverse Tuck Carton
IP-Shipper	RSC (FEFCO 0201)
IP-Tray	Tray (Half Height)
IP-Carton	Standard Reverse Tuck Carton
ShipCase-Shipper	RSC (FEFCO 0201)
ShipCase-Tray	Tray (Half Height)
UL-Pallet	GMA (Notched)
UL-Slipsheet	SlipSheet (48 X 40)
UL-None	None
Vehicle-Truck	40 FT
Vehicle-Sea Van	Sea Van
Vehicle-Railcar	Rail Car

Units:
 English
 Metric

Field Descriptions and Instructions

- **Carton-Carton:** Select from the drop-down list the default carton style for your primary (green) Carton icon.
- **IP-Shipper:** Select from the drop-down list the default intermediate pack shipper for your primary (blue) Packer icon.
- **IP-Tray:** Select from the drop-down list the default intermediate pack tray for your primary (blue) Tray icon.
- **IP-Carton:** Select from the drop-down list the default intermediate pack carton for your primary (blue) Carton icon.
- **ShipCase-Shipper:** Select from the drop-down list the default shipcase style for your shipcase (yellow) icon.
- **ShipCase-Tray:** Select from the drop-down list the default shipcase tray style for your shipcase

(yellow) Tray icon.

- **UL-Pallet:** Select from the drop-down list the default pallet used for the unitload.
- **UL-Slipsheet:** Select from the drop-down list the default unitload slipsheet.
- **UL-None:** Select from the drop-down list the default none-type pallet.
- **Vehicle-Truck:** Select from the drop-down list the default truck.
- **Vehicle Sea Van:** Select from the drop-down list the default sea van.
- **Vehicle-Railcar:** Select from the drop-down list the default railcar.

Defaults (Carton/Bag Sizing)

Function: Specify the default items and values for a number of sizing parameters for the green carton/bag containers in the Primary Pack Button-Style Menu.

To access, open TOPS Configuration program. From the Menu Bar, open the Define Menu, select Defaults and then Carton/Bag Sizing.

The screenshot shows a dialog box titled "Defaults" with a list of options on the left and a table of parameters on the right. The "Carton/Bag Sizing" option is selected. The parameters and their values are:

Len Incr	0.1250	(in)
Wid Incr	0.1250	(in)
Hgt Incr	0.1250	(in)
Seal Style	Lap	
Rep. to Form %	3.000000	
Back Seal	0.5000	(in)
Bottom Seal	0.5000	(in)
Top Seal	0.5000	(in)
Film	75 / 70 MBOPP FLU	

Buttons: OK, Cancel. Units: English (selected), Metric.

Field Descriptions and Instructions

- **Len Incr, Wid Incr, Hgt Incr:** Enter the default increment for length, width and height for new packages respectively.
- **Seal Style:** Enter the default seal style. Enter Lap or Fin in the field.
- **Rep. to Form %:** Enter the default repeat to former ratio. This value forces the repeat dimension of the bag to be less than X times the former dimension of the bag, where X is the value you will enter in this field.
- **Back Seal:** Enter the default back seal size.
- **Bottom Seal:** Enter the default bottom seal size.
- **Top Seal:** Enter the default top seal size
- **Film:** Enter the default film. Make sure to type in the file type exactly as they appear in the Film database.

Defaults (Intermediate Pack View)

Function: Enter default items and values for a number of parameters for the blue containers in the Intermediate Pack Button-Style Menu. It is located on the TOPS Pro Control Panel.

To access, open TOPS Configuration program. From the Menu Bar, open the Define Menu, select Defaults and then Intermediate Pack View.

The screenshot shows a dialog box titled "Defaults" with a close button (X) in the top right corner. On the left is a list of radio buttons for different menu styles, with "Intermediate Pack View" selected. The main area contains a list of parameters with input fields and checkboxes. The parameters and their values are: Flute (F), Len Slack (0.0000 in), Wid Slack (0.0000 in), Hgt Slack (0.0000 in), Len Bulge (0.0000 in), Wid Bulge (0.0000 in), Hgt Bulge (0.0000 in), Len Vert (unchecked), Wid Vert (unchecked), and Hgt Vert (checked). On the right side, there are "OK" and "Cancel" buttons, and a "Units" section with "English" selected and "Metric" unselected.

Parameter	Value	Unit
Flute	F	
Len Slack	0.0000	(in)
Wid Slack	0.0000	(in)
Hgt Slack	0.0000	(in)
Len Bulge	0.0000	(in)
Wid Bulge	0.0000	(in)
Hgt Bulge	0.0000	(in)
Len Vert	<input type="checkbox"/>	
Wid Vert	<input type="checkbox"/>	
Hgt Vert	<input checked="" type="checkbox"/>	

Field Descriptions and Instructions

- **Flute:** Enter the default flute.
- **Len Slack, Wid Slack, Hgt Slack:** Enter the default slacks for length, width and height respectively.
- **Len Slack, Wid Slack, Hgt Bulge:** Enter the default bulge for length, width and height respectively.
- **Len Vert:** Check the box to use length vertical as a default.
- **Wid Vert:** Check the box to use width vertical as a default.
- **Hgt Vert:** Check the box to use height vertical as a default.

Defaults (Intermediate Sizing)

Function: Enter default values for the sizing parameters of blue containers in the Intermediate Pack Button-Style Menu, located on the TOPS Pro Control Panel.

To access, open TOPS Configuration program. Click Setup Defaults in the Control Panel and then select Intermediate Sizing.

The screenshot shows a dialog box titled "Defaults" with a close button (X) in the top right corner. On the left is a list of configuration categories with radio buttons. "Intermediate Sizing" is selected. The main area contains the following fields and checkboxes:

Min Count	2
Max Count	6
Set Count 1	0
Set Count 2	0
Set Count 3	0
Set Count 4	0
Set Count 5	0
Max Cartons Len	100
Max Cartons Wid	100
Max Cartons Hgt	100
Len to Wid Ratio	4.500000
Hgt to Wid Ratio	3.500000
Staggered (cans)	<input checked="" type="checkbox"/>
Row-Column (cans)	<input checked="" type="checkbox"/>

On the right side of the dialog, there are "OK" and "Cancel" buttons, and a "Units" section with radio buttons for "English" (selected) and "Metric".

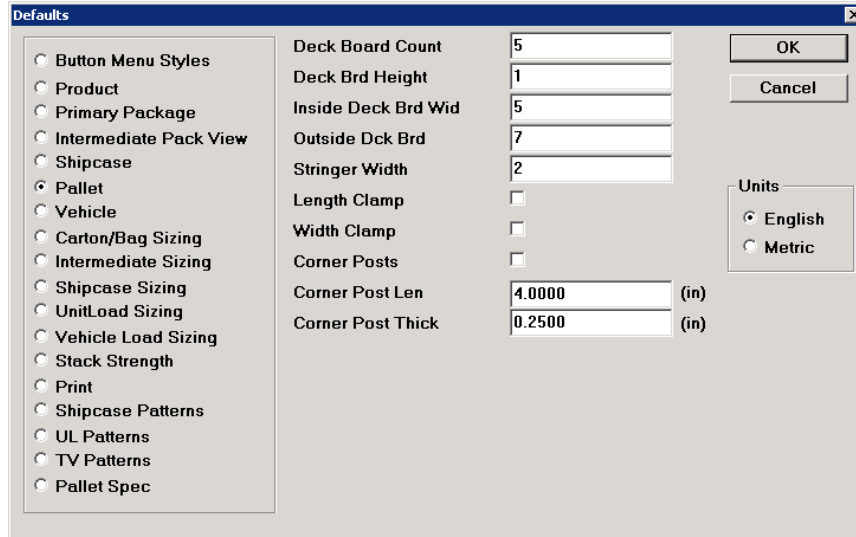
Field Descriptions and Instructions

- **Min Count, Max Count:** Enter the default minimum and maximum values respectively for the Sizing: Range option.
- **Set Count 1 through 5:** Enter the five default values for the Sizing: Values option.
- **Max Cartons Len:** Enter the default for the maximum cartons along the length of the intermediate packer for the Sizing option.
- **Max Cartons Wid:** Enter the default for maximum cartons along the width of the intermediate packer for the Sizing option.
- **Max Cartons Hgt:** Enter the default for maximum cartons along the height of the intermediate packer for the Sizing option.
- **Len to Wid Ratio:** Enter the default length-to-width ratio used for the Sizing option.
- **Hgt to Wid Ratio:** Enter the default height-to-width ratio used for the Sizing option.
- **Staggered (cans):** Check the box to include staggered arrangements for cans as default Pattern Styles.
- **Row-Column (cans):** Check the box to include row-column arrangements for cans as default Pattern Styles.

Defaults (Pallet)

Function: Enter default values for new pallet definition and setup default unitload optional values.

To access, open TOPS Configuration program, click Setup Defaults and then select Pallet.



The screenshot shows a dialog box titled "Defaults" with a list of configuration options on the left and input fields on the right. The "Pallet" option is selected in the list. The input fields are as follows:

Field	Value	Unit
Deck Board Count	5	
Deck Brd Height	1	
Inside Deck Brd Wid	5	
Outside Dck Brd	7	
Stringer Width	2	
Length Clamp	<input type="checkbox"/>	
Width Clamp	<input type="checkbox"/>	
Corner Posts	<input type="checkbox"/>	
Corner Post Len	4.0000	(in)
Corner Post Thick	0.2500	(in)

Buttons: OK, Cancel. Units: English (selected), Metric.

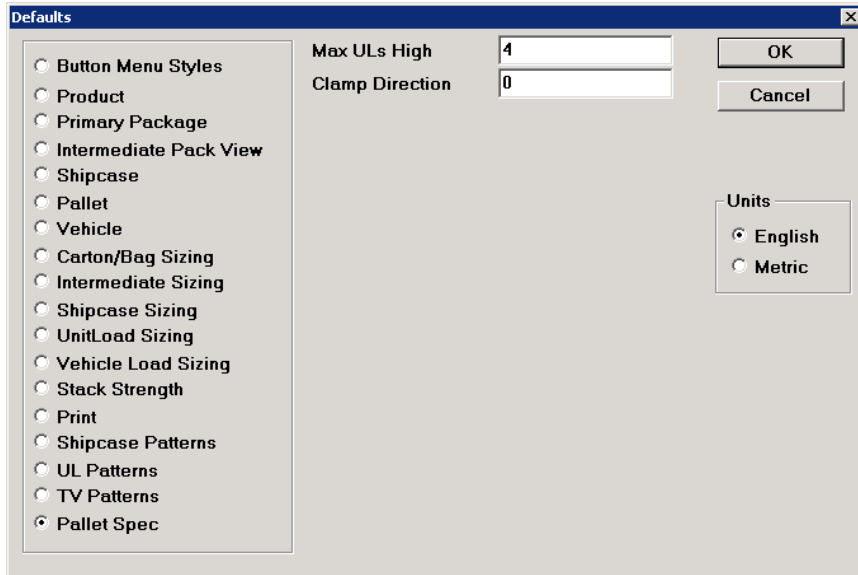
Field Descriptions and Instructions

- **Deck Board Count:** Default deck board count for new pallets.
- **Deck Board Height:** Default deck board height for new pallets.
- **Inside Deck Brd Wid:** Default width for inside deck boards.
- **Outside Dck Brd Wid:** Width for outside deck boards.
- **Stringer Width:** Default stringer width for new pallets.
- **Length Clamp:** Check the box to use Length clampable as default.
- **Width Clamp:** Check the box to use Width clampable as default.
- **Corner Posts:** Check the box to use corner posts as an default option
- **Corner Post Len:** The default value for corner post length.
- **Corner Post Thick:** The default value for corner post thickness as unitload option.

Defaults (Pallet Spec)

Function: Enter default values for a number of pallet parameters.

To access, open TOPS Configuration program. From the Menu Bar, open the Define Menu and select Defaults. On the Defaults dialog box, select Pallet Spec.



The screenshot shows a dialog box titled "Defaults" with a close button (X) in the top right corner. On the left side, there is a list of radio buttons for selecting different default categories. The "Pallet Spec" option is selected. The main area of the dialog contains two input fields: "Max ULs High" with the value "4" and "Clamp Direction" with the value "0". To the right of these fields are "OK" and "Cancel" buttons. Below the input fields is a "Units" section with two radio buttons: "English" (selected) and "Metric".

Field Descriptions and Instructions

- **Max UL High:** Enter the default maximum unitloads that can be stacked on the pallet.
- **Clamp Direction:** Enter the default clamp direction among from N/A, non-clampable, Length, Width or both.

Defaults (Primary Package)

Function: Enter default values for a number of parameters for the green containers in the Primary Package.

To access, open TOPS Configuration program. From the Menu Bar, open the Define Menu and select Defaults. On the Defaults dialog box, select Primary Package.

Category	Parameter	Value	Units
Primary Package	Inside/Outside Dims	Outside	
	Length Vert	<input type="checkbox"/>	
	Width Vert	<input type="checkbox"/>	
	Height Vert	<input checked="" type="checkbox"/>	
	Caliper	0.018000	
	Head Space	0.0000	(in)
	Len Bulge	0.000000	
	Wid Bulge	0.0000	(in)
	Hgt Bulge	0.0000	(in)
	Hgt Bulge	0.0000	(in)

Field Descriptions and Instructions

- **Inside/Outside Dims:** Enter either Inside or Outside to use as the default dimensions.
- **Len Vert:** Check the box to include length vertical as the default.
- **Wid Vert:** Check the box to include width vertical as the default.
- **Hgt Vert:** Check the box to include height vertical as the default.
- **Caliper:** Enter the default caliper for the primary pack.
- **Head Space:** Enter the default head space for the primary pack.
- **Length Bulge, Width Bulge, Height Bulge:** Enter the default values for bulge along the length, width and height dimensions for the primary pack respectively.

Defaults (Print)

Function: Enter default values for a number of print parameters.

To access, open TOPS Configuration program. From the Menu Bar, open the Define Menu and select Defaults. On the Defaults dialog box, select Print.

Parameter	Value
Print Layout	L
Header	Tops Engineering
UL High	1
Color	<input type="checkbox"/>
Area 1	T
Area 2	X
Area 3	P
Area 4	D
Area 5	V
Area 6	E
Analysis name	<input checked="" type="checkbox"/>
QPrint Template	
QPrint Send To	2
QPrint Analysis	<input checked="" type="checkbox"/>
QPrint Statistics	<input checked="" type="checkbox"/>
QPrint Pallet Spec	<input checked="" type="checkbox"/>
QPrint Problem Def	<input checked="" type="checkbox"/>
QPrint Show Dims	<input checked="" type="checkbox"/>

Units: English Metric

Field Descriptions and Instructions

- **Print Layout:** Enter the code for the corresponding default print layout as provided below.

Code	Layout Description	Code
1	Full Page	T
H	Horiz Split	L
V	Vertical Split	R
B	3 Way Bottom	4
5	5 Way	3
6	6 Way Fixed	S
D	6 Way Down	

- **Header:** Enter the default header for print output. This is where you will put your company name to appear on all printouts.
- **UL High:** Enter the number of unitloads that will be stacked on top of one another.
- **Color:** Check the box to specify color printing as the default.
- **Area 1, 2, 3, 4, 5 and 6:** Using the following table as reference, enter a code for each Area to represent the information, image or data, to be printed in each area.

	Primary Pack	Bundle Pack	Intermediate Pack	Case	Unitload	Vehicle
3D	x	b	i	D	3	V
Plan		j	p	A	T	L
Dual Plan					U	
Pop Top					P	
Side		g	s	G	S	I
Front		e	f	B	F	R
Statistics			t	C	X	E
Current View	u	k	w	W	I	H
No View	N					

- **Analysis Name:** Check to print the analysis name by default.
- **QPrint Template:** Enter the default Quick Print template.
- **QPrint Send To:** Enter the default printing destination, select from PDF, Print or Both.
- **QPrint Analysis:** Check to include the analysis in a Quick Print report by default.
- **QPrint Statistics:** Check to include statistics in a Quick Print report by default.
- **QPrint Pallet Spec:** Check to include pallet specifications in a Quick Print report by default.
- **QPrint Problem Def:** Check to include the problem definition in a Quick Print report by default.
- **QPrint Show Dims:** Check to show dimensions in a Quick Print report by default.

Defaults (Shipcase)

Function: Enter default values for a number of parameters for the yellow containers in the Shipcase Button-Style Menu, located on the TOPS Pro Control Panel.

To access, open TOPS Configuration program, click on Setup Defaults and the select Shipcase.

Field Descriptions and Instructions

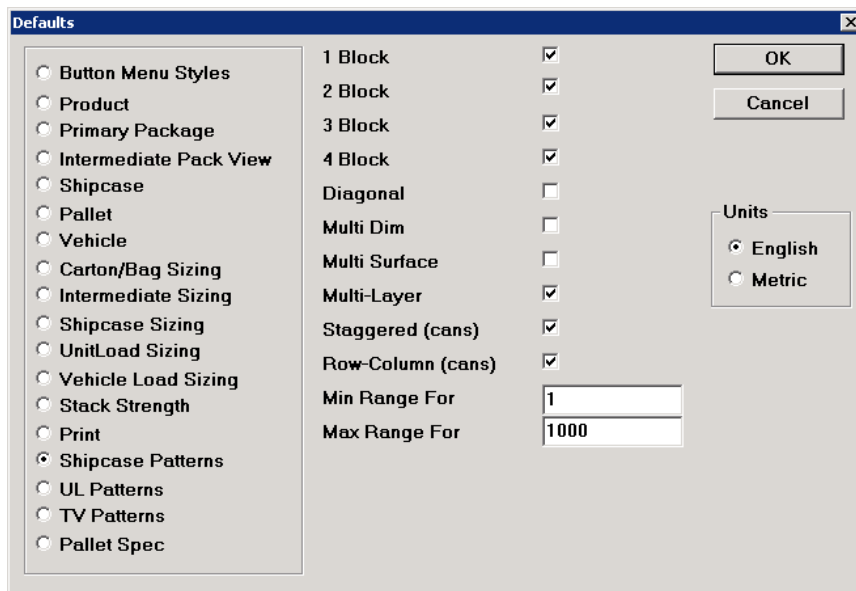
- **Flute:** Enter the default flute.

- **Inside/Outside Dims:** Enter to use Inside or Outside as the default dimensions.
- **Length Slack, Width Slack, Depth Slack:** Enter the default slack values to be used for length, width and depth respectively.
- **Max Weight:** Enter the default maximum weight.
- **Length Bulge, Width Bulge, Depth Bulge:** Enter the default values for bulge along the length, width and depth dimensions respectively.
- **Len Vert:** Check the box to include length vertical as a default.
- **Wid Vert:** Check the box to include width vertical as a default.
- **Hgt Vert:** Check the box to include height vertical as a default.

Defaults (Shipcase Patterns)

Function: Enter default values for a number of shipcase parameters.

To access, open TOPS Configuration program, click on Setup Defaults and the select Shipcase Patterns.



Field Descriptions and Instructions

- **1 Block, 2 Block, 3 Block, 4 Block:** Check the corresponding box(es) to include the block pattern(s) as default patterns for shipcase.
- **Diagonal, Multi Dim, Multi Surface, Multi-Layer:** Check the corresponding box(es) to include these special pattern(s) as default.
- **Staggered (cans):** Check the box to include staggered patterns for cans as the default.
- **Row-Column (cans):** Check the box to specify a row-column pattern for cans as the default.
- **Min Range For Fixed:** Enter the default minimum range.
- **Max Range For Fixed:** Enter the default maximum range.

Defaults (Shipcase Sizing)

Function: Enter default values for a number of sizing parameters for the yellow containers in the Shipcase Button-Style Menu, located on the TOPS Pro Control Panel.

To access, open TOPS Configuration program, click Setup Defaults and the select Shipcase Sizing.

The screenshot shows a dialog box titled "Defaults" with a tree view on the left and a list of input fields on the right. The "Shipcase Sizing" option is selected in the tree view. The input fields are as follows:

Field	Value	Unit
Len Incr	0.1250	(in)
Wid Incr	0.1250	(in)
Hgt Incr	0.1250	(in)
Min Count	2	
Max Count	6	
Set Count 1	0	
Set Count 2	0	
Set Count 3	0	
Set Count 4	0	
Set Count 5	0	
Max Cartons Len	100	
Max Cartons Wid	100	
Max Cartons Hgt	100	
Len to Wid Ratio	4.500000	
Hgt to Wid Ratio	3.500000	
Maximum Length	0.0000	(in)
Maximum Width	0.0000	(in)
Maximum Height	0.0000	(in)

Buttons: OK, Cancel. Units: English (selected), Metric.

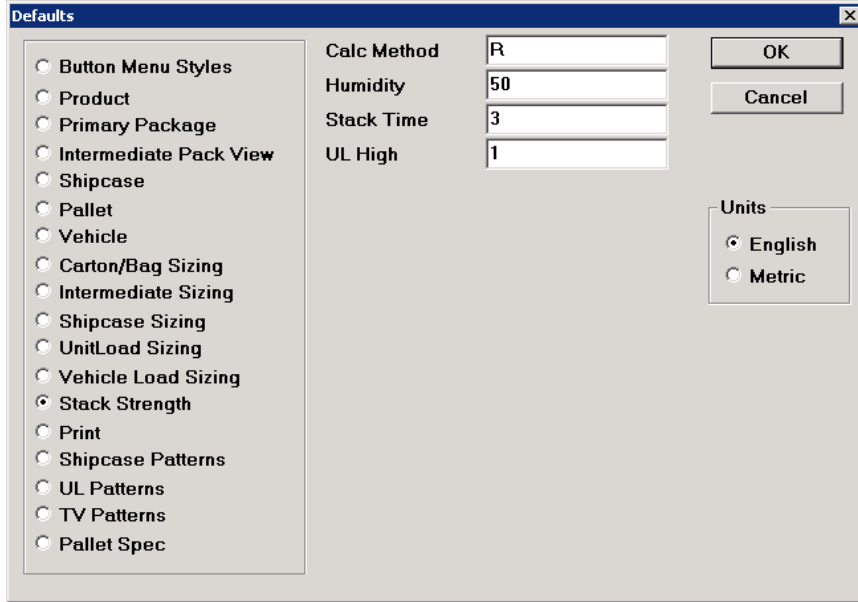
Field Descriptions and Instructions

- **Len Incr, Wid Incr, Hgt Incr:** Enter the default increment for length, width and height for new shipcases respectively.
- **Min Count, Max Count:** Enter the default minimum and maximum values respectively for the Sizing: Range option.
- **Set Count 1 through 5:** Enter the five default values for the Sizing: Values option.
- **Max Cartons Len:** Enter the default for the maximum items along the length of the shipcase for the Sizing option.
- **Max Cartons Wid:** Enter the default for maximum items along the width of the shipcase for the Sizing option.
- **Max Cartons Hgt:** Enter the default for maximum items along the height of the shipcase for the Sizing option.
- **Len to Wid Ratio:** Enter the default length-to-width ratio used for the Sizing option.
- **Hgt to Wid Ratio:** Enter the default height-to-width ratio used for the Sizing option.
- **Note:** In TOPS Pro, the Length and Width to Height ratios yield boxes that are closer to a cubic-type shape.
- **Maximum Length:** Enter the default maximum length for the shipcase.
- **Maximum Width:** Enter the default maximum width for the shipcase.
- **Maximum Height:** Enter the default maximum height for the shipcase.

Defaults (Stack Strength)

Function: Enter default values for a number of stacking strength parameters.

To access, open TOPS Configuration program, click Setup Defaults and the select Stack Strength.



The screenshot shows a dialog box titled "Defaults" with a close button (X) in the top right corner. On the left, there is a list of configuration categories with radio buttons. "Stack Strength" is selected. The main area contains four input fields: "Calc Method" with "R", "Humidity" with "50", "Stack Time" with "3", and "UL High" with "1". To the right of these fields are "OK" and "Cancel" buttons. Below the input fields is a "Units" section with two radio buttons: "English" (selected) and "Metric".


Field Descriptions and Instructions

- **Calc Method:** Enter the default method for calculating stacking strength: R (Ring Crush), E (Edge Crush) or K (Kellicut).
- **Humidity:** Enter the default humidity percentage used for stack strength analysis.
- **Stack Time:** Enter the index number for stack or storage time as defined below:

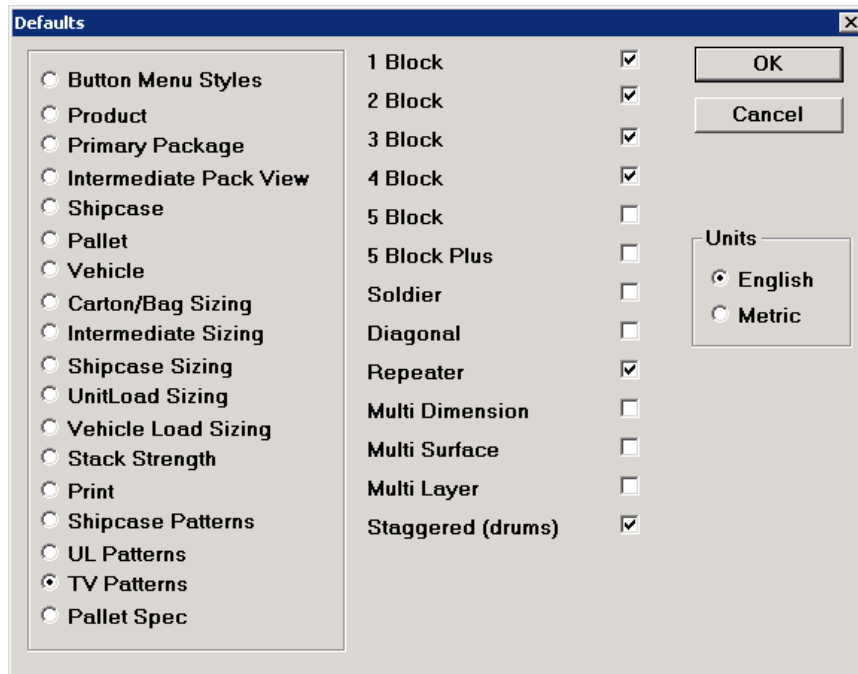
0 = 0 day	4 = 2 months
1 = 3 days	5 = 3 month
2 = 10 days	6 = 6 months
3 = 1 month	7 = 1 year
- **UL High:** Enter the default number of unitloads to be stacked.

Defaults (Transit Vehicle Patterns)

Function: Enter default values for a number of transit vehicle parameters.

 **Note:** For detailed information about pallet patterns, please refer to Appendix E, Pallet Patterns.

To access, open TOPS Configuration program, click on Setup Defaults and then select TV (Transit Vehicle) Patterns




Field Descriptions and Instructions

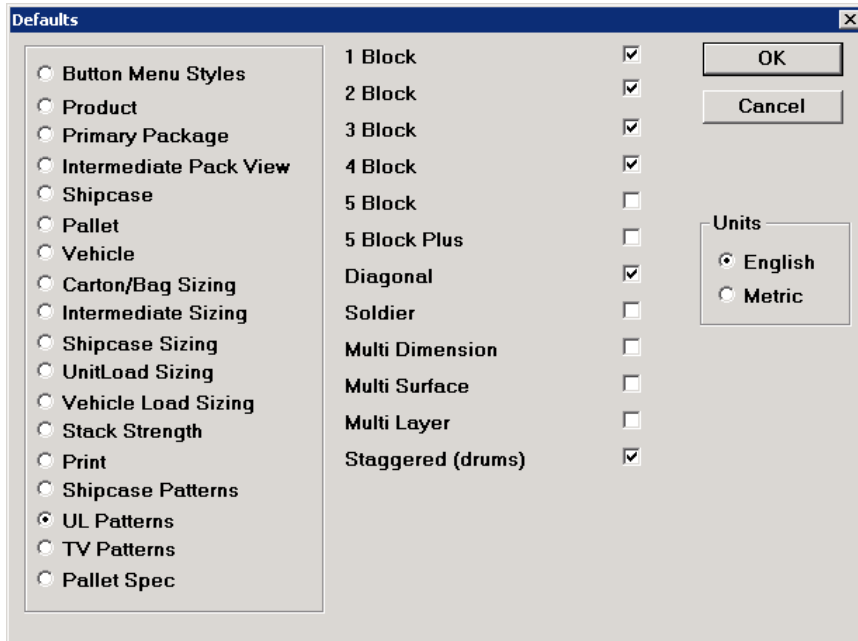
- **1 Block, 2 Block, 3 Block, 4 Block, 5 Block, 5 Block Plus:** Check the corresponding box(es) to include the block pattern(s) as default patterns for shipcases or unitloads when they are loaded inside transit vehicles.
- **Solder, Diagonal, Repeater, Multi Dimension, Multi Surface, Multi Layer:** Check the corresponding box(es) to include these special pattern(s) as default patterns for shipcases or unitloads when they are loaded inside transit vehicles.
- **Staggered (drums):** Check the box to include staggered patterns as default when loading drums inside transit vehicles.

Defaults (UnitLoad Patterns)

Function: Enter default values for a number of unitload pattern parameters.

 **Note:** For detailed information about pallet patterns, please refer to Appendix D, Pallet Patterns.

To access, open TOPS Configuration program, click on Setup Defaults and the select UL (UnitLoad) Patterns.



Field Descriptions and Instructions

- **1 Block, 2 Block, 3 Block, 4 Block, 5 Block, 5 Block Plus:** Check the corresponding box(es) to include the block pattern(s) as default patterns for shipcases when they are loaded on pallets.
- **Diagonal, Soldier, Multi Dimension, Multi Surface, Multi Layer:** Check the corresponding box(es) to include these special pattern(s) as default patterns for shipcases when they are loaded on pallets.
- **Staggered (drums):** Check the box to include staggered patterns as default when loading drums on pallets.

Defaults (UnitLoad Sizing)

Function: Enter default values for a number of sizing parameters for the brown unitloads in the Unitload Button-Style Menu. This feature is located on the TOPS Pro Control Panel and it relates to how your items can be placed on a pallet.

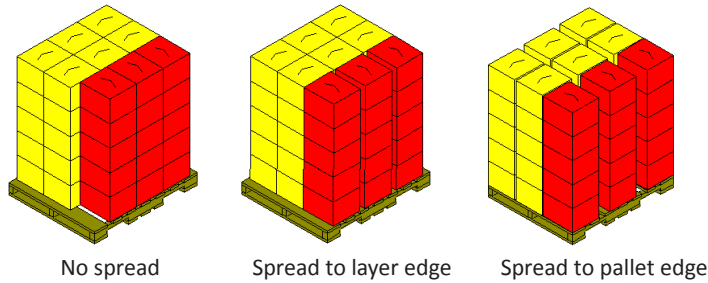
To access, open TOPS Configuration program, click Setup Defaults and the select UnitLoad Sizing.

Parameter	Value
Max Height	56.000000
Max Weight	9999.000000
Length Overhang	1.000000
Length Underhang	15.000000
Width Overhang	1.000000
Width Underhang	15.000000
Draw Pad	0.500000
Actual Pad	0.050000
Cap Thickness	0.125000
Rotation Type	Both
Rotate Top Two	<input type="checkbox"/>
Rotate All	<input checked="" type="checkbox"/>
SpreadType	Layer
FillerType	None
Draw SlipSheet Thic	0.500000
Actual Slipsheet Th	0.050000
False Bottom Hgt	5.0000 (in)

Field Descriptions and Instructions

- **Max Height:** Enter the default maximum height for the unitload, note that this value also includes the height of the selected pallet.
- **Max Weight:** Enter the default maximum weight for the unitload which also includes the weight of the pallet itself.
- **Length Overhang:** Enter the default maximum length overhang for unitload parameters.
- **Length Underhang:** Enter the default length underhang for the unitload. It is recommended to use 15 as the default value and not be changed for calculation.
- **Width Overhang:** Enter the default maximum width overhang for unitload parameters.
- **Width Underhang:** Enter the default width underhang. It is recommended to use 15 as the default value and not be changed for calculation.
- **Draw Pad:** Enter the default value for pad thickness when depicting pads on a unitload.
- **Actual Pad:** Enter the default value for the actual pad thickness used for unitloads.
- **Cap Thickness:** Enter the default value for cap thickness used for unitloads.
- **Rotation Type:** The default rotation type for unitload layer parameters, enter Length, Width, Both or 90 Degrees for length flip, width flip, length and width flip and rotate 90 degrees respectively.
- **Rotate Top Two:** Check the box to rotate the top two unitload layers as a default unitload layer parameter.
- **Rotate All:** Check the box to rotate all unitload layers as a default unitload layer parameter.

- **Spread Type:** The default spread type for unitload layer parameter, enter Pack, Layer or Pallet for pack tightly, spread to layer edge or spread to pallet respectively as pictured below.



- **Filler Type:** The default filler type for unitload layer parameter, enter None, Middle or End for no filler, middle filler or end filler respectively.
- **Draw SlipSheet Thickness:** Enter the default value for slipsheet thickness when depicting pads on a unitload. The default thickness for slipsheet illustrated for unitload.
- **Actual SlipSheet Thickness:** Enter the default value for the actual slipsheet thickness used for unitloads.

Defaults (Vehicle Load Sizing)

Function: Enter default values for a number of sizing parameters for the red vehicle loads in the Vehicle Button-Style Menu, located on the TOPS Pro Control Panel.

To access, open TOPS Configuration program, click on Setup Defaults and the select Vehicle Load Sizing.

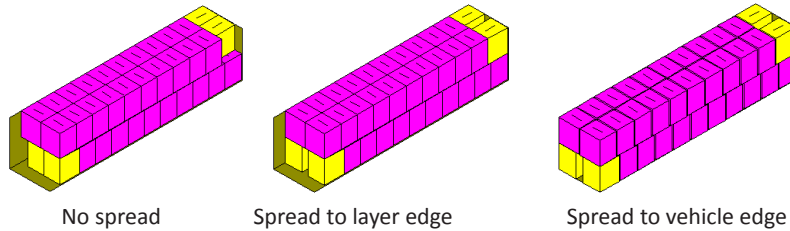
<input type="radio"/> Button Menu Styles	Max Weight	45000.000	(lbs)	OK
<input type="radio"/> Product	Rotation Type	None		Cancel
<input type="radio"/> Primary Package	Rotate Top 2	<input type="checkbox"/>		
<input type="radio"/> Intermediate Pack View	Rotate All	<input type="checkbox"/>		Units <input checked="" type="radio"/> English <input type="radio"/> Metric
<input type="radio"/> Shipcase	Spread Type	Layer		
<input type="radio"/> Pallet	Grams/CC	0.016018		
<input type="radio"/> Vehicle	Width For Density	1		
<input type="radio"/> Carton/Bag Sizing	Just along Length	L		
<input type="radio"/> Intermediate Sizing	Just along Width	L		
<input type="radio"/> Shipcase Sizing	Just along Height	R	(in)	
<input type="radio"/> UnitLoad Sizing	Len Slack	0.0000	(in)	
<input checked="" type="radio"/> Vehicle Load Sizing	Wid Slack	0.0000	(in)	
<input type="radio"/> Stack Strength	Hgt Slack	0.0000	(in)	
<input type="radio"/> Print				
<input type="radio"/> Shipcase Patterns				
<input type="radio"/> UL Patterns				
<input type="radio"/> TV Patterns				
<input type="radio"/> Pallet Spec				

Field Descriptions and Instructions

- **Max Weight:** Enter the default maximum weight for vehicle load.
- **Rotation Type:** Enter the default rotation type for the vehicle layer parms dialog box. Use value from None, Length, Width and both for no rotation, length flip, width flip and length and width

flip respectively.

- **Rotate Top 2:** Check the box to rotate the top two layers by default for vehicle loads.
- **Rotate All:** Check the box to rotate all layers by default for vehicle loads.
- **Spread Type:** The default spread type for vehicle layer parameter, enter Pack, Layer or Pallet for pack tightly, spread to layer edge or spread to pallet (vehicle) with rotation respectively as pictured on the next page.



- **Grams/CC:** Enter the default grams per cubic centimeter. This value is a conversion factor for calculating density.
- **Width For Density:** Enter the direction used for the width when calculating density. Use these guidelines:
 - 0 = Length
 - 1 = Width
 - 2 = Height
- **Just along Length:** Enter L, R or C (for Left, Right and Center) as the default alignment direction for unitloads along the length of the vehicle.
- **Just along Width:** Enter L, R or C (for Left, Right and Center) as the default alignment direction for unitloads along the width of the vehicle.
- **Just along Height:** Enter L, R or C (for Left, Right and Center) as the default alignment direction for unitloads along the height of the vehicle.
- **Len Slack, Wid Slack, Hgt Slack:** Enter the default slack values to be used for length, width and height respectively.

Define Bag

Function: Define parameters for different types of bags. For example, the Former-Repeat-Air Fill feature allows you to design a potato chip bag. The Length-Width-Height feature allows you to design a candy bar bag. A bag may contain only bulk product. Further, a bag must always be inserted into another container; the bag element cannot be the last stage of an analysis.

From the Menu Bar, open the Define Menu and select Film Bag.

- **Seal Style:** Select either Lap or Fin to specify how the bag will be sealed.
- **Based On:** Select either FxBxA or LxWxH to specify whether the bag is defined by Former-Repeat-Air Fill or Length-Width-Height.
- **Stand-Up Bag:** Select this box to make the bag flat on the bottom.
- **Description:** Select a pre-defined carton or type in the first few letters of the carton for modification or enter a new name to define a new bag for use in TOPS Pro.
- **Film:** Select the film style to be used for the bag.
 - 📌 **Note:** TOPS Pro assumes film thickness to be inconsequential. Also, the drop-down list contains film types that are already set up in the database. If the film type you want is not on the list, you can add it to the database using the Define Film dialog box.
- **Film Cost:** Displays the film cost and waste factor for the selected film. The film cost is defined under the Define, film dialog box.
- **Former:** Enter the distance across a flattened FxBxA type bag.
- **Repeat:** Enter the distance between cuts of a flattened FxBxA type bag.
- **Air Fill:** Enter the thickness of a filled FxBxA type bag.
- **Length:** Enter the distance across a flattened LxWxH type bag.
- **Height:** Enter the distance between cuts of a flattened LxWxH type bag.
- **Width:** Enter the thickness of a filled LxWxH type bag.
- **Weight:** Enter the Weight of the bag.
- **Seal Dims:** Enter the dimensions of the top, bottom and back seal of the bag.

Define Bottle

Function: Define parameters for different types of bottles (perfume bottles, shampoo bottles, etc). You can also use bottle parameters to design shapes for toilet tissue and paper towel rolls. From the Menu Bar, open the Define Menu and select Bottle.

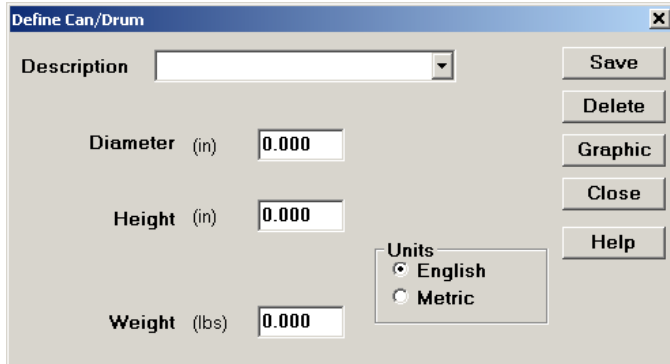
The image shows a software dialog box titled "Define Bottle". It features a "Description" dropdown menu at the top left. To the right of the description are buttons for "Save", "Delete", "Graphic", "Close", and "Help". Below the description are six input fields, each with a label and a unit in parentheses, and a numerical value of "0.000": "Body Diameter (in)", "Neck Diameter (in)", "Height (in)", "Neck Hgt (in)", "Shoulder Hgt (in)", and "Weight (lbs)". To the right of these fields are two radio button groups. The first group is labeled "Units" and has "English" selected and "Metric" unselected. The second group is labeled "Body Shape" and has "Round" selected, "Oval" unselected, and "Rectangular" unselected.

- **Description:** Select a predefined bottle from the drop down list for modification or type in a new name to define an new bottle for future use.
- **Body Length:** For rectangular or oval bottles, enter the total length of the bottle body.
- **Body Width:** For rectangular or oval bottles, enter the body width of the bottle.
- **Body Diameter:** For round bottles, enter the diameter of the widest part of the bottle.
- **Neck Diameter:** Enter the neck diameter of the bottle.
 - ✍ **Note:** For a round bottle, the neck diameter should be less than the body diameter. For an oval or rectangular bottle, the neck diameter should be less than the smaller of length or width. This value must be greater than zero, but it can be very small (ie, .001).
- **Height:** Enter the total height of the bottle, including body, shoulder and neck.
- **Neck Hgt:** Enter the height of the portion of the bottle.
- **Note:** The neck height is the distance from the top of the bottle to the top of the shoulder. Neck height must be greater than zero. This value must be greater than zero, but it can be very small (ie, .001).
- **Shoulder Hgt:** Enter the shoulder height of the bottle.
 - ✍ **Note:** The shoulder height is the distance between the neck and the base of the bottle, and represents the transition point of the bottle. This value must be greater than zero, but it can be very small (ie, .001)
- **Weight:** Enter the net weight of the bottle.
- **Body Shape:** Select either Round, Oval or Rectangular to specify the body shape of the bottle.

Define Can / Drum

Function: Define parameters for different types of cans (soup cans, cookie cans, etc). You will also use Can Parameters to define round tubs and round bottles, canisters or drums.

From the Menu Bar, open the Define Menu and select Can.

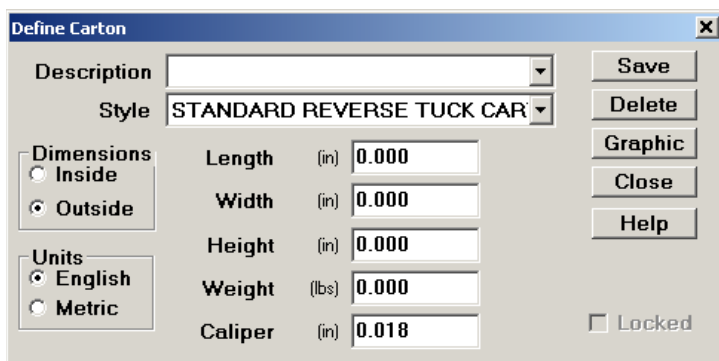


- **Description:** Select from the drop list a predefined can for modification or type in a new name to define a new can/drum for future use.
- **Diameter:** Enter the diameter of the can or any cylindrical pack.
 - 📎 **Note:** This dimension is used for a can that has a uniform diameter from top to bottom. If your can has different diameter measurements at the top and bottom, use the Tub or Bucket in your analysis.
- **Height:** Enter the height of the can.
- **Weight:** Enter the net weight of the can.

Define Carton


Function: Define parameters for a new carton (one that is not already defined in the system). This dialog box also allows you to change parameters for an existing carton.

From the Menu Bar, open the Define Menu and select Carton.



Field Descriptions and Instructions

- **Description:** For a new carton, type in a new name in the description field. For an existing carton, select a pre-defined carton from the drop list for review or modification.

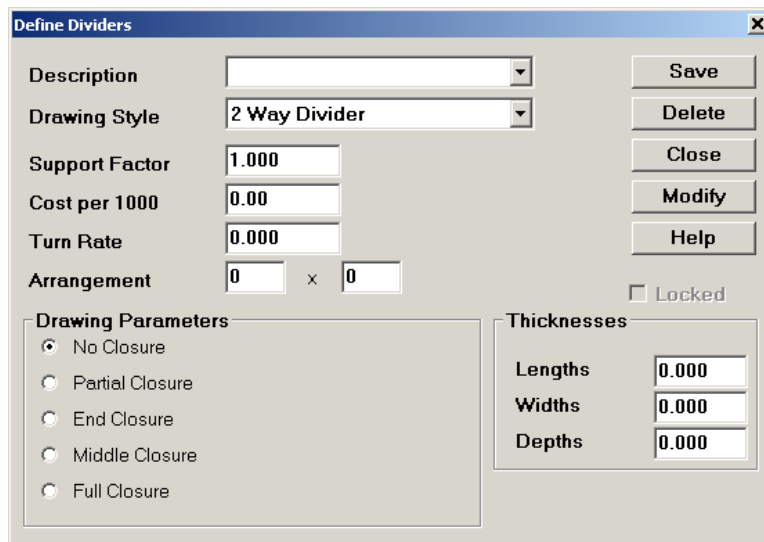
 **Note:** If you select a pre-defined carton, TOPS Pro will automatically insert dimensions in the Length, Width and Height fields, as well as any pre-defined graphics. If you select User Defined in the Carton Parameters dialog box, you will need to manually enter dimensions in the Length, Width and Height fields.

- **Style:** Select the carton style .
- **Length, Width, Height, Weight:** Enter the length, width, height and weight of the new carton.
- **Caliper:** Enter the caliper of the carton. The caliper is used to calculate the inside vs. outside dimensions of the carton.
- **Dimensions:** Select either Inside or Outside to specify how the carton dimensions are measured.
- **Locked:** Check the box to indicate that only a supervisor can enter or change parameters on this dialog box.
- **Graphic Button:** Displays the Assign Graphics dialog box, which allows you to select and display a graphic image on the carton.

Define Dividers

Function: Define parameters for a new divider (one that is not already defined in the system). This dialog box also allows you to change parameters for existing dividers.

From the Menu Bar, open the Define Menu and select Dividers.



Description	<input type="text"/>	Save
Drawing Style	2 Way Divider	Delete
Support Factor	1.000	Close
Cost per 1000	0.00	Modify
Turn Rate	0.000	Help
Arrangement	0 x 0	<input type="checkbox"/> Locked
Drawing Parameters		Thicknesses
<input checked="" type="radio"/> No Closure		Lengths: 0.000
<input type="radio"/> Partial Closure		Widths: 0.000
<input type="radio"/> End Closure		Depths: 0.000
<input type="radio"/> Middle Closure		
<input type="radio"/> Full Closure		

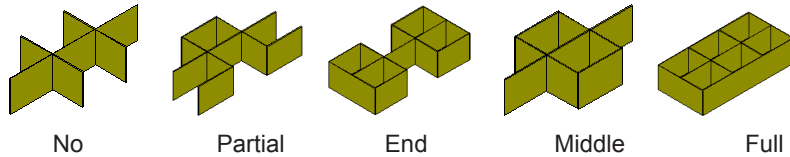
Field Descriptions and Instructions

- **Description:** For a new divider, type in a description and define the corresponding parameters. For an existing divider, select a pre-defined divider from the drop-list or type in the first few letters of the divider.
- **Drawing Style:** Select a pre-defined drawing style or type in the first few letters of the drawing style. Available styles are depicted in Appendix F of this guide.
- **Support Factor:** Enter the support factor provided by the divider.
- **Cost per 1000:** Enter the cost per 1000 units of the divider. This field is used only for film bag

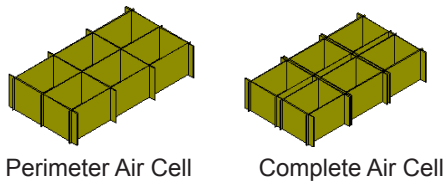
calculations.

- **Turn Rate:** Enter the turn rate for the divider. This field is used only for film bag calculations.
- **Arrangement:** Enter the arrangement of primary containers within the divider. For example, if the divider will accommodate three rows of 10 containers, enter 3 and 10.
- **Drawing Parameters:** Depending on the drawing style, check the box(es) to include the type(s) of closure to be built into the divider.

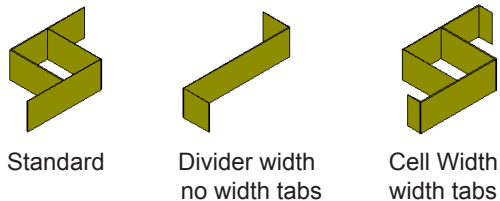
2-Way Divider Closure Types (example 3x2):



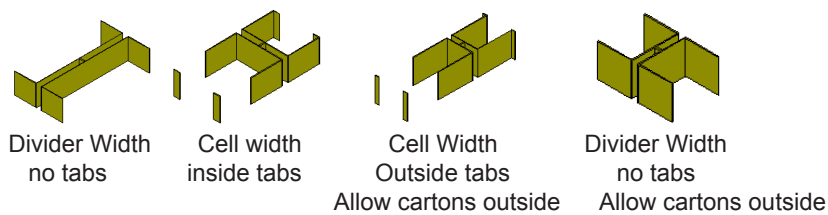
2-Way Air Cell (example 3x2 with Air Cell Width = 0.75 and Air Cell Length = 0.25)



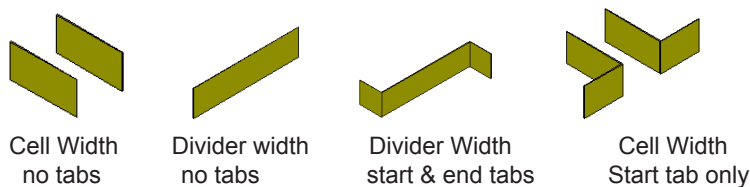
Z Partition (example 3x2)



U Partition (example 3x2 with Middle Space = 0.75 and Tab Length = 0.5)



U Simple (example 3x2)



- **Locked:** Check the box to indicate that only a supervisor can enter or change parameters on this dialog box.
- **Thicknesses Lengths:** Enter the number of thicknesses along the length of the divider.
- **Thicknesses Widths:** Enter the number of thicknesses along the width of the divider.
- **Thicknesses Depths:** Enter the number of thicknesses along the depth of the divider.
- **Modify Button:** Click to define a custom divider.

Define Film

Function: This dialog box allows you to define parameters for a new film (one that is not already defined in the system). This dialog box also allows you to change parameters for existing film.

To access, open the Define Menu and select Film from the Menu Bar.

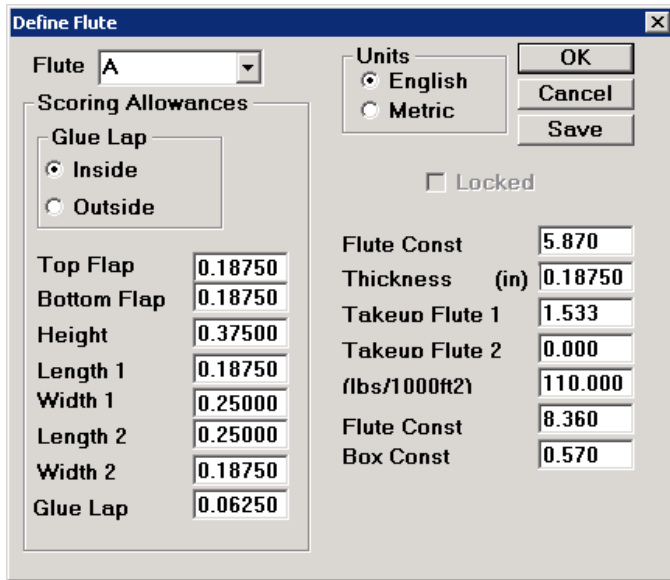
Field Descriptions and Instructions

- **Description:** For a new film, type in a description. For an existing film, select a pre-defined film from the drop list or type in the first few letters of the film.
 - ✍ **Note:** If you select a pre-defined film, TOPS Pro will automatically insert values in the various dimension fields. If you select User Defined, you will need to manually enter dimensions.
- **Cost (\$/msi):** Enter the cost per million square inches of the film.
- **Waste (%):** Enter the percentage of waste incurred for the film.
- **Locked:** Check the box to indicate that only a supervisor can enter or change parameters on this dialog box.

Define Flute

Function: Enter default parameters for different types of flutes.

To access the Define Flutes dialog box, open TOPS Configuration program. From the Menu Bar, open the Define Menu and select Flutes or click the Define Flute quick link.



Field Descriptions and Instructions

- **Flute:** Select a type of flute or enter a new flute type for definition.
- **Glue Lap:** Select either Inside or Outside to specify the position of the glue lap.
- **Top Flap:** Enter the thickness of the top flap in inches or millimeters, depending on the Units selected.
- **Bottom Flap:** Enter the thickness of the bottom flap in inches or millimeters, depending on the Units selected.
- **Height:** Enter the height of the flute in inches or millimeters, depending on the Units selected.
- **Length 1:** Enter the first length in inches or millimeters, depending on the Units selected.
- **Width 1:** Enter the first width in inches or millimeters, depending on the Units selected.
- **Length 2:** Enter the second length in inches or millimeters, depending on the Units selected.
- **Width 2:** Enter the second width in inches or millimeters, depending on the Units selected.
- **Glue Lap:** Enter the thickness of the glue lap in inches or millimeters, depending on the Units selected.
- **Units:** Select either English or Metric to specify how the product units are measured.
- **Locked:** Indicates if only a supervisor can enter or change parameters on this dialog box.
- **Flute Const:** Enter the flute constant in inches or millimeters, depending on the Units selected.
- **Thickness:** Enter the flute thickness in inches or millimeters, depending on the Units selected.
- **Takeup Flute 1:** Enter the takeup flute 1 value in inches or millimeters, depending on the Units selected; used for stacking strength calculations.

- **Takeup Flute 2:** Enter the takeup flute 2 value in inches or millimeters, depending on the Units selected; used for stacking strength calculations.
- **(lbs/1000ft2)/(gr/m2):** Enter the pounds per 1,000 square feet or grams per square meter, depending on the Units selected.
- **Flute Const (Kellicut):** This field is reserved for Japanese customers.
- **Box Const (Kellicut):** This field is reserved for Japanese customers.

Define Milk Carton


Function: Define parameters for different types of milk cartons, as well as containers such as dog food bag and cookie bags.

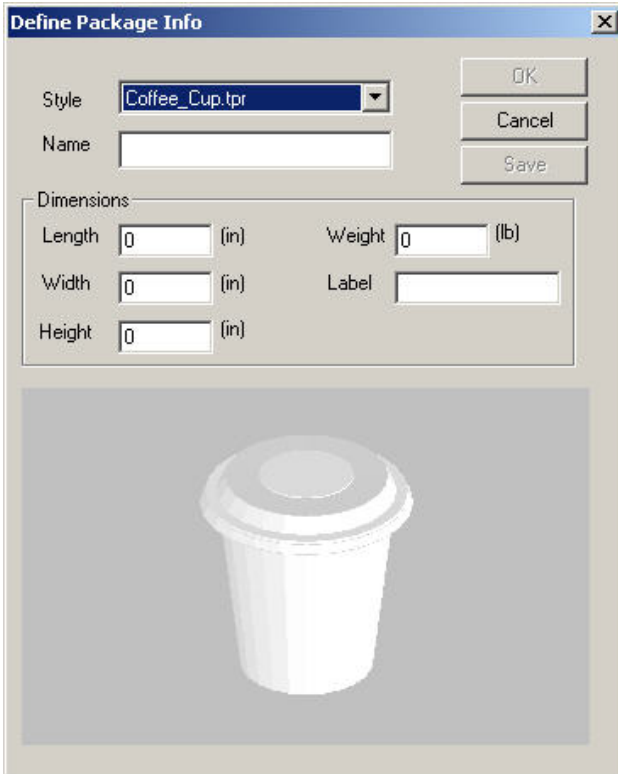
From the Menu Bar, open the Define Menu and select Milk Carton.

- **Description:** For a new milk carton, type in a description. For an existing milk carton, select a pre-defined item from the drop down or type in the first few letters of the film.
- **Length:** Enter the length of the milk carton.
- **Width:** Enter the width of the milk carton.
- **Height:** Enter the height of the milk carton.
- **Weight:** Enter the weight of the milk carton.
- **Caliper:** Enter the caliper of the milk carton.


Define Package Info (MixPro)

Function: Create products which can later be used inside mixed trays for presentation purposes and also for light applications involving multiple shipcase sizes in Mixed Pallet Editor.

Select MixTray Mixed Tray Editor from the MixPro Tool button . When in MixPro, go to the Define Menu and select Package.



The screenshot shows the 'Define Package Info' dialog box. The 'Style' dropdown is set to 'Coffee_Cup.tpr'. The 'Name' field is empty. The 'Dimensions' section includes input fields for Length (0 in), Width (0 in), Height (0 in), Weight (0 lb), and a Label field. A 3D model of a white coffee cup with a lid is displayed at the bottom of the dialog.

- **Style:** Select the CASY shape you would like to use in creating your product from the drop list.
- **Name:** Enter the name of your new product to be used to create the mix tray.
- **Length, Width, Height, Weight:** Enter the length, width, height and weight of the new product to be used to create the mix tray.
- **Label:** Enter a label that you would like for your product. This label will appear across the products when the option is turned on by clicking the  button on the tool bar.

Define Pallet

Function: Define parameters for a new a pallet (one that is not already defined in the system). This dialog box also allows you to change parameters for an existing pallet.

To access, use one of two options:

- From the Menu Bar, open the Define Menu and select Pallet.
- From the UnitLoad Parameters dialog box, click the New Pallet button.

The screenshot shows the 'Define Pallet' dialog box with the following settings:

- Style:** Stringer
- Description:** (empty)
- Active:** **Autosize:**
- Units:** English
- Construction:** Single Face
- Size:** Length (in) 0.00, Width (in) 0.00, Height (in) 0.00, Weight (lbs) 0.000, Max Height (in) 0.00
- Deck Boards:** Outside deck board width (in) 7.00, Number of inside deck boards 5, Inside deck board width (in) 5.00, Middle Board Width (in) 0.00, Deck board height (in) 1.00, Stringer Width (in) 2.00
- Slipsheet:** Length Tab , Width tab , Both sides , Tab width 0.00
- Alignment:** Flush
- Display:** Color (dropdown), Graphic button, Design Def.File button
- Buttons:** Save, Delete, Close, Help, Locked

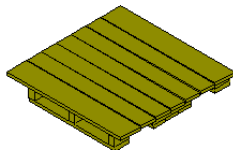
Field Descriptions and Instructions

- **Description:** For a new pallet, type in the name of the new pallet. For an existing pallet, select a pre-defined pallet from the drop list or type in the first few letters of the pallet.
 - 📌 **Note:** When you select a pre-defined pallet, TOPS Pro will automatically insert values in the various dimension fields.
- **Style:** Select the style of pallet you want to define. The Stringer, Notched Stringer, Block and EuroPallet styles are common. The Slipsheet option allows you to define a slipsheet. Select No Style option to create a loading footprint without labeling it as one of the existing pallet styles, or to perform an analysis without showing the pallet.
 - 📌 **Remember:** TOPS Pro needs an area of space to use in order to palletize, even if you do not need to use a pallet.
- **Construction:** Select Single Face, Double Face or Reversible to specify how the pallet will be constructed.
 - A **single face** construction has deck boards on one side.

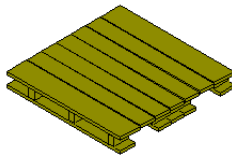
- A **double face** construction has deck boards on both sides.
- A **reversible** construction is a pallet that is identical on both sides.
- **Autosize:** Available for slipsheets only, check the box to tell TOPS Pro to automatically size the slipsheet to the size of the unitload.
- **Length, Width, Height:** Enter the length, width and height of the pallet.
- **Weight:** Enter the weight of the pallet.
- **Max Height:** Enter the maximum height of the unitload when this pallet is used for calculation. Use a value of 0.00 if no height limit is desired.

The following **Alignment** fields display only if you select Stringer, Notched Stringer, Block, EuroPallet, Optiledge, Litco or Chep in the Style field.

- **Alignment:** Select from Flush, Single Wing or Double Wing to specify how the stringer will be positioned in relation to the deck boards of the pallet.
 - A **flush alignment** positions the stringer flush to the outside edges of the deck boards.
 - A **single wing alignment** allows you to offset the stringers on a pallet. For double-faced pallets, single wing has offset deck boards on the top, but flush deck boards on the bottom of the pallet as pictured below (with alignment offset of 5 inches and Align 3 inches from the left).



Single wing alignment



Double wing alignment

- A **double wing alignment** allows you to offset the stringers on a double-faced pallet. Double wing has both the top and bottom deck boards offset from the stringers.
- **Alignment Offset:** Enter the distance the stringers will be offset from the edge of the pallet. The above pallets has alignment offset of 5 inches and Align distance (see below) of 3 inches.
- **Align (Distance from left):** Enter the distance for the alignment offset from the left side of the pallet.

The following **Deck Boards** fields will not display if you selected Slipsheet or No Style in the Style field.

- **Outside deck board width:** Enter the width of the two outside deck boards for the pallet.
- **Number of inside deck boards:** Enter the number of inside deck boards for the pallet.
- **Inside deck board width:** Enter the width of inside deck boards.
- **Middle Board Width:** Enter the width of the middle deck board.
- **Deck board height:** Enter the height of the deck boards.
- **Stringer width:** Enter the width of the stringers.

The following **Slipsheet** fields display only if you select Slipsheet in the Style field.

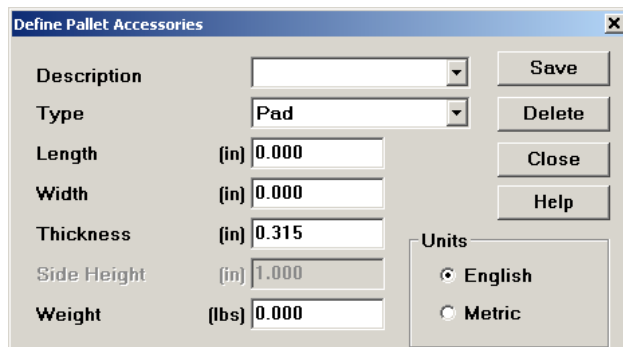
- **Slipsheet Length Tab:** Click on the box to add a tab to the length of the slipsheet.
- **Slipsheet Width Tab:** Click on the box to add a tab to the width of the slipsheet.
- **Slipsheet Both Sides:** Click on the box to add a tab to both sides of the slipsheet.
- **Slipsheet Tab Width:** Enter the width of the tab in inches or millimeters, depending on the Units selected.
- **Locked:** Check the box to indicate that only a supervisor can enter or change parameters on this dialog box.
- **Display:** This box allows some visual elements to be added to your pallet.
 - **Color:** Select the color you would like to use for your pallet from the drop list.
 - **Graphic:** Select the graphic you would like added to the top of the pallet.
 - **Design Def. File:** For future use only, this provides an easy way to import special pallets.

Define Pallet Accessories

Function: Define custom pad, slipsheet, tray or cap.

To access, use one of two options:

- From the Define Menu, select Pallet Accessories.
- From the UnitLoad Layer Parameters dialog box, go to the Advanced tab. Select Pre-defined for the selected accessory (for example, slipsheet) and then click the New button.



Field Descriptions and Instructions

- **Description:** For a new pallet, type in the name of the new pallet. For an existing pallet, select a pre-defined pallet from the drop list or type in the first few letters of the pallet.
- **Type:** Select from among the drop list (slipsheet, pad, tray and cap), the type of pallet accessory to be defined.
- **Length, Width, Thickness, Weight:** Enter the corresponding physical dimensions for the accessories.
- **Side Height:** Available for tray and cap only, this represents height of the accessory that will cover part of the unitload.
- **Save:** Click to save the newly defined accessory to the TOPS database.
- **Delete:** Click to remove the selected accessory from the TOPS database.

Define Paper

Function: Define default parameters for different types of paper, or board combination components. To access, open TOPS Configuration program.

From the Menu Bar, open the Define Menu and select Paper or click the Define Paper quick link.

The screenshot shows the 'Define Paper' dialog box. It features a 'Description' dropdown menu, a 'List Metric' button, and an 'OK' button. Below these are three input fields: 'RCF (lb/6 in strip)' with a value of '0.0', 'Paper Weight (lbs/1000ft2)' with a value of '0.00', and 'Cost/Ton' with a value of '0.00'. To the right of these fields are two radio button groups: 'Units' with 'English' selected and 'Metric' unselected; and 'Type' with 'Liner' selected and 'Medium' unselected. At the bottom right are buttons for 'Cancel', 'Save', 'Delete', and a 'Locked' checkbox.

Field Descriptions and Instructions

- **Description:** Select a type of paper from the drop list for review or modification or enter a name for the new paper.
- **RCF (lb/6 in strip)/(N/m):** Enter the ring crush factor in pounds per six in strip or Newtons per meter, depending on the Units selected.
 - 📌 **Note:** For more information about the ring crush factor, please refer to Chapter 9, Stacking Strength.
- **Paper Weight (lbs/1000ft2)/(gr/m2):** Enter the paper weight in pounds per 1,000 square feet or grams per square meter, depending on the Units selected.
- **Cost/Ton:** Enter the cost of the paper per ton.
- **Type:** Select either Liner or Medium to specify the type of paper.
- **Locked:** Indicates if only a supervisor can enter or change parameters on this dialog box.
- **List Metric:** This button toggles the description drop down between papers created in Metric units and papers created in English units.

Define Product

Function: Define parameters for a new product (a product that is not already defined in the system). You can also use this dialog box to change parameters for an existing product.

To access, use one of two options:

- From the Menu Bar, open the Define Menu and select Product.
- From the File menu, go to Package Profile. Select Add Products and from the Specification Products dialog box, click the New Product button.

The screenshot shows the 'Define Product' dialog box with the following fields and controls:

- Product:** A dropdown menu.
- Manufacturing:** A dropdown menu.
- Description:** A text input field.
- UPC:** A text input field.
- Density (oz/100in):** A text input field containing '0.0000'.
- Cost:** A text input field containing '0.0000'.
- Units:** Radio buttons for 'English' (selected) and 'Metric'.
- Sort By:** Radio buttons for 'Name' (selected) and 'UPC'.
- Dimensional Fields:** Three text input fields for 'EAN.UCC Width - Left to Right (in)', 'EAN.UCC Depth - Front to Back (in)', and 'EAN.UCC Height - Base to Top (in)', each containing '0.0000'.
- Locked:** A checkbox.
- Buttons:** 'Save', 'Delete', 'Close', and 'Help' buttons are located on the right side.

Field Definitions and Instructions

The following three fields: **Product**, **Manufacturing**, **Description** and **UPC Code**, are used only in the Packaging Profile function.

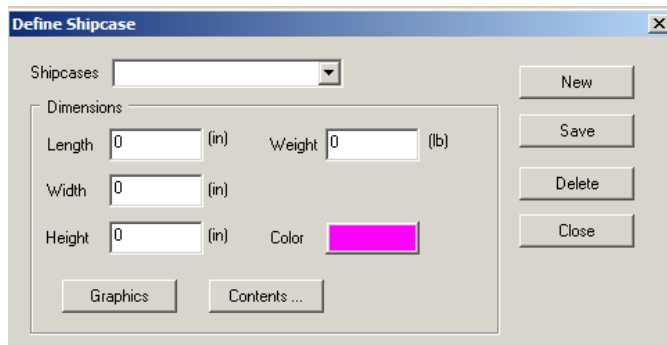
- **Product:** To define a new product, enter the name of the new product. To change parameters for an existing product, select a product or type in the first few letters of the product.
- **Manufacturing:** Select from the drop list a manufacturing option for the product.
- **Description:** Enter a description of the product.
- **UPC Code:** Enter the Universal Product Code for the product.
- **Density (oz/100 in³ or g/l):** Enter the density of the product in ounces per 100 inches cubed or in grams per liter, depending on the Units selected.
 - 📌 **Note:** If your analysis includes a product, TOPS Pro considers the density of the product when it generates solutions. If your analysis does not include a product, TOPS Pro generates solutions based on air volume.
- **Cost:** Enter the cost of the product.
 - Note:** This field is used only for a bag analysis.
- **Sort By:** Displays either Name or UPC to specify how the product is sorted.
- **Locked:** Check the box to indicate that only a supervisor can enter or change parameters on this dialog box.
- **EAN.UCC Width – Left to Right:** Enter the width from left to right.

- **EAN.UCC Depth – Front to Back:** Enter the depth from front to back.
- **EAN.UCC Height – Base to Top:** Enter the height from base to top.

Define Shipcase & Add Contents (MixPro Mixed Pallet Editor)

Function: Enter the quantity and arrangement of products inside a shipcase when using the MixPro Mixed Pallet Editor.

To access, from the MixPro Pallet module , select Define from the menu and click shipping case. In the Define Shipcase dialog box, click Contents.



Field Descriptions and Instructions

- **Shipcases:** Choose the type of product from the dropdown list.
- **Dimensions (Length x Width x Height):** Specify the dimensions of the shipcase accordingly.
- **Color:** Assign colors to your products.
- **Graphics:** This button will prompt the Assign Graphics dialog box to appear. You will be able to add bitmap images to your shipcases from different angles (top, front, back, side, left side). Choose a bitmap and click OK.
- **Contents:** Selecting this option will prompt the Add Contents dialog box (N Long x N Width x N Height), where you will be able to enter the quantity of products inside the shipcase along the length, width and height dimensions. Within this dialog box, you will find the following options:
 - **Container Tray Style:** Select from the drop down list a predefined tray or box style to carry the products.
 - **Contents Style:** Select from the drop down list a C.A.S.Y. style to represent the contents of the shipcase.
- **New:** Create a new shipcase.
- **Save:** Specify a shipcase name and save it.

Define Shipping Case

Function: Define parameters for a new shipcase (one that's not already defined in the system). This dialog box also allows you to change parameters for an existing shipcase.

To access, from the Menu Bar, open the Define Menu and select Shipping Case.

The screenshot shows the 'Define Shipping Case' dialog box. It features a title bar with a close button. The main area contains several input fields and buttons. The 'Description' field is empty. The 'Style' dropdown is set to 'RSC (FEFCO 0201)'. The 'Flute' dropdown is set to 'A Flute'. The 'Length (in)', 'Width (in)', and 'Height (in)' fields are all set to '0.000'. The 'Tare weight (lbs)' and 'Max Weight (lbs)' fields are also set to '0.000'. The 'Optional' section has 'Turn Rate \$/1000' set to '0.0000', 'Cost' set to '0.000', and 'Cases per Pallet' set to '0'. The 'Material' section has 'Corrugated' selected with a radio button. The 'Dimensions' section has 'Outside' selected with a radio button. The 'Units' section has 'English' selected with a radio button. There is a 'Locked' checkbox which is unchecked. Buttons for 'Save', 'Delete', 'Graphic', 'Close', and 'Help' are on the right side.

Field Descriptions and Instructions

- **Description:** For a new shipcase, type a description. For an existing shipcase, select a pre-defined shipcase from the drop list or type in the first few letters of the shipcase.
 - 📌 **Note:** If you select a pre-defined shipcase, TOPS Pro will automatically insert values in the various dimension fields. If you select User Defined, you will need to manually enter dimensions.
- **Style:** Select a pre-defined style or type in the first few letters of the style.
- **Flute:** Select the flute size for the shipcase from the drop list. This field displays only if you select Corrugated Material.
- **Caliper:** Enter the caliper of the shipcase. The caliper is used to calculate the inside vs. outside dimensions of the shipcase. This field displays only if you select Other Material.
- **Length, Width, Height:** Enter the length, width and height of the shipcase.
- **Tare Weight:** Enter the tare weight of the shipcase.
- **Max Weight:** Enter the maximum weight of the shipcase and its contents.
- **Optional Turn \$/1000:** Enter the turn rate per 1000 units.
- **Optional Cost:** Enter the cost per shipcase.
- **Optional Cases per Pallet:** Enter the number of shipcases per pallet.
- **Material:** Select either Corrugated or Other to specify the material used to make the shipcase.
 - 📌 **Note:** The type of material is important to determine stacking strength and board thickness.
- **Dimensions:** Select either Inside or Outside to specify how the shipcase dimensions are

measured.

- **Locked:** Check the box to indicate that only a supervisor can enter or change parameters on this dialog box.
- **Graphic Button:** Displays the Assign Graphics dialog box, which allows you to select and display a graphic image on the shipcase.

Define Tub

Function: Define parameters for a new tub (one that is not already defined in the system). This dialog box also allows you to change parameters for an existing tub.


The screenshot shows the 'Define Tub' dialog box with the 'Round' body shape selected. The 'Description' field is empty. The 'Top Diameter (in)' is 0.000, 'Bottom Diameter (in)' is 0.000, 'Height (in)' is 0.000, 'Pitch (in)' is 0.000, and 'Weight (lbs)' is 0.000. The 'Body Shape' section has 'Round' selected with a radio button. The 'Units' section has 'English' selected with a radio button. Buttons for 'Save', 'Delete', 'Graphic', 'Close', and 'Help' are visible on the right side.

Tub Options for Round Body Shape

The screenshot shows the 'Define Tub' dialog box with the 'Rectangular' body shape selected. The 'Description' field is empty. The 'Top Length (in)' is 0.000, 'Top Width (in)' is 0.000, 'Bottom Length (in)' is 0.000, 'Bottom Width (in)' is 0.000, 'Height (in)' is 0.000, 'Pitch (in)' is 0.000, and 'Weight (lbs)' is 0.000. The 'Body Shape' section has 'Rectangular' selected with a radio button. The 'Units' section has 'English' selected with a radio button. Buttons for 'Save', 'Delete', 'Graphic', 'Close', and 'Help' are visible on the right side.

Tub Options for Rectangular Body Shape

- **Description:** Select from the drop list a predefined description for the tub for review or modification or enter a name to define a new tub.
- **Top Length, Top Width:** For rectangular tub, enter the top length and width of the tub.
- **Bottom Length:** Displays the bottom length of the rectangular tub. TOPS Pro automatically calculates this value based on the proportions of top to bottom width.
- **Bottom Width:** Enter the bottom width of the rectangular tub.
- **Top Diameter, Bottom Diameter:** For round tub, enter the top and bottom diameter of the tub
- **Height:** Enter the height of the tub.
- **Pitch:** Enter the pitch of the tub for nesting.

 **Note:** Pitch allows you to define the dimensions of the tubs so they can be stacked inside one another. This value represents the distance between the rims of the nested tubs; that is, how far one tub protrudes from the one it is placed into. If you leave pitch at zero, TOPS Pro assumes that the tubs do not nest inside one another.

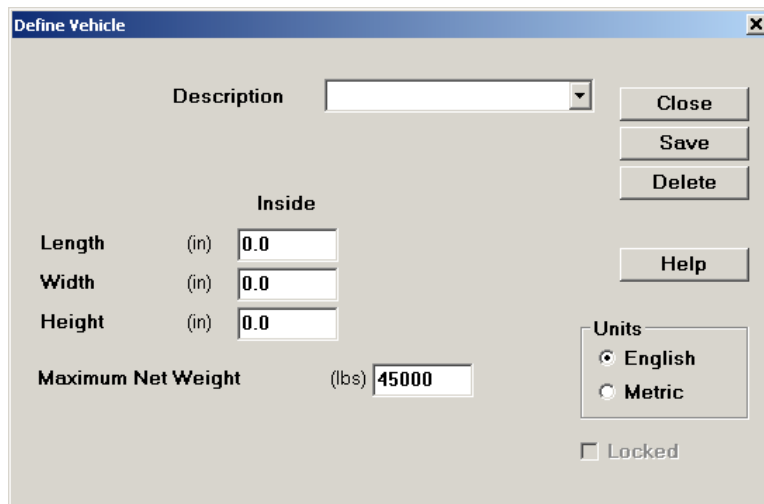
- **Weight:** Enter the net weight of the tub in pounds or kilograms, depending on the Units selected.
- **Body Shape:** Select either Round or Rectangular to specify the body shape of the tub.

Define Vehicle

Function: Define a new vehicle and save it to the database.

To access, use one of two options:

- From the Vehicle Parameters dialog box, click the New Vehicle button.
- From the Menu Bar, open the Define menu and select Vehicle.



Field Descriptions and Instructions

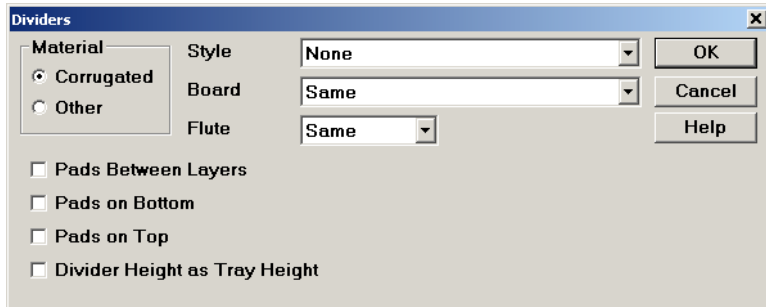
- **Description:** Select a pre-defined vehicle or type in the first few letters of the vehicle. If you are defining a new vehicle, type in the name of the new vehicle.
- **Note:** When you select a pre-defined vehicle, TOPS Pro will automatically insert values in the Inside Length, Inside Width, Inside Height and Maximum Net Weight fields.
- **Inside Length, Inside With, Inside Height:** Displays or enter the inside length, width and height of the vehicle. These define the actual loadable space of the vehicle.
- **Maximum Net Weight:** Displays the maximum net weight of the vehicle.
- **Locked:** Indicates that only a supervisor can enter or change the parameters on this dialog box.

Dividers

Function: Define parameters for the dividers that go into an intermediate packer or shipcase.

To access, use one of two options:

- From the Intermediate Pack Parameters dialog box, click the Dividers button.
- From the Shipcase Parameters dialog box, click the Dividers button.



Field Descriptions and Instructions

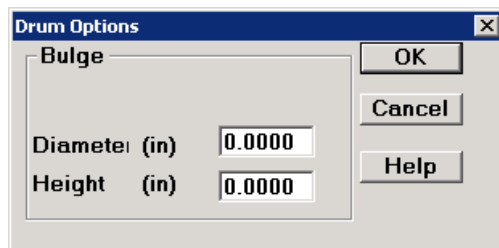
- **Material:** Select either Corrugated or Other to specify the material used to make the divider.
 - 📖 **Note:** The type of material is important to determine stacking strength and board thickness. TOPS Pro uses the next three fields: **Style**, **Board** and **Flute**, to calculate stacking strength and determine board thickness.
- **Style:** Select the style of divider you want to use.
 - 📖 **Warning:** Most dividers set up in TOPS Pro are designed with a specific cell count and arrangement in mind. For example, the U-Part w/ Tabs divider will work only for a 3x1 arrangement.
 - 📖 **Note:** The drop-down list contains divider types that are already set up in the database. If the divider type you want is not on the list, you can add it to the database using the Define Dividers dialog box. For more information, please refer to page 343.
- **Board:** Select the type of board used to make the divider.
 - 📖 **Note:** The drop-down list contains board types that are already set up in the database. If the board type you want is not on the list, you can add it to the database using the Board Combinations dialog box. For more information, please refer to page 295.
- **Flute:** Select the flute size for the divider.
 - 📖 **Note:** This field displays only if you select Corrugated Material.
 - 📖 **Note:** The drop-down list contains flute types that are already set up in the database. If the flute type you want is not on the list, you can add it to the database using the Define Flute dialog box. For more information, please refer to page 346.
- **Caliper:** Enter the caliper of the divider in inches or millimeters, depending on the Units selected on the Intermediate Pack or Shipcase Parameters dialog box.
 - 📖 **Note:** The caliper is used to calculate the thickness dimensions of the divider. This field displays only if you select Other Material.

- **Pads between Layers:** Check the box to place pads between layers within the packer or shipcase.
- **Pads on Bottom:** Check the box to place pads on the bottom of your primary packages in the packer or shipcase.
- **Pads on Top:** Check the box to place pads on top of the primary packages in the packer or shipcase.
- **Divider Height as Tray Height:** Check the box to specify that the selected divider will be the same height as the tray it is placed into.

Drum Options

Function: Enter bulge dimensions for a drum. For example, a plastic liquid bottle, such as a water cooler, has a bulge factor.

To access, from the Drum Parameters dialog box, click the Options button.



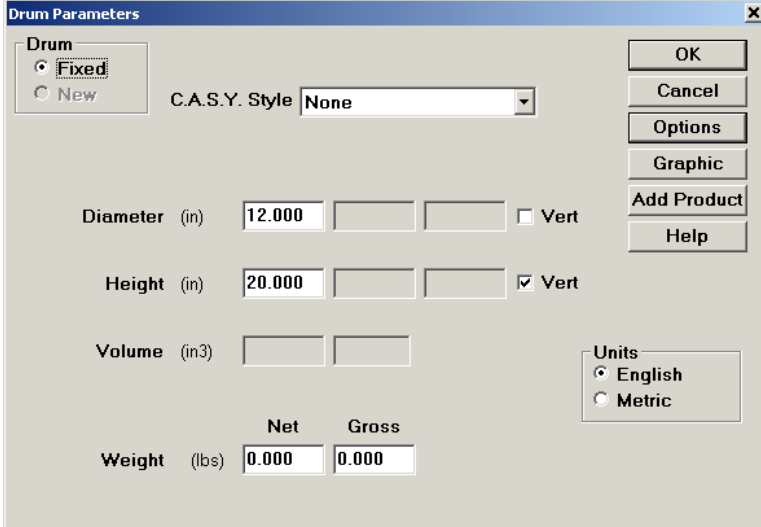
Field Descriptions and Instructions

- **Bulge Diameter:** Enter the amount of bulge allowed in the drum's diameter in inches or millimeters, depending on the Units selected on the Drum Parameters dialog box.
- **Bulge Height:** Enter the amount of bulge allowed in the drum's height in inches or millimeters, depending on the Units selected on the Drum Parameters dialog box.

Drum Parameters

Function: Define parameters for different types of drums.

To access, click the Drum Parameters icon  at the Control Panel.



Drum Parameters

Drum

Fixed
 New

C.A.S.Y. Style: None

Diameter (in): 12.000 Vert

Height (in): 20.000 Vert

Volume (in³):

Weight (lbs): Net 0.000 Gross 0.000

Units

English
 Metric

OK
Cancel
Options
Graphic
Add Product
Help

Field Descriptions and Instructions

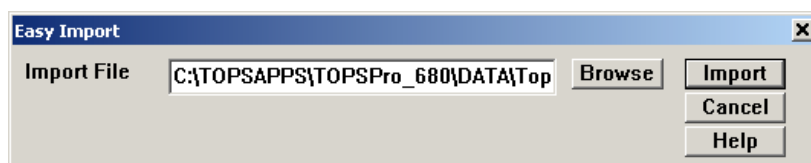
- **C.A.S.Y. Style:** Select a CASY style to be displayed for the drum.
- **Diameter:** Enter the diameter of the drum.
- **Height:** Enter the height of the drum.
- **Volume:** Display the volume for the drum, when applicable.
- **Vert:** Check a box beside one or both of two fields: Diameter or Height, to specify the vertical dimension of the drum **relative to the ground**.
- **Weight:** Enter the net and gross weight of the drum.
- **Options Button:** Displays the Drum Options dialog box, which allows you to enter bulge dimensions for a drum.

Easy Import

Function: This dialog box allows you to access a simpler import function to pass data in a text file (like Excel CSV) into TOPS Pro for calculation. A total of 32 fields can be imported and include:

Col	Data	Notes
A	Analysis Name	maximum 31 characters
B	Analysis Type (starting stage of analysis)	PP: primary pack, SC: shipcase, UL: unitload
C	Unit of measure for distance	DIST_IN: inch, DIST_FT: Feet, DIST_MM: mm, DIST_CM: cm, DIST_M: meter if blank: DIST_IN is assumed
D	Unit of measure for weight	DIST_LB: pound, DIST_OZ: oz, DIST_KG: Kg, DIST_GR: Gram if blank: DIST_LB is assumed
E	Primary pack, if present	Y, N
F	Primary pack type	C: Carton, N: Can/Cylinder
G	Primary pack length	
H	Primary pack width	
I	Primary pack height	
J	Primary pack net weight	
K	Primary pack gross weight	
L	Intermediate pack, if present	Y, N
M	Intermediate pack style	
N	Intermediate pack flute	
O	Intermediate pack maximum count	
P	Intermediate pack minimum count	
Q	Shipcase, if present	Y,N
R	Shipcase type	C: Carton, N: Can/Cylinder
S	Shipcase style	
T	Shipcase length	
U	Shipcase width	
V	Shipcase height	
W	Shipcase flute	
X	Shipcase maximum count	
Y	Shipcase minimum count	
Z	Unitload, if present	Y, N
AA	Unitload pallet	
AB	Unitload maximum height	
AC	Unitload maximum weight	
AD	Vehicle, if present	Y, N
AE	Vehicle name	
AF	Vehicle maximum weight	

To access, from the Menu Bar, open the Import menu and select Easy Import.



Field Descriptions and Instructions

- **Import File:** Click the Browse button to select the file you want to import into TOPS Pro.
- **Import Button:** Imports a selected file into the TOPS Pro system.

EcoSavings Report (ESR) - Analysis

Function: Define the cost and usage information in order to create reports to compare the effects different case sizes and load solutions have on the environment in terms of carbon emission and corrugated and packaging material wastage.

To access, first select two solutions for the current analysis, then go to the Tools menu, select ESR and then ESR for analysis.

Section	Field	Value
Containers	No. of Containers / Year	0
	Route	[Dropdown]
Trucks	No. of Trucks / Year	0
	Average Miles / trip	0.00
Packaging	Corrugated Cost	0.00
	Misc. Packing Cost / Case	0.00
	Addl. Material Used / Case	0.00
	Pallet Cost	0.00
	Misc. Packing Cost / Pallet	0.00
	Addl. Material Used / Pallet	0.00
	Recycle Rate (%)	0.00

- **No. of Containers/Year:** Enter the number of containers used per year for the current analysis.
- **Route:** Select from the drop list the route and its associated costs defined in the ESR Configuration dialog box (see next section).
- **No. of Trucks/Year:** Enter the number of trucks used per year for the current analysis.
- **Average Miles/Trip:** Enter the number of miles drive per trip for the current analysis.
- **Corrugated Cost:** Enter the average corrugated cost per square unit for the materials used for this analysis.
- **Misc. Packaging Cost/Case:** Enter the costs for any miscellaneous packaging materials used per shipcase.
- **Addl. Material Used/Case:** Enter the costs for any additional materials used per shipcase.

- **Pallet Cost:** Enter the pallet cost for the analysis.
- **Misc. Packaging Cost/Pallet:** Enter any miscellaneous packaging cost used per pallet.
- **Addl. Material Used/Pallet:** Enter the cost for any additional material used per pallet.
- **Recycle Rate (%):** Enter the recycle rate for all packaging materials used in the analysis.

EcoSavings Report (ESR) - Configuration

Function: Define the different cost factors associated with packaging and vehicle usage to be used in the Eco Savings Reports.

To access, create the required analysis, go to the Tools menu, select ESR and then ESR Configuration. You can also access this dialog by clicking the Config button in the ESR Analysis dialog.

Containers			
Route	Route1		
	40 ft. HC	40 ft.	20 ft.
Cost / Container	875.00	800.00	600.00
CO2 emissions per container	50.00	50.00	35.00

Trucks	
Cost / mile	3.20
Average Miles / trip	500.00
CO2 emissions / mile	12.00

Packaging	
Corrugated Cost	1.50
Misc. Packing Cost / Case	2.00
Pallet Cost	25.00
Misc. Packing Cost / Pallet	3.50

Units Cost


Field Descriptions and Instructions

- **Containers**
 - **Route:** Enter a name for the route and its different associated costs.
 - **Cost/Container:** Enter the costs for the commonly used 40ft hi-cube, 40ft and 20ft containers respectively.
 - **CO2 emissions per container:** Enter the volume of carbon emissions per each of the 40ft hi-cube, 40ft and 20ft containers.
- **Trucks**
 - **Cost/mile:** Enter the cost per mile for the route currently defined.
 - **Average Miles/trip:** Enter the average mileage for the current route.
 - **CO2 emissions/mile:** Enter the volume of carbon emissions per mile driven for this route.
- **Packaging**
 - **Corrugated Cost:** Enter the corrugated cost used per square unit for the current route.
 - **Misc. Packaging Cost/Case:** Enter the miscellaneous packaging cost per case used for the

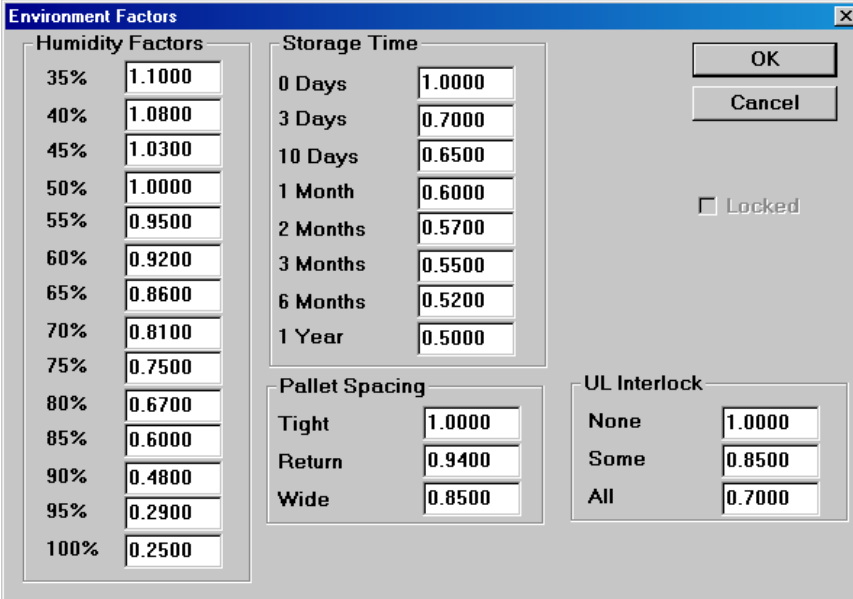
- current route.
- **Pallet Cost:** Enter the pallet cost associated with the current route.
- **Misc. Packaging Cost/Pallet:** Enter the miscellaneous packaging cost per pallet used for the current route.
- **Units**
 - **Cost:** Enter the cost per unit.

Environment Factors

Function: Assign numeric safety factors to a range of environmental factors.

 **Note:** For detailed information about how TOPS Pro uses environmental factors, please refer to Chapter 9, Stacking Strength.

To access, open TOPS Configuration program. From the Menu Bar, open the Define Menu and select Environment Factors or click the Environment Factors quick link in the Control Panel.



Humidity Factors		Storage Time	
35%	1.1000	0 Days	1.0000
40%	1.0800	3 Days	0.7000
45%	1.0300	10 Days	0.6500
50%	1.0000	1 Month	0.6000
55%	0.9500	2 Months	0.5700
60%	0.9200	3 Months	0.5500
65%	0.8600	6 Months	0.5200
70%	0.8100	1 Year	0.5000
75%	0.7500		
80%	0.6700		
85%	0.6000		
90%	0.4800		
95%	0.2900		
100%	0.2500		

Pallet Spacing		UL Interlock	
Tight	1.0000	None	1.0000
Return	0.9400	Some	0.8500
Wide	0.8500	All	0.7000

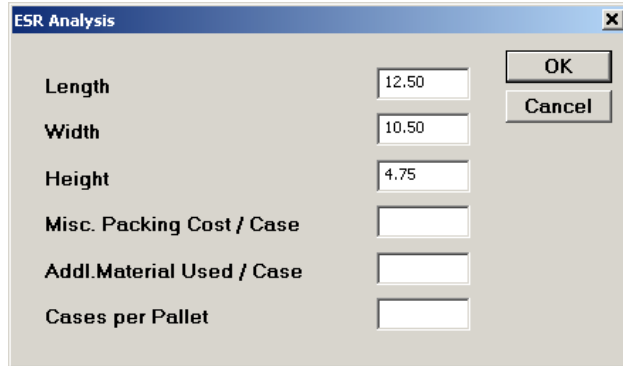
Field Descriptions and Instructions

- **Humidity Factors:** Enter a numeric safety factor for each level of humidity.
- **Storage Time:** Enter a numeric safety factor for each period of storage time. For example, after three days stacking strength is reduced by another 30 percent.
- **Pallet Spacing:** Enter a numeric safety factor for each type of pallet spacing.
- **UL Interlock (None):** Enter a numeric safety factor when the unitload interlock is None; i.e., all edges are lined up.
- **UL Interlock (Some):** Enter a numeric safety factor when the unitload interlock is Some; i.e., maybe the top two layers are lined up.
- **UL Interlock (All):** Enter a numeric safety factor when the unitload interlock is All; i.e., every other layer is lined up.
- **Locked:** Indicates if only a supervisor can enter or change parameters on this dialog box.

ESR (Eco Savings Report) Analysis

Function: Start an Eco Savings Report using the current shipcase information.

To access, create the required analysis, go to the Tools menu, select ESR and then ESR for analysis.



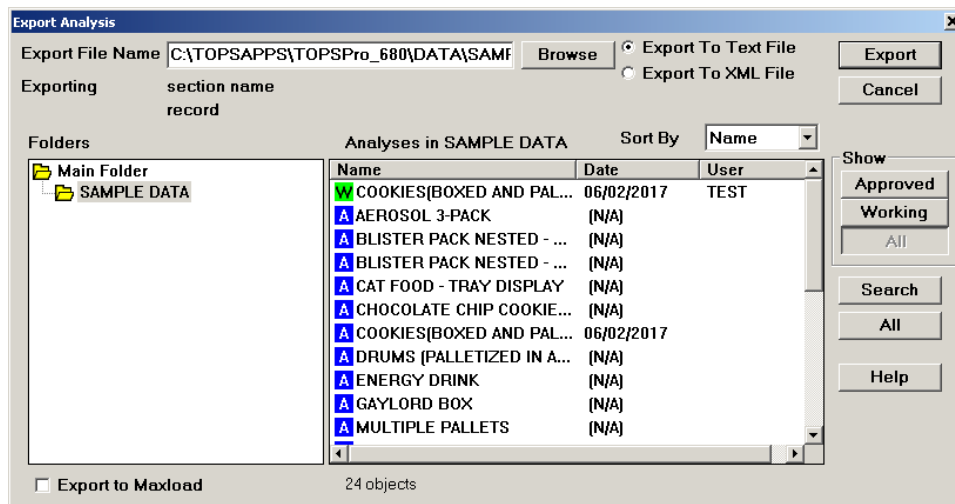
The ESR Analysis dialog box is a standard Windows-style window with a title bar that says "ESR Analysis". It contains several input fields and two buttons. The fields are: Length (12.50), Width (10.50), Height (4.75), Misc. Packing Cost / Case, Addl. Material Used / Case, and Cases per Pallet. The OK and Cancel buttons are located to the right of the input fields.

- **Length, Width, Height:** These fields will be populated with the outside dimensions of the shipcase in the current analysis.
- **Misc. Packing Cost/Case:** Enter the costs for other packing materials not included in the analysis.
- **Addl. Material Used/Case:** Enter the costs for additional materials used per case.
- **Case per Pallet:** Enter the total number of shipcase on the pallet.
- **OK Button:** Click this to continue to the next step of entering data for the Eco Savings Report.

Export Analysis

Function: Export an analysis to an ASCII comma delimited text file. You can use this file to transfer analyses to other copies of TOPS Pro (same release or higher) or to back up your work to a floppy disk.

To access, open the Export menu and select Analysis from the Menu Bar.




The Export Analysis dialog box is a standard Windows-style window with a title bar that says "Export Analysis". It contains several fields and buttons. The "Export File Name" field is set to "C:\TOPSAPPS\TOPSPro_680\DATA\SAMF". There are "Export To Text File" and "Export To XML File" radio buttons. A "Folders" list shows "Main Folder" and "SAMPLE DATA". A table of "Analyses in SAMPLE DATA" is shown, with columns for Name, Date, and User. The table contains 24 objects. There are buttons for "Export", "Cancel", "Approved", "Working", "Search", "All", and "Help".

Name	Date	User
COOKIES[BOXED AND PAL...	06/02/2017	TEST
AEROSOL 3-PACK	(N/A)	
BLISTER PACK NESTED - ...	(N/A)	
BLISTER PACK NESTED - ...	(N/A)	
CAT FOOD - TRAY DISPLAY	(N/A)	
CHOCOLATE CHIP COOKIE...	(N/A)	
COOKIES[BOXED AND PAL...	06/02/2017	
DRUMS [PALLETIZED IN A...	(N/A)	
ENERGY DRINK	(N/A)	
GAYLORD BOX	(N/A)	
MULTIPLE PALLETS	(N/A)	

Field Descriptions and Instructions

- **Export File Name:** Display the name of the export file. Click the Browse button to specify the location and filename to hold the data for the exported analysis.
- **Export to Text File:** The analysis will be saved as a txt file in the specified folder.
- **Export to XML File:** The analysis will be saved as an XML file in the specified folder.
- **Sort By:** Select from the drop list either by Name, User or Date, the sort order for the list of analyses.
- **Exporting:** Displays the status of the export.
- **Folders:** Displays a tree view of existing folders and corresponding list of analyses available to be exported. To select an analysis, scroll down the list and highlight the analysis you want to export.
Note: You can select multiple analyses by using the Shift and Control keys.
- **Export Button:** Exports a selected file from the TOPS Pro system to begin the export function.
- **Show Option:** Click one of these buttons: Approval, Working or All, to filter the analyses to be displayed in the folder list.
- **Search Button:** Displays the Analysis Search dialog box, which allows you to search for a file by entering search criteria.

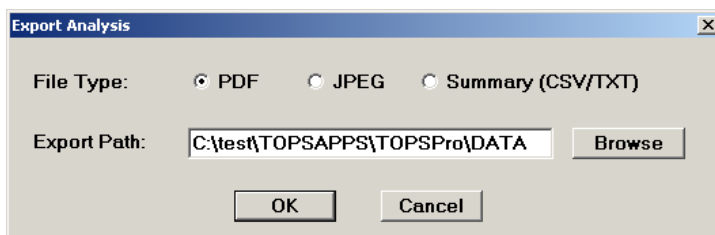
For more information on the Analysis Search dialog box, please refer to page 285.

- **All Button:** Exports all the files listed to another application.
- **Export to MaxLoad:** Check this option to export the analysis (usually pallet configuration) to MaxLoad Pro Load Planning and Optimization software.
 **Note:** Exporting an analysis from this dialog box creates a file that can **only** be used by another copy of TOPS Pro.

Export Analysis (2)

Function: Export selected analyses to a specific destination in the specified format. Note that the File Type of CSV/TXT can **only** be used by another copy of TOPS Pro.

To access, open the File menu and select Open. Highlight one or more analyses from the list and then click the Export button.



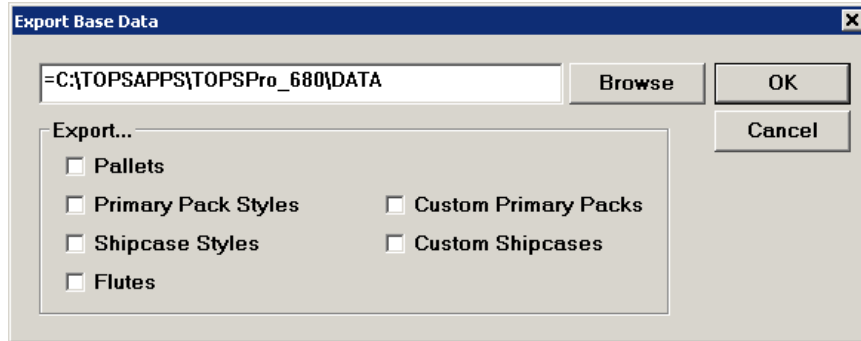
Field Descriptions and Instructions

- **File Type:** Click the corresponding radio button for the format to be used for the selected analyses.
- **Export Path:** Specify the location for the exported analyses. Click the Browse button to specify the location, the export file will carry the root name of the analysis.

Export Base Data

Function: Export selected data in XML files.

To access, open the Export menu and select Base Data.



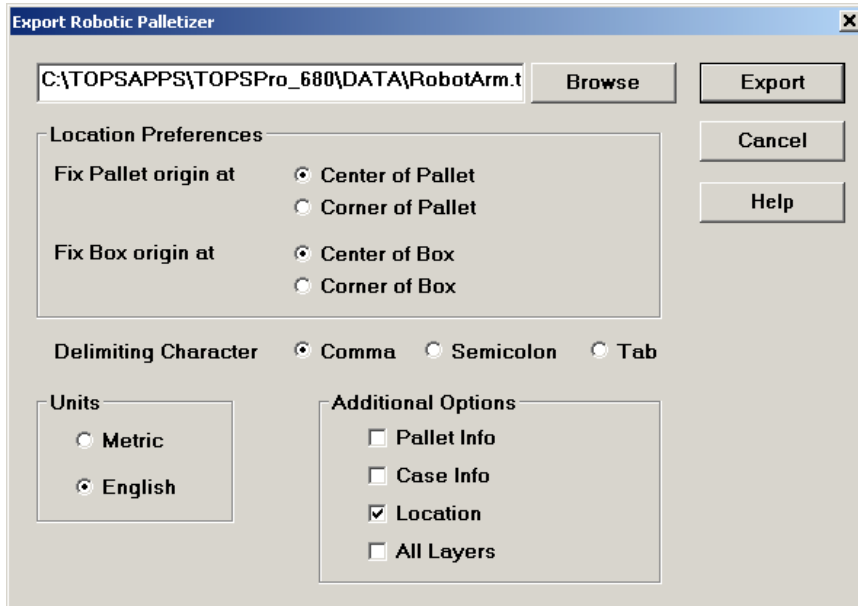
Field Descriptions and Instructions

- **Browse:** Click the Browse button to specify the location for the export files. The output will three XML files:
- **Export:** Check against the boxes the base data to be exported:
 - **Pallets:** All pallet defined in the database will be exported to TOPS_Pallets.xml.
 - **Primary Pack Styles, Custom Primary Packs, Shipcase Styles, Custom Shipcases:** Any selected styles will be exported to TOPS_Packs.xml.
 - **Flutes:** All flutes defined in the database will be exported to TOPS_Materials.xml.

Export Robotic Palletizer

Function: Export the arrangement of a pallet pattern layer to an ASCII text file, which can be used by robotic palletizing machines to determine how to arrange a unitload.

To access, open the Export menu and select Robotic Palletizer.




Field Descriptions and Instructions

- **Browse:** Click the Browse button to specify the location and filename to hold the exported pallet data. The output will be a text file with default name RobotArm.txt.
- **Fix Pallet origin at:** Select either to use the center or corner of the pallet as the pallet origin point.
- **Fix Box origin at:** Select either to use the center or corner of shipcase as the box origin point.
- **Delimiting Character:** Select the delimiter character for the output text file among comma, semicolon or tab. Comma is the most common delimiting character and is recommended for use.
- **Additional Options:** Check the box(es) to output additional data to the text file including pallet information, shipcase information whether to export data for all layers.

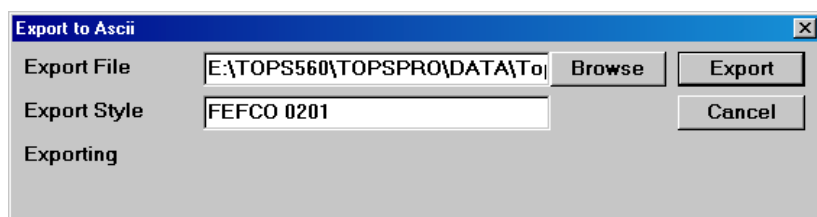
Export to ASCII

Function: This function exports the TOPS database to an ASCII text file. There are two Export to ASCII dialog boxes, as pictured below. The first is used in the TOPS Pro program which exports the carton or shipcase of the current analysis. The second is used in the TOPS Configuration program which allows you to export the entire databases to an ASCII file.

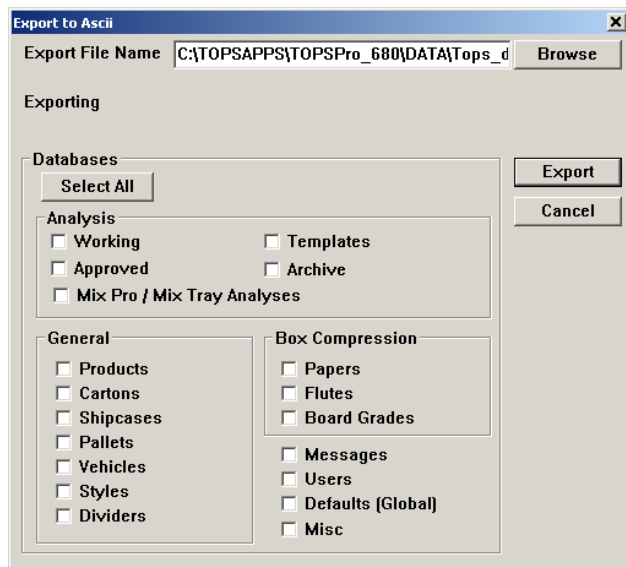
 **Note:** This export function is only useful for transferring saved data to other copies of TOPS Pro.

To access the Export to ASCII dialog box, use one of two options:

- In the TOPS Pro program: From the Menu Bar, open the Export menu and select Case or Carton.
- In the TOPS Configuration program: From the Menu Bar, open the File menu and select Export or click on the Export Data quick link in the Control Panel.



Export to ASCII Dialog Box in TOPS Pro Program



Export to ASCII Dialog Box in Configuration Program

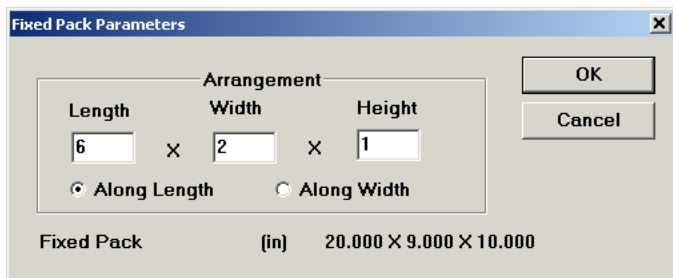
Field Descriptions and Instructions

- **Export File (Name):** Click the Browse button to select the file you want to export.
- **Export Style:** Enter the export style name.
- **Exporting:** Displays the status of the export.
- **Databases:** Select the databases you want to export. To export all databases, click the Select All button. This field is available only in the Configuration program.
- **Export Button:** Exports the current data from the TOPS Pro system to an ASCII comma delimited text file.

Fixed Pack Parameters

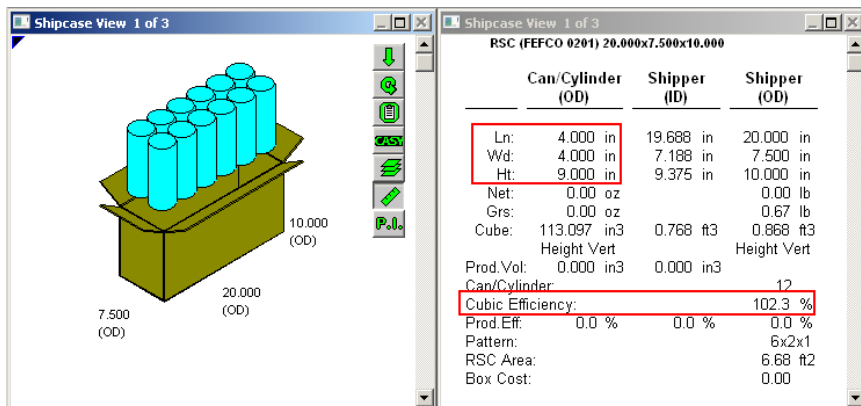
Function: When you are using a fixed size shipcase with fixed configuration, you can use this dialog to specify the exact product arrangement inside the shipcase. This function is mainly used to pack flexible primary packs where TOPS automatically adds negative bulge to the primary pack and makes the math work.

To access this dialog, go to the Shipcase Parameters dialog box. Make sure you are using 'Fixed' case, check the Fix Pack option, then click the Fix Pack button to open the dialog box.



Field Descriptions and Instructions

- **Arrangement:** Enter the arrangement of products inside the shipcase along the length, width and height dimension.
- **Along Length:** Click to select the Along Length option.
- **Along Width:** Click to select the Along Width option.



Import From ASCII

Function: Import an ASCII comma delimited text file into the TOPS Pro system. You can use this function to import shipcases into TOPS Pro. The functionality is identical to that of the Import option on the File menu in the Configuration program.

To access, from the Menu Bar, open the Import menu and select Import TOPS Data.




Field Descriptions and Instructions

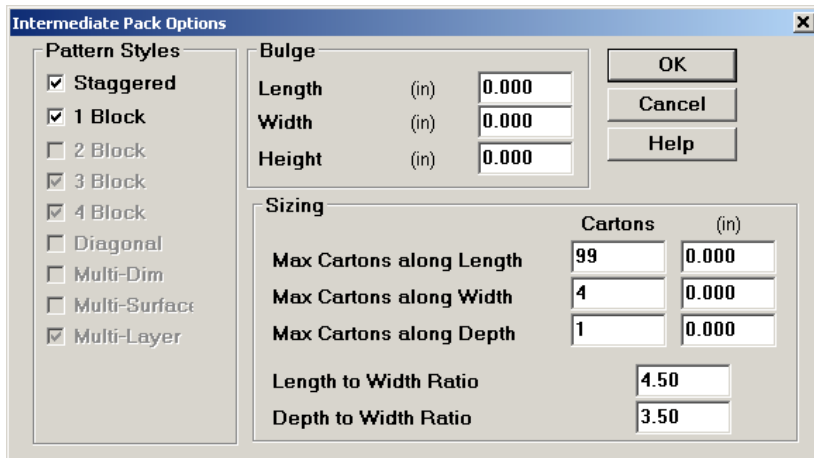
- **Import File Name:** Click the Browse button to select the file you want to import into TOPS Pro.
- **Importing:** Displays the status of the import.
- **Import From Text File:** Import a text file from the specified location.
- **Import From xml File:** Import an XML file from the specified location.
- **Import Button:** Imports a selected file into the TOPS Pro system.

Intermediate Pack Options

Function: Enter bulge and sizing parameters for a packer.

 **Note:** This dialog box is used for packers, trays, cartons and shrinkwrap.

To access this dialog box, from the Intermediate Pack Parameters dialog box, click the Options button.




Sizing

The Intermediate Pack Options dialog box allows you to fine-tune the size dimensions of the packer. It limits the scope of the analysis solution by limiting the maximum dimensions and ratios.

For example, if you specify a maximum of four cartons along the length, width and depth of the packer, TOPS Pro will generate a solution with no more than four cartons along the length, four cartons along the width and four cartons along the depth of the packer – a maximum of 64 cartons. The maximum is 64 cartons, but TOPS Pro will also generate other solutions with less than 64 cartons.

Field Descriptions and Instructions

- **Pattern Style:** Select pattern styles preferred for the packer by checking the corresponding boxes. Note that this field is only available when using a fixed size intermediate pack.
- **Bulge Length, Bulge Width, Bulge Height:** Enter the amount of bulge allowed in the packer's length, width and height respectively.
- **Max Cartons along Length/Width/Depth (Cartons):** Enter the maximum number of cartons allowed along the length, width and
- **Max Cartons along Length/Width/Depth (in/mm):** Enter the maximum dimension along the length, width and height of the packer respectively.
- **Length to Width Ratio:** Enter the length to width ratio of the packer.

 **Note:** Length-to-width ratio limits the answer to proportions no worse than this value. For example, in the dialog box on the previous page, the length-to-width ratio is 4.5. This means that the length of the packer is less than 4.5 times its width when TOPS Pro generates a **new** size packer for you.

- **Depth to Width Ratio:** Enter the depth to width ratio of the packer.
 - 📌 **Note:** Depth-to-width ratio limits the answer to proportions no worse than this value. For example, in the dialog box on the previous page, the length-to-width ratio is 3.5. This means that the depth of the packer is less than 4.5 times its width.

Intermediate Pack Parameters

Function: Define parameters for different types of intermediate packers.

- 📌 **Note:** This dialog box is used for packers, trays, cartons and shrinkwrap. The Packer, Tray, Carton and Shrinkwrap Parameters icons each display this dialog box. The only difference is the options contained in the Style drop-down list.

Be aware that the dialog box linked to a specific icon is determined in the Configuration setup.

To access the dialog box, click on one of the blue intermediate pack icons in the Control Panel,




Field Descriptions and Instructions


- **Case:** Select Fixed, New or Database to specify the type of packer you want to use in your analysis.
 - A **fixed analysis** requires you to enter the dimensions of a fixed packer.
 - A **new analysis** will create a new packer based on other information you enter on the screen.
 - A **Database analysis** allows you to select the packers from the existing shipcase database.
- **Database:** If database analysis is selected, click to specify whether to use all available shipcases in the database or to make selections from the database.
- **Material:** Select either Corrugated or Other to specify the material used to make the packer.


Note that the type of material is important to determine stacking strength and board thickness.

- **Dimensions:** Select either Inside or Outside to specify how the packer dimensions are measured.

 **Note:** TOPS Pro uses this option to round to the nearest 16th. If you select Inside, TOPS Pro will calculate the inside dimensions by rounding up, then calculate the outside dimensions entered from that value. If you select Outside, TOPS Pro will calculate the outside dimensions by rounding up, then calculate the inside dimensions entered from that value.


- **Style:** Select the style of packer you want to use.


 **Note:** TOPS Pro uses the selected style, along with the caliper of the material to calculate the difference between inside dimensions and outside dimensions.

 **Note:** The drop-down list contains packer types that are already set up in the database. If the packer type you want is not on the list, you can add it to the database using the Define Carton dialog box.


- **C.A.S.Y. Style:** Select a CASY style to display for the packer.

- **Flute:** Select the flute size you want to use if corrugated material is used..

 **Note:** The drop-down list contains flute types that are already set up in the database. If the flute type you want is not on the list, you can add it to the database using the Define Flute dialog box.

 **Note:** This field displays only if you select Corrugated Material. TOPS Pro uses the following default calipers for the various flute styles in inches:


A	=	0.1875	(3/16-inch)
A/B	=	0.267	(17/64-inch)
A/C	=	0.267	(17/64-inch)
B	=	0.125	(1/8-inch)
C	=	0.15625	(5/32-inch)
C/B	=	0.267	(17/64-inch)
E	=	0.063	(1/16-inch)
F	=	0.063	(1/16-inch)

 **Warning:** If you work with double-wall flutes on a regular basis, you will need to adjust those flutes for the proper caliper.

- **Caliper (in/mm):** Enter the caliper of the packer if Other Material is used. The caliper is used to calculate the inside vs. outside dimensions of the packer.

The following three fields: **Slack Length**, **Slack Width** and **Slack Height**, refer to the extra (wasted) space you intend to include in the packer configuration. For example, you might figure in two inches of slack space at the top (height) to more easily insert items into the packer.

- **Slack Length, Slack Width, Slack Height:** Enter the extra space intended for the length, width and height of the packer respectively.
- **Vert:** Check a box beside one of three fields: Length, Width or Height, to specify the vertical dimension of the packer **relative to the ground**.

 **Note:** In packaging, height (depth) is normally the distance through the flaps. Length is the greater of the two remaining dimensions.

- **Round to nearest 1/16”:** Check the box to force TOPS Pro to round the resulting intermediate packer dimensions up to the nearest 1/16.”
- **Sizing:** Select either Range or Values to specify whether you want the packer to hold a range of items or a set number of items.

For example, if you want to design the packer to hold anywhere from two to six cans, select Range. If you want to design the packer to hold exactly six cans, select Values.

The following two fields: **Min Count** and **Max Count**, display only if you select Range in the Sizing Options field.

- **Min Count:** Enter the minimum number of items you want the packer to hold.
- **Max Count:** Enter the maximum number of items you want the packer to hold.
TOPS Pro uses the minimum and maximum count values to generate a number of solutions. For example, if you enter two (2) as the minimum count and five (5) as the maximum count, TOPS Pro will generate solutions for two, three, four and five-count sizes.
- **Values:** Enter the set number of items for which you want TOPS Pro to generate solutions.
For example, if you want TOPS Pro to generate solutions for a set 10-count and a set 15-count, enter 10 and 15 in the first two Set Values fields. Leave zeros in the remaining fields.
- **Options Button:** Displays the Intermediate Pack Options dialog box, which allows you to enter additional parameters for a packer, such as bulge and sizing dimensions.
- **Dividers Button:** Displays the Dividers dialog box, which allows you to define parameters for the dividers inside the packer.
- **Graphic Button:** Displays the Assign Graphics dialog box, which allows you to select and display a graphic image on the packer.

Knockdown Options

Function: Specify additional options when creating knockdown analysis.

To access, select KnockDown Carton in the Carton Parameters dialog box, then click the Knockdown button.

Knockdown Options

Fluff Factor(%) 10

Folded Carton with Glue Flap

Rotate Nested

Frequency Of Nesting 0

Formula

Length

Width

Height

Length: L, Width: W, Height: H

OK

Cancel

Help

- **Fluff Factor:** Enter a percentage to account for the additional thickness of the knockdown box caused by air in between the corrugated layers.
- **Type:** Select the knockdown types from the drop list or specify a custom formula to calculate the dimension of the knockdown flats. Existing options include RSC with/without Glue Flap or Folded Carton with/without Glue Flap.
- **Rotate Nested:** Checked this option to allow rotation while nested.
- **Frequency of Nesting:** Enter a number to represent how often the knockdowns will be nested. For example, "5" means nesting will occur after every five cartons.
- **Formula:** For custom knockdown, enter the formula for its different dimensions. An example is provided below.

Formula

Length $L+0.25$

Width $H+W+0.25$

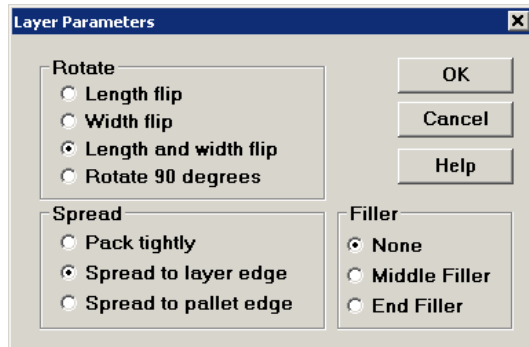
Height 0.5

Length: L, Width: W, Height: H

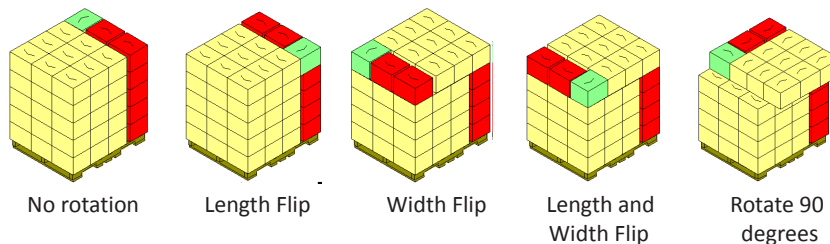
Layer Parameters (Options)


Function: Specify the options for the direction of rotation, and how spread and filler will be used for each layer in the unitload.

To access, click the Options button from either Basic or Advanced tab of the Layer Parameters dialog box.



- **Rotate:** Select an option to specify how the Rotate command will be executed. The options available are “Length Flip,” “Width Flip,” “Length and Width Flip” and “Rotate 90 degrees.”



 **Note:** The Rotate function is most often adjusted when you are rotating patterns that are symmetrical, such as some pinwheel patterns. In that case, try only width or length flip, not both.

- **Filler:** Select among the options of “None,” “Middle Filler” or “End Filler” on how filler will be used with column-stacked layers.
- **Spread:** Select an option to specify how the layers will be spread on the pallet from “Pack Tightly,” “Spread to Layer Edge” or “Spread to Pallet Edge.”


Layer Parameters


Function: Define advanced layer parameters in a unitload, shipcase or vehicle, including rotation, pads, slipsheets, trays, caps, secondary patterns, filler and spread.

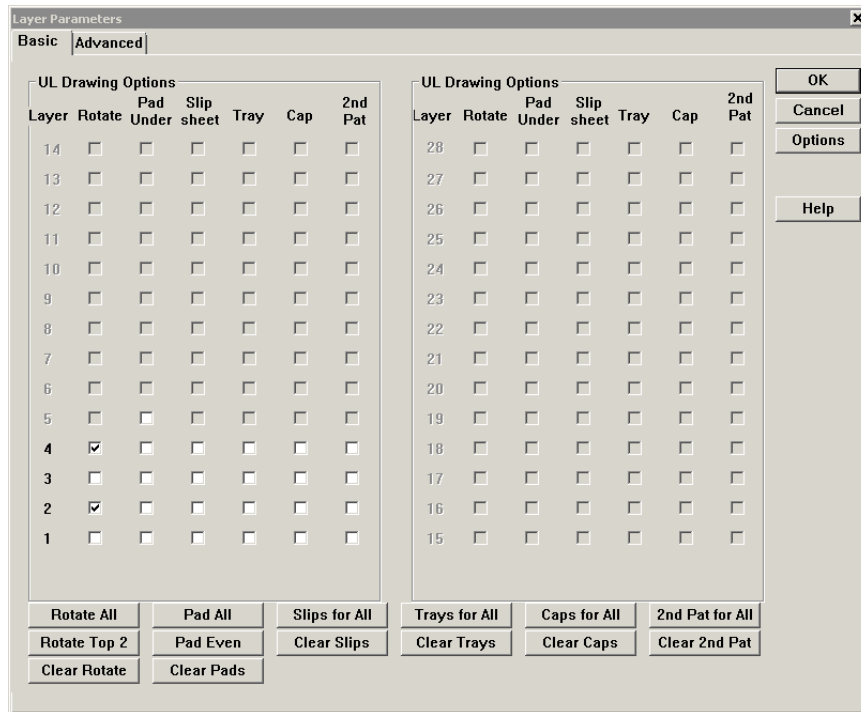
You can use this advanced tab to add and specify accessories to layers beyond 28.

Basic Tab (Unitload)

Function: This dialog box allows you to define parameters for the layers in a unitload, shipcase or vehicle, including rotation, pads, slipsheets, trays, caps, secondary patterns, filler and spread.


 **Note:** The Basic tab currently accommodates only 28 layers. If you need to work with more than 28 layers, use the functions under the Advanced tab.

To access, from the Analysis View, highlight the pallet drawing. Then go to the Menu Bar, open the Edit menu and select Layer Parameters. You can also access this menu quickly by clicking on the layer parameters button () in the Unitload View pane.




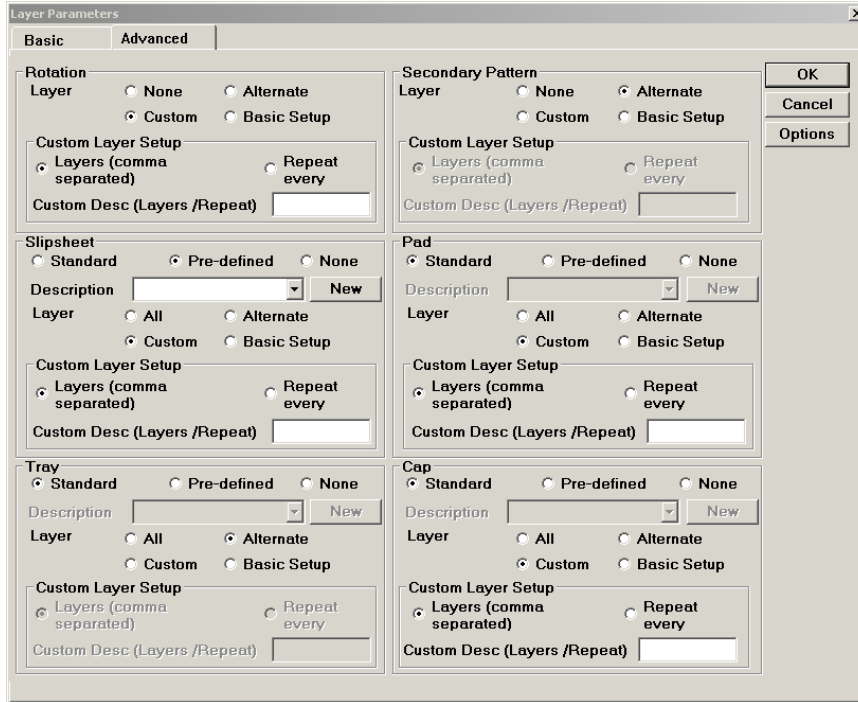
- **Layer:** Displays a column of layers that correspond to a unitload solution. Each layer represents a specific layer of cases in the unitload. For example, Layer 1 represents the first layer, Layer 2 represents the second layer and so on.
- **Rotate:** Check the box to rotate a specific layer in the unitload.
- **Pad Under:** Check the box to insert a pad under a specific layer in the unitload.
- **Slipsheet:** Check the box to insert a slipsheet under a specific layer in the unitload.
- **Tray:** Check the box to insert a tray under a specific layer in the unitload.
- **Cap:** Check the box to insert a cap over a specific layer in the unitload.

- **2nd Pat:** Check the box to use a secondary pattern for a specific layer in the unitload.
- **Function Buttons:** Use these buttons to perform various functions on the unitload layers:
 - The **Rotate All button** rotates every other layer in the unitload. When you click on this button, TOPS Pro automatically checks all the active boxes in the Rotate column.
 - The **Rotate Top 2 button** rotates the top two layers in the unitload.
 - The **Clear Rotate button** clears all the Rotate commands already set up for the unitload. When you click this button, TOPS Pro automatically unchecks all the active boxes in the Rotate column.
 - The **Pad All button** inserts pads between each layer in the unitload. When you click this button, TOPS Pro automatically checks all the active boxes in the Pad Under column.
 - The **Pad Even button** inserts pads under only the even-numbered layers in the unitload. When you click this button, TOPS Pro automatically checks all the active boxes in the Pad Under column for even-numbered layers.
 - The **Clear Pads button** clears all the Pad commands already set up for the unitload. When you click this button, TOPS Pro automatically unchecks all the active boxes in the Pad Under column.
 - The **Slips for All button** inserts slipsheets between each layer in the unitload. When you click this button, TOPS Pro automatically checks all the active boxes in the Slipsheet column.
 - The **Clear Slips button** clears all the Slipsheet commands already set up for the unitload. When you click this button, TOPS Pro automatically un-checks all the active boxes in the Slipsheet column.
 - The **Trays for All button** places every layer in the unitload on a tray. When you click this button, TOPS Pro automatically checks all the active boxes in the Tray column.
 - The **Clear Trays button** clears all the Tray commands already set up for the unitload. When you click this button, TOPS Pro automatically unchecks all the active boxes in the Tray column.
 - The **Caps for All button** places a cap on every layer in the unitload. When you click this button, TOPS Pro automatically checks all the active boxes in the Cap column.
 - The **Clear Caps button** clears all the Cap commands already set up for the unitload. When you click this button, TOPS Pro automatically unchecks all the active boxes in the Cap column.
 - The **2nd Pat for All button** replaces all the current layers in the unitload with the selected secondary pattern. When you click this button, TOPS Pro automatically checks all the active boxes in the 2nd Pat column.
 - The **Clear 2nd Pat button** clears all the Tray commands already set up for the unitload. When you click this button, TOPS Pro automatically un-checks all the active boxes in the Tray column.

 **Note:** For stages other than unitload, the layer parameters will have rotation option available but not the other pallet accessories.

Advanced Tab (Unitload)

To access, from the Analysis View, highlight the pallet drawing. Then go to the Menu Bar, open the Edit menu and select Layer Parameters. You can also access this menu quickly by clicking on the layer parameters button () in the Unitload View pane.



The advanced layer parameters can be set of the following two functions: **Rotation** and **Secondary pattern**:

- **None**: Clicking this button will not apply any rotation or secondary pattern to the unitload.
- **Alternate**: Click this radio button to apply the current layer function to every other layer of the unitload.
- **Basic Setup**: Click this radio button to use the settings from the Basic tab.
- **Custom**: Click this radio button to select custom setup for the current layer function by enabling the Customer Layer Setup section:
 - **Custom Layer Setup (Layers, comma separated)**: Select to manually specify which layers will have the pallet function.
 - **Custom Layer Setup (Repeat every)**: Select to apply pallet function to specific layers. Entering a '3' for example, in the Custom Desc field will apply the function every three layers for the entire unitload.
 - **Custom Desc (Layers/Repeat)**: Enter the layer number to apply the current function for the Custom Layer Setup. For example, enter '1,3,4-7,10-14,30' to apply pallet accessory to layers 1, 3, 4 thru 7, 10 thru 14 and 30 for the comma separated layer definition.

The following accessories, Slipsheet, Tray, Pad and Cap, can be set with the following options:

- **Standard**: Radio button used to select the standard item defaults from the Basic tab.
- **None**: Clicking the radio button will not apply the current accessory to the unitload.


- **Pre-Defined:** Radio button used to select the Pre-defined item. When selected, users can select an existing item from the drop list or define an item by clicking the New button.
- **Description:** A pull down menu which allows you to select the Pre-defined items that are stored in the database.
- **New:** Click to define new pallet accessories.
- **Layer (All):** Click to apply the pre-defined accessory to all layers.
- **Layer (Alternate):** Click to apply the pre-defined accessory to every other layer of the unitload.
- **Layer (Basic Setup):** This button will ignore the settings on the Advanced tab and use the settings from the Basic tab.
- **Layer (Custom):** Select this button to enable the Custom Layer Setup area.
- **Custom Layer Setup (Layers, comma separated):** Select this option to manually specify which layers will have the pallet accessory.

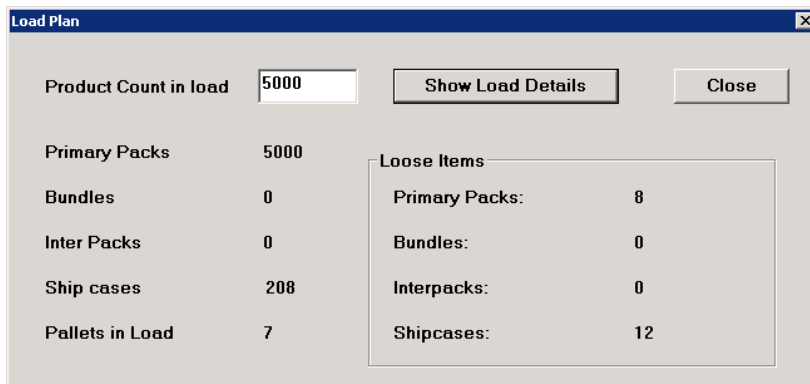
Custom Layer Setup (Repeat every): Select this option to specify which layers are to have the pallet accessory. Entering a '3' for example, in the **Custom Desc** field will add the accessory between every three layers for the entire unitload.

Custom Desc (Layers/Repeat): Enter the layer number to apply the current pallet accessory for the Custom Layer Setup. For example, enter '1,3,4-7,10-14,30' to apply pallet accessory to layers 1, 3, 4 thru 7, 10 thru 14 and 30 for the comma separated layer definition.

Load Plan

Function: This dialog box provides quick summary data on the number of shipcase or pallet needed to ship a given quantity of products based on the currently selected solution in the analysis.



To access this function, click the Interface tool button  on the toolbar and select Load Plan.



Product Count in load		Loose Items	
Product Count in load	5000	Primary Packs:	8
Primary Packs	5000	Bundles:	0
Bundles	0	Interpacks:	0
Inter Packs	0	Shipcases:	12
Ship cases	208		
Pallets in Load	7		

Field Descriptions and Instructions

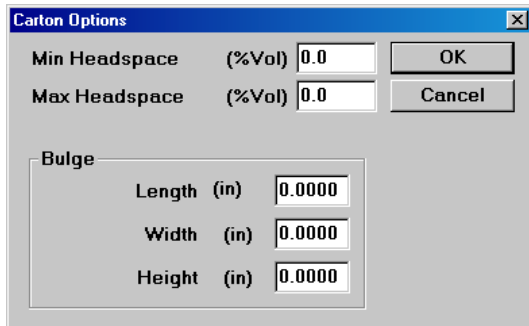
- **Product Count in Load:** Enter the quantity of product to be shipped.
- **Show Load Details button:** Click this button to see the number of bundles, inter packs, shipcases or pallets (if used in the analysis) needed to ship the specified quantity of products.

 **Note:** Depending on the setting in the TOPSPRO.INI file, the tool button  might open Send to Artios dialog box. To switch it back to the Load Plan function, open TOPSPRO.INI, change the line under [Integration] from "Type=XML" to "Type=LoadPlan."

Milk Carton Options

Function: Enter additional dimensions for a milk carton, such as headspace and bulge. When you create a new carton designed to contain a bulk product, such as milk, you will need to allow for headspace at the top of the carton.

To access the dialog box, from the Milk Carton Parameters dialog box, click the Options button.



Carton Options	
Min Headspace (%Vol)	0.0
Max Headspace (%Vol)	0.0
Bulge	
Length (in)	0.0000
Width (in)	0.0000
Height (in)	0.0000

Headspace

Minimum and maximum headspace refers to the volume of air needed inside the carton prior to sealing. This feature is used only when the carton is designed for a bulk product, such as milk.

For example, when you fill a carton with milk, you will want to add headspace to the carton to prevent the milk from spilling out when the carton is opened. The headspace dimension will give the milk carton additional “wasted” space above the contents of the milk carton.

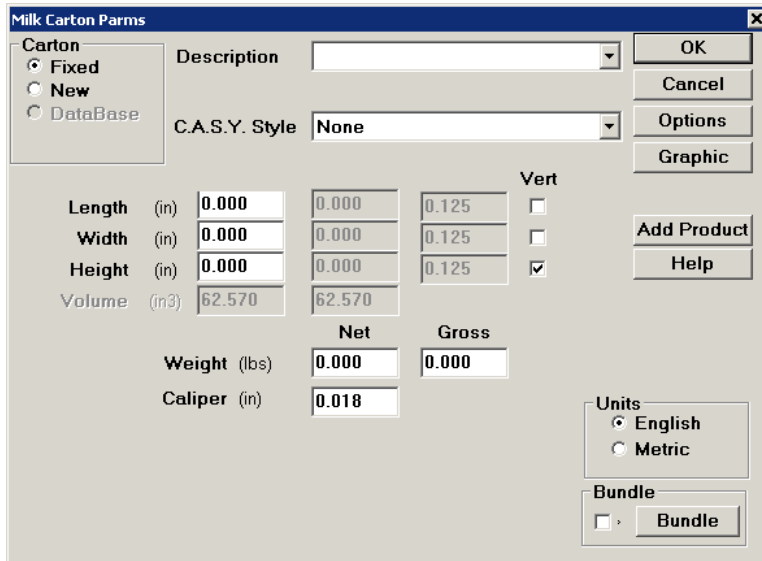
Field Descriptions and Instructions

- **Min Headspace:** Enter a percentage of the milk carton’s volume to specify the minimum headspace allowed in the milk carton.
- **Max Headspace:** Enter a percentage of the milk carton’s volume to specify the maximum headspace allowed in the milk carton.
- **Bulge Length, Bulge Width, Bulge Height:** Enter the amount of bulge allowed in the milk carton’s length, width and height.

Milk Carton Parameters


Function: Define parameters for different types of milk cartons, as well as containers such as dog food bag and cookie bags.

To access, click the Milk Carton Parameters icon  from the Control Panel.



Field Definitions and Instructions

- **Carton:** Select either Fixed, New or Database to specify the type of carton you want to use in your analysis.
A **fixed analysis** requires you to enter the dimensions of a fixed milk carton.
A **new analysis** will create a new milk carton based on other information you enter on the screen.

 **Note:** The **database** option is currently in development and not yet available.

- **Description:** Select from the drop list an optional description for the milk carton.
- **C.A.S.Y. Style:** Select a CASY style to display for the milk carton.

For the following three fields: **Length**, **Width** and **Height**, if you selected New Carton, you will need to enter **Minimum**, **Maximum** and **Incremental** dimensions.

- **Length, Width, Height:** Enter the length, width and height of the milk carton.

For the following Volume field, if you selected New Carton, the system will prompt you to enter **Minimum** and **Maximum** volume dimensions.

- **Volume:** Enter the volume of the milk carton. This field allows you to adjust the milk carton's volume to eliminate any undesired dimensions. If you selected Fixed Carton, TOPS Pro will automatically calculate the volume of the milk carton.
- **Vert:** Check a box beside one of three fields: Length, Width or Height, to specify the vertical dimension of the milk carton **relative to the ground**.
- **Net Weight, Gross Weight:** Enter the net and gross weight of the milk carton.
- **Caliper:** Enter the caliper of the milk carton. The caliper is used to calculate the inside vs. outside dimensions of the milk carton.

- **Product Volume:** Displays how much space the product takes up inside the shipcase.

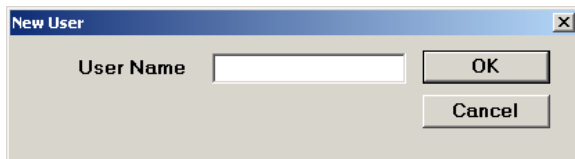
The following two **Volume** fields display only for a bulk product-into-milk carton analysis.

- **Volume based on size:** Displays the volume of the milk carton based on size. TOPS Pro automatically calculates this value.
- **Volume based on weight:** Displays the volume of the milk carton based on weight. TOPS Pro automatically calculates this value.
- **Options Button:** Displays the Milk Carton Options dialog box, which allows you to enter additional parameters for a milk carton, such as minimum/maximum headspace and bulge dimensions.
- **Graphic Button:** Displays the Assign Graphics dialog box, which allows you to select and display a graphic image on the milk carton.
- **Add Product Button:** Displays the Primary Pack Products dialog box, which allows you to specify the quantity and weight of the product going into the carton. This information is used to calculate Wal-Mart scores and the details will be displayed on the pallet report.

New User

Function: This dialog box allows you to add a new user to the system for login purposes.

From the User Login dialog box, click the Add User button.



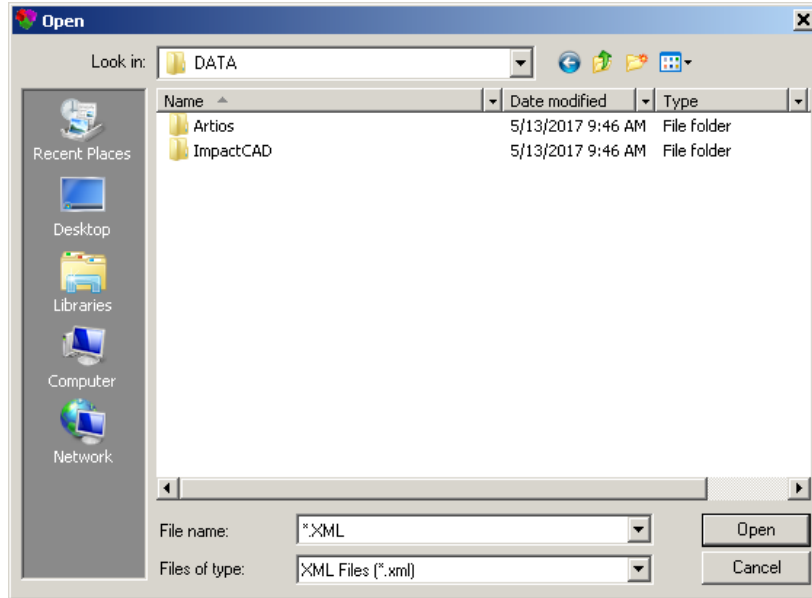
Field Descriptions and Instructions

- **User Name:** Enter the name of the user you want to add to the system.
 - ✍ **Note:** At this time, there is no way to limit who may add users. Work performed under a specific user's name is only seen by that specific user. To see all analyses login as a supervisor.

Open (XML)

Function: Use this command to open analyses saved previously in XML format.

To access, go to the File Menu and select Open XML.




Field Descriptions and Instructions

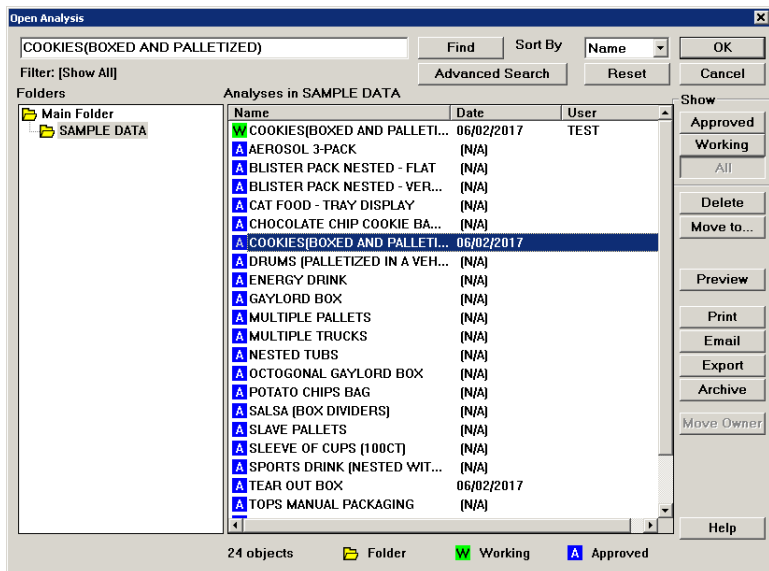
- **Look in:** Displays the current directory path or folder. The default folder is the \Data\ folder where all XML files are saved. Use the Windows navigation to specify another folder if needed.
- **File Name:** Enter the name of the file or click the file from the list.
- **File List:** Scroll down the list to select the name of an existing file.
- **Files of Type:** This will be XML files only.

Open Analysis

Function: Open or delete an existing analysis.


 **Note:** There is no easy way to copy analyses from one user to another. If necessary, you can login as a supervisor, open another user's work, then re-save the analysis under your current login name. You can also use the user login re-name feature to move all analyses from one user to another.

From the Menu Bar, open the File menu and select Open.






Field Descriptions and Instructions

- **Find:** Enter a text string in the text box and click the Find button. If TOPS find any analysis with part of its name matching the text string, it will be displayed in the Search results. If no match is found, the result list is empty; you can click the Approved, Working or All button to show existing analyses.
- **Sort By:** Select from the drop list to sort the analyses by Name, User or Date.

 **Note:** Analyses created with earlier versions of TOPS Pro will not have the user and date information.


- **Folders:** Display the tree view of folder structure within the TOPS analysis record database. Click the name of the folders with a (+) sign to their left to expand the hierarchy.

Analysis List window: This window displays a list of all analyses that have been saved to a selected folder. Notice that the Analysis List window is organized into sections: Folders () , Working () and Approved () .


When you save an analysis, TOPS Pro includes the analysis name, the user creating the analysis and the creation date (as Working). Note that you will only see analyses created by the login user (you) and those that have been approved, unless you login as a supervisor which enables you to view all analyses.

Select the analysis by scrolling through the list or type the first few characters of the analysis name to quickly locate the analysis. If you scroll down the analysis list, you will see a separate


section of analyses titled “Approved.” All users can open and view these files, but only a supervisor can make changes to approved files. Likewise, an analysis can be approved and placed in the Approved section only if a supervisor approves it. This is a function of the User Approval switch in the Configuration program.

 **Note:** With your mouse cursor placed inside this area, you can click the right mouse button to access a quick menu to access some file operations.

- **Show:** Filter the Search Results based on status of the analyses: Approved, Working or All. Click the corresponding button to select the list.
- **Delete Button:** Delete a selected analysis. You will receive a message to confirm removal of the analysis.
- **Move to...Button:** Move the highlighted analyses to another folder under the Main Folder. To select multiple analyses, press down the [Ctrl] button while clicking the name of the analysis with the mouse button. You will be prompted to confirm the move.


 **Note:** You can also drag selected analysis and drop it to a different folder instead of using the Move button.

- **Rename Button:** Rename a selected analysis.
- **Preview Button:** Generate a preview of the analysis report prior to opening.
- **Advanced Search Button:** Display the Analysis Search dialog box, which allows you to search for a specific analysis record when the list of analysis names is too large; when you cannot remember the exact name of the analysis; **when** you are trying to find an analysis that has certain products attached through its packaging profile.
- **Reset Button:** **Relocates** the cursor to the top of the analysis list and reverts the selected folder back to the Main Folder.
- **Print Button:** Print a report of the highlighted analysis. This function will support multiple reports if more than one analysis has been selected.
- **Email Button:** Create JPEG images of the selected analysis reports and add them as attachments to your email client.
- **Export Button:** Export the selected analyses in the specified format (PDF, JPEG or CSV/TXT) in the folder of your choice. The CSV output will export over 45 statistics to a comma delimited file which can be opened directly in MS Excel.

 **Note:** To select multiple reports, click the analysis name while holding down the [Ctrl] key. To select a range of analysis, click the first and last analysis name while holding down the [Shift] key.

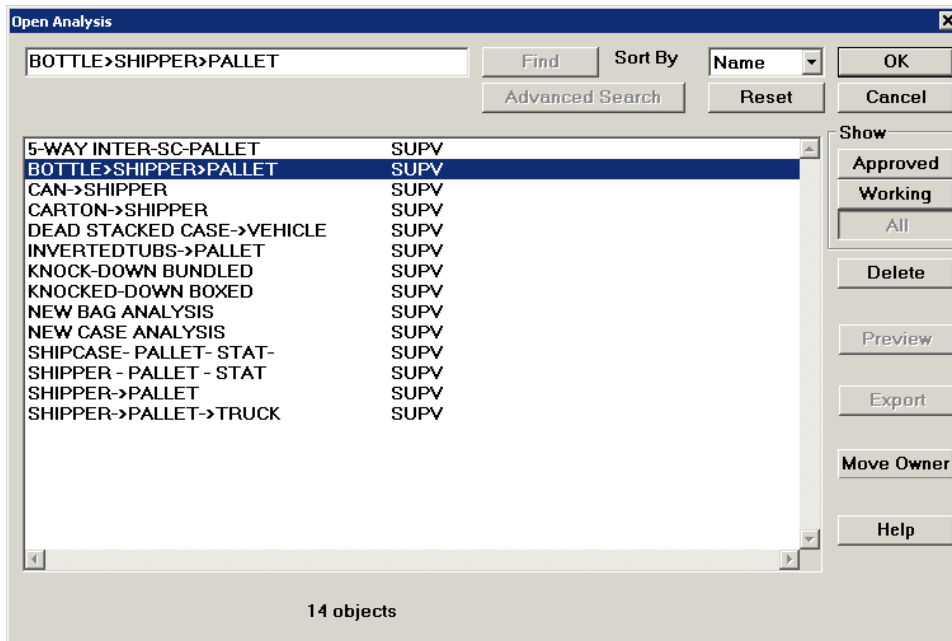
With TOPS Pro, it is not necessary to have Acrobat writer or other third party PDF writer installed in your system to create the PDF file. However, you will still need Acrobat Reader to open an PDF file.

- **Archive:** Archives infrequently used analyses and remove them from the active file list.

 **Note:** Archived analyses can be restored any time and posted back to the Main Folder for review. To restore archived analyses, please refer to the next section.
- **Move Owner:** Export the selected analyses in the specified format (PDF, JPEG or CSV/TXT) in the folder of your choice. The CSV output will export over 45 statistics to a comma delimited file which can be opened directly in MS Excel.

Open Analysis (New via Template)

Function: Create a new analysis by opening a pre-defined template of design sequence. To access, open the File menu and select New via Template.

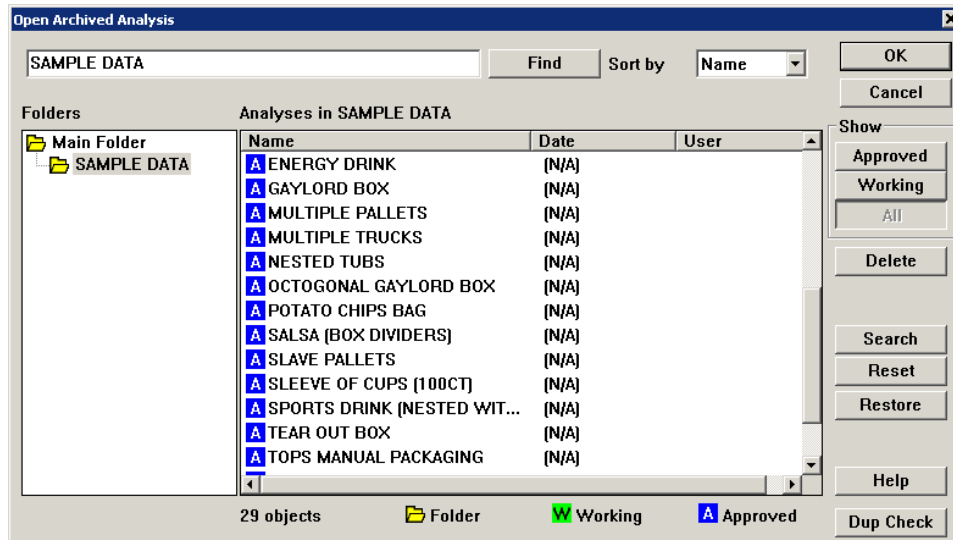


Field Descriptions and Instructions

- **Find:** Enter a text string in the text box and click the Find button. If TOPS finds any analysis with part of its name matching the text string, it will be displayed in the Search results. If no match is found, the result list is empty.
- **Sort By:** Select from the drop list to sort the analyses by Name, User or Date.
- **Show:** Though available, this function is not applicable to templates.
- **Delete Button:** When logged in as Supervisor, this allows you to delete the selected pre-defined template. You will receive a message to confirm removal of the analysis.
- **Reset Button:** Redisplay the list of pre-defined templates after the search results.

Open Archived Analysis

Function: Restore any archived analyses and move them back to the Main Folder for review. From the Menu Bar, open the File menu and select Open Archive.



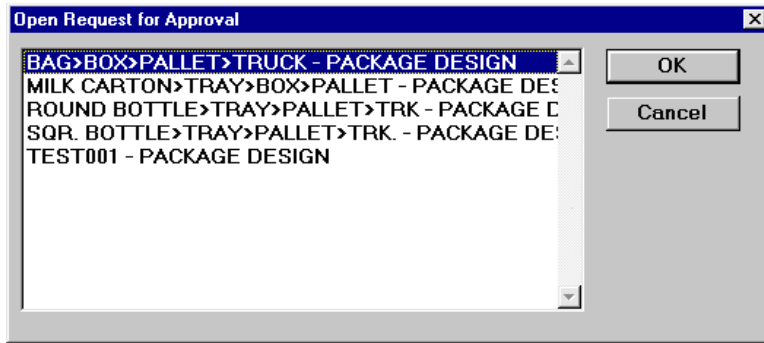
Field Descriptions and Instructions

- **Find:** The Find button works with the input text box to its left. Enter a text string in the text box and click the Find button. If TOPS find any archived analysis with part of its name matches the text string, it will be displayed in the Search results. If no match is found, the result list is empty; you can click the Approved, Working or All button to show existing archived analyses.
- **Sort By:** Select from the drop list to sort the analyses by Name, User or Date.
- **Folders:** Display the tree view of folder structure within the TOPS analysis record database. Click the name of the folders with a (+) sign to their left to expand the hierarchy.
- **Archived Analyses:** Display the list of archived analyses in the selected folder.
- **Show:** Filter the Search Results based on status of the archived analyses: Approved, Working or All. Click the corresponding button to select the list.
- **Delete:** Deletes a selected analysis. You will receive a message to confirm removal of the analysis.
- **Search:** Display the Analysis Search dialog box, which allows you to search for a specific analysis record when the list of analysis names is too large; when you cannot remember the exact name of the analysis; when you are trying to find an analysis that has certain products attached through its packaging profile.
- **Reset:** Move the cursor to the top of the analysis list, which allows you to continue your search from the top of the list.
- **Restore:** Click to restore the selected archived analyses and place them back to the active file list in the Main Folder.
- **Dup Check:** Click to check for any duplicate analysis.

Open Request for Approval

Function: This dialog box displays a list of analyses that are waiting in the queue to be either approved or denied by a supervisor.

To access: First, login as a supervisor. Next, start from the Menu Bar, open the Supervisor menu and select Open Request.




Field Descriptions and Instructions

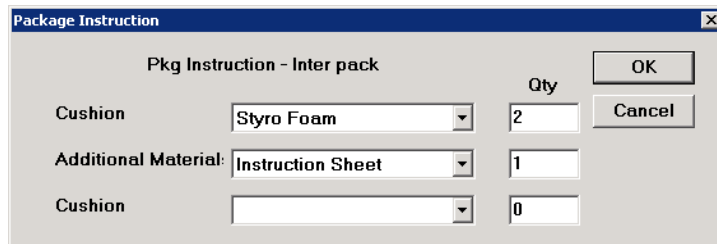
- **Analysis List:** Displays a list of analyses that are waiting in the queue to be either approved or denied by a supervisor.
- Click OK to open the request for approval or denial.

For detailed information on the approval/denial process, please refer to Chapter 15, Supervisor Functions.

Package Instruction

Function: Add notes to the report with regards to packaging instructions for intermediate pack, shipcase or unitload.

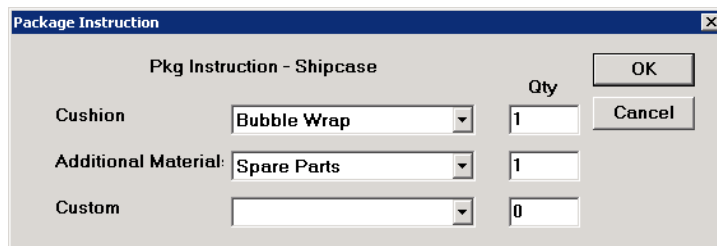
To access: First, you must complete a package analysis and at the solution view, click the Package Instruction icon () at each stage to open the dialog box. You can also access the dialog box by going to the Edit Menu and select Package Instruction, just make sure the corresponding stage has been highlighted.



Package Instruction

Pkg Instruction - Inter pack

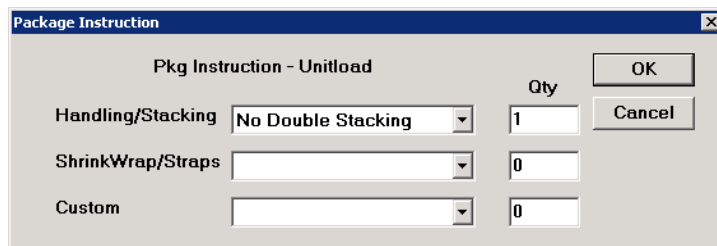
		Qty	
Cushion	Styro Foam	2	OK
Additional Material:	Instruction Sheet	1	Cancel
Cushion		0	



Package Instruction

Pkg Instruction - Shipcase

		Qty	
Cushion	Bubble Wrap	1	OK
Additional Material:	Spare Parts	1	Cancel
Custom		0	




Package Instruction

Pkg Instruction - Unitload

		Qty	
Handling/Stacking	No Double Stacking	1	OK
ShrinkWrap/Straps		0	Cancel
Custom		0	

Field Descriptions and Instructions

- **Cushion:** Select any cushioning or protective material for the primary or inter packs and make sure to specify the quantity of at least '1' for the information to appear in the report.
- **Additional Material:** Specify any additional materials to be added to the carton or shipcase.
- **Handling/Stacking:** For unitloads, add any additional notes to the report regarding handling. Make sure to specify the quantity of 1 for the instruction to appear in the analysis report.
- **ShrinkWrap/Straps:** Instead of graphically showing the straps or shrinkwrap on the unitload, you can use text instructions in the report and display them with the 3D graphics or in the Packaging section towards the bottom of the report.
- **Custom:** Add any custom notes as desired.

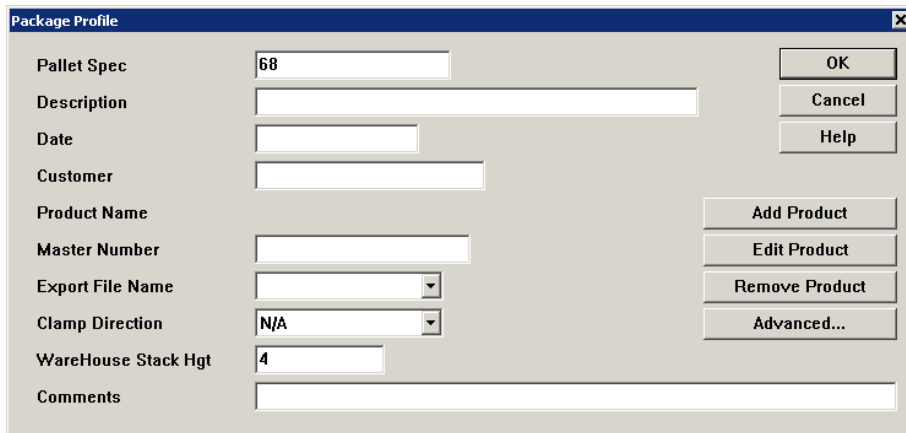
 **Note:** The Field Descriptions described above and their available options are customized via INI files saved in the TOPSPRO folder. If you need to adjust these data or have any questions, please contact TOPS technical support team.

Package Profile

Function: Create a package profile for a complete package analysis, sometimes called a cube specification. The package profile is designed for situations where many products use the same packaging. For example, if you package cereal, you can use the same box for several different brands of cereal.


You will use the Package Profile dialog box to add each individual product to the package profile. Each product will appear on the profile differentiated by name, UPC, product code, declared weight and a calculated gross unitload weight.

To access: First, you must complete a package analysis and save it to the database. Then go to the Menu Bar, open the File menu and select Package Profile.



Field Descriptions and Instructions


- **Pallet Spec:** Enter the specification number for the pallet style. By default, TOPS Pro suggests a unique spec ID.
- **Description:** Enter a description of the package profile being created.
- **Date:** Enter the current date to specify when the package profile was created.
- **Product Name:** Select a product name associated with the package profile or type in the first few letters of the product.
 - 📌 **Note:** The drop-down list displays products that have been added to this profile. You will use this field to edit or delete a product.
- **Master Number:** Enter the master number associated with the package profile.
 - 📌 **Note:** You can use this field for any numeric value. To rename the field, use the Text Modification dialog box. For more information, please refer to page page 426.
- **Retail Display Base:** This is a reserved key.
- **Clamp Direction:** Select the clamp direction associated with the package profile.
 - 📌 **Note:** The printout will show clampability arrows on the unitload according to your input here. Unlike the clampable option on the UnitLoad Options dialog box, the clamp direction does not affect the calculations.
- **WareHouse Stack:** Enter the maximum stacking height for your warehouse.

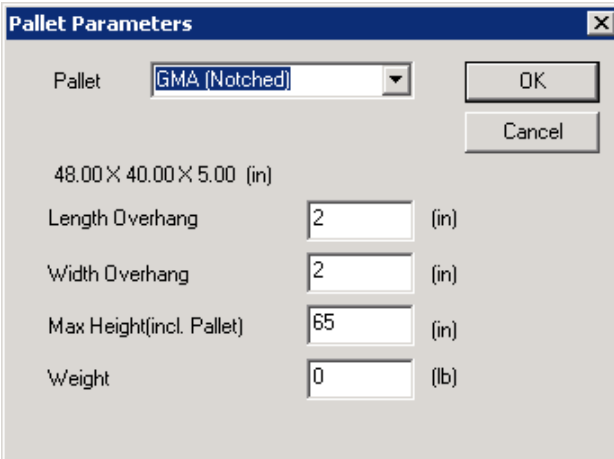
 **Note:** Like the Master Number field, you can use this field for any numeric value by renaming it via the Edit/Language function.

- **Comments:** Enter the text of any comments that are relevant to the package profile.
- **Add Product Button:** Displays the Specification Products dialog box, which allows you to define parameters for a new product to be added to the Product Name drop-down list.
- **Edit Product Button:** Select and delete a product from the product list in the package profile.
- **Remove Product Button:** Select and remove a product from the pallet specification in the package profile.
- **Advanced:** This is a customized feature for additional profile information.

Pallet Parameters (MixPro)

Function: Select the pallet parameters used in calculating a solution in your MixPro application. The pallet specifications are predefined inside TOPS and can be adjusted through TOPS as well.

To access, click the MixPro Tool Button  and select MixPro Mixed Pallet Editor to access MixPro Pallet module, then click the Pallet button to open the Pallet Parameters dialog box.

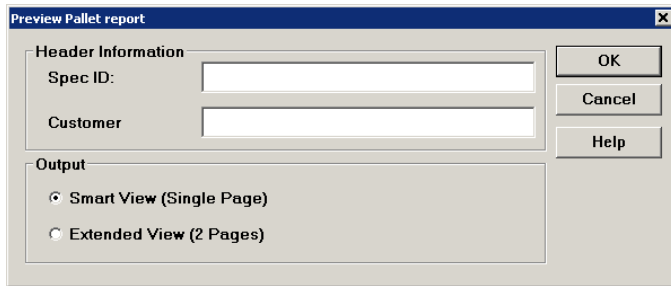


Parameter	Value	Unit
Pallet	GMA (Notched)	
48.00 X 40.00 X 5.00		(in)
Length Overhang	2	(in)
Width Overhang	2	(in)
Max Height (incl. Pallet)	65	(in)
Weight	0	(lb)

- **Pallet:** Select the pallet to be used in your calculation from the drop list.
- **Length Overhang:** Enter the amount of overhang allowed along the length of the selected pallet.
- **Width Overhang:** Enter the amount of overhang allowed along the width of the selected pallet.
- **Max Height (incl. Pallet):** Enter the maximum height of the pallet load, including height of the selected pallet for your MixPro solution.
- **Weight:** Select the maximum weight for your solution.

Preview Pallet report

Function: Select the type of pallet report to preview before the action to print or export. To access, open the File menu, go to Print Preview and select Pallet Report.



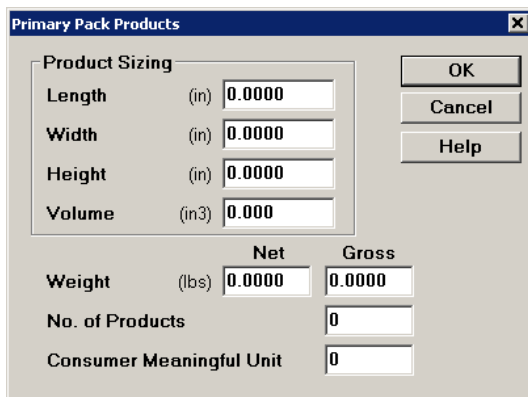
Field Descriptions and Instructions

- **Spec ID:** Enter this optional data in the header section of the pallet report.
- **Customer:** Enter your customer's name for this particular pallet report.
- **Output:** Click the radio button to select to type of Pallet Report to be created.
 - The **Smart View** is a single page report providing shipcase and unitload data with a graphical illustration of the unitload.
 - The **Extended View** is a two page report providing additional data on efficiency data for area and cube usage as well as Wal-Mart specific efficiency data.

Primary Pack Products

Function: Specify product dimension and quantity that goes into the primary pack. This information will go to the Pallet Report.

To access, select any of the item under the green Button-Styled icon (primary pack) and once the parameters dialog opens, click the Add Product button.



Field Descriptions and Instructions

- **Product Sizing:** Enter the dimension and volume of the product that goes into the primary pack. For example, if shampoo bottles are placed in a box, then the product is the shampoo bottle. You would add the dimensions of the bottle, volume and the number of bottles here.

- **Weight:** Enter the weight of the product.
- **No. of Products:** Enter the quantity of products inside the primary pack. This can be different from the Consumer Meaningful Unit that follow. For example, if there box contains twin bottles, then the number of products can be 2 but to the consumer, the unit might be just one.
- **Consumer Meaningful Unit:** Enter the product unit inside the primary pack, this can be the same or different from the No. of Products.

Print Parameters

Function: Design the layout of your printed output of an analysis, then decide what type of information will be included and how that information will be presented (different graphical views, text and numbers, etc).

To access, open the File menu and use one of three options from the Menu Bar:

- Select Print, then select Analysis.
- Select Page Setup.
- Select Print Preview, then select Analysis.

Print Parameters

Page Layout

Full Page 3 Way Top
 Horiz Split 3 Way Left
 Vertical Split 3 Way Right
 3 Way Bottom Quad Split
 5 Way 5 Way Down
 6 Way Fixed 6 Way Scaled
 6 Way Down

Printer

B+W Color
 Double Stack UnitLoad
 Print Analysis Name
 Show Graphics/C.A.S.Y.

Font: Regular

Package Instruction

None
 With 3D graphic
 Below Layout

Heading: Tops Engineering

Area 1: Case 3D View Area 2: UnitLoad 3D View
 Area 3: Vehicle 3D View Area 4: Case Statistics
 Area 5: Vehicle 3D View Area 6: Vehicle 3D View

Notes

Show Additional Notes

MCN#

Label Format	Made in
Test Weight	Pkg Qty

Line 1	Line 2
Line 3	Line 4


Field Descriptions and Instructions

- **Page Layout:** Select one of these possible page layouts. The value in parenthesis is the code for the corresponding layout in print setup.
 - The **Full Page layout (1)** allows you to select only one area of the analysis to print.
 - The **Horizontal Split (H)** and **Vertical Split (V) layouts** allow you to select two areas of the analysis to print.
 - The **3 Way Bottom (B), 3 Way Top (T), 3 Way Left (L)** and **3 Way Right (R) layouts** allow you to select three areas of the analysis to print.
 - The **Quad Split (4) layout** allows you to select four areas of the analysis to print.
 - The **5 Way (5)** and **5 Way Down (3) layouts** allow you to select five areas of the analysis to print.
 - The **6 Way Fixed (6), 6 Way Scaled (S)** and **6 Way Down (D) layouts** allow you to select six areas of the analysis to print.
 - 🔗 **Note:** The Print Preview function allows you to view and annotate the various layouts before printing.
- **Heading:** Enter the text of the heading that you want to appear at the top-center of the printout.
 - 🔗 **Note:** If you leave the Heading field blank, TOPS Pro will center the analysis name at the top of the printout. If you want the heading space to be blank and keep the analysis name on the left, enter a space in the Heading field.
- **Areas 1, 2, 3, 4, 5 and 6:** Select the area(s) of the analysis from which you want to print information.
 - 🔗 **Note:** Be aware that the number of areas available to select from depends on the page layout you selected. For example, if you selected the Horizontal Split layout, which contains two sections, you will be able to select from only two areas.

Enter the text of any notes that you want to appear at the bottom of the printout. If you enter more notes than will fit on one line of the printout, the notes text will wrap to the next line. To force the notes text down a line, enter the left apostrophe character (') at the end of the line.
- **Printer:** Select either B+W or Color to specify whether the output will be printed in black and white or in color.
 - 🔗 **Note:** Black-and-white printing is basically a line drawing. Color printing on a non-color printer is a 3-D shaded halftone. You can change colors by using the Color Selection dialog box.
- **Double Stack UnitLoad:** Check the box to print output as a double-stacked unitload. This option applies to the UL 3D View, UL Side View, UL Plan View and UL Front View areas.
- **Print Analysis Name:** Check the box to print the analysis name on the printout.
- **Show Graphics/C.A.S.Y.:** Check the box to show graphics/CASY design in the printout.
 - 🔗 **Note:** This switch will reflect the Show Graphics status prior to entering this dialog box. This switch will normally be checked if you are using the paste-on graphics feature. If the analysis includes both graphics and a CASY design, the system will display the CASY design, not both.

- **Font:** Select from the drop list among Regular, Small and Very Small for the font size to be used in the reports.

Package Instruction: Users can add additional recurring notes regarding straps, corner posts or shrinkwrap, to Carton, Shipcase or Pallet solutions. Users can specify whether to add these notes in the 3D graphics portion or at the bottom part of the report.

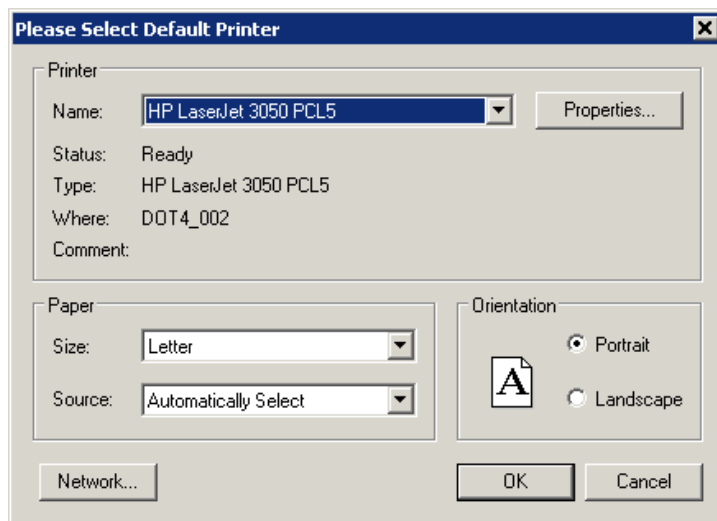
To add package instructions, go to Edit and select Package Instruction or click the () button at each of the graphic solution view.

- **Show Additional Notes:** Check this box to enable additional notes to the print report as specified. The additional notes information will appear right after the page layout and before the Notes section.

Print Setup

Function: Set up parameters for your printer.

From the Menu Bar, open the File menu and select Printer Setup to access the dialog box.



Field Descriptions and Instructions

For information about the Print Setup dialog box, please refer to your Microsoft documentation.

Product Export

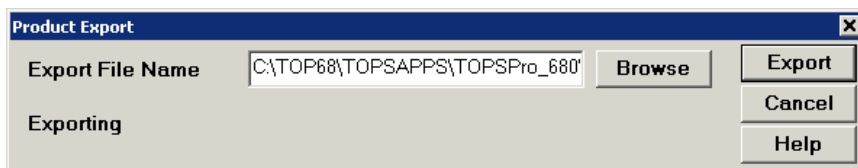
Function: Export a product report or analysis summary via the Export Menu. This report exports information to an ASCII comma delimited text file in a form suitable for import into Microsoft Access or Excel.

For Product Report, the export file includes information on every product attached to an approved package profile.

For analysis summary, the export file includes all analyses within the TOPS Pro database, including both working and approved analyses. Data being exported include analysis name, approval status, dimensions and weight of all primary packs, intermediate packs, shipcases, unitloads and pallet information.

 **Note:** To print a Product Report, open the File menu, select Print Databases, then select Product Report.

To access: From the Menu Bar, open the Export menu and select Product Report or Analysis Summary.






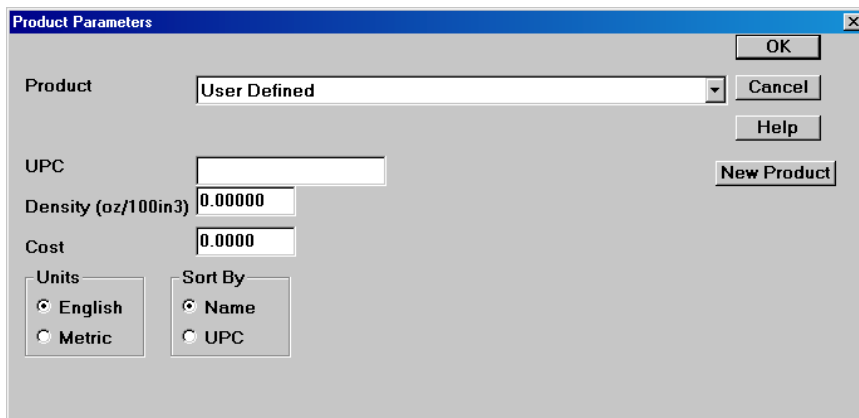
Field Descriptions and Instructions

- **Export File Name:** Displays the name of the file to be exported. This should bear a .csv or .txt extension in order to be readily imported into MS Excel or Access.
- **Browse:** Clicks to specify the location and name of the exported file.
- **Exporting:** Displays the status of the export.
- **Export Button:** Exports a selected file to the export destination.

Product Parameters

Function: Define parameters for a bulk product. You will use Product Parameters in a New Carton analysis or to add products to a package profile.

To access: From the Control Panel, click on the Granular icon (blue) , Bulk icon (yellow) , or the Powder icon (red) .




Field Definitions and Instructions

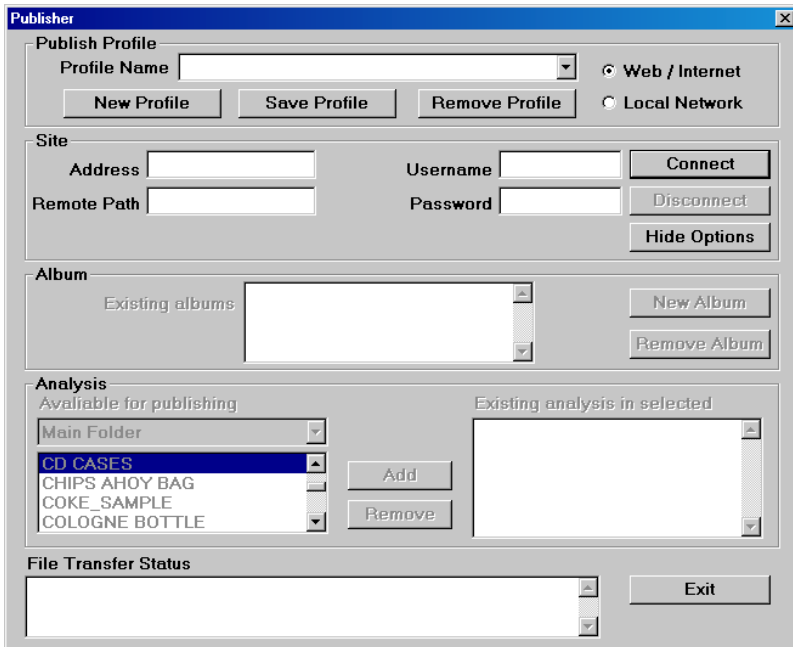
- **Product:** Select a product.
Note: The drop-down list contains products that are already set up in the database. If a product is not on the list, you can add it to the database using the Define Product dialog box.
- **UPC Code:** Displays the Universal Product Code for the product.
Note: This field is used only by the package profile. When you add a UPC code to a package profile, all UPC codes must be unique within the analysis.
- **Density:** Enter the density of the product in ounces per 100 inches cubed or in grams per liter, depending on the Units selected.
Note: This field is used only for a bulk product analysis. In this case, TOPS Pro considers the density of the product when it generates solutions. If the analysis does not include a bulk product, TOPS Pro generates solutions based on air volume.
- **Cost:** Displays the cost of the product.
Note: This field is used only for a bag analysis that includes bulk product.
- **Sort By:** Displays either Name or UPC to specify how the product is sorted.
- **Units:** Displays either English or Metric to specify how the product units are measured.
- **New Product Button:** Displays the Define Product dialog box, which allows you to enter parameters for a new product (a product not already defined in the system).

Publisher

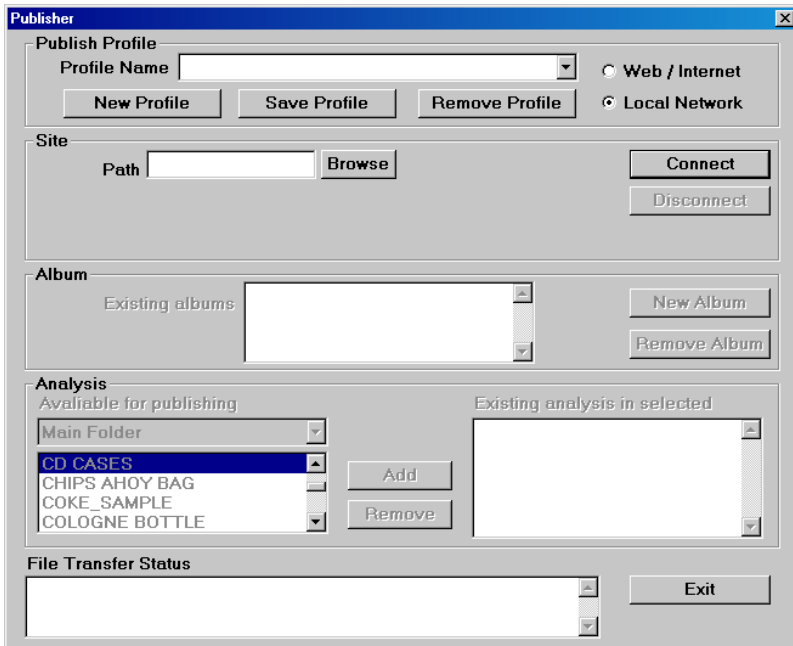
Function: Convert an analysis to HTML format and publish it to the Internet or to a network location.

 **Note:** This dialog box displays a different set of fields, as pictured on the previous page, depending on whether you selected To Web or To Network from the File menu.

To access: From the Analysis View pane, open the File menu and select Publish Analysis, then select either To Web or To Network.



Publisher To Web Option



Publisher To Network Option

Field Definitions and Instructions

- **Publish Profile:** A profile containing the settings of a specific site you would like to publish the analyses to. This section allows you to create a new profile or select an existing profile for a site, as well as specify whether the profile is based on the Web or a local network. Setting up a profile allows you to quickly recall the site settings when you are ready to publish analyses for sharing.
- **Site:** Specify the detail configuration of the location saved under the profile name. If you select an existing profile, this section will display the previously saved settings for the profile.

With the Web/Internet option selected, the Site section prompts you to enter information for **Address, Remote Path, User Name** and **Password**.

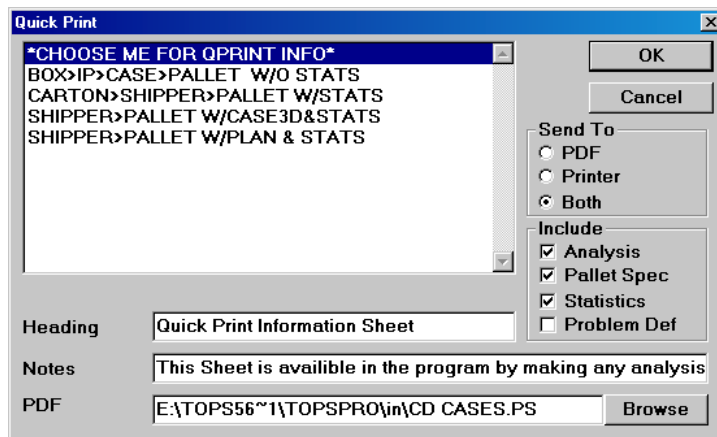
With the Local Network option selected, the Site section prompts you to enter a **destination path**.

- **Album:** Create a new album or select an existing album to which the selected analysis will be stored.
- **Analysis:** Select and add one or more analyses to be published as part of the profile.
- **File Transfer Status:** Displays a list of FTP transactions (when publishing a profile to the Web).

Quick Print

Function: Select a standardized printing template and print output for an analysis, based on the selected template. This feature allows you to print output for an analysis without manually defining parameters on the Print Parameters dialog box.

To access: From a Unitload View panel, click the Print button and select QPrint in the pop-up menu.



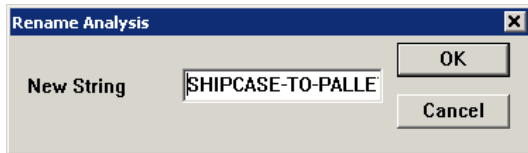
Field Descriptions and Instructions

- **Analysis List:** Select the analysis you want to print.
- **Heading:** Enter the text of the heading.
- **Notes:** Enter the text of any notes that will appear on the printout.
- **PDF:** Use the Browse button to select a PDF file to print to.
- **Send To:** Select an option – PDF, Print or Both – to specify where the analysis will be sent.
- **Include:** Select one or more options to specify what will be included in the printout.

Rename Analysis

Function: Rename a selected analysis.

To access, go to the Menu Bar, open the File menu and select Open. Highlight an analysis and click the Rename button.




Field Descriptions and Instructions

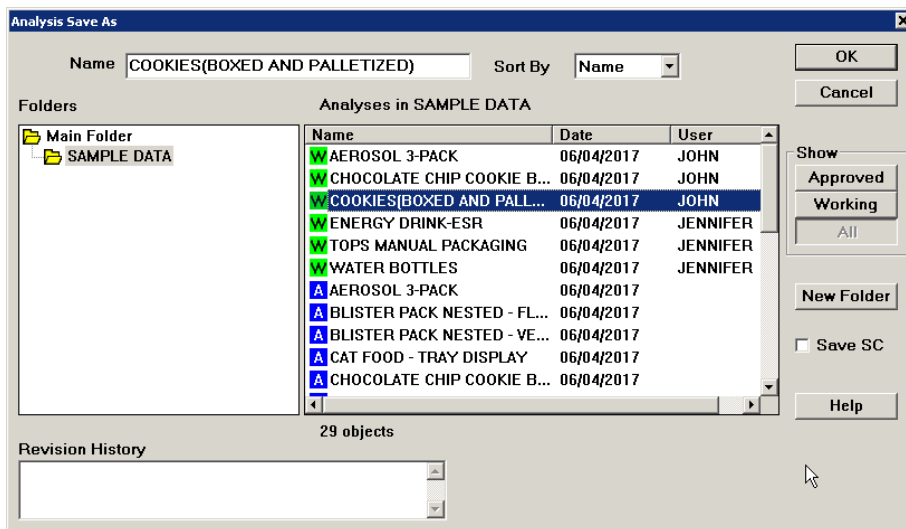
- **New String:** Enter the new name of the analysis.

Save As (Analysis)

Function: Save an analysis record to the database and place it in a selected folder.


 **Note:** Be aware that this function does not save an analysis as a file on your hard drive. Rather, it saves the analysis as a record to the TOPS Pro database – an important difference to remember when you need to open or search for an analysis.

To access, go to the Menu Bar, open the File menu and select Save or Save As.



Field Descriptions and Instructions

- **Name:** Enter the name of the analysis.

 **Note:** You can use any characters and a **maximum** length of 31 characters. If you enter a name of an unapproved analysis that has already been used, TOPS Pro will prompt you to overwrite the duplicate name.

If the duplicate analysis is being used at the time, the system will reject the name and prompt you to enter another one. There may be approved and working analyses with the same names.

- **Sort By:** This function will sort the analyses by Name, User or Date. Users will select the sort option in the drop down list box.
 - 📌 **Note:** Analyses created with earlier versions of TOPS Pro will not have the user and date information.
- **Folders:** Displays a tree view of all existing folders. You can save the analysis into any of these folders; Main Folder is the default. The window below the Folder field displays a list of folders and analyses that have been saved to a selected folder.
- **Analyses in Main Folder:** Displays a list analysis names that have been created by the user under the current folder. The top portion of the list displays all sub-folders, followed by analyses that have not yet been approved (**Working**). The bottom portion of the list displays analyses that have been approved (**Approved**), if there are any.
 - 📌 **Note:** If the user is logged in as a supervisor, he or she will be able to see **all** the users' analyses, along with the user associated with each analysis. If the user is logged off, then only the analysis name will display (no user name).

For more information, please refer to Chapter 15, Supervisor Functions.

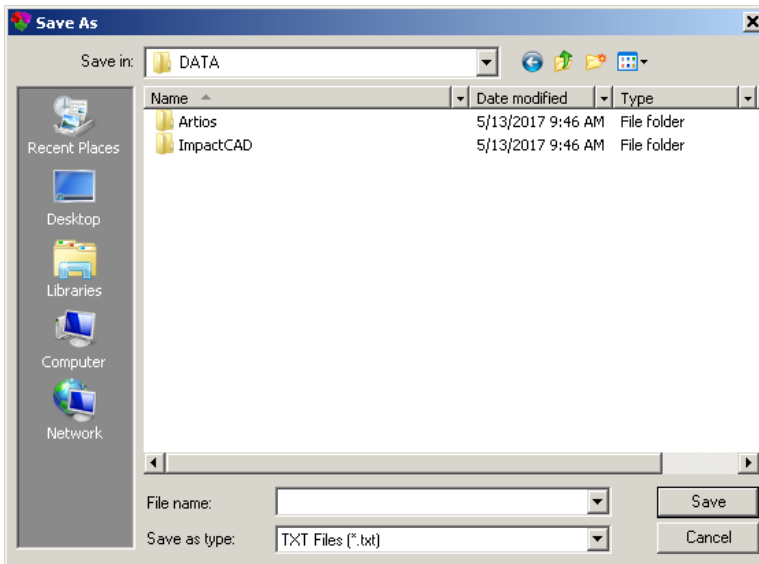
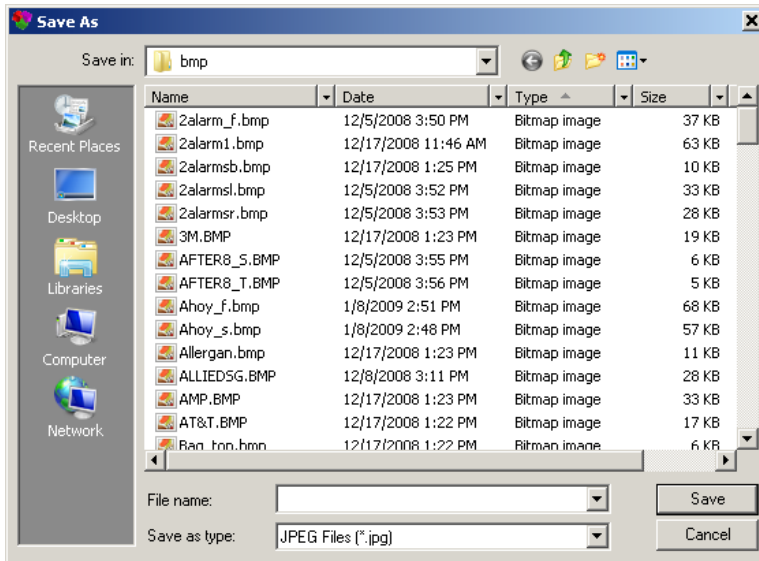
- **Show:** The Show option allows you to filter the analyses to be displayed based on their approval status, Approved, Working or All. Click the corresponding button to select the list.
- **New Folder:** The New Folder button allows you to create a new folder and add it to the current database.
- **Revision History:** Enter any notes related to revisions to the analysis.
 - 📌 **Note:** When you perform a Print Preview for the analysis, TOPS Pro attaches the revision history notes to the bottom of the screen – if the Print Revision option is activated on the Configuration Screen.

The Print Preview will display up to five lines of revision history text. After the revision history exceeds five lines, adding more text will delete your oldest revision history entry.

- **Save SC:** Save a new shipcase directly to the Shipcase database at the same time you save the analysis.

Save As (External File)

Function: Specify a location and a filename to store the selected date exported from the TOPS Pro system. This dialog box is available when you click the Browse button from the Export to ASCII dialog box or from other Export file or graphics menus.



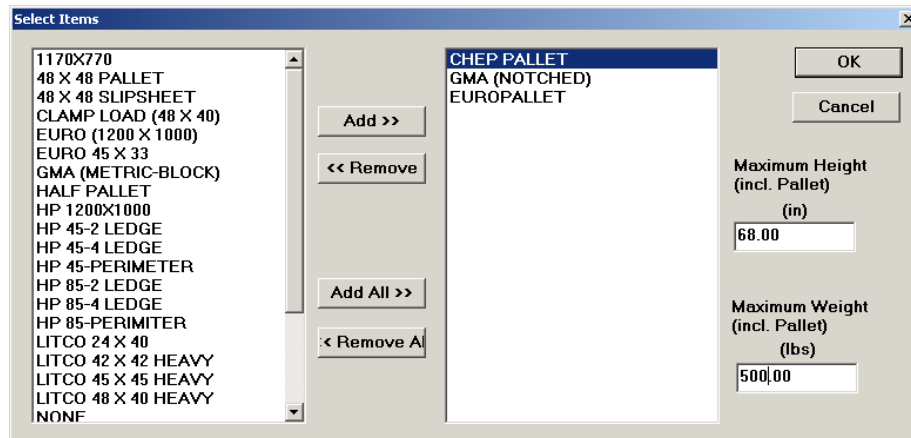
Field Descriptions and Instructions

- **Save in:** Enter the name of the folder or use the Directory Path Window to specify the folder to save the export file.
- **File Name:** Enter the name of the file or click the file from the list.
- **File List:** Scroll down the list to select the name of an existing file, if desired.
- **Save File As Type:** Select the type of file.
- **Directory Path Window:** Displays the current directory path. Click on the various folders to find the path to which you want to save the file.

Select Items

Function: Select multiple pallet styles to be used in a calculation.

To access: From the UnitLoad Parameters dialog box, select the Multi Pallets option and click the Select Pallets button.



Field Descriptions and Instructions

- **Available Pallet List (left):** Display all available pallets in the TOPS Pro database.
- **Selected Pallet List (right):** Display the list of pallets added to be used for calculation in the current analysis.
- **Add Button:** Press to add the highlighted pallet in the available list to the selected pallet list.
- **Remove Button:** Press to remove the highlighted pallet from the selected list and move it back to the available list.
- **Add All:** Press to select all available pallets in the database and add them to the selected list.
- **Remove All:** Press to remove all selected pallets from the selected list.
- **Maximum Height (Incl. Pallet):** Allow the user to specify the height of each individual pallet in the Multi Pallet configuration.
- **Maximum Weight (Incl. Pallet):** Allow the user to specify the weight of each individual pallet in the Multi Pallet configuration.

Select Pallet Accessories

Function: Add different pallet accessories to the unitload including slipsheets, pads, trays, caps and to add a pallet on top of the unitload.

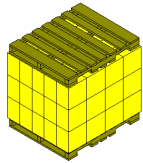
To access, click the Layer button in the UnitLoad Parameters dialog box.

The screenshot shows the 'Select Pallet Accessories' dialog box with the following settings:

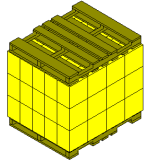
- Slipsheet:** Slipsheet, Description: [blank], Layer: All, Alternate, Custom. Custom Layer Setup: Layers (comma separated), Repeat every. Custom Desc (Layers /Repeat): [blank].
- Pad:** Pad, Description: [blank], Layer: All, Alternate, Custom. Custom Layer Setup: Layers (comma separated), Repeat every. Custom Desc (Layers /Repeat): [blank].
- Tray:** Tray, Description: [blank], Layer: All, Alternate, Custom. Custom Layer Setup: Layers (comma separated), Repeat every. Custom Desc (Layers /Repeat): [blank].
- Cap:** Cap, Description: MY CAP, Layer: All, Alternate, Custom. Custom Layer Setup: Layers (comma separated), Repeat every. Custom Desc (Layers /Repeat): [blank].
- Pallet on Top:** Pallet on Top, Flip Top Pallet. Same As Load, Description: 48 X 48 PALLET. Truck loads: All unitloads, All Unitloads below the top layer.

Field Descriptions and Instructions

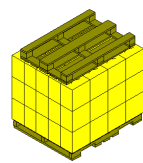
- **Slipsheet, Pad, Tray and Cap:** Check the corresponding radio button to add selected accessory to all, alternate or custom layers of the unitload.
- **Custom Layer Setup:** When custom accessory is used, use the following option to specify custom setup:
 - **Custom Layer Setup (Layers, comma separated):** Select to manually specify which layers will have the pallet function.
 - **Custom Layer Setup (Repeat every):** Select to apply pallet function to specific layers. Entering a '3' for example, in the Custom Desc field will apply the function every three layers for the entire unitload.
 - **Custom Desc (Layers/Repeat):** Enter the layer number to apply the current function for the Custom Layer Setup. For example, enter '1,3,4-7,10-14,30' to apply pallet accessory to layers 1, 3, 4 thru 7, 10 thru 14 and 30 for the comma separated layer definition.
- **Pallet on Top:** Check this option to add a pallet on top of the unitload.
 - **Same as Load:** Check this option to use the same type of pallet as the unitload.
 - **Description:** When the Same as Load option is unchecked, select from the list box a new pallet type to place on top of the unitload.
 - **Flip Top Pallet:** Check this option if you are flipping the pallet over when placed on top of the unitload.



Unitload with pallet on top



Unitload with top pallet flipped



Unitload with flipped Euro pallet on top

- **Truck Loads:** Specify whether to apply 'pallet on top' to all unitloads inside the vehicle or just to the bottom layers.

Select ShipCase

Function: Define a custom shipcase to hold different products in the MixTray Mixed Tray Editor.

To access, open the MixTray Editor from the icon . In the MixPro module, click the Shipcase button or go to the Define Menu and select Shipping Case.



Field Descriptions and Instructions

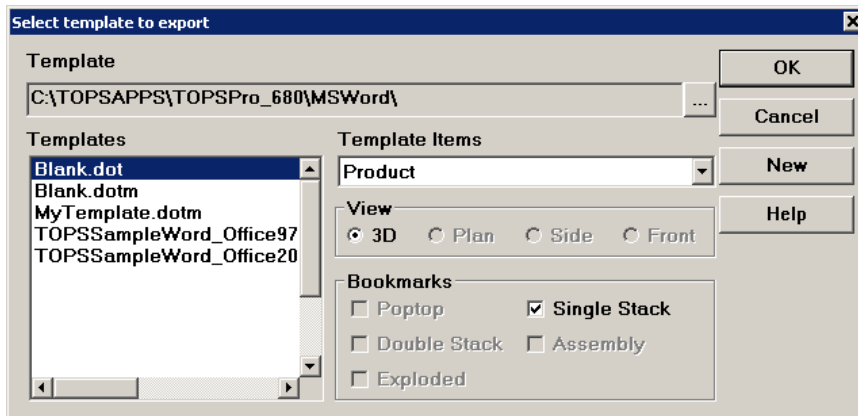
- **Shipcase:** Display the current shipcase.
- **Dimensions:** Display the dimension of the current shipcase.
- **New Button:** Click to define a new shipcase .
- **Delete Button:** Click to delete the current shipcase.
- **Modify Button:** Click to open the Define Shipcase dialog to make changes to the current shipcase.

Select template to export

Function: Specify the MS Office template to be used to export current TOPS analysis.

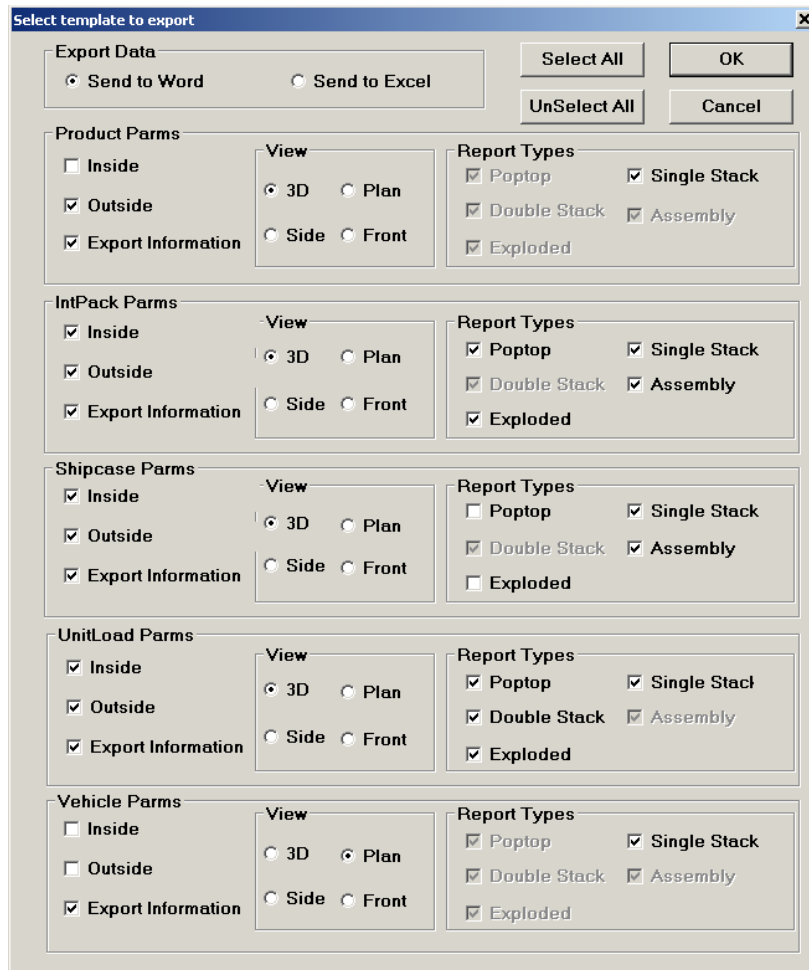
To access this function, go to the Export Menu and select Send to MS Office.

 **Note:** You can also use the Send to Office tool button  in the Tool Bar and select the specific MS Office application, Word or Excel to export. Using this method will display templates for the selected application only.



Field Descriptions and Instructions

- **Template:** Display the folder where the MS Office templates are saved. Make sure this is under the ..\TOPSAPPS\TOPSPRO_xxx\MSWord\.
- **Templates:** Display a list of available MS Office templates.
- **Template Items:** Specify items for specific stage of the analysis to be exported.
- **View:** Specify the available view(s) for the selected item. All views (3D, Plan, Side and Front) are available for Unitload but only 3D for the other items.
- **Bookmarks:** Select the available bookmarked graphics per item view to be exported. Uncheck any bookmarks not to be exported.
- **New Button:** This option opens another dialog box to allow users to easily select the items to be exported to MS Office or Word.



- **Export Data:** Specify which MS application the data to be exported to, Word or Excel.
- **Select All:** Click the Select All button to quickly select all available data to be exported.
- **UnSelect All:** Click the UnSelect All button to remove all data selection.
- **Data Parameters:** The data are organized according to the design sequence: Product, Intermediate pack, shipcase, unitload and vehicle. Check against the boxes to specify the data to be exported:
 - **Inside:** Inside dimension of the item.
 - **Outside:** Outside dimension of the item.
 - **Export Information:** Varies by item and may include weight, efficiency data, quantity, arrangement, and other related statistics.
 - **View:** Select one of the item views from 3D, Plan (overhead view), side of front.
 - **Report Type:** Check against the available graphical report types available for the selected view.

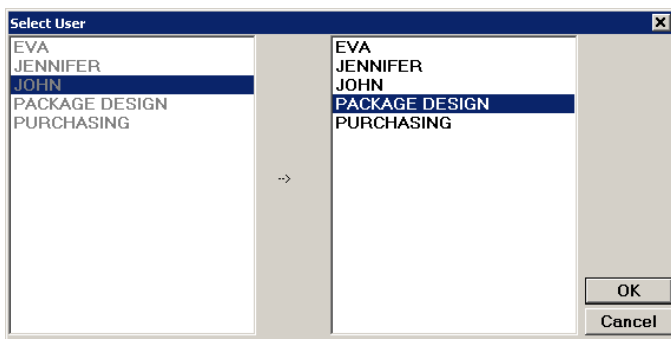
Select User

Function: Reassign selected analyses to a new user using the Move Owner function.


To access this function, use one of these two methods.

Move analyses for the currently login user:

1. After user login, login again as Supervisor by going to Supervisor Menu and select Login/Logout.
2. Go to the File Menu, and select Open.
3. Highlight the analyses of the currently logged in user and click the Move Owner button.

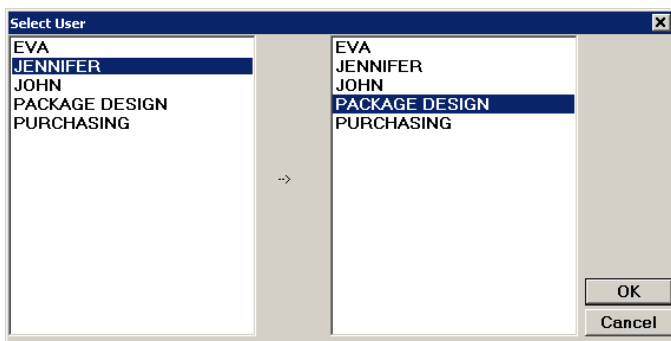


4. Select the recipient user from list on the right and click OK. In the above screen, John's analyses will be reassigned to PACKAGE DESIGN.

 **Note:** The names on the left is grayed out because you can move analyses created by the current login user only.

Move all analyses among any users:

1. Open the TOPS Pro Configuration program as login as any user.
2. Login as Supervisor by going to Supervisor Menu and select Login/Logout or using the quick link.
3. Access Configuration using the Quick link.
4. Go to the Global tab on the far right and click the Move Owner button.





5. Select the user from the left whose analyses are to to moved to new user. In the above screen, all the analyses from Jennifer will be moved to Package Design.

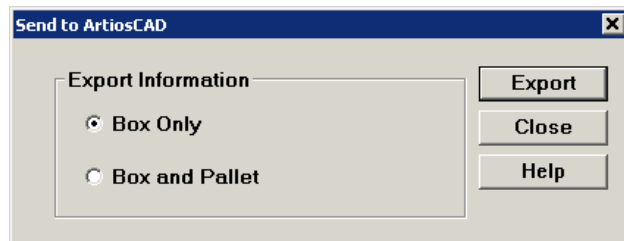
Send to ArtiosCAD

Function: Export the current analysis to ArtiosCAD software.

To access this function, use one of the following methods:

- Go to the Export Menu and select Send to ArtiosCAD.
- Click on the Interface tool button  on the toolbar and select Send to ArtiosCAD.

 **Note:** The ArtiosCAD option under  is only available if: (1) Under the General tab of the Tools > Configuration Menu, External Integration is set to Artios; and (2) the section [Integration] in the TOPSPRO.ini file shows `Type=Artios`.




Field Descriptions and Instructions

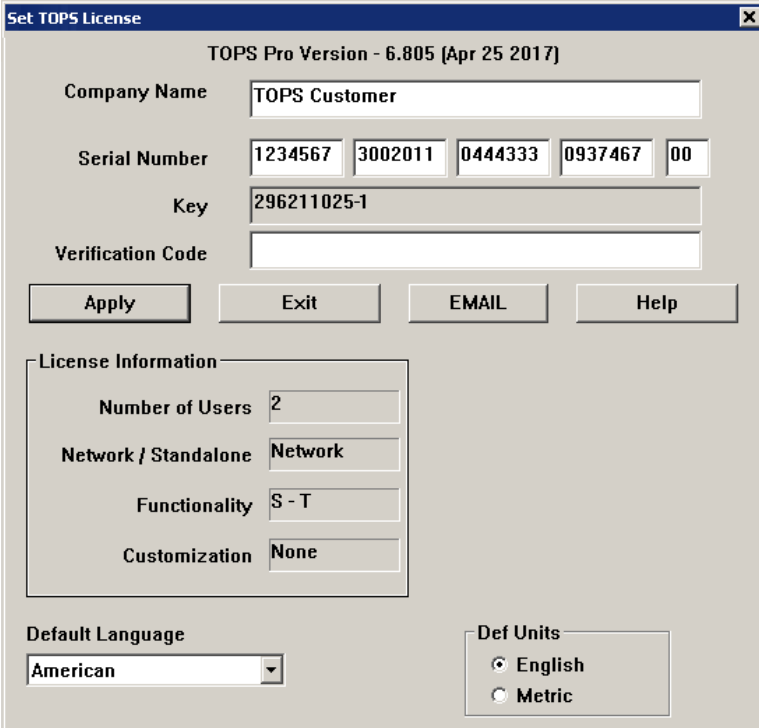
- **Export Information:** Click the corresponding radio button to specify the type of data to be exported from the current analysis.

Set TOPS License

Function: Setup your purchased TOPS Pro license. This dialog box will be opened automatically after you have successfully installed TOPS and run the program for the first time.

You can also access the license setup by going to Supervisor Menu and go to Set License after logging in as Supervisor (password is “tops software”).

 **Note:** Your license is not set until you enter the Verification Code furnished to you by TOPS. Until then, the License Information area will not reflect the license configuration you actually purchased.



Set TOPS License

TOPS Pro Version - 6.805 [Apr 25 2017]

Company Name: TOPS Customer

Serial Number: 1234567 3002011 0444333 0937467 00

Key: 296211025-1

Verification Code:

Apply Exit EMAIL Help

License Information

Number of Users: 2

Network / Standalone: Network

Functionality: S - T

Customization: None

Default Language: American


Def Units: English Metric

Field Descriptions and Instructions

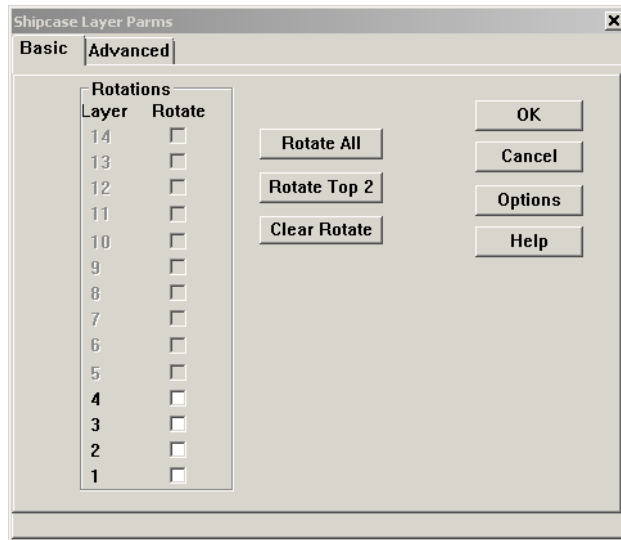
- **Company Name:** Enter the registered licensee name. Make sure to enter the name EXACTLY as provided to you. If you receive a checksum error when you setup the license, this means the Company Name you entered does not match the one provided to you.
- **Serial Number:** Enter the serial number provided to you by TOPS. The first 7-digit will be your short form serial number as marked on the face of your TOPS software CD or plastic CD case.
- **Key:** Provide this number to TOPS when you contact us to setup the license.
- **Verification Code:** This will be provided to you when you contact us to setup the license.
- **Apply button:** After all the information has been entered, click this button to complete license setup. You will see a message “Successfully Set License” if all data are entered correctly. Check the License Information section at this time to verify your license configuration: stand-alone versus network and the number of users if yours is a network license.

Shipcase Layer Parameters

Function: Define layer parameters inside a shipcase, including rotation. You can use this dialog box to interlock and pinwheel products into a shipcase.

To access: From the Analysis View, highlight the shipcase drawing. Then go to the Menu Bar, open the Edit menu and select Layer Parameters. You can also click the layer parameters button () in the shipcase solution view pane.

Basic Tab

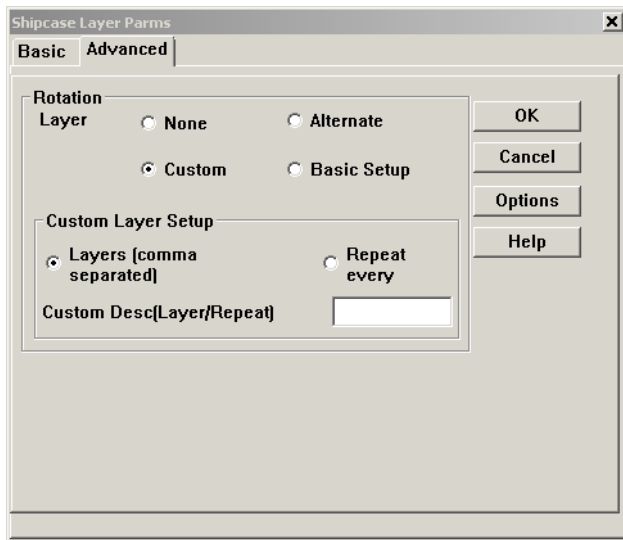


The Basic tab provides advanced rotation function.

- **Layer:** Display a column of layers that correspond to a shipcase solution. Each layer represents a specific layer of primary packs inside a shipcase. For example, Layer 1 represents the first layer, Layer 2 represents the second layer and so on.
- **Rotate:** Check the box to rotate a specific layer inside the shipcase
- **Rotate All Button:** Rotate every other layer in the shipcase. When you click this button, TOPS automatically checks all the active boxes in the Rotate column.
- **Rotate Top 2 Button:** Rotate the top two layers inside the shipcase.
- **Clear Rotate Button:** Clear all the Rotate commands already set up for the shipcase. When you click this button, TOPS automatically un-checks all the active boxes in the Rotate column.
- **Options Button:** Open the Layer Parameters dialog box to specify how the Rotate command will be executed.

Note: The Rotate function is most often adjusted when you are rotating patterns that are symmetrical, such as some pinwheel patterns. In that case, try only width or length flip – not both.

Advanced Tab




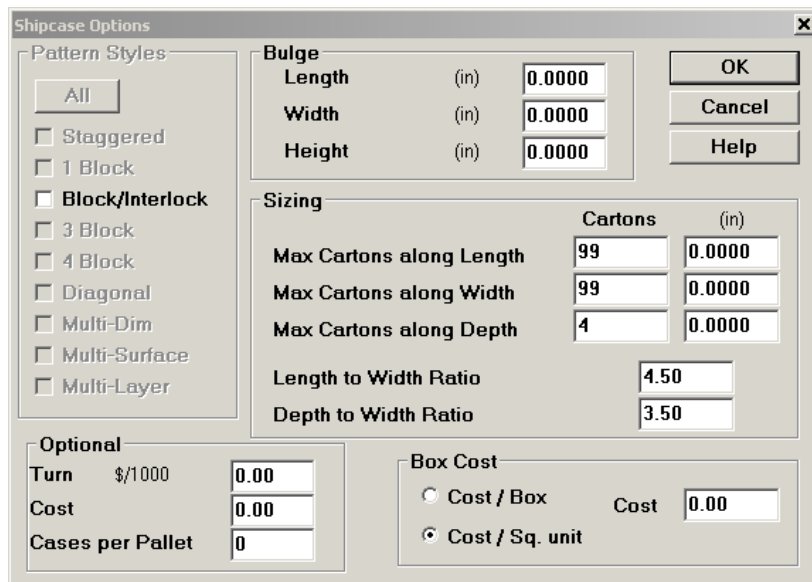
The Advanced tab provides advanced rotation function.

- **None:** If you do not want to apply any rotation, click this button.
- **Alternate:** Click this radio button to rotate to every other layer of the unitload.
- **Basic Setup:** Click this radio button to use the settings from the Basic tab.
- **Custom:** Click this radio button to select custom rotation by enabling the Customer Layer Setup section:
 - **Custom Layer Setup (Layers, comma separated):** Select to manually specify which layers will have the rotation inside the shipcase.
 - **Custom Layer Setup (Repeat every):** Select to apply rotation to specific layers. Entering a '3' for example, in the Custom Desc field will rotate the primary packs every three layers inside the shipcase.
 - **Custom Desc (Layers/Repeat):** Enter the layer number to apply layer rotation. For example, enter '1,3,4-7' to rotate layers 1, 3, 4 thru 7 only (for the comma separated layer definition).

Shipcase Options

Function: Enter bulge and sizing parameters for a shipcase. To access: From the Shipcase Parameters dialog box, click on the Options button.

 **Note:** This dialog box is used for shipcases and trays.



Sizing


The Shipcase Options dialog box allows you to fine-tune the size dimensions of the shipcase. It limits the scope of the analysis solution by limiting the maximum dimensions and ratios.

For example, if you specify a maximum of four cartons along the length, width and depth of the shipcase, TOPS Pro will generate a solution with no more than four cartons along the length, four cartons along the width and four cartons along the depth of the shipcase – a maximum of 64 cartons. The maximum is 64 cartons, but TOPS Pro will also generate other solutions with less than 64 cartons.

Field Descriptions and Instructions

The field, **Pattern Styles**, displays only if you selected Fixed Case on the Shipcase Parameters dialog box.

- **Pattern Styles:** Select one, multiple or all pattern styles for which you want TOPS Pro to generate solutions.

 **Note:** If you selected Fixed or Database as the Case option on the Shipcase Parameters dialog box, the Pattern Styles options will be available. If you selected New as the Case option, the Pattern Styles options will be grayed out and unavailable.


- **Bulge Length, Bulge Width, Bulge Height:** Enter the amount of bulge allowed in the shipcase's length, width and height dimension respectively.

The following **Sizing** fields display only if you selected New Case on the Shipcase Parameters dialog box.

- **Max Cartons along Length/Width/Height:** Enter the maximum number of cartons allowed along


the length, width and height of the shipcase respectively.

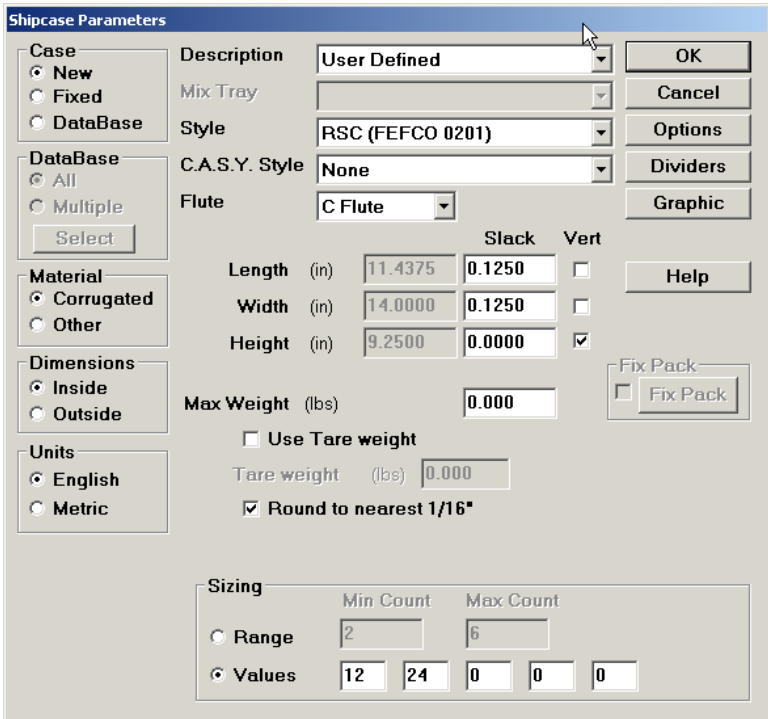
- **Max Cartons (in dimension) along Length/Width/Height:** Enter the maximum dimension in inches or millimeter along the length, width and height of the shipcase.
- **Length to Width Ratio:** Enter the length to width ratio of the shipcase.
- **Depth to Width Ratio:** Enter the depth to width ratio of the shipcase.
- **Optional:** The following three fields apply to bag costing situations.
 - Turn \$/1000: Enter the turn rate per pallet.
 - Cost: Enter the cost per pallet.
 - Cases per Pallet: Enter the number of cases per pallet.
- **Box Cost:** Check the option to be used to calculate box cost and enter the corresponding cost of box (per box or per square unit).

 **Note:** If you do not see Box Cost in the statistics, please go to the Supervisor menu, select Login/Logout. Type in the Supervisor password (tops software) and click Login. Now go to Tools menu and select Configuration. Click the Statistics button and make sure Box Cost is checked under Shipcase.

Shipcase Parameters

Function: Define parameters for a shipcase.

To access: From the Control Panel, Click the yellow Shipper Parameters icon  or the yellow Tray Parameters icon .



Shipcase Parameters

Case: New, Fixed, DataBase

DataBase: All, Multiple

Material: Corrugated, Other

Dimensions: Inside, Outside

Units: English, Metric

Description: User Defined

Mix Tray: [Dropdown]

Style: RSC (FEFCO 0201)

C.A.S.Y. Style: None

Flute: C Flute

Length (in): 11.4375, Slack: 0.1250, Vert:

Width (in): 14.0000, Slack: 0.1250, Vert:

Height (in): 9.2500, Slack: 0.0000, Vert:

Max Weight (lbs): 0.000


Use Tare weight:

Tare weight (lbs): 0.000

Round to nearest 1/16":

Sizing: Range (Min: 2, Max: 6), Values (12, 24, 0, 0, 0)


Buttons: OK, Cancel, Options, Dividers, Graphic, Help, Fix Pack


 **Note:** This dialog box is used for shipcases and trays. The Shipper and Tray Parameters icons both display this dialog box. The only difference is the options contained in the Style drop-down list.


Be aware that the dialog box linked to a specific icon is determined in TOPS Configuration setup.


Field Descriptions and Instructions


- **Case:** Select either New, Fixed or Database to specify the type of shipcase you want to use in your analysis.
 - A new analysis will create a new shipcase based on other information you enter on the screen.
 - A fixed analysis requires you to enter the dimensions of a fixed shipcase.
 - A database analysis goes through the shipcases defined and stored in the database.


 **Note:** At this time, there is no way to define or specify different databases of shipcases.
- **Database:** Select an option to specify whether TOPS Pro will use all shipcases or a selected number of shipcases. The Database feature has two options:
 - **All:** Tells TOPS Pro to consider all shipcases saved to the database when it calculates solutions.
 - **Multiple:** Opens the Select Items dialog box and allows you to select specific shipcases to be used in calculating solutions.
- **Material:** Select either Corrugated or Other to specify the material used to make the shipcase.


 **Note:** The type of material is important to determine stacking strength and board thickness.
- **Dimensions:** Select either Inside or Outside to specify how the shipcase dimensions are measured.

 **Note:** TOPS Pro uses this option to round to the nearest 16th. If you select Inside, TOPS Pro will calculate the inside dimensions by rounding up, then calculate the outside dimensions entered from that value. If you select Outside, TOPS Pro will calculate the outside dimensions by rounding up, then calculate the inside dimensions entered from that value.
- **Description:** This is an optional field, you can select a pre-defined shipcase or type in the first few letters of the shipcase.

 **Note:** The drop-down list contains shipcase types that are already set up in the database. If the shipcase type you want is not on the list, you can add it to the database.

 **Note:** If you select a pre-defined shipcase, TOPS Pro automatically inserts dimensions in the Length, Width and Height fields, as well as any pre-defined graphics, using the parameters set up on the Define Shipping Case dialog box. If you select User Defined, you will need to manually enter dimensions in the Length, Width and Height fields.
- **Style:** Select the style of the shipcase you want to use.


 **Note:** TOPS Pro uses the selected style, along with the caliper of the material to calculate the difference between inside dimensions and outside dimensions. For information about defining shipcase styles, please refer to Chapter 2.
- **C.A.S.Y. Style:** Select a CASY style to display for the shipcase.
- **Flute:** Select the flute size for the shipcase.

 **Note:** The drop-down list contains flute types that are already set up in the database. If the flute type you want is not on the list, you can add it to the database using the Define


Flute dialog box.

This field displays only if you select Corrugated Material. TOPS Pro uses the following default calipers for the various flute styles:

A	=	0.1875	(3/16-inch)
A/B	=	0.267	(17/64-inch)
A/C	=	0.267	(17/64-inch)
B	=	0.125	(1/8-inch)
C	=	0.15625	(5/32-inch)
C/B	=	0.267	(17/64-inch)
E	=	0.063	(1/16-inch)
F	=	0.063	(1/16-inch)


 **Warning:** If you work with double-wall flutes on a regular basis, you will need to adjust those flutes for the proper caliper.

- **Caliper:** Enter the caliper of the shipcase. The caliper is used to calculate the inside vs. outside dimensions of the shipcase. This field displays only if you select Other Material.
- **Length, Width, Height:** Enter the length, width and height of the shipcase. These fields are active only if you are using a Fixed shipcase.
- **Slack Length, Slack Width, Slack Height:** Enter the extra space intended for the length, width and height of the shipcase. Slacks refer to the extra (wasted) space you intend to include in the shipcase configuration. For example, you might include two inches of slack space at the top (height) to insert items more easily into the shipcase.
- **Vert:** Check a box beside one of three fields: Length, Width or Height, to specify the vertical dimension of the shipcase **relative to the ground**.

 **Note:** In packaging, height (depth) is normally the distance through the flaps. Length is the greater of the two remaining dimensions.

- **Fixed Pack:** If you know how many items can fit into a “fixed” size shipcase, you can define the arrangement regardless of actual dimensions of the items being loaded. TOPS will adjust the size of the product to fit into the shipcase for the given arrangement. The printout for the statistics will show the size as defined by the user. If there is any difference in the size, it will be represented in the Bulge stats.
- **Max Weight:** Enter the maximum weight of the shipcase.
- **Use Tare weight:** Check the box to provide the tare weight of the shipcase for calculation. If the tare weight option is not checked, TOPS will estimate the weight of the shipcase based on box style, box dimension and flute.
- **Round to nearest 1/16”:** Check the box to force TOPS Pro to round the slack dimensions to the nearest 1/16.”
- **Sizing:** Select either Range or Values to specify whether you want the shipcase to hold a range of items or a set number of items.

For example, if you want to design the shipcase to hold anywhere from two to six cartons, select Range. If you want to design the shipcase to hold exactly six cartons, select Values.

 **Note:** Specify the number of units from the previous stage in the analysis to place within this shipcase. For example, if your analysis bundles cartons into intermediate packers,

then you need to specify the number of bundles (not the number of cartons) that will go into the shipcase.

Also, when you put boxes into a fixed-size shipcase, you should normally leave the Range value wide open (1-1000). If TOPS Pro puts too many boxes into a shipcase, use slack to reduce the amount of usable space in the box.

- **Min Count:** Enter the minimum number of items you want the shipcase to hold.

 **Note:** This field displays only if you select Range.

- **Max Count:** Enter the maximum number of items you want the shipcase to hold.

 **Note:** This field displays only if you select Range.

TOPS Pro uses the minimum and maximum count values to generate a number of solutions. For example, if you enter two (2) as the minimum count and five (5) as the maximum count, TOPS Pro will generate solutions for two, three, four and five-count sizes.

- **Values:** Enter the set number of items for which you want TOPS Pro to generate solutions.

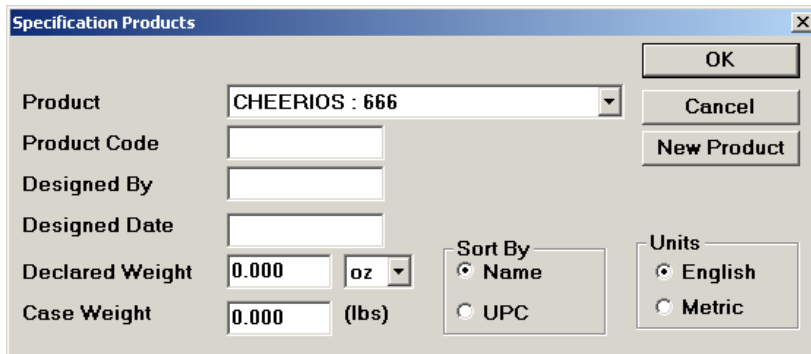
For example, if you want TOPS Pro to generate solutions for a set 10-count and a set 15-count, enter 10 and 15 in the first two Values fields.

- **Options Button:** Displays the ShipCase Options dialog box, which allows you to enter additional parameters for a shipcase, such as minimum/maximum headspace and bulge dimensions.
- **Dividers Button:** Displays the Dividers dialog box, which allows you to define parameters for the dividers inside the shipcase.
- **Graphic Button:** Displays the Assign Graphics dialog box, which allows you to select and display a graphic image on the shipcase.

Specification Products

Function: Define parameters for a new product to be added to the Product Name drop-down list on the Package Profile dialog box.

To access: From the Package Profile dialog box, click the Add Product button.




Field Descriptions and Instructions

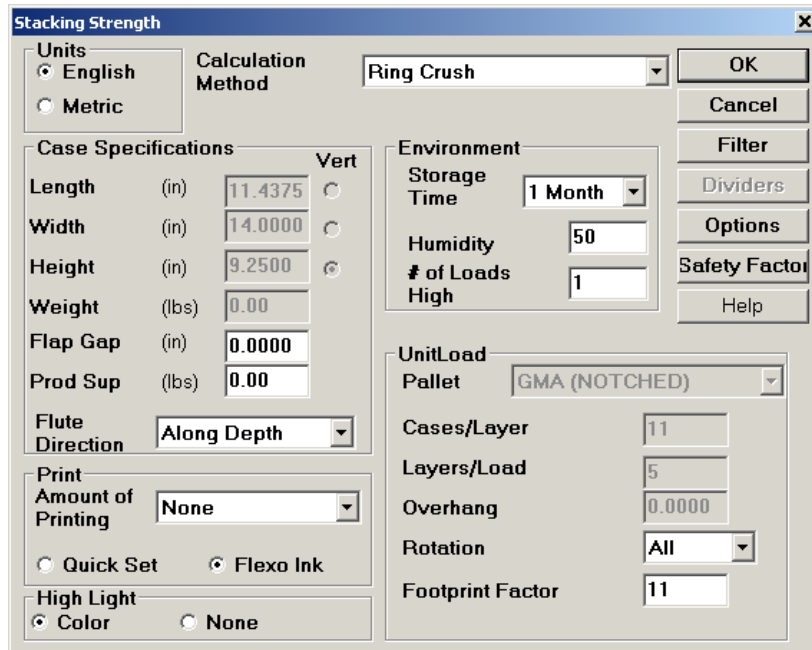
- **Product:** Select the product you want to add to the product list on the Package Profile dialog box, or type in the first few letters of the product.
 - ✍ **Note:** The drop-down list contains products that are already set up in the database. If the product you want is not on the list, you can add it to the database using the New Product button or the Define Product dialog box.
- **Product Code:** Enter the product code associated with the product.
- **Designed By:** Enter the name of the person who designed the product.
 - ✍ **Note:** This field is currently not displayed on the package profile.
- **Designed Date:** Enter the date the product was designed.
 - ✍ **Note:** This field is currently not displayed on the package profile.
- **Declared Weight:** Enter the weight of the product and select the unit of measurement (ounces, pounds, millimeters, etc).
 - ✍ **Note:** This value appears on the printout only.
- **Case Weight:** Enter the case weight of the product in pounds or kilograms, depending on the Units selected.
 - ✍ **Note:** When the case weight is multiplied by the number of cases and added to the pallet weight, the value will be equal to the reported unitload weight for that product.
- **Sort By:** Select either Name or UPC to specify how the product list will be sorted.
- **New Product Button:** Displays the Define Product dialog box, which allows you to define parameters for a new product (a product that's not already defined in the system).

Stacking Strength


Function: Perform a stacking strength test on a package analysis.

You can access the Stacking Strength dialog box via one of these menus:

- From the Menu Bar, open the Tools menu and select Stacking Strength.
- From the toolbar, click on the Stacking Strength tool button 
- From the UnitLoad Analysis view window, click the Strength button and then select Strength.



Field Descriptions and Instructions

- **Calculation Method:** Select a method of calculation, either Ring Crush, Edge Crush or Kellicut (for Japanese use mainly).
- **Length, Width, Height:** Enter the length, width and height of the case respectively. If you already have an analysis opened which consists of a unitload solution, these dimensions will be populated with those of the current shipcase.
- **Weight:** Enter the weight of the case in pounds or kilograms, depending on the Units selected.
- **Flap Gap:** Enter the flap gap of the case in inches or millimeters, depending on the Units selected.
- **Prod Sup:** Enter the product support of the case in pounds or kilograms, depending on the Units selected.
- **Flute Direction:** Select the direction the flute runs in relation to the case.
- **Amount of Printing:** Select the amount of printing to be performed on the case.
 -  **Note:** Be aware that heavy printing does reduce the stacking strength of most corrugated materials.
- **Type of Printing:** Select either Quick Set or Flexo Ink to specify the type of printing to be performed on the case.
- **High Light:** Select either Color or None to specify whether the case will be colored.

- **Storage Time:** Select the amount of time the cases are stored before stacking.
- **Humidity:** Enter a percentage to specify the amount of humidity in the cases' storage environment.
- **# of Loads High:** Enter the number of loads high the cases are stored.
- **Pallet:** Select the type of pallet on which the cases will be stacked.
 - ✍ **Note:** The drop-down list contains pallet types that are already set up in the database. If the pallet type you want is not on the list, you can add it to the database using the Define Pallet dialog box.
- **Cases/Layer:** Enter the number of cases to a layer.
- **Layers/Load:** Enter the number of layers to a load.
- **Overhang:** Enter the amount of overhang for the unitload in inches or millimeters, depending on the Units selected.
- **Rotation:** Select the how the unitload is rotated.
- **Footprint Factor:** If you have multiple unitloads and not all shipcases help support the unitload above, specify how many shipcases do help support. Lowering this number reduces the number of bottom-most cases that help support the above unitload.
- **Filter Button:** Displays the Stacking Strength Filter dialog box, which allows you to select a number of flute sizes and define minimum and maximum values for compression strength, safety factor and unitloads high.
- **Dividers Button:** Displays the Dividers dialog box, which allows you to define parameters for the dividers inside the packer.
- **Options Button:** Displays the Stacking Strength Options dialog box, which allows you to select which columns of information will appear on the Stacking Strength Results report by selecting from a listing of board grades.
- **Safety Factor Button:** Calculates the safety factor based on environment factors, pallet height, transportation mode and rotation of layers on the pallet.

Stacking Strength Filter

Function: Select a number of flute sizes and define minimum and maximum values for compression strength, safety factor and unitloads high.

From the Stacking Strength dialog box, click the Filter button.

	Min	Max
Compression Str (lbs)	0.00	9999.00
Box Performance	0.0	0.0
Safety Factor	0.0	99.0
Safety Margin	0.0	0.0
UnitLoads High	0	20

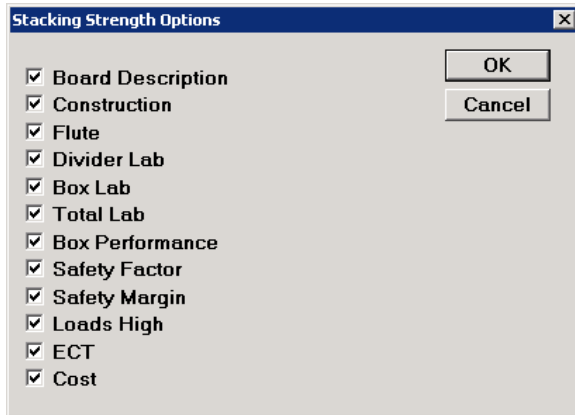
Field Descriptions and Instructions

- **Flutes:** Check against the box to select the flute sizes to be included in the stack analysis.
- **Min, Max Compression Str:** Enter the minimum and maximum compression strength range to filter the solutions.
- **Min, Max Box Performance:** Enter the minimum and maximum values for box performance to be filtered.
- **Min, Max Safety Factor:** Enter the minimum and maximum safety factor range to filter stacking results.
- **Min, Max Safety Margin:** Enter the minimum and maximum safety margin range to filter stacking results.
- **Min, Max Unit Loads High:** Enter the minimum and maximum number of unitloads stacked on top of one another to be filtered.

Stacking Strength Options

Function: Select the board grades that will be included in the Stacking Strength Results report. Each board grade will be represented by a column of data on the report.

From the Stacking Strength dialog box, click the Options button.



Field Descriptions and Instructions

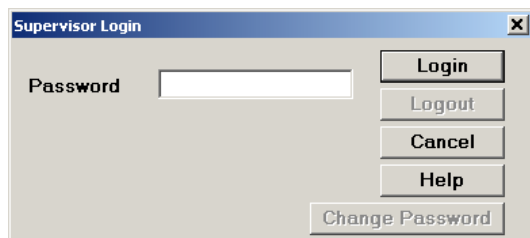
- This dialog box displays a list of board grades. Use the checkboxes to select the board grades that will be included in the Stacking Strength Results report.

Supervisor Login

Function: Login to the system as a supervisor, which is required in order to perform the following tasks:

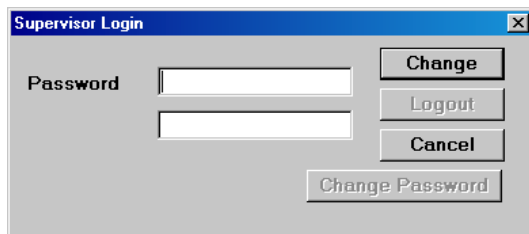
- Approve analyses
- Rename and delete users
- Change statistics settings
- See all users' work
- Log off other users
- Change button templates
- Change Quick Print templates

To access: From the Menu Bar, open the Supervisor menu and select Login/Logout.



Field Descriptions and Instructions

- **Password:** Enter a valid password.
 - 📌 **Note:** The default password is “tops software.” Note the space between “tops” and “software.”
- **Login:** Click to login as supervisor after you have entered a password. After you have successfully logged in, you will see “Analysis name – TOPR Pro (Supervisor)” on the application title bar.
- **Logout:** Click to logout.
- **Change Password:** Change your password. When you click on this button, the Supervisor Login dialog box redisplay, as pictured below.



Notice that the redisplayed dialog box has two password fields. To change passwords, follow these instructions:

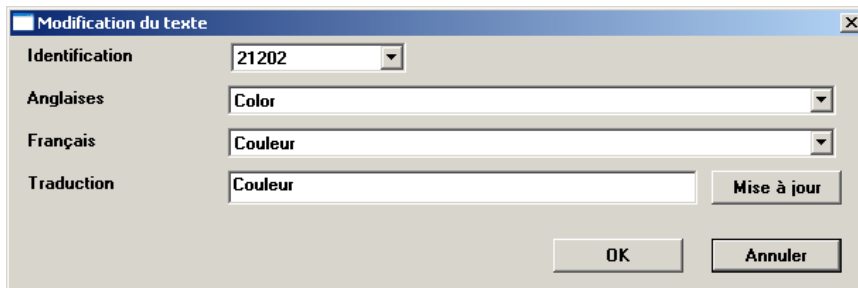
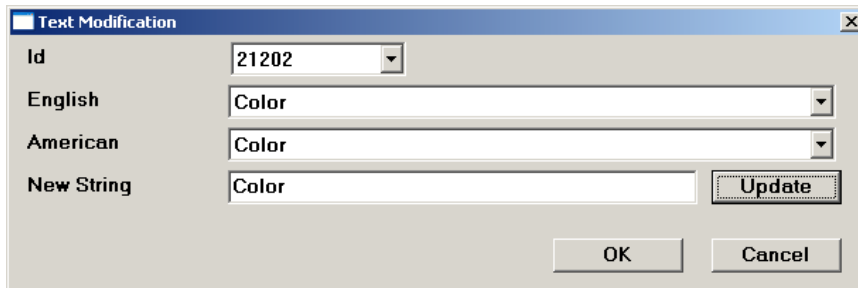
1. Enter the current password in the first field.
2. Enter the new password in the second field.
3. Click on the Change button.

TOPS Pro changes your supervisor password and saves it to the database.

Text Modification

Function: Modify language within the software. You can replace any existing text string used within TOPS Pro with a new term.

To access: From the Menu Bar, go to the Tools menu, select Language and then select Edit.




Field Descriptions and Instructions

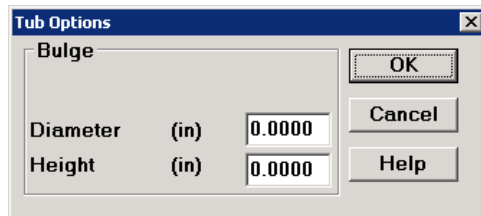
- **ID:** Display the unique identifier for each string. This is mainly for reference only and will not be used by the user.
- **English:** Select a word in the English language. The terms are arranged in alphabetical order. You can also type in the first few characters of the term to quickly locate it in the list.
- **American (or Current Language):** Select a word in the current language or display the corresponding translation for the current English term.
- **New String:** Enter the new text to replace the existing term in the current selected language.
- **Update Button:** Click to update the current change to the database.

Tub Options

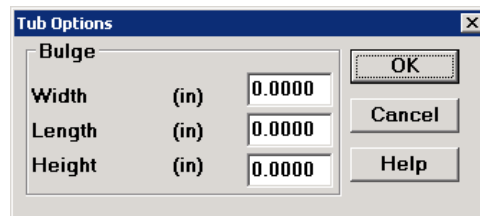
Function: This dialog box allows you to enter bulge dimensions for a tub.

 **Note:** This dialog box displays a different set of fields, as pictured below, depending on whether you selected Round or Rectangular in the Body Shape field on the Tub Parameters dialog box.

To Access: From the Tub Parameters dialog box, click on the Options button.



Tub Options for Round Body Shape




Tub Options for Rectangular Body Shape

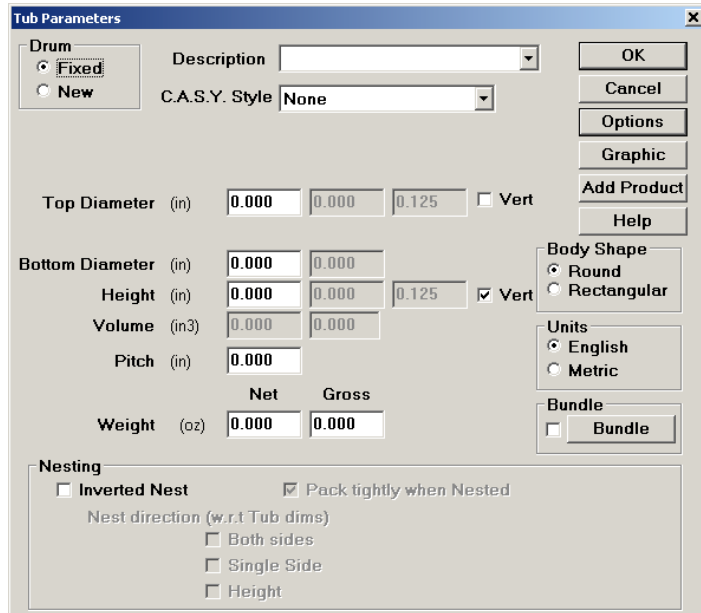
Field Descriptions and Instructions

The following field, **Diameter**, displays only if you selected a Round Body Shape on the Tub Parameters dialog box.

- **Diameter:** Enter the bulge diameter for round tubs.
- **Width, Length:** Enter the bulge width and length for rectangular tubs.
- **Height:** Enter the bulge height for round or rectangular tubs.

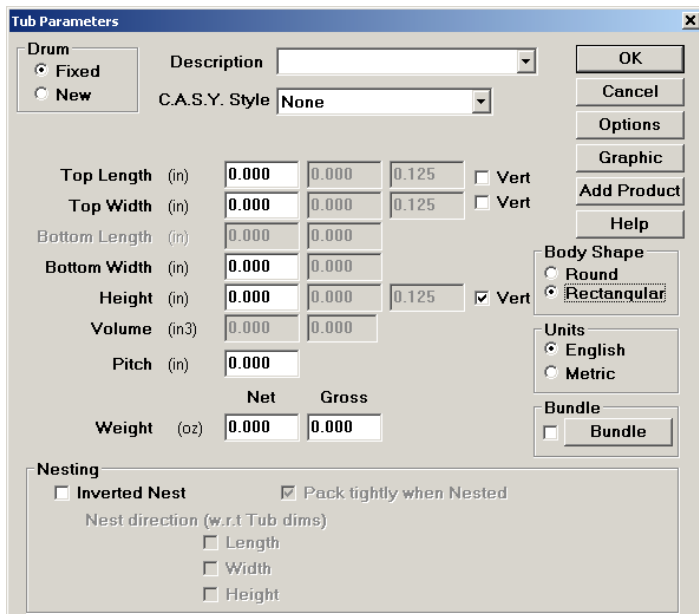
Tub Parameters

Function: Define parameters for different types of tubs. The dimensions to define the tubs vary with the body shape selected. To access: From the Control Panel, click the Tub Parameters icon 



The screenshot shows the 'Tub Parameters' dialog box with the 'Round' body shape selected. The 'Drum' section has 'Fixed' selected. The 'Description' field is empty, and 'C.A.S.Y. Style' is set to 'None'. The 'Top Diameter' is 0.000 inches. The 'Bottom Diameter' is 0.000 inches, and the 'Height' is 0.000 inches. The 'Volume' is 0.000 in³ and the 'Pitch' is 0.000 inches. The 'Weight' is 0.000 oz, with 'Net' and 'Gross' both at 0.000. The 'Body Shape' is 'Round', 'Units' are 'English', and 'Bundle' is unchecked. The 'Nesting' section has 'Inverted Nest' unchecked and 'Pack tightly when Nested' checked. The 'Nest direction' options are 'Both sides', 'Single Side', and 'Height', all unchecked.

Tub Parameters for Round Body Shape



The screenshot shows the 'Tub Parameters' dialog box with the 'Rectangular' body shape selected. The 'Drum' section has 'Fixed' selected. The 'Description' field is empty, and 'C.A.S.Y. Style' is set to 'None'. The 'Top Length' is 0.000 inches, 'Top Width' is 0.000 inches, 'Bottom Length' is 0.000 inches, and 'Bottom Width' is 0.000 inches. The 'Height' is 0.000 inches. The 'Volume' is 0.000 in³ and the 'Pitch' is 0.000 inches. The 'Weight' is 0.000 oz, with 'Net' and 'Gross' both at 0.000. The 'Body Shape' is 'Rectangular', 'Units' are 'English', and 'Bundle' is unchecked. The 'Nesting' section has 'Inverted Nest' unchecked and 'Pack tightly when Nested' checked. The 'Nest direction' options are 'Length', 'Width', and 'Height', all unchecked.

Tub Parameters for Rectangular Body Shape

Field Descriptions and Instructions

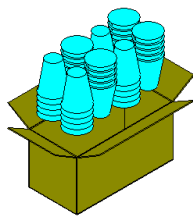
- **Fixed/New:** This option allows users to use known dimensions as Fixed, or New, if they want to define ranges, for minimum and maximum sizes per dimension. If New is selected, the increment field is for the unit of incrimination, per solution tried. If for example if you specify 10mm, the software solutions for that dimension would always be some factor of 10mm.
- **Description:** This is an optional field. If used, select from the drop list a predefined description

for the tub.

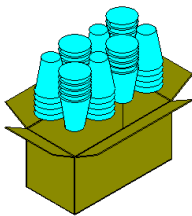
- **C.A.S.Y. Style:** Select a CASY style to display for the tub.

The following two fields: **Top Diameter** and **Bottom Diameter**, display only if you select a Round Body Shape.

- **Top Diameter, Bottom Diameter:** For round tubs, enter the top diameter or rim and bottom diameter of the tub.
- **Top Length, Top Width:** For rectangular tubs, enter the top length and width of the tub.
- **Bottom Length:** Displays the bottom length of rectangular tubs. TOPS Pro automatically calculates this value based on the proportions of top to bottom width.
- **Bottom Width:** Enter the bottom width of the rectangular tub.
- **Height:** Enter the height of the tub, round or rectangular.
- **Pitch:** Enter the value to represent the distance between stacked tubs.
 - ✎ **Note:** Pitch allows you to define the dimensions of the tubs so they can be stacked inside one another. This value represents the distance between the rims of the nested tubs; that is, how far one tub protrudes from the one it is placed into. If you leave pitch at zero, TOPS Pro assumes that the tubs do not nest inside one another.
- **Vert:** Check a box beside one of four fields: Top Length, Top Width, Top Diameter or Height, to specify the vertical dimension of the tub **relative to the ground**.
- **Net Weight:** Enter the net weight of the tub in pounds or kilograms, depending on the Units selected.
- **Gross Weight:** Enter the gross weight of the tub in pounds or kilograms, depending on the Units selected.
- **Volume:** This displays the product volume for the tub, when applicable.
- **Inverted Nest:** Check this box to load nested tubs in inverted rows. The picture on the right is an example of nested plastic cups. When enabled, make sure to also select the nest direction.
- **Pack tightly when Nested:** This option can tightly pack flower pots, plumbing parts, water glasses and more by removing any space between the objects.
- **Nest direction (w.r.t Tub dims):** This allows you to choose the different variations of nesting within the shipcase – Both sides, Single Side or Height.



Nest single side



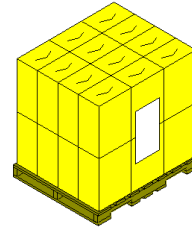
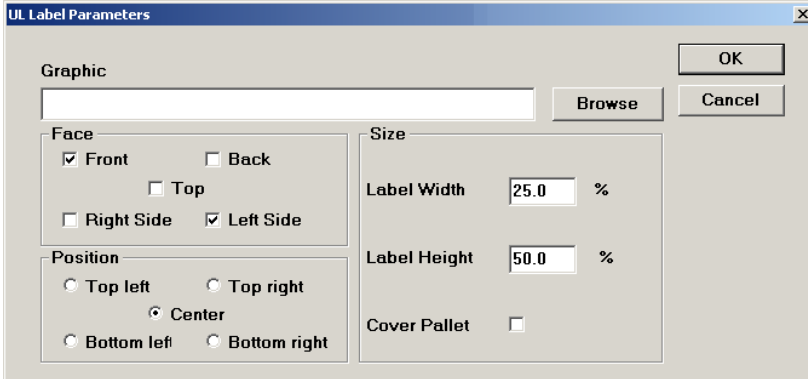
Nest both sides

- **Body Shape:** Select either Round or Rectangular to specify the body shape of the tub.
- **Bundle:** Check the Bundle option set predefined tub arrangement in the intermediate pack or shipcase.
- **Options Button:** Displays the Tub Options dialog box, which allows you to enter bulge parameters for a tub.

UL Label Parameters

Function: Apply graphics on the outside of the Unitload and adjust its size and orientation.



To access, click the Options button at the UnitLoad Parameters dialog box. Then click the Label button in the Unitload Options dialog.

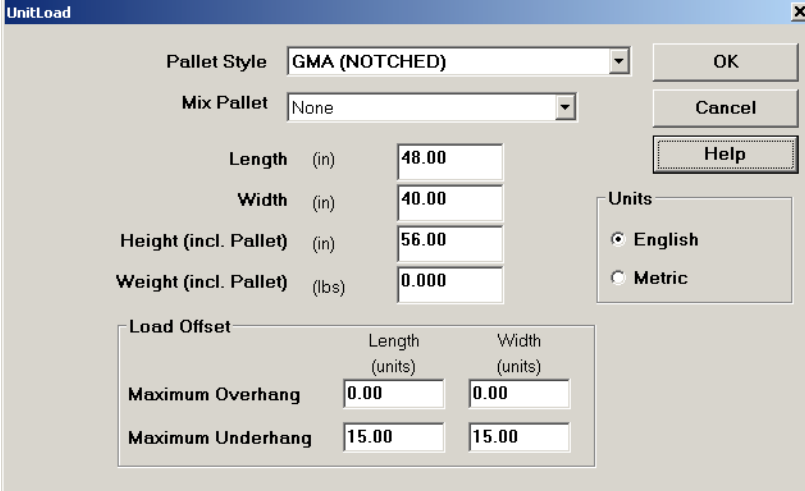


Field Descriptions and Instructions

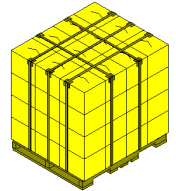
- **Graphic:** Click the Browse button to specify a graphics to be used as label for the unitload. If no graphic is specified, a plain white label will be used.
- **Face:** Check off the side(s) on the unitload where a label will be placed.
- **Position:** Select the position where the label will be placed. Users can only specify one location and this applies to all sides where a label will be added.
- **Label Width, Label Height:** Enter the width and height of the label as a percentage of the unitload width and height.
- **Cover Pallet:** Check this box if you would like to include dimensions of the pallet into calculation of the label size.

UnitLoad (Pallet-Vehicle Analysis)

If you perform a pallet-vehicle analysis, the UnitLoad Parameters dialog box displays as pictured below. To access: Set up a pallet-vehicle analysis and click the Pallet Parameters icon  or the Slipsheet Parameters icon .



Field	Value
Pallet Style	GMA (NOTCHED)
Mix Pallet	None
Length (in)	48.00
Width (in)	40.00
Height (incl. Pallet) (in)	56.00
Weight (incl. Pallet) (lbs)	0.000
Maximum Overhang (Length)	0.00
Maximum Overhang (Width)	0.00
Maximum Underhang (Length)	15.00
Maximum Underhang (Width)	15.00




Field Descriptions and Instructions

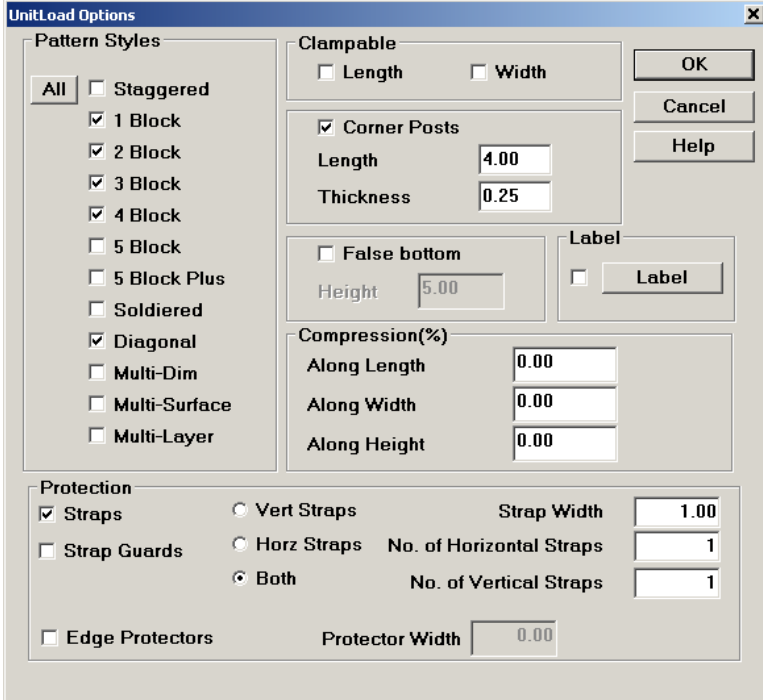
- **Pallet Style:** Select a pallet or slipsheet style.
 - 📌 **Note:** The drop-down list contains pallet types that are already set up in the database. If the pallet type you want is not on the list, you can add it to the database using the Define Pallet function.
- **Mix Pallet:** If you have a mixed pallet created with the MixPro Mixed Pallet Editor you would like to use for vehicle loading, select it from the drop down list box.

If mixed pallets are to be used for the vehicle load, all measurements will be picked up from the mixed pallet and the dimensions and offset field will be grayed out.


- **Length, Width, Height:** Enter the length, width and height of the pallet or slipsheet.
- **Weight (incl. Pallet):** Enter the weight of the pallet or slipsheet in pounds or kilograms, depending on the Units selected.
- **Load Offset:** Enter the overhang of the unitload and leave the underhang as is.

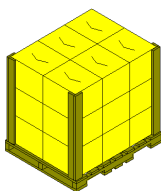
UnitLoad Options

Function: This dialog box allows you to define pattern styles, clampability and corner post parameters for a pallet. To access: Click the UnitLoad Parameters icon  on the tool bar to access the dialog box, then click the Options button.

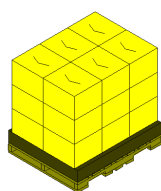


Field Descriptions and Instructions

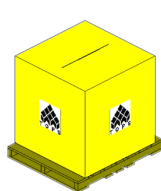
- Pattern Styles:** Select one, multiple or all pattern styles for which you want TOPS Pro to generate solutions.
 -  **Note:** If you selected a pallet style already defined on the UnitLoad Parameters dialog box, the Pattern Styles options will be available. If you defined a new pallet style, the Pattern Styles options will be grayed out and unavailable.
- Clampable:** Select either Length or Width to specify whether you want the unitload clamped along its length or width.
- Corner Posts:** Check the box to use corner posts in the unitload calculation and enter the length and thickness in the corresponding fields. Note that unlike layer parameters, corner posts will reduce the amount of usable space on the pallet.
- False Bottom:** Check the box to add a raised platform to the unitload and enter the height of the false bottom in the corresponding box.



Corner posts

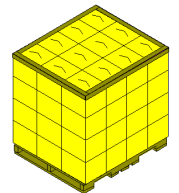


False bottom




Labels



- **Label:** Check the box to place labels on the unitload and click the label button to select the image to be used as well as its size and placement. If no graphic is specified, a plain white label will be used.
- **Compression %:** Some loads may be wrapped and clamp loaded, and such loading may cause compression for the goods loaded on the pallet. This compression can be accounted for by percentage, using this feature. Also, if for some reason you have a UL that needs to account for a bulge factor, you could employ negative values here and the negative compression would respond as a bulge value.
- **Straps:** Check the box to activate the Straps fields and select whether to use vertical, horizontal straps or both.
- **Strap Width:** Enter the width of the straps to be used for the unitload
- **Number of:** Enter the number of straps to be used on the unitload. Currently, TOPS only allows use of the same number of straps for both length and width dimension.
- **Strap Guards:** Check the box to use strap guards with the straps as on the right.
- **Edge Protectors:** Select whether to use edge protectors and its width for the unitload.

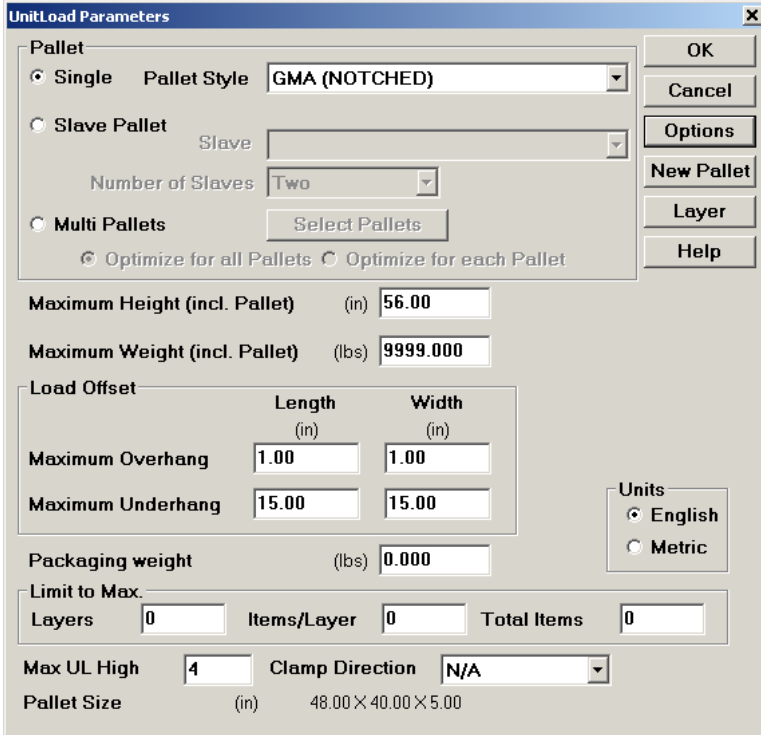


UnitLoad Parameters

Function: Define parameters for the unitload using a pallet or slipsheet.

 **Note:** If you are working on a design sequence which starts with pallet stage, the UnitLoad Parameters dialog box will be much simpler as described in the next section “pallet-vehicle analysis.”


To access: From the Control Panel, click on the Pallet Parameters icon  or click the Slipsheet Parameters icon 




	Length (in)	Width (in)
Maximum Overhang	1.00	1.00
Maximum Underhang	15.00	15.00

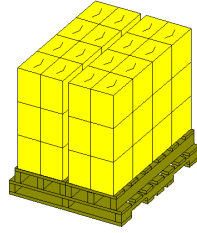
Field Descriptions and Instructions

- **Pallet:** Select either Single, Slave or Multi Pallets.
- **Single Pallet Style:** Use the Pallet Style drop-down box to select the pallet style to be used in the calculation.

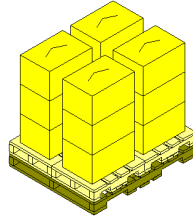
 **Note:** The drop-down list contains pallet types that are already set up in the database. If the pallet type you want is not on the list, you can add it to the database using the Define Pallet dialog box.

 **Slave Pallet:** Use the Slave drop-down box to select the pallet style and quantity to be used in the calculation. Shipcases will be stacked on slave pallets before being placed on the single pallet.

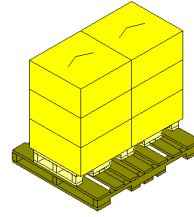
Slave pallets are not allowed to extend outside the single pallet at the bottom, so make sure the dimensions of the slave pallet are well defined.



2 slave pallets




4 slave pallets

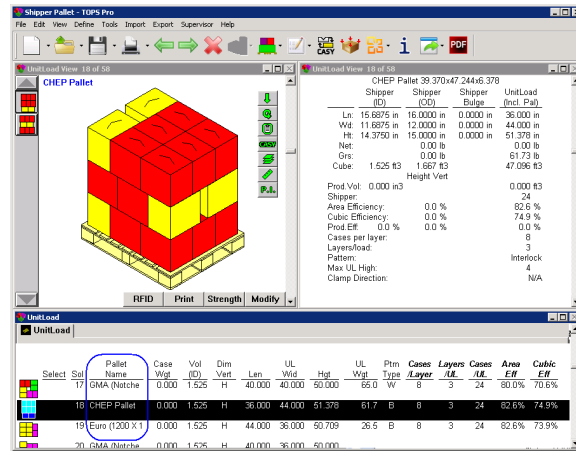


Slave pallets with overhung shipcases

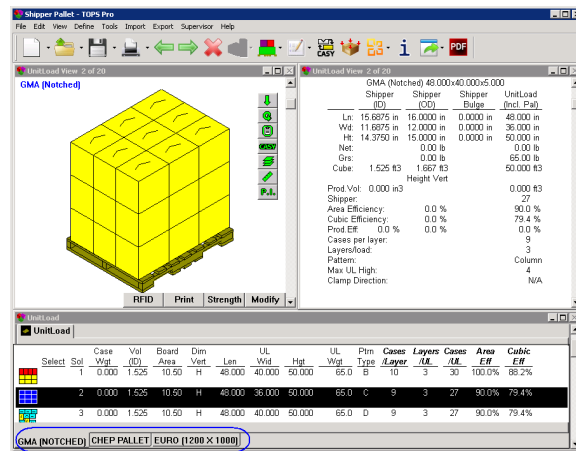
- Multi Pallets:** If multiple pallets are used, click the Select Pallets button to display the Select Items dialog box. This lets you select multiple pallet styles to be used in the calculation.

 **Note:** When using multiple pallets, users have the option to group the unitload solutions based on pallet type in the UnitLoad Parameters dialog box shown below.


- Optimized for all Pallets:** Solutions will be displayed in one single list with a field “Pallet Name,” identifying the pallet used for the selected solution. This option offers the possibility of comparing solutions using different pallets.



- Optimize for each Pallet:** Solutions are grouped in tabs based on pallet. Note that solutions cannot be compared across tabs.



- **Maximum Height (incl. Pallet):** Enter the maximum height of the unitload and note that this value also includes the height of the pallet.
- **Maximum Weight (incl. Pallet):** Enter the maximum weight of the unitload, including the weight of the pallet.
- **Maximum Overhang along Length and Width:** Enter the maximum overhang for the length and width of the pallet or slipsheet.
- **Maximum Underhang along Length and Width:** Enter the maximum underhang for the length and width of the pallet or slipsheet.

 **Note:** TOPS Pro uses underhang values to limit the solutions displayed when calculating legal unitloads. Underhang instructs TOPS Pro to show only those unitloads that are farther than the entered distance from the edge of the pallet.

If you enter zero for underhang, TOPS Pro will show only those answers that exactly match the size of your pallet (a situation that rarely happens). In general, we recommend that you leave underhang alone.

Unitizing large items can cause problems with otherwise reasonable underhang values. For example, quite often you cannot fit two TV's on a pallet side by side. However, if the TV does not come within six inches of the edge, TOPS Pro will generate no answers. Using an underhang of 15 inches (or 20 inches) and getting at least one solution is better than getting no solution at all.

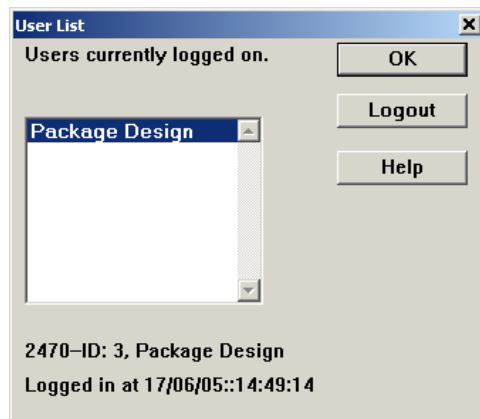
- **Packaging weight:** Enter the weight of other packaging materials to secure a more accurate weight of the unitload. Packaging materials include slip sheets, pads, caps, straps and other filler materials.
- **Limit to Max:** Enter the maximum number of layers, the maximum number of items per layer, or the maximum number of items on a unitload. Keep the default value of zero (0) if there is no preference as to these parameters.
- **Max UL High:** Specify the maximum number of unitloads that can be stacked inside a vehicle or during storage.
- **Clamp Direction:** Specify if this unitload will be clamped and along what direction. Select from the drop down list.
- **Options Button:** Opens the UnitLoad Options dialog box, which allows you to enter pattern styles, clampable and corner post parameters for a pallet.
- **New Pallet Button:** Displays the Define Pallet dialog box, which allows you to define parameters for a new pallet (one that's not already defined in the system).

User List

Function: Displays the users currently logged onto the system. This feature is critical for network users who have a limited number of TOPS Pro software licenses. For example, if you have two licenses and two users are logged on, then a third user will not be able to logon until one of the current users logs off.

You may find it necessary to logout someone if he or she logged onto TOPS Pro, then did not exit the system normally (e.g., in the event of a crash or power failure). If you are unable to enter TOPS Pro to logout a missing user, you can always login as that user, replace that user, then exit.

From the Menu Bar, open the Tools menu and select User List.



Field Descriptions and Instructions

- The **users list** displays a list of users currently logged onto the system.
- The **user ID** displays the ID number of the selected user.
- The **login date/time** displays the date and time the selected user logged onto the system.
- The **Logout button** allows you to select a user and log him or her out of the system. You must be logged on as a supervisor to logout another user.

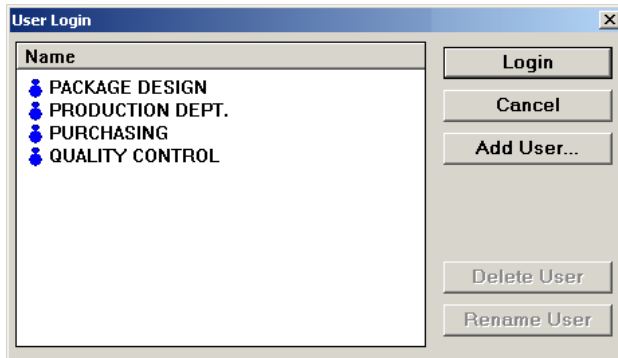
User Login

Function: This dialog box allows you to login to the system.

 **Note:** At this time, there is no way to prevent any user from adding a user to the system.

To access, use one of two options:

- When you open the TOPS Pro application, the User Login dialog box automatically appears.
- From the Menu Bar, open the File menu and select User Login.





Field Descriptions and Instructions

- The **User List** displays a list of users set up in the system. To login to the system, select a user name and click the **Login button**.
- **Add User Button:** Displays the New User dialog box, which allows you to add a new user to the system.
- **Delete User:** Available only when you are logged in as Supervisor, this allows you to select a user and delete him or her from the system.
- **Rename User:** Displays the New User dialog box, which allows you to rename a selected user. In order to use this feature, you must be logged in as a supervisor.

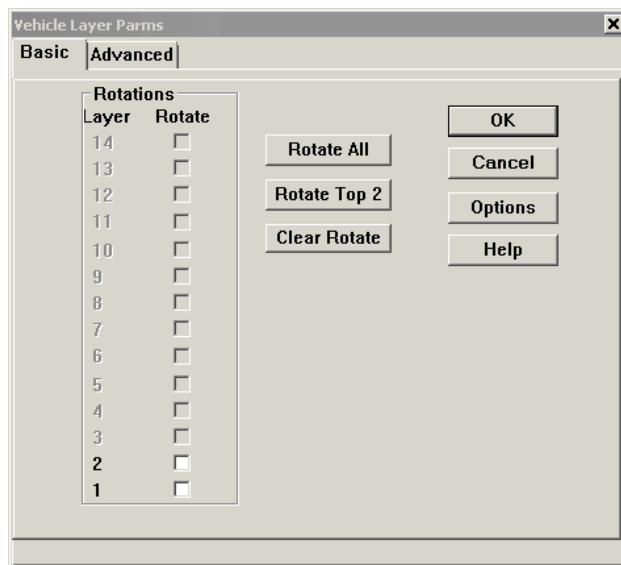
Vehicle Layer Parameters

Function: Define parameters related to the vehicle layers in your package design.

 **Note:** It is imperative to calculate the analysis first, otherwise, the Layer Parameters option will not be available on the Edit menu. You must calculate the analysis and activate the vehicle panel before you can access this menu option.

To access: First, you must create an analysis that places an item (pallet, shipper, etc) into a transit vehicle. After you have calculated the analysis, go to the Menu Bar, open the Edit menu and select Layer Parameters. You can also click the layer parameters button () in the vehicle view.

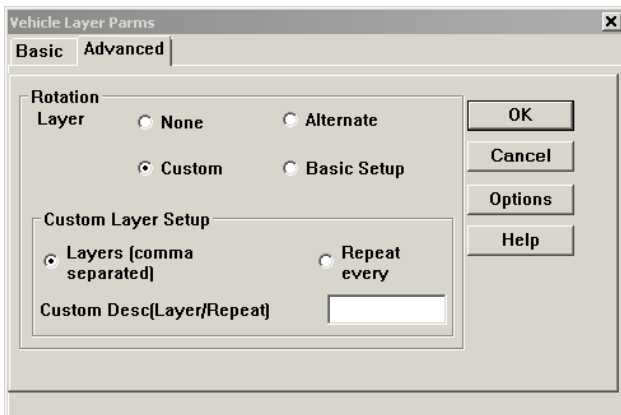
Basic Tab



Field Descriptions and Instructions

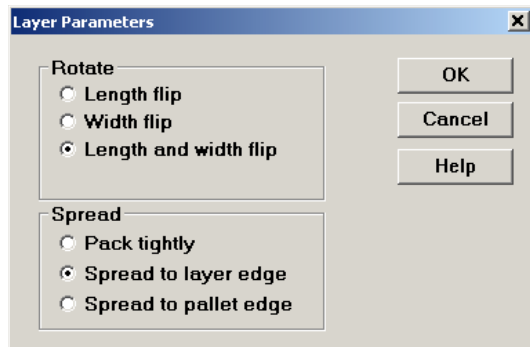
- **Layer:** Displays a column of layers that correspond to a vehicle solution. Each layer represents a specific layer of unitloads in the vehicle. For example, Layer 1 represents the first layer, Layer 2 represents the second layer and so on.
- **Rotate:** Check the box to rotate a specific layer. This allows you to manipulate stacking strength.
- **Rotate All Button:** Rotates all layers in the vehicle. When you click this button, TOPS Pro automatically checks all the active boxes in the Rotate column.
- **Rotate Top 2 Button:** Rotates the top two layers in the vehicle.
- **Clear Rotate Button:** Clears all the Rotate commands already set up for the vehicle. When you click this button, TOPS Pro automatically un-checks all the active boxes in the Rotate column.
- **Options Button:** Open the Layer Parameters dialog box to specify how the Rotate command will be executed.

Advanced Tab



- **Rotation Layer:** Select an option to specify which layers to rotate inside the vehicle. Custom allows a user to use the Custom Layer Setup, where layers to be rotated can be specified, using a comma as the separator. Alternate will rotate every other layer and Basic Setup will use the settings

Options

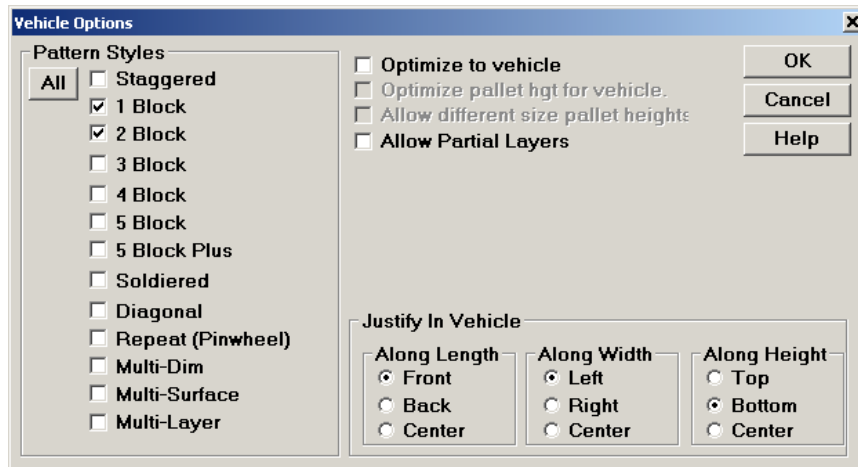


- **Rotation:** Select an option to specify how the layer(s) will be rotated: Length flip, Width flip or Length and width flip.
- **Spread:** Select an option to specify how the unitloads will be spread within the vehicle layers: Pack tightly, Spread to layer edge or Spread to pallet edge.

Vehicle Options

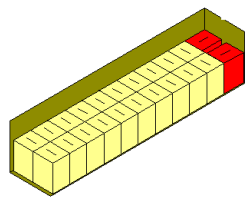
Function: This dialog box allows you to enter additional parameters for a truck, such as pattern styles and pallet configurations inside the truck.

To access: From the Define Transit Vehicle dialog box, click the Options button.

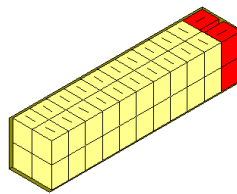


Field Descriptions and Instructions

- **Pattern Styles:** Select one, multiple or all pattern styles for which you want TOPS Pro to generate solutions.
- **Optimize to vehicle:** Check the box to sort solutions based on the best vehicle packing.
Note: Normally, TOPS Pro prioritizes solutions based on the best pallet arrangement first, then the best vehicle for that pallet. With this switch turned on, TOPS Pro will sort the solutions based on the best vehicle packing. This is handy where there is a possibility for overhang. Sometimes, less overhang (a less efficient pallet pattern) will result in a better vehicle load.
- **Optimize pallet hgt for vehicle:** Check the box to optimize pallet height for the vehicle.
Note: If this switch is turned on, TOPS Pro will attempt to fit more shipcases onto the truck by reducing the number of layers per pallet to fit more unitloads per truck. This works best in situations where the unitload is more than half the truck height.

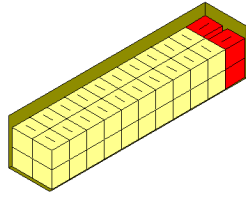


Before: 5 layers/UL
(Max UL height = 70")

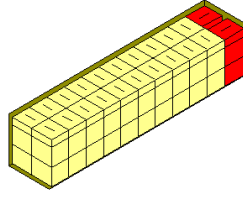


After: 4 layers/UL

Allow different size pallet heights: Check the box to allow different size pallet heights in the truck. For instance, put partial pallets on top of full pallets, if they fit.

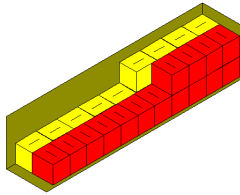


Before: 3 layers/UL
(Max UL height = 52")



After: 2 layers of 3-layer UL
and 1 layer of 1-layer UL




- **Allow Partial Layers:** This function allows TOPS to load the container, until it is limited by the container weight limit specified.



- **Justify in Vehicle Along Length:** Select either Front, Back or Center to specify where to place the unitloads in the vehicle.
- **Justify in Vehicle Along Width:** Select either Left, Right or Center to specify where to place the unitloads in the vehicle.
- **Justify in Vehicle Along Height:** Select either Top, Bottom or Center to specify where to place the unitloads in the vehicle.

Vehicle Parameters

Function: Define parameters for a vehicle.

To access: From the Control Panel, click one of these vehicle icons: Truck , Sea Van  or Rail Car .

Vehicle Parameters

Vehicle: Single Description: 48 FT

Multiple

Length (in) Inside: 570.0 Slack: 0.0

Width (in) Inside: 98.0 Slack: 0.0

Height (in) Inside: 110.0 Slack: 0.0

Maximum Net Weight (lbs): 45000

Units: English Metric

Loose Load Items: On Top On End On Side

Buttons: OK, Cancel, New Veh., Options, Help

Field Descriptions and Instructions

- **Single:** For single vehicle, select a pre-defined vehicle or type in the first few letters or numbers of the vehicle.
- **Multiple:** Select multiple vehicles to use more than one vehicle type for calculation. Click the Select Vehicles to open the Select Items dialog box to specify the vehicles to be used.

After calculation, solutions for each vehicle type will be presented in different tabs in the Solution List Pane as pictured below.

Select	Sol	Dim	UL	UL	Veh.	Veh.	Ptn	Cases	Layers	Cases	ULs	Layers	ULs	Area	Cubic				
		Vert	Len	Wid	Hgt	Wgt	Len	Wid	Hgt	Wgt	Type	/Layer	/UL	/Veh.	/Layer	/UL	/Veh.	Eff	Eff
1	H		20.00	40.00	55.00	2.2	232.00	88.00	55.00	46	W	8	5	840	21	1	21	96.14%	59.08%
2	H		20.00	40.00	55.00	2.2	224.00	88.00	55.00	44	T	8	5	800	20	1	20	91.56%	56.27%
3	H		20.00	40.00	55.00	2.2	232.00	88.00	55.00	44	T	8	5	800	20	1	20	91.56%	56.27%
4	H		20.00	40.00	55.00	2.2	232.00	88.00	55.00	44	W	8	5	800	20	1	20	91.56%	56.27%
5	H		20.00	40.00	55.00	2.2	232.00	88.00	55.00	44	W	8	5	800	20	1	20	91.56%	56.27%

20FT CONTAINER | 40 FT HC CONTAINER | 53 FT. DRY VAN

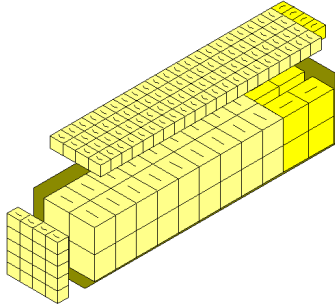
- **Inside Length, inside Width, Inside Height:** Enter the length, width and height along the inside of the vehicle. These define the loadable space inside the vehicle.

The following three fields: **Slack Length, Slack Width** and **Slack Height**, refer to the extra (wasted) space you intend to include in the vehicle. For example, you might figure in 12 inches of slack space at the top (height) to more easily insert items into the vehicle.

- **Slack Length, Slack Width, Slack Height:** Enter the extra space intended for the length, width and height of the vehicle.
- **Maximum Net Weight:** Enter the net weight of the vehicle in pounds or kilograms, depending on

the Units selected.

- **Loose Load Items:** Check the locations (On Top, Side or End) inside the vehicles where loose shipcases will be stacked to take advantage of available void space.



In the statistics pane, the number of Shipper per Vehicle Load will be displayed as 460 (T=88, S=0, E=20). Meaning a total of 460 shipcases inside the vehicle, with 88 loose items on tops, none on the side and 20 on the end.

 **Note:** C.A.S.Y. display must be turned off in order to see the loose load items in the vehicle load in the analysis view and in reports.

- **New Vehicle Button:** Displays the Define Vehicle dialog box, which allows you to define a new vehicle and save it to the database.
- **Options Button:** Displays the Vehicle Options dialog box, which allows you to enter additional parameters for a truck such as pattern styles and pallet configurations inside the truck.

C

Menu Options

This appendix outlines the nine commands that comprise the Menu Bar in the TOPS Pro program, along with a brief description of the items within each command.

For more information about the dialog boxes for each command option, please refer to Appendix B, Dialog Boxes. The nine primary commands are as follows:

- File menu
- Edit menu
- View menu
- Define menu
- Tools menu
- Import menu
- Export menu
- Supervisor menu
- Help menu

File Menu

New

The New option clears the Control Panel of any work and allows you to begin a new analysis.

Open


The Open option displays the Open Analysis dialog box, which allows you to select and open an analysis.

New via Template

The New via Template option displays the Open Analysis dialog box, which allows you to select a template and start a new analysis.


Save

The Save option saves the current analysis record to the database.

 **Note:** Be aware that this function does not save an analysis as a file on your hard drive. Rather, it saves the analysis as a record to the TOPS Pro database – an important difference to remember when you need to open or search for an analysis.

Save As

The Save As option displays the Analysis Save As dialog box, which allows you to save an analysis record to the database.

 **Note:** Same as the Save function, this function saves the analysis as a record to the TOPS Pro database.

Save As Template

The Save As Template option displays the Analysis Save As dialog box, which allows you to save an analysis as a template and add it to the Template Toolbar.

Save As XML

The Save As XML option saves the opened analysis as an XML file in the default \TOPSAPPS\TOPSPRO\Data\ folder.

Publish Analysis

The Publish Analysis option displays a second menu of options:

- **To Web:** Opens the web Publisher dialog box. It allows you to publish the results of an analysis to the web, thus allowing other people to view the analysis.
- **To Network:** Open the network Publisher dialog box. It allows you to publish the results of an analysis to a local network, thus allowing other users within the company to view the analysis.

Open Archive

The Open Archive option displays the Open Archived Analysis dialog box which allows you to restore any previously archived analysis.

Open XML

The Open XML option displays the Get Export File Name dialog box which allows you to open and saved analysis in XML format.

Print

The Print option displays a second menu of options, as follows:

- **Analysis:** Displays the Print Parameters dialog box. It allows you to design the layout of your printed output of an analysis, then decide what type of information will be included and how that information will be presented (different graphical views, text and numbers, etc).
- **Pallet Report:** Prints the Pallet report containing unitload information with efficiency factors and Wal-Mart scores.
- **Package Profile:** Prints the Package Profile for an analysis.
- **Container Diagram:** Displays the Container Diagram List dialog box, which allows you to select container diagram for printing.
- **Combined Report:** Prints a combined report, which displays information from two analyses on one printout.
- **Compare Solutions:** Prints a report comparing different solutions of the same analysis.
For more information about the Combined Report feature, please refer to Chapter 11, Printing.
- **Problem Definition:** Prints the problem definition for the current analysis.
- **Carton Arrangement List:** Prints the carton arrangement list for the current analysis.
- **Intermediate Pack List:** Prints the intermediate Pack List for the current analysis.
- **ShipCase List:** Prints the shipcase list for the current analysis.
- **UnitLoad List:** Prints the unitload list for the current analysis.

- **Vehicle List:** Prints the vehicle list for the current analysis.
- **Stack Strength List:** Prints the stacking strength list for the current analysis.

Print Preview

The Print Preview option displays a second menu of options, as follows:

- **Analysis:** Displays the Print Parameters dialog box. It allows you to design the layout of your printed output of an analysis, then decide what type of information will be included and how that information will be presented (different graphical views, text and numbers, etc).
- **Pallet Report:** Displays the Pallet report containing unitload information with efficiency factors and Wal-Mart scores.
- **Package Profile:** Displays a print preview of the package profile for an analysis.
- **Container Diagram:** Displays the Container Diagram List dialog box, which allows you to select container diagram for printing.
- **Combined Report:** Displays a print preview of a combined report, which displays information from two analyses on one printout.
- **Compare Solutions:** Displays a report comparing different solutions of the same analysis.

Print Databases

The Print Databases option displays a second menu of options, which allows you to print the following:

- **Product Report:** Packaging Component Specifications Report
- **Products:** Products Database
- **Cartons:** Cartons Database
- **Shipcases:** Shipcases Database
- **Pallets:** Pallets Database
- **Vehicles:** Vehicles Database
- **Box Styles:** Box Styles Database
- **Dividers:** Dividers Database
- **Films:** Bag Films Database
- **Cost Parameters:** Cost Factors Database
- **Stacking Strength:** Board Combinations Database
- **User List**

Page Setup

The Page Setup option displays the Print Parameters dialog box. It allows you to design the layout of your printed output of an analysis, then decide what type of information will be included and how that information will be presented (different graphical views, text and numbers, etc).

Printer Setup

The Printer Setup option displays the Print Setup dialog box, which allows you to set up parameters for your printer.

User Login

The User Login option displays the User Login dialog box, which allows you to login to the system.

Package Profile

The Package Profile option displays the Package Profile dialog box, which allows you to create a package profile for a complete package analysis sometimes called a cube specification. The package profile is designed for situations where many products use the same packaging.

Analysis Details

The Analysis Details option displays the Analysis Details dialog box, which allows you to enter more detail information about the analysis. This function is reserved for specific customers only. Please contact TOPS for more information.

Container Diagram

The Container Diagram option displays the Container Diagram Spec dialog box, which allows you to enter or update specifications for a specific container diagram.

Request Approval

The Request Approval option displays a dialog box that allows you to place an analysis in an approval queue. This feature is used to submit an analysis to a supervisor for approval. When a supervisor approves an analysis, that analysis can then be viewed by all users. Before an analysis is approved, it can only be viewed by the user who created the analysis or the supervisor.

Email Analysis

The Email Analysis option saves the current analysis as a text attachment in your email program so it can be sent to another TOPS user.

Exit

The Exit option closes the TOPS Pro program.

Edit Menu

Copy to Clipboard Color

This option allows you to select a graphic image in the TOPS Pro program, then copy the image to the clipboard in color.

Copy to Clipboard B+W

This option allows you to select a graphic image in the TOPS Pro program, then copy the image to the clipboard in black and white.

Layer Parameters

This option displays the Layer Parameters dialog box for the current active window. This dialog box allows you to define parameters related to the vehicle layers in your package design.

Package Instruction

This option displays the Package Instruction dialog box where users can add packaging accessories and note to the report.

Modify Pattern

This option opens the shipcase or pallet pattern editor, which allows you modify the arrangement of primary packs in an intermediate packs, intermediate packs in a shipcase or shipcases on a pallet.

Select as Secondary Pattern

The Select as Secondary Pattern option allows you to select a pallet pattern and specify it as your secondary pattern from the list of solutions. This feature is useful if TOPS Pro has another pallet pattern you would like to insert for a given layer of your primary (first) solution.

Go to Secondary Pattern

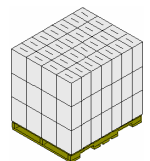
The Go to Secondary Pattern option allows you to select a pallet pattern and apply the secondary pattern to a layer or layers of your primary (first) pallet solution.

View Menu

The options under the View menu allow users to change the display of graphics or contents of the current solution window pane.

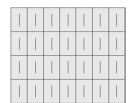
3-Dimension

The 3-Dimension option displays the 3-dimensional view of a selected graphic, as pictured on the right.



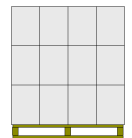
Plan

The Plan option displays the plan (top) view of a selected graphic, as pictured on the right.



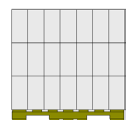
Front

The Front option displays the front view of a selected graphic, as pictured on the right.



Side

The Side option displays the side view of a selected graphic, as pictured on the right.



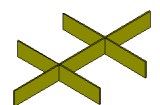
Text

The Text option displays the corresponding statistics in text form for a selected graphic, as pictured on the right.

GMA (Notched) 48.000x40.000x5.000			
Tub (OD)	Case (ID)	Case (OD)	UnitLoad (Incl. Pal)
Ln: 3.2500 in	9.6750 in	10.1875 in	48.563 in
Wd: 3.2500 in	9.6250 in	9.9375 in	48.750 in
Ht: 5.0000 in	13.6250 in	14.2500 in	47.750 in
Net: 1.6000 oz		14.400 lb	1209.600 lb
Gr: 0.0000 oz		0.437 lb	101.716 lb
Cube: 3.24 in ³	0.5158 ft ³	0.5828 ft ³	54.6837 ft ³
	Height Vert	Height Vert	
Cases:			84
Area Efficiency:		76.08 %	103.07 %
Cubic Efficiency:		52.34 %	86.40 %
Cases per layer:			28
Layers/Load:			3
Pattern:		3x2x24	Column
Max U/L High:			4
Clamp Direction:			N/A

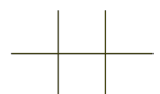
Divider 3D

The Divider 3D option displays the 3-dimensional view of the divider in a selected graphic, as pictured on the right.



Divider Plan

The Divider Plan option displays the plan (top) view of the divider in a selected graphic, as pictured here.

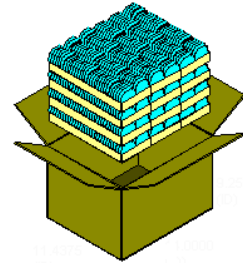


Show/Hide Dims

The Show/Hide Dims option acts as a toggle switch that allows you to show or hide (erase) the numeric dimensions on a selected graphic.

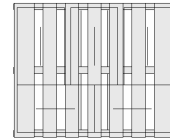
Show Contents

The Show Contents option displays the contents of a container. For example, if a carton contains trays of cookies, the Show Contents option will display the trays of cookies in the graphic, as pictured on the right.



Transparent Boxes


The Transparent Boxes option allows you to view the footprint of a pallet. To use this feature, open the View menu, select Plan, then select Transparent Boxes. The pallet pattern redisplay with one layer of the unitload having transparent boxes, as pictured as the right.

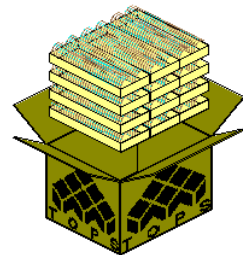


To see other views of the pallet pattern, use the Shift/Arrow keys to rotate the pallet.

Show Graphics/C.A.S.Y.

The Show Graphics/C.A.S.Y. option allows you to display paste-on graphics on the front, back or top of your shipcases, as pictured below. This feature also allows you to display a CASY design you have created for a container. For a faster display, leave this feature turned off.

 **Note:** If an analysis includes both graphics and a CASY design, the system will display the CASY design, not both.

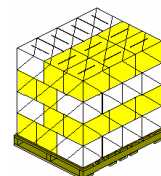


Show Graphics

The Show Graphics option allows you to display paste-on graphics on the front, back or top of your shipcases. For a faster display, leave this feature turned off.

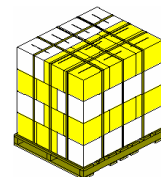
Show ShrinkWrapped

The Show ShrinkWrapped option allows you to display a unitload with shrinkwrap applied, as pictured on the right.



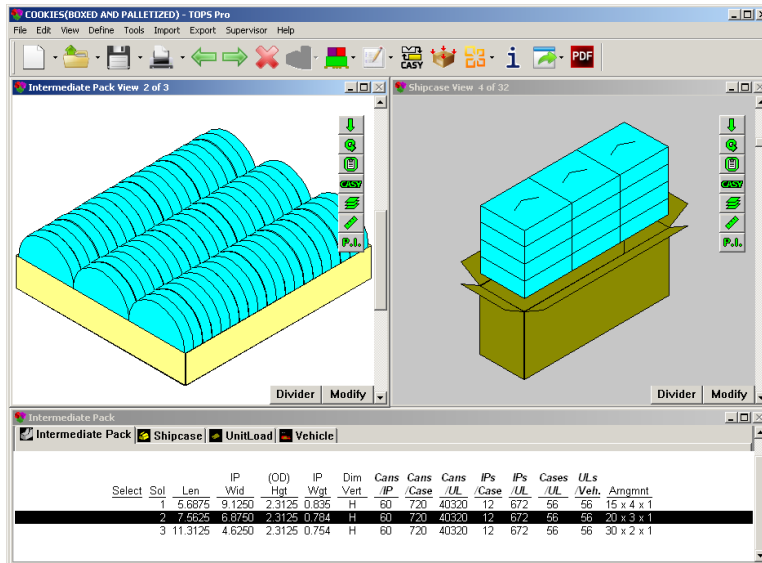
Show Strapped

The Show Strapped option allows you to display a unitload with strapping applied, as pictured on the right.



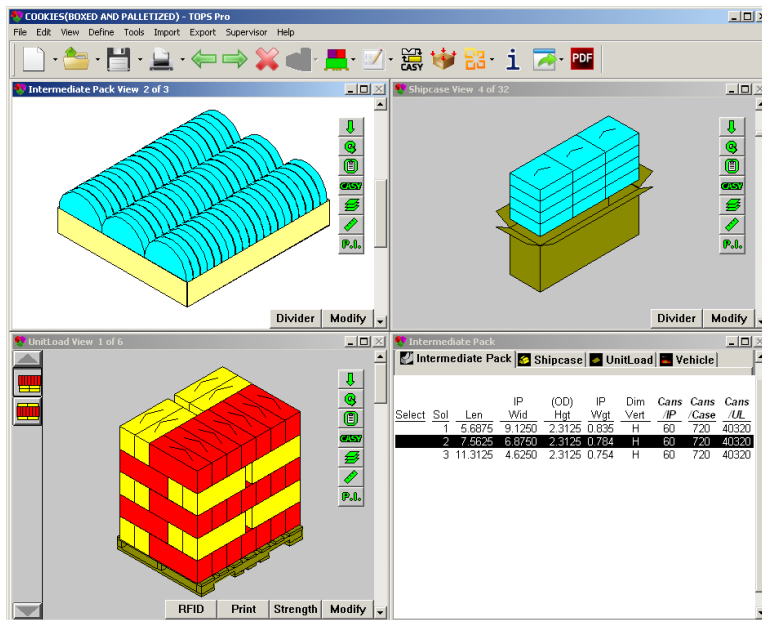
Split Screen

The Split Screen option divides the Analysis View into three panes, as pictured below. Click the Next (→) or Previous (←) button to move between stages.



Quad Screen

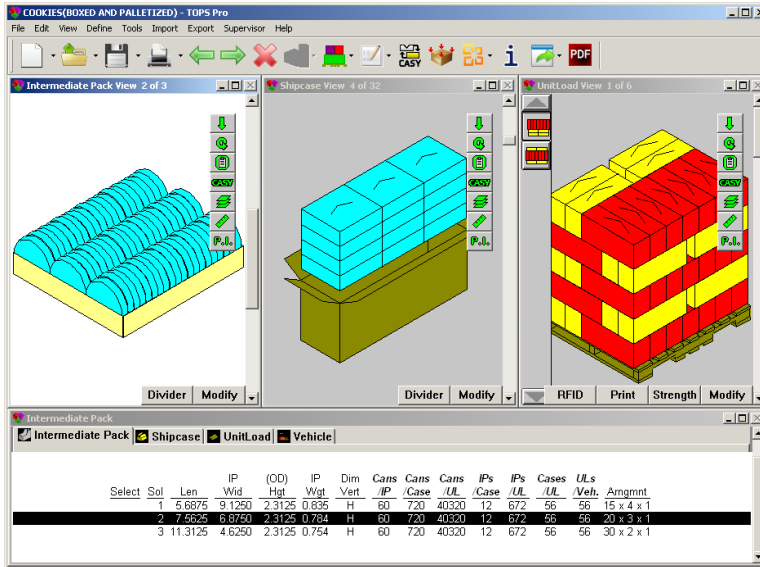
The Quad Screen option divides the Analysis View into four panes, as pictured next. Again, click Next (→) or Previous (←) button to move between stages or click the different tabs in the Solution List pane.



Tri Screen

When available, depending on the number of stages in the Design Sequence, the Tri Screen layout presents the graphics in three different panes as pictured on the next page.

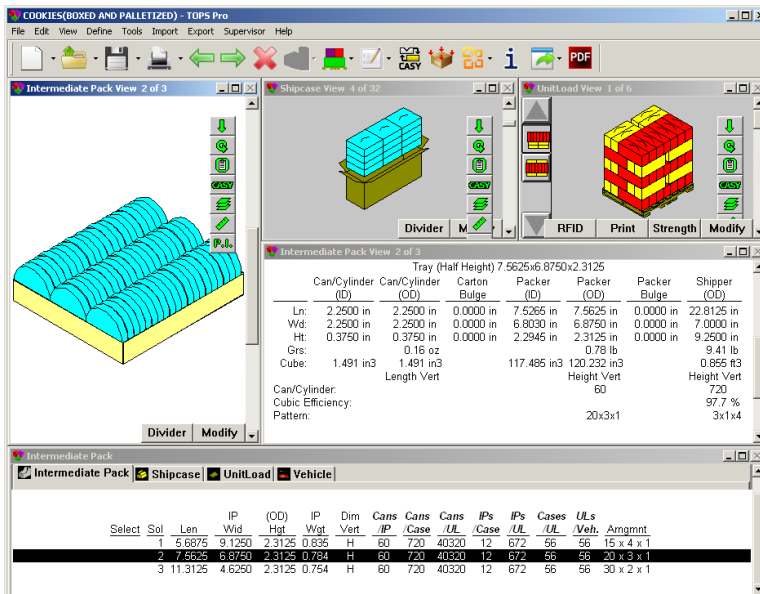
You can use the Next (→) or Previous (←) button to move between stages or click the different tabs in the Solution List pane.



Tri With Stat Screen

When available, the Tri Screen with Statistics option presents the graphics in three different panes plus the statistics of the highlighted stage.

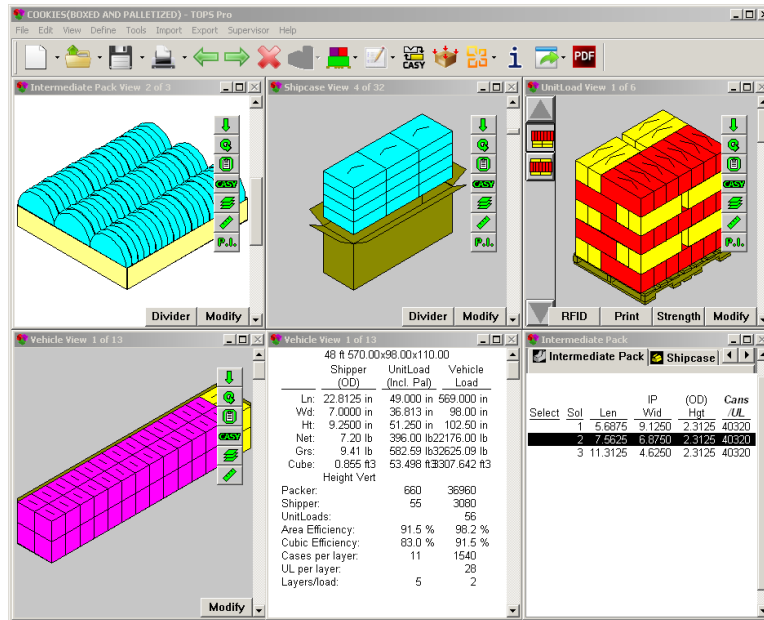
You can use the Next (→) or Previous (←) button to move between stages or click the different tabs in the Solution List pane.



Hex Screen

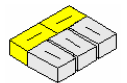
When available, the Hex Screen option presents the graphics view in six different panes as pictured below.

Again, click Next (→) or Previous (←) button to move between stages or click the different tabs in the Solution List pane.



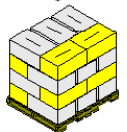
Single Stack

The Single Stack option displays a unitload as a single-stack pattern.



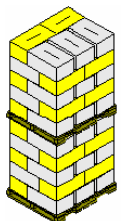
Pop Top

The Pop Top option displays a unitload with the top layer suspended, which allows you to see the second layer in the pattern, as pictured on the right.



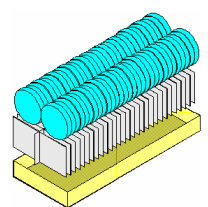
Double Stack

The Double Stack option displays a unitload as a double-stack pattern, as pictured on the right.



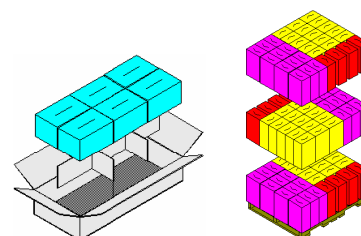
Assembly

The Assembly option is used for cartons with dividers and displays a view how the carton and dividers are assembled, as pictured on the right.



Exploded

The Exploded option is used for cartons or shipcases with dividers and displays a view how the items are loaded into a shipper, as pictured on the right.



Define Menu

Product

The Product option displays the Define Product dialog box, which allows you to define parameters for a new product. You can also use this dialog box to change parameters for an existing product. Products are used in Package Profiles. Please refer to Chapter 10 for more details.

Carton

The Carton option displays the Define Carton dialog box, which allows you to define parameters for a new carton or to change parameters for an existing carton.

Once defined, these cartons can be found in the drop-down list of the Description field in the Carton Parameters dialog box.

Can

The Can option displays the Define Can dialog box, which allows you to define parameters for a new can or to change parameters for an existing can. Defined cans can be found in the drop-down list of the Description field in the Can Parameters dialog box.

Tub

The Tub option displays the Define Tub dialog box, which allows you to define parameters for a new tub or to change parameters for an existing tub. Defined tubs can be found in the drop-down list of the Description field in the Tub Parameters dialog box.

Bottle

The Bottle option displays the Define Bottle dialog box, which allows you to define parameters for a new or to change parameters for an existing bottle. Defined bottles can be found in the drop-down list of the Description field in the Bottle Parameters dialog box.

Film Bag

The Film Bag option displays the Define Film Bag dialog box which allows you to define parameters for a new bag or to change parameters for an existing file bag. Defined film bags can be found in the drop-down list of the Description field in the Bag Parameters dialog box.

Milk Carton

The Milk Carton option displays the Define Milk Carton dialog box, which allows you to define parameters for a new milk carton or to change parameters for an existing milk carton. Defined milk cartons can be found in the drop-down list of the Description field in the Milk Carton Parameters dialog box.

Shipping Case

The Shipping Case option displays the Define Shipping Case dialog box, which allows you to define parameters for a new a shipcase or to change parameters for an existing shipcase. Defined shipping cases can be found in the drop-down list of the Description field in the Shipcase Parameters dialog box when using a Fixed Case.

Pallet

The Pallet option displays the Define Pallet dialog box, which allows you to define parameters for a new a pallet or to change parameters for an existing pallet. Defined pallets can be found in the drop-down list of the Pallet Style field in the UnitLoad Parameters dialog box.

Vehicle

The Vehicle option displays the Define Vehicle dialog box, which allows you to define a new vehicle and save it to the database or to change parameters for an existing vehicle. Defined vehicles can be found in the drop-down list of the Description field in the Vehicle Parameters dialog box.

Box Styles

The Box Styles option displays the Case Styles dialog box, which allows you to define parameters for a new case style (one that's not already defined in the system). This dialog box also allows you to change parameters for an existing style.

Defined box styles are available in the drop-down list of the Style field in the Carton, Intermediate Pack and Shipcase Parameters dialog boxes.

Dividers

The Dividers option displays the Define Dividers dialog box, which allows you to define parameters for a new divider or to change parameters for existing dividers.

Pallet Accessories

The Pallet Accessories option displays the Define Pallet Accessories dialog box, which allows you to define custom slipsheet, pad, tray or cap and save them to the TOPS database for later use.

Film

The Film option displays the Define Film dialog box, which allows you to define parameters for a new film or to change parameters for existing film. Defined films can be found in the drop-down list of the Film field in the Bag Parameters dialog box.

Bag Costing

The Bag Costing option displays the Costing Data dialog box, which allows you to enter costing data related to a number of bag-related items. More information can be found in Appendix B – Costing Data dialog box.

C.A.S.Y. Primary Style

This option displays the CASY Primary Package Screen, which allows you to design a primary package (bottle, can, cup, etc.) that has a custom, non-standard shape. More information is available in Chapter 8, Create A Shape Yourself (CASY).

C.A.S.Y. Tray Style

This option displays the CASY Shipcase/Tray Screen, which allows you to design and build a shipcase or tray that has a custom, non-standard shape. More information is available in Chapter 8, Create A Shape Yourself.

Tools Menu

Configuration

The Configuration option displays the Configuration dialog box, which allows you to define the configuration of your TOPS Pro system by selecting and de-selecting a range of options.

Language

The Language option displays a second menu, which allows you to select the language to be used with the TOPS Pro system.

You can also access the Edit menu, which displays the Text Modification dialog box which allows you to replace existing text strings within TOPS Pro with a new text string.

Stacking Strength

The Stacking Strength option displays the Stacking Strength dialog box, which allows you to perform a stacking strength test on a package analysis.

For more information about the Stacking Strength dialog box, please refer to Chapter 9, Stacking Strength, or Appendix B, Dialog Boxes.

Search

This option displays Analysis Search dialog box where users can specify the dimension of a carton or shipcase to be searched through the database or from the archives.

User List

The User List option displays the User List dialog box, which displays the users currently logged onto the system. This feature is critical for network users who have a limited number of TOPS Pro software licenses. For example, if you have two licenses and two users are logged on, then a third user will not be able to logon until one of the current users logs off.

Color Selection

The Color Selection option displays the Color Selection dialog box, which allows you to select a color for a number of images in the system – blocks, packers, shippers, etc.

MixPro

The MixPro option displays the MixPro Screen, which allows you to design a mixed pallet with any number of different size boxes.

For more information about the MixPallet Screen, please refer to Chapter 6, MixPro Pallet.

MixTray

The MixTray option displays the MixTray Screen, which allows you to design a mixed tray with any number of different size primary packages.

For more information about the MixTray Screen, please refer to Chapter 6, MixPro Tray.

ESR

The ESR, Eco Saving Report option opens a second menu, which allows you to configure cost factors for ESR and to create ESR after multiple solutions have been selected for comparison.

Recover Analyses

The option opens the Auto Recover dialog box which allows you to select analyses for recovery or deletion.

Import Menu

Import TOPS Data

The Import TOPS Data option displays the Import From ASCII dialog box, which allows you to import an ASCII comma delimited text file or XML files into the TOPS Pro system. You can use this function to import shipcases into TOPS Pro. The functionality is identical to that of the Import option on the File menu in the Configuration program.

Easy Import

The Easy Import option displays the Easy Import dialog box, which allows you to import an ASCII comma delimited text file into the TOPS Pro system.

This is a simpler import when compared to the general TOPS import and can include up to the following 32 fields/Columns for an analysis:

- | | |
|-------------------------------------|---|
| 1) Analysis Name | 2) Analysis Type (starting stage of analysis) |
| 3) Unit of Measure For distance | 4) Unit of Measure For weight |
| 5) Primary pack (if present) | 6) Primary pack type |
| 7) Primary pack length | 8) Primary pack width |
| 9) Primary pack height | 10) Primary pack net weight |
| 11) Primary pack gross weight | 12) Intermediate pack (if present) |
| 13) Intermediate pack style | 14) Intermediate pack flute |
| 15) Intermediate pack maximum count | 16) Intermediate pack minimum count |
| 17) Shipcase (if present) | 18) Shipcase type |
| 19) Shipcase style | 20) Shipcase length |
| 21) Shipcase width | 22) Shipcase height |
| 23) Shipcase flute | 24) Shipcase maximum count |
| 25) Shipcase minimum count | 26) Unitload (if present) |
| 27) Unitload Pallet | 28) Unitload maximum height |
| 29) Unitload maximum weight | 30) Vehicle (if present) |
| 31) Vehicle name | 32) Vehicle maximum weight |

Impact CAD

The Impact CAD option imports design data from Impact CAD for stacking analysis reports and other pallet configuration. For details, please contact TOPS Technical Support.

Export Menu

BMP (Color)

The BMP (Color) option displays the Save File As dialog box and allows you to save a selected graphic as a color bitmap file.

BMP (B+W)

The BMP (B+W) option displays the Save File As dialog box and allows you to save a selected graphic as a black-and-white bitmap file.

EPS

The EPS option displays the Save File As dialog box and allows you to save a selected graphic as an encapsulated post script (EPS) file.

TIFF

The TIFF option displays the Save File As dialog box and allows you to save a selected graphic as a TIFF file.

PCX

The PCX option displays the Save File As dialog box and allows you to save a selected graphic as a PCX file.

JPEG


The JPEG option displays the Save File As dialog box and allows you to save a selected graphic as a JPEG file.

HTML

The HTML option displays the Save File As dialog box and allows you to save a selected graphic as an HTML file.

PNG

The PNG option displays the Save File As dialog box and allows you to save a selected graphic as a PNG file.

 **Note:** TOPS recommends the PNG format because it provides the smallest file size and the best quality image.

PDF

The PDF option displays the Save File As dialog box and allows you to save a selected graphic as a PDF file.

WMF

The WMF option displays the Save File As dialog box and allows you to save a selected graphic as a WMF file.

Product Report

The Product Report option displays the Product Export dialog box, which allows you to export a product report. This report exports information to an ASCII comma delimited text file in a form suitable for import into Microsoft Access or Excel. The report includes information on every product attached to an approved package profile.

Case

The Case option displays the Export to ASCII dialog box. It which allows you to export the shipcase in the current analysis from the TOPS Pro system to an ASCII comma delimited test file for use by third-party products, such as Design Axis' Package for DOS product.

Carton

The Carton option displays the Export to ASCII dialog box. It allows you to export the carton in the current analysis from the TOPS Pro system to an ASCII comma delimited test file for use by third-party products, such as Design Axis' Package for DOS product.

Analysis

The Analysis option displays the Export Analysis dialog box, which allows you to export an analysis to an ASCII comma delimited text or XML file. You can use this file to transfer analyses to other copies of TOPS Pro (same release or higher) or to back up your work.

Analysis Summary

The Export Analysis Summary option allows you to export all analyses, including both working and approved ones, in the TOPS Pro database into a comma delimited file. In order to open the export in Excel or Access, please provide a file name with a CSV or TXT extension.

Sarbrook – WinSPEX

This option integrates TOPS Pro with the Sarbrook – WinSPEX system. For more information, please call TOPS Technical Support.

Design Axis – PKG

This option integrates TOPS Pro with the PKG Specification system. For more information, please call TOPS Technical Support.

Robotic Palletizer

The Robotic Palletizer option allows you to export the arrangement of a pallet pattern layer to an ASCII comma delimited text file, which can be used by robotic palletizing machines to determine how to arrange a unitload.

Interface

The Interface option allows you to export data from TOPS Pro to other software applications like JD Edwards. For an up-to-date list of applications that interface with TOPS Pro, please contact TOPS Technical Support.

Send to MS Office

The Send to MS Office option displays the Select template to export dialog box, which allows you to export the current analysis to MS Word or Excel using predefined templates. For more information, please see Chapter 18 – Send to MS Office.

Send to Impact

The Send to Impact option sends stacking analysis report and other pallet graphics to Impact CAD. For more information, please contact TOPS Technical Support.

The Send to Esko Artios option displays the Send to Artios dialog box which allows you to export shipcase or shipcase and pallet information to Artios CAD. For more information, please see Chapter 3.

Base Data

The Base Data option sends the selected database data to XML files.

Supervisor Menu

Login/Logout

The Login/Logout option displays the Supervisor Login dialog box, which allows you to login to the system as a supervisor. This is required in order to perform the following tasks:

- Approve analyses
- Rename and delete users
- Change statistics settings
- See all users' work
- Log off other users
- Change button templates
- Change Quick Print templates

For more information about the Supervisor Login dialog box, please refer to Chapter 15, Supervisor Functions, or Appendix B, Dialog Boxes.

Open Request

The Open Request option displays the Open Request for Approval dialog box, which displays a list of analyses that are queued up for approval or denial. This dialog box allows a supervisor to open an analysis and look it over before approving or denying it.

For more information, please refer to Chapter 15, Supervisor Functions.

Approve

The Approve option allows the supervisor to approve an analysis.

Deny Approval

The Deny Approval option allows the supervisor to deny approval of an analysis.

Template Setup

The Template Setup option displays the Control Panel in red and allows a supervisor to set up a

template analysis and assign a button to it.

QPrint Template

The QPrint Template option displays the Control Panel in red and allows a supervisor to set up a Quick Print analysis.


Revert From Last Approved

The Revert From Last Approved option is currently not active.

Set License

The Set License option opens the Set TOPS License box, which allows you to setup your TOPS electronic license.

Launch Config.exe

The Launch Config.exe option opens the TOPS Pro Configuration program , which gives you access to global settings.

Help Menu

Contents and Index

The Contents and Index option displays the TOPS Pro Help index. , Here you can select and display Help information for a comprehensive range of topics.

About

The About option displays the About TOPS Pro screen, which displays a variety of information about your license including: software version, registered name, serial number, current user, license format (stand-alone or network) and number of simultaneous users.

It also lists the directory path for the TOPS Pro installation, its database, language and location of the TOPSPRO.INI file.

Email Problem Definition

The Email Problem Definition option allows you to e-mail an analysis or problem definition report to TOPS Technical Support. This feature launches your e-mail browser, automatically attaches the selected analysis, and addresses the e-mail to TOPS Technical Support.

D

Pallet Patterns

TOPS Pro allows you to configure unitloads with a specific pattern. For example, the Shipcase Option dialog box allows you to select one or multiple pattern arrangements for TOPS Pro to consider when the system generates solutions for an analysis. This appendix describes the pattern styles you can use with TOPS Pro.

Depending on your situation, you may want to use a number of patterns in your analysis to get a tighter load. Conversely, you might want to eliminate some options because you want simpler patterns; for example, your palletizing machine can handle only simple 1-block patterns.

Note two things about the information presented in this appendix:

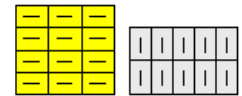
- The pattern styles 1-block, 2-block, 3-block, 4-block, 5-block, 5-block plus and diagonal, lets you choose a vertical dimension for the shipcases and use that vertical dimension throughout the arrangement.

Each of the figures presented with these patterns see the depth dimension as the vertical dimension. For each pattern, two unitloads are displayed in plan view for enhanced clarity.

- Each pattern style has a corresponding letter in parentheses. This letter is used in the various List panels and unitload statistics, and is a single-letter abbreviation for that particular pattern style.

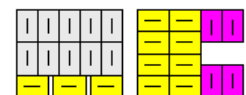
1-Block Pattern (C)

The 1-block, column stack pattern is a simple pattern with one block of shipcases.



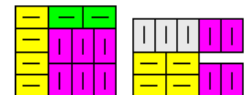
2-Block Pattern (B)

The 2-block pattern or bi-block configuration, is pictured below. This pattern is also known as interlock pattern if used in conjunction with layer rotation.



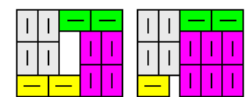
3-Block Pattern (T)

The 3-block, or tri-block, pattern is pictured here.



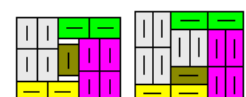
4-Block Pattern (W)

The 4-block, pinwheel pattern is pictured below. In the two unitloads, this pattern is made up of four blocks of shipcases that form a pinwheel-like figure.



5-Block Pattern (P)

The 5-block, or penta-block, pattern is pictured here. In these two unitloads, this pattern is made up of five blocks of shipcases. Four blocks of shipcases form a pinwheel configuration; the fifth block of shipcase is positioned in the middle.



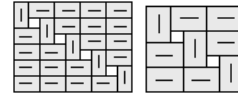
5-Block Plus Pattern (Q)

Notice that this 5-block pattern has another 5-block pattern in the middle of the configuration. In these two unitloads, this pattern is made up of five blocks of shipcases. Four blocks of shipcases form a pinwheel configuration; a separate 5-block configuration of shipcases is positioned in the middle.



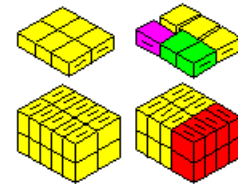
Diagonal Pattern (D)

In these unitloads, the pattern has alternating blocks of shipcases that form a diagonal configuration.



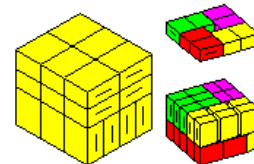
Multi-Layer Pattern (Z)

In these two unitloads, the top layer is lifted to show that different layers have different patterns. With a multi-layer pattern, TOPS Pro configures the unitload with the vertical dimension you specified, with the exception of the top layer. (The top layer is not affected by stacking strength).



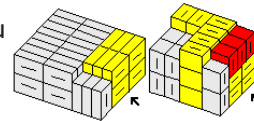
Multi-Dimension Pattern (Z)

In the two unitloads shown here, each layer has a different vertical dimension.



Multi-Surface Pattern (O)

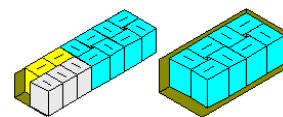
With this pattern, TOPS Pro turns the pallet on its side, loads the pallet, configures the pallet upright again. In the figure, the arrows indicate the side on which TOPS Pro loaded the pallet.



To use a multi-surface pattern, it is necessary to select at least two dimensions as vertical dimensions. When you use a multi-surface pattern, TOPS Pro automatically calculates other multi-patterns.

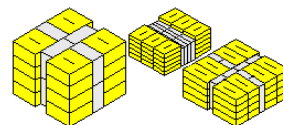
Repeat (Pinwheel) Pattern (R)

With the repeater pattern, you will fill the vehicle with the pinwheel pattern on the right, then fill the rest of the vehicle space with other patterns, if possible. This pattern is available only if you are loading pallets onto a vehicle.



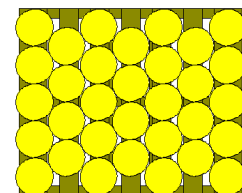
Soldiered Pattern (S)

In the two unitloads, the cases are spaced apart so that other cases can be turned on their sides and fit into the space.



Staggered Pattern (N)

The staggered pattern is used to load round containers onto a pallet. As you can see, the round containers mean the configuration will have a staggered, rather than having a linear pattern.



E

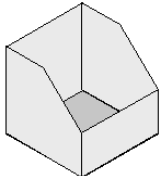
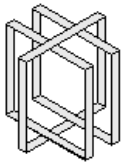
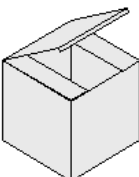
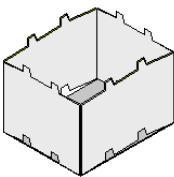
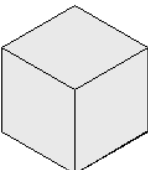
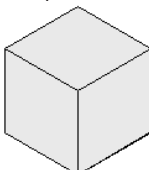
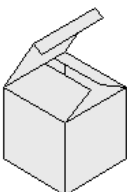
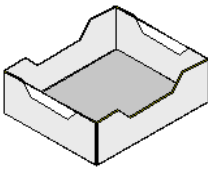
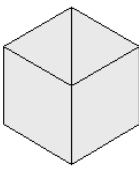
Box Styles

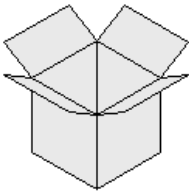
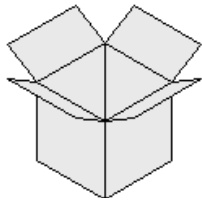
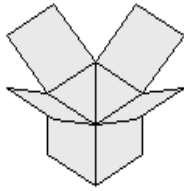
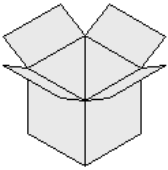
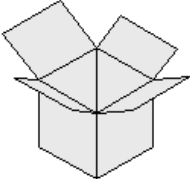
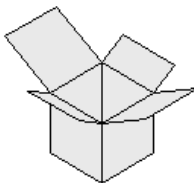
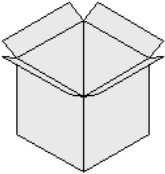
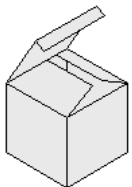
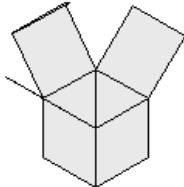
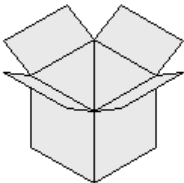
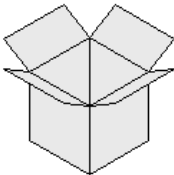
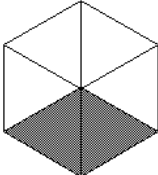
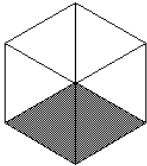
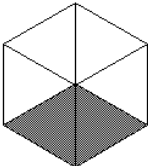
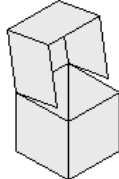
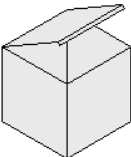
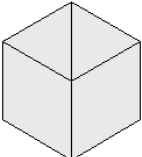
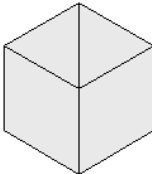
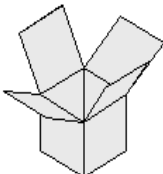
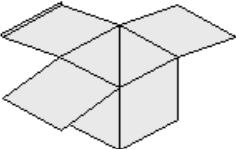
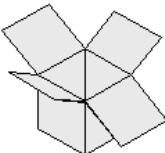
This appendix outlines the box styles defined in the TOPS Pro database.

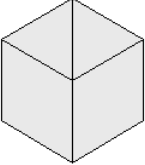
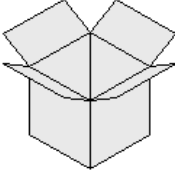
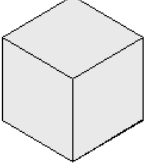
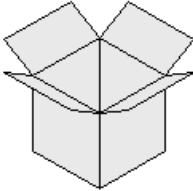
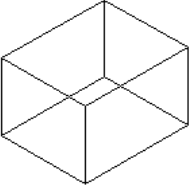
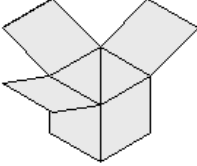
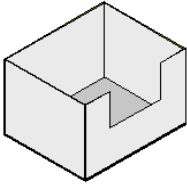
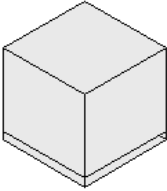
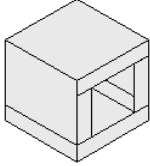
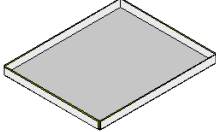
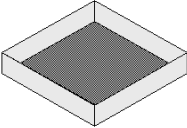
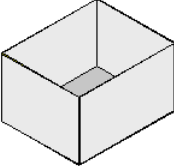
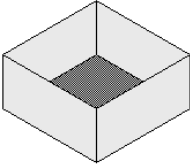
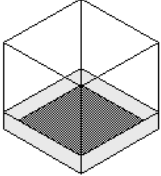
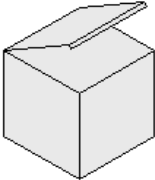
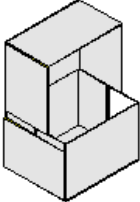
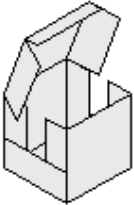
To see the parameters for each box style as shown in this chapter, select Box Styles under the Define Menu. Click on the drop down list in the Description field to select the style. The Case Styles dialog box will appear to provide detail parameters for the selected style.

The screenshot shows the 'Case Styles' dialog box with the following settings:

- Description:** FEFCO 201 (RSC)
- Drawing Style:** RSC
- Units:** English (selected), Metric
- Thicknesses:** Length: 2.00000, Width: 2.00000, Height: 4.00000
- Export Name:** FEFCO 201
- Strength Factor (as % of RSC):** 100.00
- Drawing Parameters:**
 - Major Flap: 0.000 (selected: Flap Gap)
 - Minor Flap Length: 50.00 (selected: % of Box Width)
 - Back Flap Angle: 30.5 (selected: Degrees)
 - Front Flap Angle: 30.5 (selected: Degrees)
 - Minor Flap Angle: 53.26 (selected: Degrees)
- Buttons:** Save, Delete, Close, Help
- Locked:** Locked

Bottle Display Tray 	Bundle Strapped 	Carton 
CFS 	Cube 	Cube (No Thicknesses) 
Die Cut 	Display Case 	FEFCO 200 

FEFCO 201 (RSC) 	FEFCO 202 	FEFCO 203 (FOL) 
FEFCO 204 	FEFCO 205 	FEFCO 206 
FEFCO 209 	FEFCO 210-15 (Die Cut) 	FEFCO 215 
FEFCO 216 	FEFCO 230 	FEFCO 300 
FEFCO 304 	FEFCO 308 	FEFCO 406 
FEFCO 421 	FEFCO 422 	FEFCO 453 
FOL 	Friction Lock Tuck Top 	Full Overlap Seal End Carton 

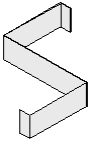
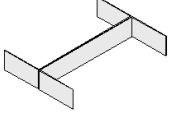
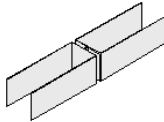
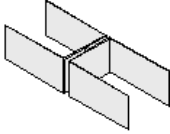
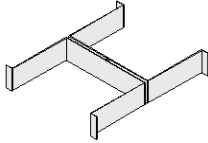
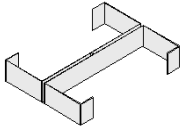
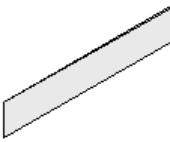

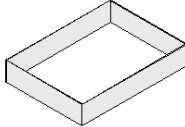
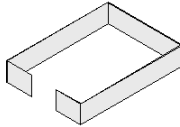
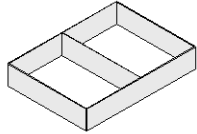
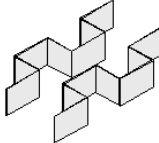
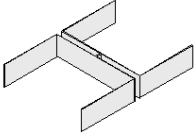
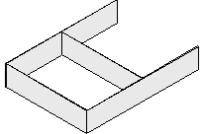
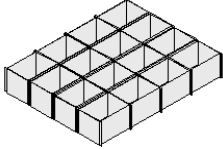
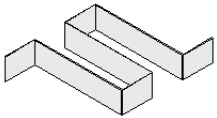
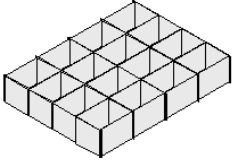
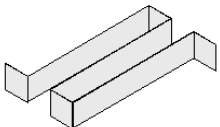
HSC 	RSC 	RSC (Closed) 
RSC (FEFCO 0201) 	Shrink Wrap 	Standard Reverse Tuck Carton 
Tear Out 	Telescoping 	Tray and Shroud 
Tray (1-inch) 	Tray (2-inch) 	Tray (CFC) 
Tray (Half Height) 	Tray (Shrink Wrap) 	Tuck 
Wrap Around 	Wrap Around Economy 	

F Divider Styles

This appendix outlines the divider styles defined in TOPS Pro's database:

To see the parameters for each divider style shown in the appendix, select Dividers under the Define Menu. Click on the drop down list in the Description field to select the style. The Define Dividers dialog box, as shown below, displays the parameters for the selected divider.

<p>2-Way Cell (A)</p>	<p>2-Way w/ Partial (B)</p>	<p>2-Way w/ Sleeve (C)</p>
<p>2-Way w/ Closed E (D)</p>	<p>2-Way w/ Closed M (E)</p>	<p>3-Cell w/ Tabs (F)</p>
<p>Z-Part Length (G)</p>	<p>Z-Part Length w/ T (H)</p>	<p>Z-Part Width (I)</p>

Z-Part Width w/ T (J) 	H-Part (Inside) (K) 	H-Part (Outside) (L) 
H-Part (Outside) (M) 	H-Part w/ tabs (Outside) (N) 	H-Part w/ Tabs IN (O) 
Split Width (P) 	Split Length (Q) 	Perimeter (R) 
Perimeter w/ Gap (S) 	Perimeter w/ Center T (T) 	U-Part w/ Tabs (U) 
Dual U w/ Box IN (V) 	Cradle (W) 	Complete Aircell 
Len U Simple 	Perimeter Aircell 	Wid U Simple 



TOPS Pro Bookmarks & Defined Names

TOPS Bookmarks for MS Word

Product / Primary Pack

IMAGE_PROD_POPTOP_3D	Product Poptop 3D Image
IMAGE_PROD_SINGLE_STACK_3D	Product Single Stack 3D Image
IMAGE_PROD_DOUBLE_STACK_3D	Product Double Stack 3D Image
IMAGE_PROD_ASSEMBLY_3D	Product Assembly 3D Image
IMAGE_PROD_EXPLODED_3D	Product Exploded 3D Image
IMAGE_PROD_POPTOP_PLAN	Product Poptop Plan Image
IMAGE_PROD_SINGLE_STACK_PLAN	Product Single Stack Plan Image
IMAGE_PROD_DOUBLE_STACK_PLAN	Product Double Stack Plan Image
IMAGE_PROD_ASSEMBLY_PLAN	Product Assembly Plan Image
IMAGE_PROD_EXPLODED_PLAN	Product Exploded Plan Image
IMAGE_PROD_POPTOP_FRONT	Product Poptop Front Image
IMAGE_PROD_SINGLE_STACK_FRONT	Product Single Stack Front Image
IMAGE_PROD_DOUBLE_STACK_FRONT	Product Double Stack Front Image
IMAGE_PROD_ASSEMBLY_FRONT	Product Assembly Front Image
IMAGE_PROD_EXPLODED_FRONT	Product Exploded Front Image
IMAGE_PROD_POPTOP_SIDE	Product Poptop Front Image
IMAGE_PROD_SINGLE_STACK_SIDE	Product Single Front Image
IMAGE_PROD_DOUBLE_STACK_SIDE	Product Double Stack Front Image
IMAGE_PROD_ASSEMBLY_SIDE	Product Assembly Front Image
IMAGE_PROD_EXPLODED_SIDE	Product Exploded Front Image

Intermediate Pack

IMAGE_IP_POPTOP_3D	Intermediate Pack Poptop 3D Image
IMAGE_IP_SINGLE_STACK_3D	Intermediate Pack Single Stack 3D
IMAGE_IP_DOUBLE_STACK_3D	Intermediate Pack Double Stack 3D
IMAGE_IP_ASSEMBLY_3D	Intermediate Pack Assembly 3D
IMAGE_IP_EXPLODED_3D	Intermediate Pack Exploded 3D
IMAGE_IP_POPTOP_PLAN	Intermediate Pack Poptop Plan
IMAGE_IP_SINGLE_STACK_PLAN	Intermediate Pack Single Stack Plan
IMAGE_IP_DOUBLE_STACK_PLAN	Intermediate Pack Double Stack Plan
IMAGE_IP_ASSEMBLY_PLAN	Intermediate Pack Assembly Plan
IMAGE_IP_EXPLODED_PLAN	Intermediate Pack Exploded Plan
IMAGE_IP_POPTOP_FRONT	Intermediate Pack Poptop Front
IMAGE_IP_SINGLE_STACK_FRONT	Intermediate Pack Single Stack Front
IMAGE_IP_DOUBLE_STACK_FRONT	Intermediate Pack Double Stack Front
IMAGE_IP_ASSEMBLY_FRONT	Intermediate Pack Assembly Front
IMAGE_IP_EXPLODED_FRONT	Intermediate Pack Exploded Front
IMAGE_IP_POPTOP_SIDE	Intermediate Pack Poptop Side
IMAGE_IP_SINGLE_STACK_SIDE	Intermediate Pack Single Stack Side
IMAGE_IP_DOUBLE_STACK_SIDE	Intermediate Pack Double Stack Side
IMAGE_IP_ASSEMBLY_SIDE	Intermediate Pack Assembly Side
IMAGE_IP_EXPLODED_SIDE	Intermediate Pack Exploded Side

Shipcase

IMAGE_SC_POPTOP_3D	Shipcase Poptop 3D
IMAGE_SC_SINGLE_STACK_3D	Shipcase Single Stack 3D
IMAGE_SC_DOUBLE_STACK_3D	Shipcase Double Stack 3D
IMAGE_SC_ASSEMBLY_3D	Shipcase Assembly 3D
IMAGE_SC_EXPLODED_3D	Shipcase Exploded 3D

IMAGE_SC_POPTOP_PLAN	Shipcase Poptop Plan
IMAGE_SC_SINGLE_STACK_PLAN	Shipcase Single Stack Plan
IMAGE_SC_DOUBLE_STACK_PLAN	Shipcase Double Stack Plan
IMAGE_SC_ASSEMBLY_PLAN	Shipcase Assembly Plan
IMAGE_SC_EXPLODED_PLAN	Shipcase Exploded Plan
IMAGE_SC_POPTOP_FRONT	Shipcase Poptop Front
IMAGE_SC_SINGLE_STACK_FRONT	Shipcase Single Stack Front
IMAGE_SC_DOUBLE_STACK_FRONT	Shipcase Double Stack Front
IMAGE_SC_ASSEMBLY_FRONT	Shipcase Assembly Front
IMAGE_SC_EXPLODED_FRONT	Shipcase Exploded Front
IMAGE_SC_POPTOP_SIDE	Shipcase Poptop Plan
IMAGE_SC_SINGLE_STACK_SIDE	Shipcase Single Stack Plan
IMAGE_SC_DOUBLE_STACK_SIDE	Shipcase Double Stack Plan
IMAGE_SC_ASSEMBLY_SIDE	Shipcase Assembly Plan
IMAGE_SC_EXPLODED_SIDE	Shipcase Exploded Plan

Unitload

IMAGE_UL_POPTOP_3D	Unitload Poptop 3D
IMAGE_UL_SINGLE_STACK_3D	Unitload Single Stack 3D
IMAGE_UL_DOUBLE_STACK_3D	Unitload Double Stack 3D
IMAGE_UL_ASSEMBLY_3D	Unitload Assembly 3D
IMAGE_UL_EXPLODED_3D	Unitload Exploded 3D
IMAGE_UL_POPTOP_PLAN	Unitload Poptop Plan
IMAGE_UL_SINGLE_STACK_PLAN	Unitload Single Stack Plan
IMAGE_UL_DOUBLE_STACK_PLAN	Unitload Double Stack Plan
IMAGE_UL_ASSEMBLY_PLAN	Unitload Assembly Plan
IMAGE_UL_EXPLODED_PLAN	Unitload Exploded Plan
IMAGE_UL_POPTOP_FRONT	Unitload Poptop Front
IMAGE_UL_SINGLE_STACK_FRONT	Unitload Single Stack Front
IMAGE_UL_DOUBLE_STACK_FRONT	Unitload Double Stack Front
IMAGE_UL_ASSEMBLY_FRONT	Unitload Assembly Front
IMAGE_UL_EXPLODED_FRONT	Unitload Exploded Front
IMAGE_UL_POPTOP_SIDE	Unitload Poptop Side
IMAGE_UL_SINGLE_STACK_SIDE	Unitload Single Stack Side
IMAGE_UL_DOUBLE_STACK_SIDE	Unitload Double Stack Side
IMAGE_UL_ASSEMBLY_SIDE	Unitload Assembly Side
IMAGE_UL_EXPLODED_SIDE	Unitload Exploded Side

Statistics (Primary Pack)

STATS_PRIPACK_NAME	Primary pack box style
STATS_PRIPACK_LEN	Primary Pack Length (Inside)
STATS_PRIPACK_LEN_METRIC	Primary Pack Length in metric (Inside)
STATS_PRIPACK_LEN_METRIC_CM	Primary Pack Length in cm (Inside)
STATS_PRIPACK_LEN_OUTSIDE	Primary Pack Length (Outside)
STATS_PRIPACK_LEN_METRIC_OUTSIDE	Primary Pack Length in metric (Outside)
STATS_PRIPACK_LEN_METRIC_CM_OUTSIDE	Primary Pack Length in cm (Outside)
STATS_PRIPACK_WID	Primary Pack Width (Inside)
STATS_PRIPACK_WID_METRIC	Primary Pack in metric (Inside)
STATS_PRIPACK_WID_METRIC_CM	Primary Pack in cm (Inside)
STATS_PRIPACK_WID_OUTSIDE	Primary Pack Width (Outside)
STATS_PRIPACK_WID_METRIC_OUTSIDE	Primary Pack in metric (Outside)
STATS_PRIPACK_WID_METRIC_CM_OUTSIDE	Primary Pack in cm (Outside)
STATS_PRIPACK_HGT	Primary Pack Height (Inside)
STATS_PRIPACK_HGT_METRIC	Primary Pack Height in metric (Inside)
STATS_PRIPACK_HGT_METRIC_CM	Primary Pack Height in cm (Inside)
STATS_PRIPACK_HGT_OUTSIDE	Primary Pack Height (Outside)
STATS_PRIPACK_HGT_METRIC_OUTSIDE	Primary Pack Height in metric (Outside)
STATS_PRIPACK_HGT_METRIC_CM_OUTSIDE	Primary Pack Height in cm (Outside)
STATS_PRIPACK_DIMVERT	Vertical Dimension of Primary pack
STATS_PRIPACK_CUBE	Primary Pack Cube (Inside)

STATS_PRIPACK_CUBE_METRIC	Primary Pack Cube in metric (Inside)
STATS_PRIPACK_CUBE_OUTSIDE	Primary Pack Cube (Outside)
STATS_PRIPACK_CUBE_METRIC_OUTSIDE	Primary Pack Cube in metric (Outside)
STATS_PRIPACK_WGT_NET	Net Weight - Primary Pack
STATS_PRIPACK_WGT_NET_METRIC	Net Weight in metric - Primary Pack
STATS_PRIPACK_WGT_GROSS	Gross Weight - Primary Pack
STATS_PRIPACK_WGT_GROSS_METRIC	Gross Weight in metric - Primary Pack
STATS_PRIPACK_PER_LAYER	Primary Pack per layer
STATS_PRIPACK_LAYER_PER_LOAD	Primary pack layers per load
STATS_PRIPACK_COUNT	Primary Pack Count

Statistics (Intermediate Pack)

STATS_IPACK_NAME	Intermediate pack box style
STATS_IPACK_LEN	Intermediate Pack Length (Inside)
STATS_IPACK_LEN_METRIC	Intermediate Pack Length in metric (Inside)
STATS_IPACK_LEN_METRIC_CM	Intermediate Pack in cm (Inside)
STATS_IPACK_LEN_OUTSIDE	Intermediate Pack Length (Outside)
STATS_IPACK_LEN_METRIC_OUTSIDE	Intermediate Pack Length metric (Outside)
STATS_IPACK_LEN_METRIC_CM_OUTSIDE	Intermediate Pack in cm (Outside)
STATS_IPACK_WID	Intermediate Pack Width (Inside)
STATS_IPACK_WID_METRIC	Intermediate Pack Width in metric (Inside)
STATS_IPACK_WID_METRIC_CM	Intermediate Pack in cm (Inside)
STATS_IPACK_WID_OUTSIDE	Intermediate Pack Width (Outside)
STATS_IPACK_WID_METRIC_OUTSIDE	Intermediate Pack Width in metric (Outside)
STATS_IPACK_WID_METRIC_CM_OUTSIDE	Intermediate Pack in cm (Outside)
STATS_IPACK_HGT	Intermediate Pack Height (Inside)
STATS_IPACK_HGT_METRIC	Intermediate Pack Height in metric (Inside)
STATS_IPACK_HGT_METRIC_CM	Intermediate Pack in cm (Inside)
STATS_IPACK_HGT_OUTSIDE	Intermediate Pack Height (Outside)
STATS_IPACK_HGT_METRIC_OUTSIDE	Intermediate Pack Height metric (Outside)
STATS_IPACK_HGT_METRIC_CM_OUTSIDE	Intermediate Pack in cm (Outside)
STATS_IPACK_DIMVERT	Vertical Dimension of Intermediate pack
STATS_IPACK_PATTERN	Loading Pattern onto the intermediate pack
STATS_IPACK_CUBE	Intermediate Pack Cube (Inside)
STATS_IPACK_CUBE_METRIC	Intermediate Pack Cube in metric (Inside)
STATS_IPACK_CUBE_OUTSIDE	Intermediate Pack Cube (Outside)
STATS_IPACK_CUBE_METRIC_OUTSIDE	Intermediate Pack Cube in metric (Outside)
STATS_IPACK_WGT_NET	Net Weight - Intermediate Pack
STATS_IPACK_WGT_NET_METRIC	Net Weight in metric - Intermediate Pack
STATS_IPACK_WGT_GROSS	Gross Weight - Intermediate Pack
STATS_IPACK_WGT_GROSS_METRIC	Gross Weight in metric - Intermediate Pack
STATS_IPACK_PER_LAYER	Intermediate Pack per layer
STATS_IPACK_LAYER_PER_LOAD	Intermediate Pack layers per load
STATS_IPACK_COUNT	Intermediate Pack Count

Statistics (Shipper)

STATS_SHIPPER_LEN	Shippers Length (Inside)
STATS_SHIPPER_LEN_METRIC	Shippers Length in metric (Inside)
STATS_SHIPPER_LEN_METRIC_CM	Shippers Length in cm (Inside)
STATS_SHIPPER_LEN_OUTSIDE	Shippers Length (Outside)
STATS_SHIPPER_LEN_METRIC_OUTSIDE	Shippers Length in metric (Outside)
STATS_SHIPPER_LEN_METRIC_CM_OUTSIDE	Shippers Length in cm (Outside)
STATS_SHIPPER_WID	Shippers Width (Inside)
STATS_SHIPPER_WID_METRIC	Shippers Width in metric (Inside)
STATS_SHIPPER_WID_METRIC_CM	Shippers Width in cm (Inside)
STATS_SHIPPER_WID_OUTSIDE	Shippers Width (Outside)
STATS_SHIPPER_WID_METRIC_OUTSIDE	Shippers Width in metric (Outside)
STATS_SHIPPER_WID_METRIC_CM_OUTSIDE	Shippers Width in cm (Outside)
STATS_SHIPPER_HGT	Shippers Height (Inside)
STATS_SHIPPER_HGT_METRIC	Shippers Height in metric (Inside)

STATS_SHIPPER_HGT_METRIC_CM	Shippers Height in cm (Inside)
STATS_SHIPPER_HGT_OUTSIDE	Shippers Height (Outside)
STATS_SHIPPER_HGT_METRIC_OUTSIDE	Shippers Height in metric (Outside)
STATS_SHIPPER_HGT_METRIC_CM_OUTSIDE	Shippers Height in cm (Outside)
STATS_SHIPPER_DIMVERT	Vertical Dimension of Shipper
STATS_SHIPPER_PATTERN	Loading Pattern onto the shipper
STATS_SHIPPER_CUBE	Shippers Cube (Inside)
STATS_SHIPPER_CUBE_METRIC	Shippers Cube in metric (Inside)
STATS_SHIPPER_CUBE_OUTSIDE	Shippers Cube (Outside)
STATS_SHIPPER_CUBE_METRIC_OUTSIDE	Shippers Cube in metric (Outside)
STATS_SHIPPER_WGT_NET	Net Weight - Shipper
STATS_SHIPPER_WGT_NET_METRIC	Net Weight in metric – Shipper
STATS_SHIPPER_WGT_GROSS	Gross Weight – Shipper
STATS_SHIPPER_WGT_GROSS_METRIC	Gross Weight in metric - Shipper
STATS_SHIPPER_RSCAREA	RSC Area of Shipper
STATS_CARTONS_PER_SHIPPERLAYER	Cartons per layer in Shipper
STATS_SHIPPER_LAYER_PER_LOAD	Shipper layers per Unitload
STATS_CARTONS_PER_SHIPPER_COUNT	Cartons per Shipper – Count

Statistics (Unitload)

STATS_UL_LEN	Unitload Length (Inside)
STATS_UL_LEN_METRIC	Unitload in metric (Inside)
STATS_UL_LEN_METRIC_CM	Unitload in cm (Inside)
STATS_UL_LEN_OUTSIDE	Unitload Length (Outside)
STATS_UL_LEN_METRIC_OUTSIDE	Unitload in metric (Outside)
STATS_UL_LEN_METRIC_CM_OUTSIDE	Unitload in cm (Outside)
STATS_UL_WID	Unitload Width (Inside)
STATS_UL_WID_METRIC	Unitload Width in metric (Inside)
STATS_UL_WID_METRIC_CM	Unitload Width in cm (Inside)
STATS_UL_WID_OUTSIDE	Unitload Width (Outside)
STATS_UL_WID_METRIC_OUTSIDE	Unitload Width in metric (Outside)
STATS_UL_WID_METRIC_CM_OUTSIDE	Unitload Width in cm (Outside)
STATS_UL_HGT	Unitload Height (Inside)
STATS_UL_HGT_METRIC	Unitload Height in metric (Inside)
STATS_UL_HGT_METRIC_CM	Unitload in cm (Inside)
STATS_UL_HGT_OUTSIDE	Unitload Height (Outside)
STATS_UL_HGT_METRIC_OUTSIDE	Unitload Height in metric (Outside)
STATS_UL_HGT_METRIC_CM_OUTSIDE	Unitload in cm (Outside)
STATS_UL_PATTERN	Loading Pattern in the Unitload
STATS_UL_CUBE	Unitload Cube (Inside)
STATS_UL_CUBE_METRIC	Unitload Cube in metric (Inside)
STATS_UL_CUBE_OUTSIDE	Unitload Cube (Outside)
STATS_UL_CUBE_METRIC_OUTSIDE	Unitload Cube in metric (Outside)
STATS_UL_WGT_NET	Net Weight - Unitload
STATS_UL_WGT_NET_METRIC	Net Weight in metric – Unitload
STATS_UL_WGT_GROSS	Gross Weight – Unitload
STATS_UL_WGT_GROSS_METRIC	Gross Weight in metric – Unitload
STATS_UL_RSCAREA	RSC Area of Unitload
STATS_UL_CUBICEFF	Cubic Efficiency in %
STATS_UL_AREAEFF	Area Efficiency in %
STATS_UL_PALLETNAME	Pallet name
STATS_UL_PALLETLEN	Pallet Length
STATS_UL_PALLETLEN_METRIC	Pallet Length in metric
STATS_UL_PALLETWID	Pallet Width
STATS_UL_PALLETWID_METRIC	Pallet Width in metric
STATS_UL_PALLETWGT	Pallet Weight
STATS_UL_PALLETWGT_METRIC	Pallet Weight in metric
STATS_UL_OVERHANGLEN	Maximum length Overhang
STATS_UL_OVERHANGWID	Maximum width Overhang
STATS_UL_UNDERHANGLEN	Maximum length Underhang

STATS_UL_UNDERHANGWID	Maximum width Underhang
STATS_UL_PER_LAYER	Unitload per layer
STATS_UL_LAYERS_PER_ULOAD	Unitload layers per load
STATS_UL_COUNT	Unitload Count
STATS_UL_PRIPACKCOUNT	Primary pack per Unitload
STATS_UL_INTPACKCOUNT	Intermediate pack per Unitload

Statistics (Transit Vehicle)

STATS_TV_NAME	Vehicle name
STATS_TV_LEN	Vehicle Length (Inside)
STATS_TV_LEN_METRIC	Vehicle Length in metric (Inside)
STATS_TV_LEN_OUTSIDE	Vehicle Length (Outside)
STATS_TV_LEN_METRIC_OUTSIDE	Vehicle Length in metric (Outside)
STATS_TV_WID	Vehicle Width (Inside)
STATS_TV_WID_METRIC	Vehicle Width in metric (Inside)
STATS_TV_WID_OUTSIDE	Vehicle Width (Outside)
STATS_TV_WID_METRIC_OUTSIDE	Vehicle Width in metric (Outside)
STATS_TV_HGT	Vehicle Height (Inside)
STATS_TV_HGT_METRIC	Vehicle Height in metric (Inside)
STATS_TV_HGT_OUTSIDE	Vehicle Height (Outside)
STATS_TV_HGT_METRIC_OUTSIDE	Vehicle Height in metric (Outside)
STATS_TV_PATTERN	Loading Pattern in the Vehicle
STATS_TV_CUBE	Vehicle Cube (Inside)
STATS_TV_CUBE_METRIC	Vehicle Cube in metric (Inside)
STATS_TV_CUBE_OUTSIDE	Vehicle Cube (Outside)
STATS_TV_CUBE_METRIC_OUTSIDE	Vehicle Cube in metric (Outside)
STATS_TV_WGT_NET	Net Weight – Vehicle
STATS_TV_WGT_NET_METRIC	Net Weight in metric – Vehicle
STATS_TV_WGT_GROSS	Gross Weight – Vehicle
STATS_TV_WGT_GROSS_METRIC	Gross Weight in metric – Vehicle
STATS_TV_UL_COUNT	Unitloads per vehicle

Statistics (General)

ANAL_NAME	Analysis Name
ANAL_AUTHOR	Analysis Author (User)
COMPANY_NAME	Company Name
CUST_Address	Customer Address
CUST_Name	Customer Name
CUST_Order	Customer Order Number
HDR_Desc	Header Description
HDR_Spec	Header Specification
INFO_Stats	Show all statistics for the Analysis

Defined Names for MS Excel

Data (Intermediate Pack)

IP_AREAEFF	Area Efficiency - Intermediate Pack
IP_CASESPERLAYER	Case per Layer - Intermediate Pack
IP_COUNT	Intermediate Pack Count
IP_CUBICEFF	Cube Efficiency - Intermediate Pack
IP_DIMVERT	Vertical Dimension of Intermediate Pack
IP_GROSS	Gross Weight - Intermediate Pack
IP_LAYERSPERLOAD	Intermediate Pack Layers per Load
IP_NAME	Name of Intermediate Pack
IP_NET	Net Weight - Intermediate Pack
IP_PATTERN	Intermediate Pack Load Pattern
IP_RSCAREA	RSC Area of Intermediate Pack
IP_TOPULLAYERS	- Not Applicable -
IPIN_CUBE	Intermediate Pack Cube (Inside)
IPIN_HGT	Intermediate Pack Height (Inside)
IPIN_LEN	Intermediate Pack Length (Inside)
IPIN_WID	Intermediate Pack Width (Inside)
IPOUT_CUBE	Intermediate Pack Cube (Outside)
IPOUT_HGT	Intermediate Pack Height (Outside)
IPOUT_LEN	Intermediate Pack Length (Outside)
IPOUT_WID	Intermediate Pack Width (Outside)

Data (Primary Pack)

PP_AREAEFF	Area Efficiency – Primary Pack
PP_CASESPERLAYER	Case per Layer - Primary Pack
PP_COUNT	Primary Pack Count
PP_CUBICEFF	Cube Efficiency - Primary Pack
PP_DIMVERT	Vertical Dimension - Primary Pack
PP_GROSS	Gross Weight - Primary Pack
PP_LAYERSPERLOAD	Primary Pack Layers per Load
PP_NAME	Name of Primary Pack
PP_NET	Net Weight - Primary Pack
PP_PATTERN	Primary Pack Load Pattern
PP_RSCAREA	RSC Area of Primary Pack
PPIN_CUBE	Primary Pack Cube (Inside)
PPIN_HGT	Primary Pack Height (Inside)
PPIN_LEN	Primary Pack Length (Inside)
PPIN_WID	Primary Pack Width (Inside)
PPOUT_CUBE	Primary Pack Cube (Outside)
PPOUT_HGT	Primary Pack Height (Outside)
PPOUT_LEN	Primary Pack Length (Outside)
PPOUT_WID	Primary Pack Width (Outside)

Data (Product)

PR_CASESPERLAYER	Case per Layer - Product
PR_COUNT	Product Count
PR_CUBICEFF	Cub Efficiency - Product
PR_DIMVERT	Vertical Dimension of Product
PR_GROSS	Gross Weight - Product
PR_LAYERSPERLOAD	Layer per Load - Product
PR_NAME	Product Name
PR_NET	Net Weight of Product
PR_PATTERN	Product Load Pattern
PR_RSCAREA	RSC Area of Product
PRIN_CUBE	Product Cube (Inside)
PRIN_HGT	Product Height (Inside)
PRIN_LEN	Product Length (Inside)

PRIN_WID	Product Width (Inside)
PROUT_CUBE	Product Cube (Outside)
PROUT_HGT	Product Height (Outside)
PROUT_LEN	Product Length (Outside)
PROUT_WID	Product Width (Outside)

Data (Shipcase)

SC_AREAEFF	Area Efficiency – Shipcase
SC_CASESPERLAYER	Case per Layer - Shipcase
SC_COUNT	Shipcase Count
SC_CUBICEFF	Cube Efficiency - Shipcase
SC_DIMVERT	Vertical Dimension of Shipcase
SC_GROSS	Gross Weight - Shipcase
SC_LAYERSPERLOAD	Layer per Load - Shipcase
SC_NAME	Shipcase Name
SC_NET	Net Weight of Shipcase
SC_PATTERN	Shipcase Load Pattern
SC_RSCAREA	RSC Area of Shipcase
SCIN_CUBE	Shipcase Cube (Inside)
SCIN_HGT	Shipcase Height (Inside)
SCIN_LEN	Shipcase Length (Shipcase)
SCIN_WID	Shipcase Width (Inside)
SCOUT_CUBE	Shipcase Cube (Outside)
SCOUT_HGT	Shipcase Height (Outside)
SCOUT_LEN	Shipcase Length (Outside)
SCOUT_WID	Shipcase Width (Outside)
STPR_NET	- Not Applicable -
STSCIN_LEN	- Not Applicable -

Data (Vehicle)

TV_AREAEFF	Area Efficiency - Vehicle
TV_CASESPERLAYER	Cases per Layer - Vehicle
TV_COUNT	Vehicle Count
TV_CUBICEFF	Cube Efficiency - Vehicle
TV_DIMVERT	Vertical Dimension of Vehicle
TV_GROSS	Gross Weight - Vehicle
TV_LAYERSPERLOAD	Layers per Load - Vehicle
TV_NAME	Vehicle Name
TV_NET	Net Weight - Vehicle
TV_PATTERN	Vehicle Load Pattern
TV_RSCAREA	RSC Area of Vehicle
TVIN_CUBE	Vehicle Cube (Inside)
TVIN_HGT	Vehicle Height (Inside)
TVIN_LEN	Vehicle Length (Inside)
TVIN_WID	Vehicle Width (Inside)
TVOUT_CUBE	Vehicle Cube (Outside)
TVOUT_HGT	Vehicle Height (Outside)
TVOUT_LEN	Vehicle Length (Outside)
TVOUT_WID	Vehicle Width (Outside)

Data (Unitload)

UL_AREAEFF	Area Efficiency – UnitLoad
UL_CASESPERLAYER	Cases per Layer - UnitLoad
UL_COUNT	UnitLoad Count
UL_CUBICEFF	Cube Efficiency - UnitLoad
UL_DIMVERT	Vertical Dimension of UnitLoad
UL_GROSS	Gross Weight of UnitLoad
UL_LAYERSPERLOAD	Layers per Load - UnitLoad
UL_NAME	UnitLoad Name

UL_NET
UL_PATTERN
UL_RSCAREA
ULIN_CUBE
ULIN_HGT
ULIN_LEN
ULIN_WID
ULOUT_CUBE
ULOUT_HGT
ULOUT_LEN
ULOUT_WID

Net Weight - UnitLoad
UnitLoad Load Pattern
RSC Area of UnitLoad
UnitLoad Cube (Inside)
UnitLoad Height (Inside)
UnitLoad Length (Inside)
UnitLoad Width (Inside)
UnitLoad Cube (Outside)
UnitLoad Height (Outside)
UnitLoad Length (Outside)
UnitLoad Width (Outside)

Images

IMAGE_IP_POPTOP_3D
IMAGE_PROD_SINGLE_STACK_3D
IMAGE_SC_POPTOP_3D
IMAGE_TV_SINGLE_STACK_3D
IMAGE_UL_DOUBLE_STACK_3D
IMAGE_UL_SINGLE_STACK_3D

Intermediate Pack poptop 3D View
Product Single Stack 3D View
Shipcase Poptop 3D View
Vehicle Single Stack 3D View
Unitload Double Stack 3D View
Unitload Single Stack 3D View

More images are available, please contact TOPS Technical Support.

H

Importing to TOPS Pro

Shipcase Database

Shipcase records are one to a line. Any field left blank will be automatically assigned a default value. Placing strings within quotes is optional unless the strings contain delimiters. Numerical units are always in English even if Metric is selected. If needed, conversion of units from English to Metric occurs during use.

Exporting the shipcase database is done through the TOPS Pro Config program by clicking on the Export Data quick link in the Control Panel.

Importing data into TOPS Pro can be done through either:

- The TOPS Pro program: go to the Import menu and select Import TOPS Data.
- The TOPS Pro Config program: click on the Import Data quick link in the Control Panel.

Importing is an additive process, deletion of items must be done manually. If you would like to nuke the database and start over you should follow these steps:

1. Delete the files SHIPCASE.DAT and SHIPCASE.IDX in the \TOPSAPPS\TOPSPro\DATA\ directory.
2. Run TOPS Pro Config program.
3. After logging in you will be prompted to recreate the SHIPCASE database, answer "Create".

At this point the Shipcase database will be empty and ready for a fresh import.

[Ship Case]

"Shipcase one",E,I,"RSC","C",C,0,,,12,10,8,,,,6,0,0,0,

"Shipcase two",E,O,"RSC","C",O,0.25,,,12,10,8,,,,6,0,0,0,

Column	Name	Type	Description
A	Name	String (21)	Shipcase Name
B	Units	String (1)	Units for display, "E" for English or "M" for Metric
C	Dimensions	String(1)	"I" for Inside Dims or "O" for Outside
D	Box Style	String (31)	Name of Box Style from Box Styles Database
E	Flute	String (1)	Box flute if applicable (I.E. "A", "B", "C", etc.)
F	Material	String (1)	"C" for corrugated(fluted), "O" for Other (Caliper based)
G	Caliper	Distance	Caliper of non-corrugated material. Not used with Fluted (Leave empty)
H	Blank		Placeholder; not used at this time.
I	Blank		Placeholder; not used at this time.
J	Length	Distance	Length of shipcase (normally greater than width)
K	Width	Distance	Width of shipcase
L	Height	Distance	Height of shipcase, the distance through the flaps
M	Blank		Placeholder; not used at this time.

N	Blank		Placeholder; not used at this time.
O	Blank		Placeholder; not used at this time.
P	Weight	Weight	Gross weight of shipcase, if things are placed within then this number is considered to be the maximum weight of it's contents. 0 (zero) indicates no limit.
Q	Cost	Number	Costing information is not used at this time and may be left off
R	Turn Rate	Number	Costing information is not used at this time and may be left off
S	Cases per pallet	Number	Costing information is not used at this time and may be left off
T	Graphic	String (80)	Graphic on Top (File Name with full path)
U	Graphic	String (80)	Graphic on Left Side (File Name with full path)
V	Graphic	String (80)	Graphic on Back (File Name with full path)
W	Graphic Orientation	Number	Graphic Orientation
X	Supervisor Lock	String (1)	Lock the record for other users Y/N
Y	Custom Shape	String (80)	CASY Shape for Shipcase
Z	Tare Weight	Weight	Tare weight of shipcase
AA	Version		Software Version
AB	Graphic	String (80)	Graphic on Front Side (File Name with full path)
AC	Graphic	String (80)	Graphic on Right Side (File Name with full path)

Carton (Primary Pack) Import Format

The **Primary Pack** database structure is provided below. If the primary pack is a carton, there should not normally be any reason to use it. In most cases, cartons should be entered using the shipcase database as a non-corrugated case.

[Carton]

"Carton one",E,O,"Tuck",5,4,3,0.018,

Column	Name	Type	Description
A	Name	String (21)	Carton Name
B	Units	String (1)	Units for display "E" for English or "M" for Metric
C	Dimensions	String(1)	"I" for Inside Dims or "O" for Outside
D	Box Style	String (31)	Name of Box Style from Box Styles Database
E	Length	Distance	Length of carton (normally greater than width)
F	Width	Distance	Width of carton
G	Height	Distance	Height of carton
H	Caliper	Distance	Caliper of carton material
I	Blank		Placeholder, not used at this time
J	Blank		Placeholder, not used at this time
K	Blank		Placeholder, not used at this time
L	Graphic	String (80)	Graphic on Top (File Name with full path)

M	Graphic	String (80)	Graphic on Left Side (File Name with full path)
N	Graphic	String (80)	Graphic on Back Side (File Name with full path)
O	Graphic Orientation	Number	Graphic Orientation
P	Supervisor Lock	String (1)	Lock the record for other users (Y/N)
Q	Custom Shape	String (80)	CASY Shape
R	Type	String (1)	C - Carton N - Can/Cylinder T - Tub B - Bottle M - Milk Carton G - Bag
S	Top Diameter	Distance	Top Diameter for Tubs/Cans
T	Body Shape	String (1)	C - Round O - Oval R - Rectangular
U	Bottom Diameter	Distance	Bottom Diameter of Tubs. Same as Top Diameter in case of Cans)
V	Top Length	Distance	Top Length (rectangular tubs only)
W	Tops Width	Distance	Top Width (rectangular tubs only)
X	Bottom Length	Distance	Bottom Length (rectangular tubs only)
Y	Bottom Width	Distance	Bottom Width (rectangular tubs only)
Z	Pitch	Distance	Pitch for Tubs
AA	Weight	Weight	Weight of the Primary Pack
AB	Shoulder Height	Distance	Bottle Shoulder Height
AC	Neck Height	Distance	Bottle Neck Height
AD	Neck Diameter	Distance	Bottle Neck Diameter
AE	Film Name	String (21)	Name of File used for Bags
AF	File Cost	Number	Bags only
AG	File Waste	Number	Bags only
AH	Seal Style	String (1)	Bags only L - Lap F - Fin
AI	LWH based	String (1)	Y/N (Bags only)
AJ	Top Seal	Distance	Bags only
AK	Bottom Seal	Distance	Bags only
AL	Back Seal	String (1)	Y/N (Bags only)
AM	Stand Up Bag	String (1)	Y/N (Bags only)
AN	Version		Software Version
AO	Graphic	String (80)	Graphic on Front (File Name with full path)
AP	Graphic	String (80)	Graphic on Right Side (File Name with full path)

Pallet Database

[Pallet]

"48 X 48 Pallet",E,N,S,S,N,N,N,48,48,5.5,62,7,5,1,2,2.5,0,5,N,0,N,0,-1,0,"","","0",""6.02",

"CHEP Pallet",E,B,R,F,N,N,N,48,40,5,67,8,4,0.75,2,0,0,5,N,0,N,0,-1,0,"","","0",""6.02",

Column	Name	Type	Description
A	Pallet Name	String (31)	Name of Analysis to be imported
B	Units	String (1)	Units for Display E - English M - Metric
C	Pallet Style	String (1)	Pallet Style S – Stringer N – Notched Stringer B – Block P – Slipsheet E – Euro Pallet C – Chep Pallet L – Ledge W – Litco Presswood X – No Style
D	Construction Type	String (1)	Pallet Construction Type S – Single D – Double R– Reverse
E	Alignment Type	String (1)	Pallet alignment F– Flush S – Single Wing D – Double Wing
F	Length Tab	String (1)	For slipsheets (Y/ N)
G	Width Tab	String (1)	For slipsheets (Y/ N)
H	Both Tabs	String (1)	For slipsheets (Y/ N)
I	Length	Distance	Length of Pallet
J	Width	Distance	Width of Pallet
K	Height	Distance	Height of Pallet
L	Weight	Distance	Weight of Pallet
M	OutDeckWidth	Distance	Width of Outer deck board Length of Feet in case of Litco Pallet
N	InDeckWidth	Distance	Width of Inside deck board Width of Feet in case of Litco Pallet
O	deckHgt	Distance	Height of deck boards Width of Feet in case of Litco Pallet
P	Stringer Width	Distance	Stringer Width
Q	Offset	Distance	Offset
R	Tab Width	Distance	Slipsheet Tab Width
S	No. Boards	Number	Number of inside deck boards No. of Feet along Length for Litco Pallets
T	AutoSize	String(1)	Y/N

U	midDeckWidth	Distance	Middle Deck Width (EuroPallets) No. of Feet along width for Litco Pallets
V	supvLock	String(1)	Locked by supervisor Y/N
W	defMaxHgt	Distance	Default Maximum height
X	DispColor	Long number	Pallet Color for Display
Y	Align Distance	Distance	Distance by which the offset is aligned - from the left side of pallet
Z	Graphic0	String(80)	Pallet graphic on top
AA	Graphic1	String(80)	Pallet graphic on right side
AB	Graphic2	String(80)	Pallet graphic on left side
AC	Graphic Orientation	Number	Graphic orientation
AD	Design File	String(80)	Design specification File (with full path)
AE	Version		Not imported into db
AF	Pallet Id	Long Number	Pallet Id (P&G specific)
AG	DbType	Number	80 – Pallet 83 – Slip Sheet (used for defining Pallet Accessories) 68 – Pad (used for defining Pallet Accessories) 67 - Cap (used for defining Pallet Accessories) 84 –Tray (used for defining Pallet Accessories)

Product Database

[Product]

Frosted Cheerios,E,"1600012345",0.0031875,"Generic",0,"",N,"",0,0,0,"6.502",

Column	Name	Type	Description
A	Product Name	String (51)	
B	Units	String (1)	Units for Display E - English M - Metric
C	UPC Code	String (26)	Product UPC Code
D	Density	Number	
E	Brand	String (22)	
F	Cost	Number	Costing Information
G	Description	String (128)	
H	Supervisor Lock	String (1)	Y/N
I	Manufacturing Code	String (12)	
J	EAN UCC Width	Number	Left to Right
K	AEN UCC Depth	Number	Front to Back
L	EAN UCC Height	Number	Base to Top
M	Version		Software Version

Easy Import (Analysis) Format

To access, go to TOPS Pro's Import menu and select Easy Import.

Column	Name	Type	Description
A	AnalName	String (31)	Name of Analysis to be imported
B	AnalType	String (2)	Starting stage of analysis PP- Primary Pack SC – Shipper UL – Unitload
C	UOM (Dist)	String	Unit of Measurement for Distances DIST_IN – Inches DIST_FT – Feet DIST_MM – Millimeters DIST_MTR – Meters DIST_CM – Centimeters <i>If left blank, DIST_IN is assumed</i>
D	UOM (Wgt)	String	Unit of Measurement for Weights DIST_LB – Pounds DIST_OZ – Ounces DIST_KG – Kilograms DIST_GR – Grams <i>If left blank, DIST_LB is assumed</i>
E	hasPP	String (1)	Has Primary Pack or not (Y/N)
F	PPType	String (1)	Primary Pack Type C – Carton N – Can/Cylinder
G	PPLen	Distance	PP Length
H	PPWid	Distance	PP Width
I	PPHgt	Distance	PP Height
J	PPNet	Weight	PP Net Weight
K	PPGross	Weight	PP Gross Weight
L	hasIP	String (1)	Has Intermediate Pack or not (Y/N)
M	IPStyle	String (31)	IP Box Style
N	IPFlute	String (3)	IP Flute
O	IPMaxCount	Number	Max Count
P	IPMinCount	Number	Min Count
Q	hasSC	String (1)	Has Shipcase or not (Y/N)
R	SCType	String (1)	SC Type (<i>Refer to PPType</i>)
S	SCStyle	String (31)	SC Box Style
T	SCLen	Distance	SC Length
U	SCWid	Distance	SC Width
V	SCHgt	Distance	SC Height
W	SCFlute	String (3)	SC Flute
X	SCMaxCount	Number	Max Count
Y	SCMinCount	Number	Min Count
Z	hasUL	String (1)	Has Unitload or not (Y/N)
AA	ULPal	String (21)	Pallet Name

AB	ULMaxHgt	Distance	Max height of Unitload (including pallet)
AC	ULMaxWgt	Weight	Max Wieight of Unitload (including pallet)
AD	hasTV	String (1)	Has Vehicle or not (Y/N)
AE	TVName	String (21)	Vehicle Name
AF	TVMaxWgt	Weight	Max weight of Vehicle load

Units for Import

For all Import files in Tops, the Units of the values entered in the text file are indicated by the following tags.

Tag	Units
[English]	All units below the tag are in English – Weights in lbs and distances in inches . If no tags are specified, this is the default assumed.
[Metric]	All units below the tag are in Metric – Weights in kg and distances in Meters
[DIST_MTR]	All distances below tag to be in Meters
[DIST_CM]	All distances below tag to be in Centimeters
[DIST_MM]	All distances below tag to be in Millimeters
[DIST_FT]	All distances below tag to be in Feet
[DIST_IN]	All distances below tag to be in Inches
[WGT_KG]	All weights below tag to be in Kilograms
[WGT_GR]	All weights below tag to be in Grams
[WGT_LB]	All weights below tag to be in Pounds
[WGT_OZ]	All weights below tag to be in Ounces

I

Glossary

Allowable Slack in the Case

Additional space can be added to the inside dimensions of a shipcase to make loading easier. Many designers provide a minimum of 0.125" of slack in the length and width of a shipcase to allow for manufacturing tolerances. In most cases, designers specify zero slack in the shipcase depth so the flaps close directly on the cartons.

Amount of Printing

The stacking strength of a shipcase is affected by the amount of printing on the shipcase. The printing operation not only crushes the combined board, but also saturates the fibers of the shipcase enough to reduce the amount of stacking strength.

Area Efficiency Percentage

TOPS Pro calculates the area efficiency of a pallet pattern by multiplying the number of cases per layer times the area of the shipcase face bearing against the pallet surface. TOPS Pro divides this value by the area of the pallet. The resulting value is a percentage.

Calculation Method

TOPS Pro uses the widely accepted McKee formula to calculate stacking strength. For the ring crush factor (RCF) method, TOPS Pro modifies the McKee formula slightly to transpose from RCF values to edge crush factor (ECF) values. If you need the exact formula, please contact TOPS Technical Support. It is relatively easy to insert other formulas in order to customize your specific application.

Carton Arrangement

The carton arrangement is displayed in the graphic output. For example, "2D 3L 3W" is interpreted as follows:

- In the length of the shipcase, there are two depths of the carton.
- In the width of the shipcase, there are three lengths of the carton.
- In the depth of the shipcase, there are three widths of the carton.

Cartons per Load

Main solution reports are ranked by the cartons (primary package) per load (pallet load). This value is calculated by multiplying the case count by the best number of cases per pallet load found in the analysis for the particular arrangement and carton size.

Case Cube

TOPS Pro calculates the shipcase cube in cubic feet or cubic meters and uses this value in output reports for warehouse/transit needs. Case cube is based on outside shipcase dimensions.

Case Depth

The opening-to-opening dimension of the shipcase.

Case Dimensions

This field allows you to specify which shipcase dimension is the vertical dimension for loading onto a pallet. For maximum stacking strength, the shipcase depth is usually the dimension used as the

vertical dimension. If you select more than one dimension as the vertical dimension, TOPS Pro will allow you to perform a multi-dimensional pallet loading analysis.

Case Largest Allowable

This value allows you to filter out shipcase sizes that are not reasonable in shape; for example, case length is four times its width. As a rule of thumb, enter the largest allowable dimension. If in doubt, use a very large number.

Case Length

The longer of the two non-depth dimensions of the shipcase. See Case Depth.

Case Smallest Allowable

This value allows you to filter out shipcase sizes that are not reasonable in shape; for example, case length is four times its width. As a rule of thumb, enter the smallest allowable dimension. If in doubt, use a very small number.

Case Stacking Strength

The previously calculated at-lab-compression value for the shipcase is further adjusted for humidity, palletizing, storage and miscellaneous construction factors. This value is the predicted amount of stacking strength for the shipcase. Under the conditions specified, the shipcase will fail at or near this value.

Case Style

The shipcase style dictates how TOPS Pro calculates the conversion from inside case dimensions to outside case dimensions. The specific case style selected dictates how many corrugated wall thicknesses to add to the shipcase length, width and depth dimensions.

Case Weight

The actual weight of the shipcase, either pounds or kilograms, after it is loaded with product.

Case Width

The shorter of the two non-depth dimensions of the shipcase. (See Case Depth.)

Cases per Layer

The number of cases on a single layer of the pallet. Layers are sometimes referred to as “tiers” on a pallet load.

Clampable

Many pallet loads are squeezed from the sides of the load for handling within the transit system. TOPS Pro automatically calculates whether a pallet load is clampable by reviewing the pallet pattern voids. The amount of void cannot exceed 0.5 inches. Printed reports also indicate if the load is clampable in the unit load length or unit load width dimensions.

 **Note:** All loads are subject to in-the-field verification.

Conditions

You can specify the conditions to which a shipcase is exposed. The value selected (average or severe) correlates directly with the safety factor selected (calculated or predetermined). If TOPS Pro calculates the safety factor, which is usually the case, TOPS Pro will ignore any manual conditions entries when it calculates stacking strength.

Cubic Efficiency Percentage

TOPS Pro calculates cubic efficiency by multiplying the individual case cube by the number of shipcases per unit load, then divides this value by the available cube of the unit load. The available cube of the unit load is the pallet length times the pallet width times the usable unit load height (unit load height minus the pallet height itself).

Double Stack

A diagram of two pallets stacked on top of one another. TOPS Pro provides this view to show where the bottom boards of the second pallet bear against the top surface of the bottom pallet load. This view also graphically shows how to correctly place a top load.

End-to-End

The predicted stacking strength of a shipcase with the length of the case vertical to pallet surface. This value is expressed in pounds or kilograms.

Flap Gaps

Early laboratory analysis determined that the amount of “squareness” of a shipcase affects its stacking strength. When the shipcase is closed, you can specify the amount of differential between the minor flaps and major flaps of the shipcase.

Flute Construction

TOPS Pro uses this value to apply the actual corrugated wall thickness to the case style selected in calculating inside-to-outside shipcase dimensions. TOPS Pro uses the following flute construction values:

- A flute: 0.188 inch
- B flute: 0.125 inch
- C flute: 0.157 inch
- BC flute: 0.267 inch
- CA flute: 0.267 inch
- E flute: 0.072 inch

Front View

The view of the pallet load from the side with the length of the unit load being left to right.

General Case Size

The arrangement report shows this value to indicate the approximate shipcase size that results if a specific carton arrangement is selected.

Humidity Percentage RH

Exposure to relative humidity is one of the most damaging factors to the stacking strength of a shipcase. Enter the maximum amount of relative humidity a shipcase is expected to experience during its transit and storage.

I.D.

The inside dimensions of the shipcase or carton. ID plus flute or caliper = OD.

Interior Partition Code

Stacking strength calculations include 31 various partition styles that influence the overall strength of the system. You can enter a code that will automatically adjust the stacking strength of the overall

system (shipcase).

Interlocking Layers

Many times, TOPS Pro rotates alternating layers of a unit load 180 degrees (the axis rotation varies) to produce a unit load that ties together better. While this produces a more easily transportable load, it does reduce the stacking strength of the load.

Lab Compression

The lab compression value for stacking strength is the calculated failure point of a shipcase at ideal conditions. This value is derived from ECT or RCF values, box perimeter and caliper of the combined board. TOPS Pro then adjusts this raw number for the flute direction, print, shape and length-to-width factors. The final calculation becomes the basis of further calculations that involve user-specified environmental factors.

Layers per Pallet


In combination with the calculation of maximum number of cases per layer (tier), TOPS Pro calculates the most number of layers (tiers) that the load can dimensionally support given the maximum usable load height and weight of the unit load.

Length Flip

The rotation of the pallet pattern with the length axis of the pallet; for example, 48 inches. The successive layers are mirror images of the previous layer's pattern across the length axis of the pallet.

Length and Width Flip

This double combination flip of successive layers is a length flip and width flip pattern executed simultaneously.

 **Note:** A double flip of a symmetrical pinwheel pattern reverts to a columnar stack.

Maximum Case Weight

TOPS Pro uses this value to specify a maximum filled case weight, which enables the system to find the best arrangement solution without creating a design that is too heavy to lift.

Maximum Dimension

The maximum dimension that TOPS Pro will consider when it calculates solutions for an analysis. TOPS Pro uses this value as the ending dimension in the varying of the primary carton size. TOPS Pro automatically increments this value by 1/32 inch (1 millimeter) until it reaches the maximum dimension in the analysis. You can control this increment; call TOPS Technical Support for details.

Maximum Loads High

The break-even point for how many pallet loads can be stacked in the warehouse without causing a safety problem regarding stacking strength. This value determines the number of pallet loads that can be safely stacked in the warehouse.

 **Note:** The bottom pallet is counted as the first pallet.

Minimum Dimension

The minimum dimension that TOPS Pro will consider when it calculates solutions for an analysis. TOPS Pro uses this value as the starting dimension in the varying of the primary carton size. TOPS Pro automatically increments this value by 1/32 inch (1 millimeter) until it reaches the minimum dimension in the analysis. You can control this increment; call TOPS Technical Support for details.

Mullen Burst

A measure of tearing resistance.

Normal Loading Analysis

Most pallet loads fall under this description. “Normal loading” means that the same shipcase dimension is vertical to the loading surface. Therefore, TOPS Pro calculates solutions in which the shipcase depth (or width or length) is vertical to loading in all layers. If the vertical dimension of the shipcase varies, there would be no mixing of different layers.

Number of Safe Loads

The break-even point where the fractional number of pallet loads high equals the resulting maximum load that can be experienced by a shipcase on the bottom pallet, bottom layer.

O.D.

The outside dimensions of the shipcase or carton. ID plus flute or caliper = OD.

Pallet Overhang

The differential between the finished unit load dimensions and the respective pallet dimension. For example, after TOPS Pro calculates a solution, if the unit load dimensions are 49.5 inches and respective pallet dimension is 48 inches, then the pallet overhang is 1.5 inches (total) or 0.75 inch on each side of the pallet (with a centered load).

Pallets per Warehouse

When TOPS Pro calculates stacking strength for a shipcase, the system uses this user-specified value as the basis to calculate how much weight is above the bottom case, bottom layer of the bottom pallet in the specified warehouse stack. This value rarely exceeds four pallet loads high.

Pallet Size – Height

The height of the pallet itself. For example, a common pallet in the U.S. market is the standard Grocery Manufacturers Association (GMA) pallet at five to six inches in height.

Pallet Size – Length

The length of the pallet itself. For example, a common pallet in the U.S. market is the standard Grocery Manufacturers Association (GMA) pallet at 48 inches in length.

Pallet Size – Weight

The weight of the pallet itself. For example, a common pallet in the U.S. market is the standard Grocery Manufacturers Association (GMA) pallet at 65 pounds.

Pallet Size – Width

The width of the pallet itself. For example, a common pallet in the U.S. market is the standard Grocery Manufacturers Association (GMA) pallet at 40 inches in width.

Pallet Type

Many styles of pallets are used around the world. For the purpose of calculating stacking strength, TOPS Pro makes several pallet types available. You can specify the “full surface” pallet, which is similar to slipsheets or plywood pallets. For medium pallet board spacing, specify the GMA pallet. For wide board spacing, specify the non-standard GMA pallet.

Pattern Number

When TOPS Pro calculates solutions to find pallet patterns, the system assigns an order to the answers it finds. These answers are ranked by efficiency. This number is also used to specify which pattern is to be displayed.

Pattern Type

TOPS Pro assigns a name to pallet pattern types to assist in visualizing the basic pattern. TOPS Pro assigns the following pattern names:

- C: 1-block or column
- B: 2-block, interblock or bi-block
- T: 3-block or tri-block
- W: 4-block or pinwheel
- P: 5-block or pentablock
- Q: 5-block plus or pentablock
- D: Diagonal
- Z: Multi-layer or multi-dimension
- O: Multi-surface
- R: Repeater
- S: Soldiered
- N: Staggered

Percentage of Required Strength

The comparison of calculated stacking strength of the shipcase, under the conditions specified, to the weight above the bottom case, bottom layer, bottom pallet load of the warehouse stack. Look for values greater than 100 percent to assure a strong, stable pallet load/warehouse stack.

Primary Package

Usually the carton or packaging material that comes into contact with the product itself. Other names for a primary package are bottle, tray, packer, etc.

Printing Type

The type of printing (Flexo or Quickset/Oil) has an effect on the stacking strength of a shipcase. TOPS Pro allows you to specify the type of printing. This correction factor is usually minor to overall stacking strength.

Product Code

This field allows you to enter specific product code information or any other information that will appear on selected printouts. This field will accept up to 35 characters.

Product Support per Case

The added strength provided by a product packaged inside the shipcase. This value is entered as the total weight that the product inside the shipcase (on the whole case basis) can handle. The value is added to the total stacking strength of the shipcase and is not reduced by factors such as humidity, storage, overhang, etc.

Range of Case Counts

This field indicates a minimum and maximum shipcase count to be reviewed. For example, if a minimum of 12 case count and maximum of 24 case count is selected as the range, TOPS Pro will review all case counts between 12 and 24; that is, 12, 13, 14 ... 22, 23, 24.

Required Strength

This value represents the comparison of the shipcase stacking strength to the actual load that a shipcase will experience on the bottom layer of the bottom pallet load. A value greater than 100 percent means the shipcase stacking strength is greater than the actual load it is experiencing.

Reversed Plan View

The pallet pattern viewed from the perspective of being directly above the pallet load, but with the layer rotated to represent the next layer arrangement to be used for good stability.

Safety Factor (Calculated)

This value is calculated by dividing the at lab compression strength by the actual weight experienced by the bottom shipcase, bottom layer, bottom pallet load. The resulting value has no dimension in nature, but is used throughout the corrugated industry as a good rule of thumb to predict the integrity of a shipcase.

Safety Factor (Data Input)

An early method of predicting shipcase performance was to specify a safety factor. Simply stated, the safety factor is the ideal compressive strength of a shipcase (at ideal conditions of humidity, storage, etc.) divided by the actual load to which the shipcase will be exposed during its life. TOPS Pro can be configured to accept a predetermined safety factor or actually calculate the resulting safety factor for each board grade combination.

Secondary Package

Usually refers to the shipcase. It generally applies that a secondary package is the item used to overwrap/package the primary package.

Select Carton Style

The carton style is used in an analysis so that the carton blank size can be calculated and related to total material costs for the particular solution.

Select Measure Unit

The unit measure (English or metric) to be used for input and output values in the TOPS Pro software.

Side View

The view of the pallet load from the perspective of the viewer who sees the load from the side, with the width of the unit load being left to right.

Side-to-Side

The predicted stacking strength of a shipcase with the width of the case vertical to pallet surface. This value is expressed in pounds or kilograms.

Single Stack

A diagram of only one pallet load standing by itself.

Single/Double Wall

When you select "S" or "D," TOPS Pro converts inside-to-outside case dimensions based on single- or double-wall board construction.

Soldiering Analysis

A highly specialized type of pallet loading. A soldiered load occurs only when the shipcase length and width are exactly equal; that is, a square footprint. The loading procedure attempts to find the most cubic-efficient pallet load where the shipcase can be slipped down between the pallet seams on its edge to provide a better pattern. Not all cases with a square footprint can be soldiered.

Specific Case Counts

This question allows you to select specific case counts desired. You can enter up to three specific case counts to be reviewed. If three values are already entered, simply type over the existing case counts requested or type in zero (0) to void a case count to be reviewed.

Storage Time

An estimate of the total time the shipcase will be stored in the distribution network. A storage time of 60 days is usually a good value.

Tiers per Flat Stack

The number of upright layers in the pallet pattern. This value appears only in the soldiering calculations. These cases are loaded on the pallet with the case depth dimension vertical.

Tiers per Soldiers

The number of soldiered layers in the pallet pattern. This value appears only in the soldiering calculations. These cases are loaded on the pallet with the case width/length dimension vertical.

Top Plan View

The pallet pattern viewed from the perspective of being directly above the pallet load with the length of the unit load left to right.

Top-to-Bottom

The predicted stacking strength of a shipcase with the depth of the shipcase vertical to the pallet surface. This value is expressed in pounds or kilograms.

Truck Width (in/m)

The inside clearance dimensions of the transit vehicle's width. This value is expressed in inches or meters.

Unit Load Cube

A complex calculation of finished load dimensions. Basically, the unit load cube (cubic feet or cubic meters) is the pallet load dimension (length by width) times the finished load height. If the pallet load does not exceed the pallet dimensions, then the pallet dimensions are used in the calculation instead of the unit load dimensions.

Unit Load Height

The overall height that a unit load can reach. For example, most transit vehicles allow for approximately 108-110 inches of vertical clearance height. Therefore, a good unit load height would not exceed 54 inches (for a double stack in the trailer).

Unit Load Length

The length of the pallet plus any allowable overhang. For example, if the pallet length is 48 inches and there is one inch of overhang allowed on each side of the pallet, the unit load length would be 50 inches.

Unit Load Loading

A type of trailer loading allowed in the TOPS Pro software. The algorithm will find the best patterns available for loading a pallet/unit load into a rectangular space (the transit vehicle, sea container, etc).

Unit Load Statistics

After calculating the pallet patterns, TOPS Pro shows the finished unit load dimensions. These values are the maximum values of the unit load length, width, height (including the pallet itself) and weight.

Unit Load Weight

The maximum allowed weight (pounds or kilograms) of a completely loaded pallet. TOPS Pro will filter out all solutions that exceed the maximum allowed weight.

Unit Load Width

The width of the pallet plus any allowable overhang. For example, if the pallet width is 40 inches and there is one inch of overhang allowed on each side of the pallet, the unit load width would be 42 inches.

Width Flip

The rotation of the pallet pattern with the width axis of the pallet; for example, 40 inches. The successive layers are mirror images of the previous layer's pattern across the width axis of the pallet.

