TOPS® Pro | Package Design & Pallet Configuration Software

TOPS® Pro is a versatile software that allows users to determine the most optimal package design, arrangement and pallet configuration based on product dimensions and packaging requirements. It is used to:

- ❖ Size product and intermediate pack
- ❖ Optimize shipcase size & configuration
- ❖ Improve pallet efficiency
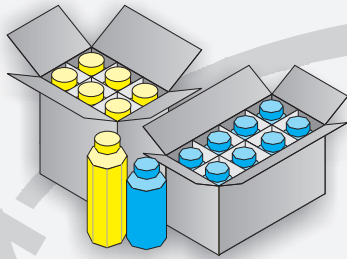- ❖ Load trailer and container
- ❖ Calculate stacking strength

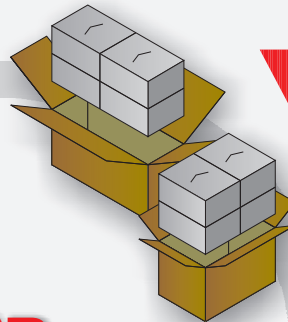## TOPS®Pro Software Reduces Packaging and Freight Costs

8-15%

TOPS®Pro
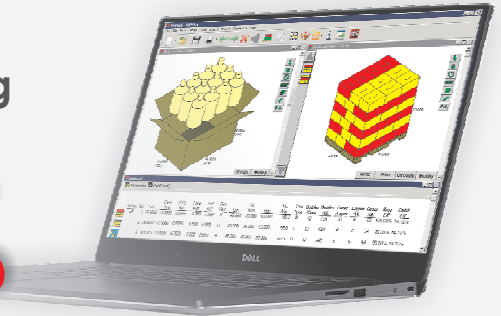
Optimize Product Size and Arrangement

Determine the best size and arrangement to package a product.

Evaluate Shipcase Sizes
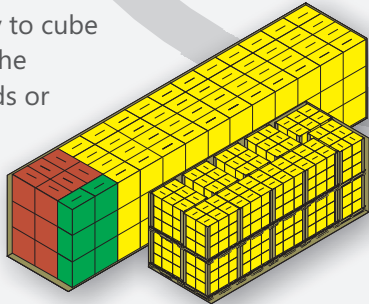
Find the optimal size for the shipcase or master carton to maximize product quantity while reducing corrugated usage.
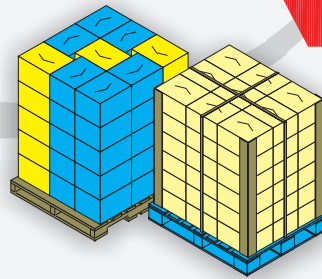
Cube Out Trucks and Containers

Calculate the best way to cube out the vehicles with the products as pallet loads or floor loads.

Maximize Pallet Efficiency

Improve pallet utilization by increasing the number of shipcases on pallets. Enhance load stability with stacking analysis and selection of optimal board grades.

Some of TOPS®Pro Customers

TOPS® has been offering package design and palletization software since the 1980's. We currently have over 8,000 installations worldwide. Below are some of our TOPS®Pro customers.

Corrugate & Packaging
International Paper, Green Bay Packaging, Georgia Pacific, Veritiv, Norampac, Kapstone, Grupo Gondi, Pratt Industries, VISY Board, Pactiv

FMCG
Proctor & Gamble, General Mills, PepsiCo, Reckitt Benckiser, Johnson & Johnson, Keurig, Kimberly-Clark, Kellogg, Campbell Soup, SCA, Colgate Palmolive, Hanesbrands

Other
Hewlett Packard, Mattel, Chep, Pfizer, Logitech, Costco, Newell Rubbermaid, Becton Dickinson, Coleman, 3M, Estee Lauder

Fast   Powerful   Easy to use

❖ Easy to navigate - instantly see how changing one parameter will affect all solutions downstream.
❖ 3D color and paste-on graphics provides quick and realistic renderings for primary pack, shipcase, pallet and cargo load.
❖ Share packaging and load solutions via e-mail as well as export files in PDF or JPEG formats.
❖ Export to MS Word and Excel in custom defined templates.
❖ Easily integrate solutions and data with other systems via TXT, CSV and XML formats.
❖ Support over 10 different languages including Simplified and Traditional Chinese, Japanese, Spanish, French, Italian, Portuguese, German, Dutch and more.

TOPS®Pro Primary Functions

Size Primary Product and Intermediate Packs

❖ Optimize size, volume, weight and package dimensions.
❖ Determine the best quantity and arrangement for primary pack.
❖ Support bottles, milk cartons, bags, tubs, stand-up pouches and blister packs.
❖ Inverted nesting for tubs, pots, blister packs and upside down bottles.
❖ Apply Create-A-Shape-Yourself (C.A.S.Y.) shapes for realistic visualization.

Primary packs in different shapes, arrangements and intermediate packs

Optimize Shipping Case

❖ Design new or select from a database of stock shipcases.
❖ Optimize shipcase size to reduce corrugated use and consolidate available stocks.
❖ Specify arrangement patterns, bulge tolerance or add dividers.
❖ Interactively resize shipcase with content or arrangement change.

Pallets with pin-wheeled, secondary pattern on top and slip sheets among layers

Improve Pallet Configuration

❖ Create stable pallet with stacking strength data.
❖ Use single or evaluate multiple pallets for highest efficiency.
❖ Set limits on pallet load height, layers per pallet and number of shipcases per layer.
❖ Use slave pallets or add a raised platform for marketing messages.
❖ Add caps, pads, slip sheets, straps, corner posts or use secondary pattern.
❖ Interface with robotic palletizers.
❖ Integrate with ArtiosCAD and Impact CAD to create pallet diagrams.

Unit load with slave pallets (left) and raised platform (right)

Load Trailer and Container

❖ Maximize cube usage and cut freight costs.
❖ Allow user to optimize to transit vehicles.
❖ Use pallet loads and loose items in the same vehicle to maximize cube.
❖ Choose from a database of trucks, railcars and sea containers or define your own transit vehicles.

Floor loads (middle), palletized (right) or combination loads to maximize cube

Versatile Reports

❖ Customize reports with different layouts.
❖ 3D views of primary pack, bundle, shipper, unitload and vehicle.
❖ Statistics for shipcase, unitloads and vehicle loads.
❖ Compare reports between load solutions or analyses.
❖ Save reports in XML, JPG, PDF, TXT and CSV formats.
❖ Export data to Word, Excel or directly as PDF files.
❖ Send reports via e-mail or share over a network.

Analysis report and load comparison report

Download 30-day demo for free trial at http://www.topseng.com

TOPS®Pro Special Functions

Create A Shape Yourself (C.A.S.Y.)

The **C.A.S.Y**. module enables users to create realistic primary packs and product trays with paste-on graphics. Users can model solid symmetrical and asymmetrical shapes such as trigger-top bottles, pinch tubes, stand-up pouches and more.

Create Mixed Trays and Mixed Load Pallets for Display

The **MixPro** module allows users to create mixed product trays and mixed product pallet loads. It features a 3D virtual stage where users can easily drag and drop products into a tray or shipcase and then onto pallet to create display items for club stores.

Other Special Functions

❖ Compression and Stacking Strength Analysis - To ensure savings in corrugated costs and minimize damage during transit and storage, TOPS®Pro uses the McKee formula along with mechanical and environmental factors to calculate stacking results based on Edge Crush, Ring Crush, or Kellicut results. Users can enter their own paper and board values as well as filter out values for quick reference.

❖ The knock down function quickly converts erected box dimensions into flat pack size to be bundled and shipped on pallets - a great tool for corrugate suppliers.

❖ Eco Savings Report (ESR) provides information on packaging and corrugated costs, wastage, pallet costs and carbon emissions data for comparison among different solutions.

❖ RFID location optimizer finds the best shipcase location for RFID tag placement to maximize readability.

❖ Share analyses by publishing reports over the network or to the internet.

CASY primary pack

POP mix tray and
mix pallet creations

The TOPS®Pro Design Sequence
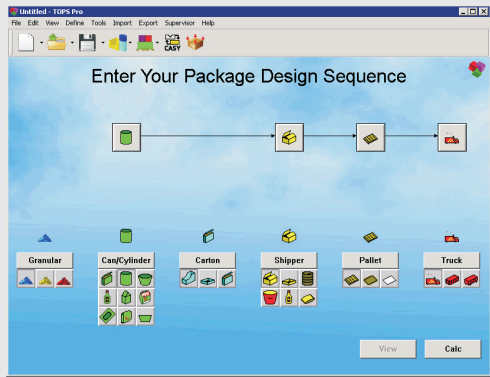
❶ **Control Panel**: Select stages to be added to the design sequence**:** primary product, intermediate pack, shipcase, pallet and vehicle.
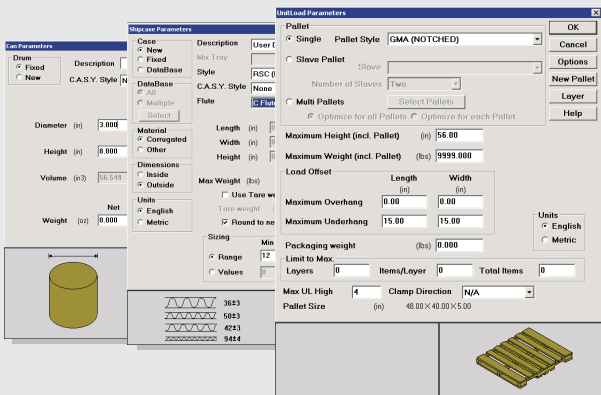
❷ **Define Parameters**: For each stage, enter the corresponding parameters including dimensions, weight, quantity; specify box style, flutes, use of dividers and more.
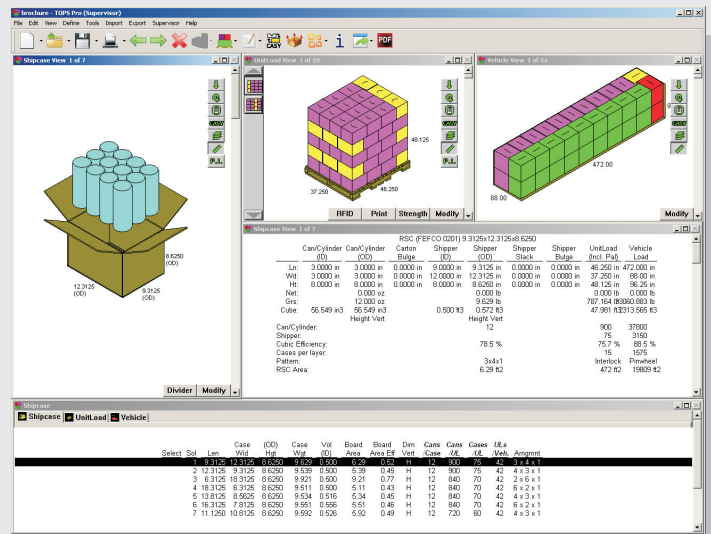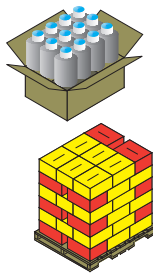
❸ **View Solutions**: Each solution screen shows all statistics through the last design sequence. Quickly see how changing one parameters can affect all solutions downstream.

How to Save Money with TOPS® Pro

Optimize Shipcase Size

By picking an alternate shipcase for the primary pack, board area is cut down by 17.15% while retaining the same cubic efficiency.

RSC (FEFCO 0201) 16.3125x12.3125x7.6250

	Can/Cylinder (OD)	Shipper (ID)	Shipper (OD)
Ln:	4.0000 in	16.0000 in	16.3125 in
Wd:	4.0000 in	12.0000 in	12.3125 in
Ht:	7.0000 in	7.0000 in	7.6250 in
Net:	0.0000 oz		0.000 lb
Grs:	0.0000 oz		0.793 lb
Cube:	87.96 in3	0.7778 ft3	0.8863 ft3
	Height Vertical		Height Vertical

Can/Cylinder:	12
Area Efficiency	78.54%
Cubic Efficiency	78.54%
Pattern:	4x3x1
RSC Area:	7.93 ft2
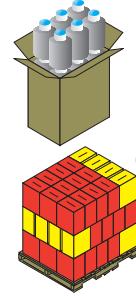
RSC (FEFCO 0201) 12.3125x8.3125x14.6250

	Can/Cylinder (OD)	Shipper (ID)	Shipper (OD)
Ln:	4.0000 in	12.0000 in	12.3125 in
Wd:	4.0000 in	8.0000 in	8.3125 in
Ht:	7.0000 in	14.0000 in	14.6250 in
Net:	0.0000 oz		0.000 lb
Grs:	0.0000 oz		0.657 lb
Cube:	87.96 in3	0.7778 ft3	0.8662 ft3
	Height Vertical		Height Vertical

| Can/Cylinder:	12
Area Efficiency	78.54%
Cubic Efficiency	78.54%
Pattern:	3x2x2
RSC Area:	6.57 ft2

Maximize Pallet Loads

Improvements made by using a different pallet pattern include:
- One more shipper per layer
- Five more shippers per pallet
- Area efficiency up by 10.45%
- Cubic efficiency up by 10.34%
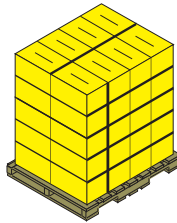
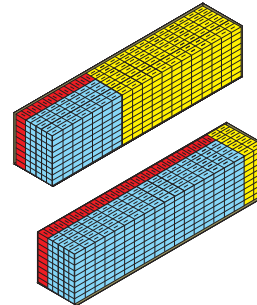GMA (Notched) 48.000x40.000x5.000

	Shipper (ID)	Shipper (OD)	Unitload (Incl. Pal)	Unitload (Incl. Pal)
Ln:	17.9375 in	18.2500 in	44.000 in	47.500 in
Wd:	10.6875 in	11.0000 in	36.500 in	40.250 in
Ht:	9.0630 in	9.6880 in	53.440 in	53.440 in
Grs:		12.500 lb	565.000 lb	627.500 lb
Cube:	1.0055 ft3	1.1255 ft3	49.6670 ft3	59.1265 ft3
	Height Vertical			
			40	45
Shipper:	0.00 %		83.65 %	94.10 %
Area Efficiency:	0.00 %		82.69 %	93.03 %
Cubic Efficiency:			8	9
Layers/load:			5	5
Pattern:			Column	Diagonal
RSC Area:		8.40 ft2	336 ft2	378 ft2
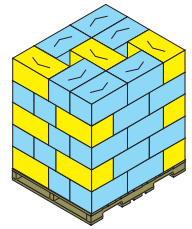
Improve Container Cubic Efficiency

TOPS®Pro provides up to 50 different plans for straight loads. An optimal plan can load more shippers with the same resources.

476.00x98.00x110.00

	Shipper (ID)	Shipper (OD)	Vehicle Load
Ln:	24.6875 in	25.0000 in	475.000 in
Wd:	12.9375 in	13.2500 in	92.75 in
Ht:	11.3750 in	12.0000 in	108.00 in
Grs:		0.000 lb	0 lb
Cube:	2.1025 ft3	2.3003 ft3	2753.52 ft3
	Height Vertical		
Shipper:			1179
Area Efficiency:	0.00 %		93.02 %
Cubic Efficiency:	0.00 %		91.33 %
Cases per layer:			131
Layers/load:			9
Pattern:			Triblock
RSC Area:		13.41 ft2	15815 ft2
Density (gr/cc):		0.0000	0.0000

476.00x98.00x110.00

	Shipper (ID)	Shipper (OD)	Vehicle Load
Ln:	24.6875 in	25.0000 in	475.000 in
Wd:	12.9375 in	13.2500 in	92.75 in
Ht:	11.3750 in	12.0000 in	108.00 in
Grs:		0.000 lb	0 lb
Cube:	2.1025 ft3	2.3003 ft3	2753.52 ft3
	Height Vertical		
Shipper:			1188
Area Efficiency:	0.00 %		93.73 %
Cubic Efficiency:	0.00 %		92.03 %
Cases per layer:			132
Layers/load:			9
Pattern:			Triblock
RSC Area:		13.41 ft2	15936 ft2
Density (gr/cc):		0.0000	0.0000

System Requirements

Platform Client	Windows XP, Vista, Windows 7, 8 and 10
Platform Server	Any (only require a network file share)
Processor Client	X86 or x64 (1 GHz or higher)
RAM Required	1 GB or more recommended
Hard Drive Space	500 MB or more
Video Required	1024x768 or higher at 16-bit color or higher
Database	Standard version: c-tree, no external DB required
	MS SQL (include SQL Express)
	Oracle (include Oracle Express)
Citrix	Supported
Terminal Server	Supported
Direct X	6.0 or above

Annual Maintenance and Support Plan (MVP)

TOPS® has an expert team to provide outstanding technical support and customer service. The MVP plan includes:

- Unlimited assistance on technical and software usage questions
- Free software upgrades for the annual subscription
- Toll-free access (USA only) during TOPS® office hours
- Eight man-hours of software training: on-site*, at TOPS office in Allen, Texas or web based
- Access to TOPS® flash-based software tutorial series
- Newsletters with the latest news and tips on how to get the most out of your software investment

*Customer to pay for travel & living expenses for TOPS staff to train on-site

Call 972-739-8677or visit our website to request a live web demo or free trial.

www.topseng.com