

TOPS Pro and Artios CAD Integration

TOPS Pro software works in conjunction with the Artios CAD software to transfer data between the two software to make the design process smoother and easier for the users.

The data transfer can be done in different ways:

1. Transfer box and pallet data from a Unitload calculation in TOPS Pro to Artios CAD
2. Complete workflow of data between TOPS Pro and Artios CAD starting from Artios
3. Send Artios CAD die cut layout to TOPS Pro for Palletization
4. Box information from Artios CAD to TOPS Pro for palletization

Note: The menus and screenshots shown in this document might be slightly different from the actual ones with different versions of Artios

1. Box / Pallet Info from TOPS Pro to Artios for Box design

Minimum Software Requirements: TOPS Pro 6.5, Esko Artios version 12

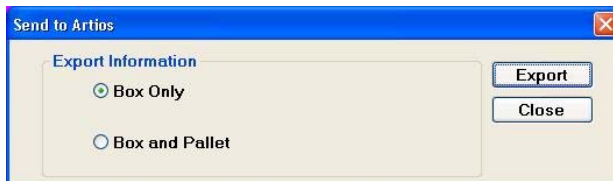
Note: If TOPS Pro is not set as the palletization software in Esko Artios CAD, please refer to Appendix I in this document.

Steps involved:

- a. Start Shipcase -> Pallet analysis in Tops and calculate to view results.
- b. Choose the desired solution.
- c. Click the Toolbar button, “Interface – Esko Artios”.

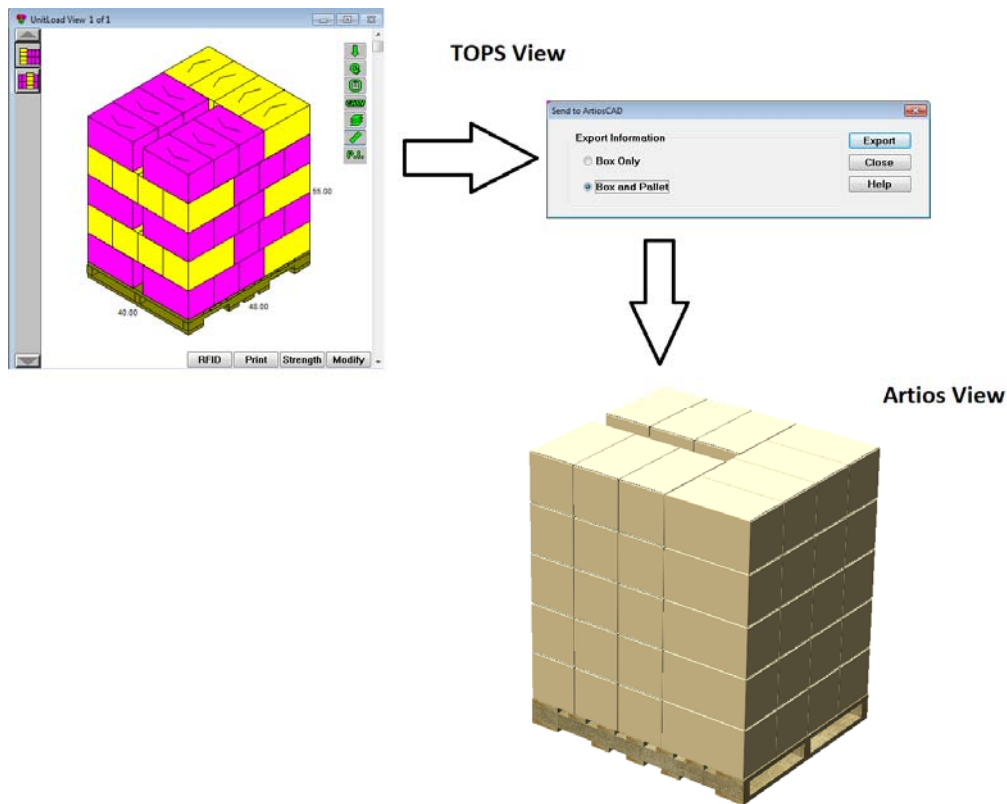


- d. Choose to send the Box details only or the Box details with the Unitload details from the dialog:



- e. Click the Export button in the above dialog to invoke Esko Artios with the box dimensions.
- f. Artios CAD opens up with the 2D view of the box standard.
- g. Convert the 2D image to 3D to see the full image of the box sent from Tops

- h. If the option “Box and Pallet” was chosen the 3d Image of the Unitload can be seen selecting the menu, *Palletization-> Palletize design*



2. **Complete Artios to Tops Workflow for Palletization**

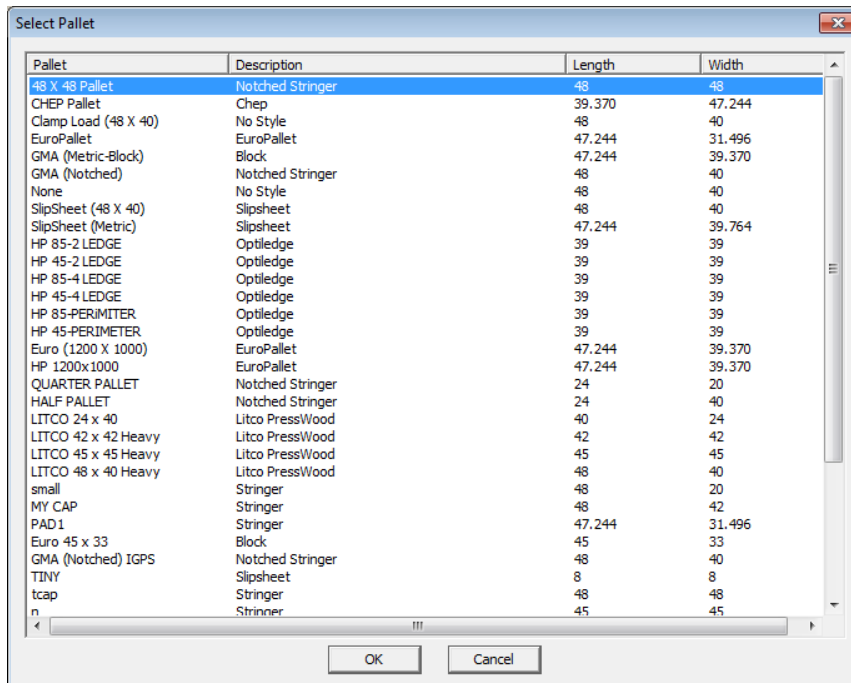
This feature will allow the user to create a box in Artios CAD and invoke TOPS Pro for palletization. TOPS Pro will then pass the information back to Artios CAD to render a 3D image of the selected solution in Artios CAD.

Minimum Software Requirements: TOPS Pro 6.5, Esko Artios version 12

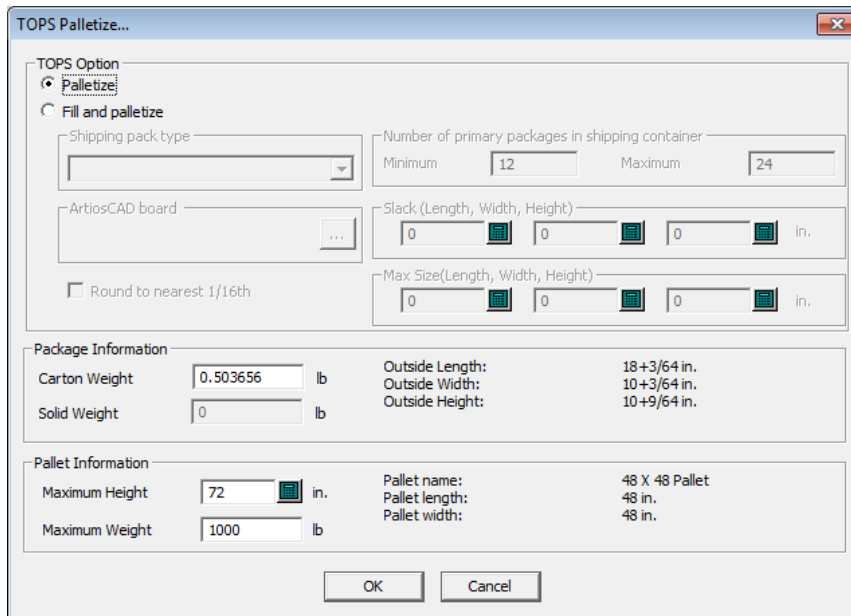
Note: If TOPS Pro is not set as the palletization software in Esko Artios CAD, please refer to Appendix I in this document.

The process starts from Artios CAD with the box design, steps involved:

- a. Create a box standard in ArtiosCAD
- b. Convert the box to 3D image
- c. Fold the flaps of the box.
- d. From the 3D folded image of the box, invoke TopsPro for palletization from the Menu, *Palletization->Palletize design*
- e. Choose the Tops Pallet to use for the design



f. After the pallet is chosen, the rest of the parameters are selected from the screen below:



The “Fill and palletize” option can be used to calculate shipcase sizes for the selected Artios Box as a primary pack. With this option selected, TOPS Pro will create a Primary (Green carton) -> Ship case (Yellow shipper) -> Pallet solution

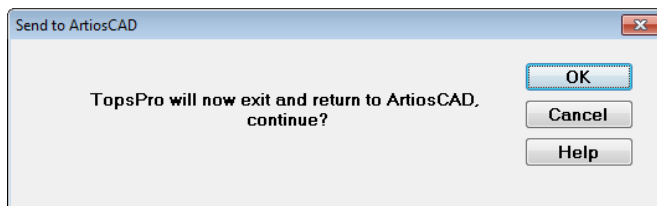
When Tops receives this data from Artios, it calculates the Unitload solutions with the parameters passed and displays the solution list. This information will have to send back to ArtiosCAD to complete the workflow process.

Steps involved:

- a. Click OK to invoke TOPS Pro for the Unitload calculation.
- b. Select the required solution in TOPS Pro and Save.
- c. Choose the Toolbar button, “Interface – Esko Artios”



- d. You will be prompted to save the analysis if you have not done so already. TOPS Pro will then close and return to ArtiosCAD to display the Pallet Pattern.



3. **ArtiosCAD Die Cut Layout to TOPS Pro for Palletization**

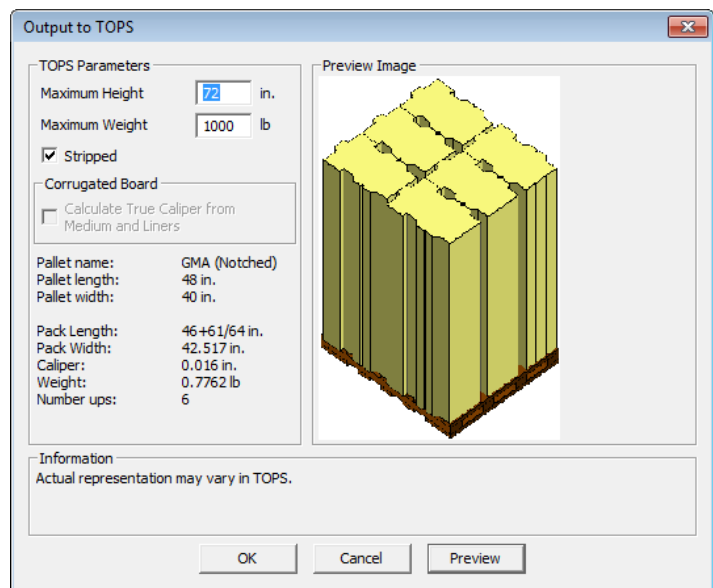
The die-cuts created in ArtiosCAD can be palletized using TOPS Pro with this new feature.

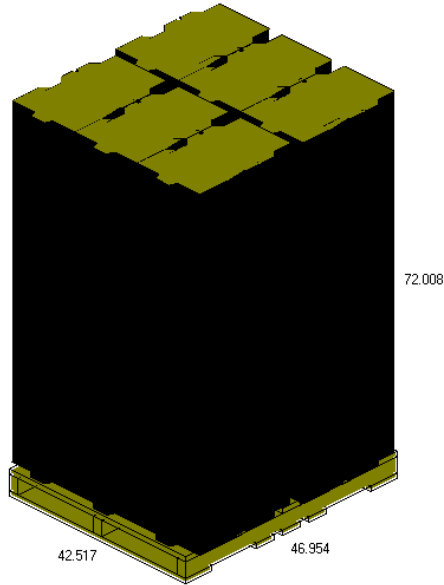
Minimum Software Requirements: TOPS Pro 6.5, Esko Artios version 12

Note: If TOPS Pro is not set as the palletization software in Esko Artios CAD, please refer to Appendix I in this document.

Steps involved:

- a. Create a Die Cut Manufacturing layout for the box in ArtiosCAD
- b. Invoke TOPS Pro for palletization from the Menu, *Palletization->Palletize design...*
- c. Click OK to invoke TOPS Pro to display the pallet pattern as below.





4. Box data from Artios CAD to TOPS Pro for Palletization

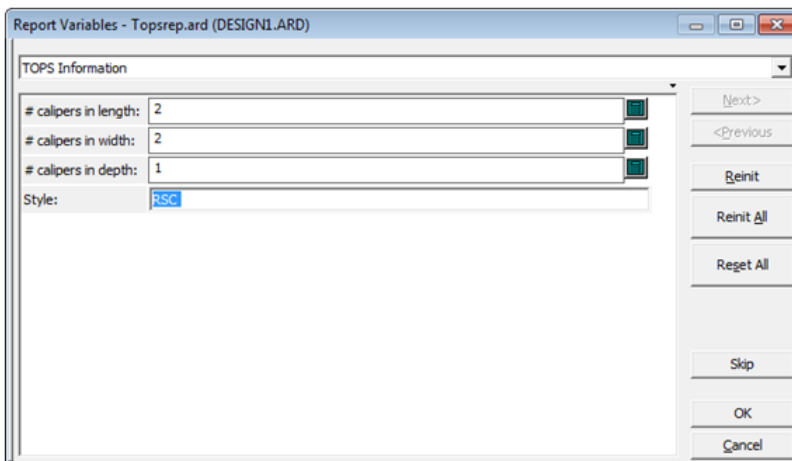
Minimum Software Requirements: TOPS Pro 5.03, Esko Artios – all versions

Note: If location of TOPS Pro installation is not set in the default settings in Esko Artios CAD, please refer to Appendix II in this document.

A box design created in Artios CAD can be sent to TOPS Pro for palletization with just the basic box size info.

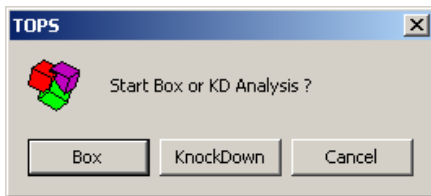
Steps involved:

- From Artios CAD, select the Export to TOPS menu option (*Outputs->Palletization->TOPS*).
- Enter the thickness for length, width and height and the Style to be used in TOPS in the interface as seen below. Click OK on the subsequent screens to launch TOPS Pro.

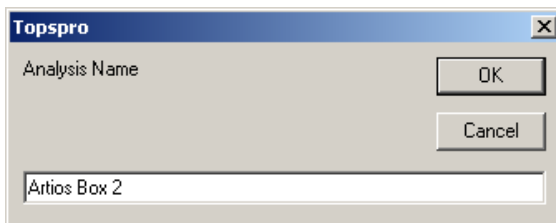


- c. Login TOPS Pro under any user name.
- d. A message box appears asking if you would like pass the current carton design from Artios CAD into TOPS Pro as an erected box or as knockdown. Select Box for a shipper to pallet analysis or KnockDown for a knockdown carton analysis.

The dimension will be imported accordingly based on this selection.



- e. 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 hit Ok button.



- f. 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" checkbox 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 will be bundled
- Standard Bundled Templates – KnockDowns will be placed in shipcase
- Custom Template – Open "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.

For Box Import:

Set Up Box Parameters

Box

Primary Pack Shipcase

	ID	OD
Length (in)	15.9680	16.0000
Width (in)	9.9680	10.0000
Height (in)	9.9360	10.0000
Weight (lbs)	0.000	
Caliper (in)	0.0160	

TOPS Style:

Analysis: Artios Box 2{Box} Add to Database

Templates

Standard Template

Custom Template

New Analysis

Pallet Truck

For KnockDown Import:

Set Up KnockDown Parameters

KnockDown

KD / Folded Flat / Straight

	ID	OD
Length (in)	26.3274	26.3594
Width (in)	31.9680	32.0000
Height (in)	-0.0320	0.0320
Weight (lbs)	0.000	
Caliper (in)	0.0160	

TOPS Style:

Analysis: Artios Box 2{KD} Add to Database

Templates

Standard Bundled template Standard Boxed Template

Custom Template

New Analysis

Bundle Truck

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

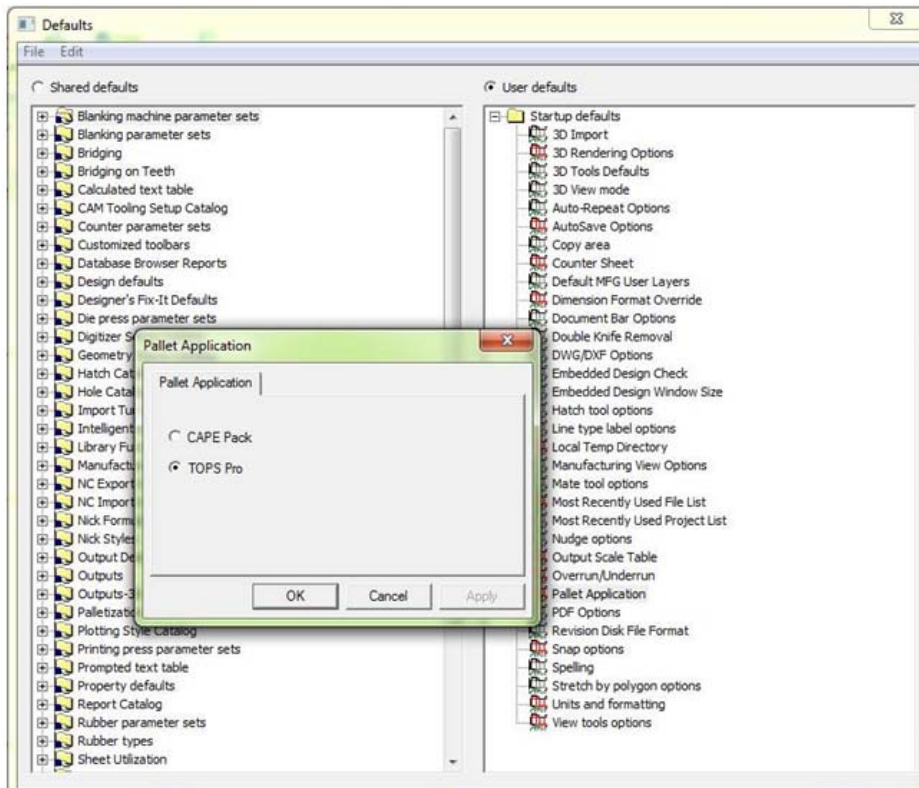
One-time Setup in Artios CAD required for the Artios-Tops Integration

Appendix I

Set up Tops as the default Palletization software for Artios CAD

Steps involved:

- Click Options -> Defaults and dialog will pop up. Select User defaults
- On the right side do “Right Click” or (Edit -> New Defaults).
- From the list select “Startup defaults”.
- Expand the new node and locate “Pallet Applications” and double click on it.
- In a new dialog select TOPS Pro (see image below).
- Click OK.
- Click File-> Save and Yes to overwrite all user defaults.
- You should now be set for TOPS.

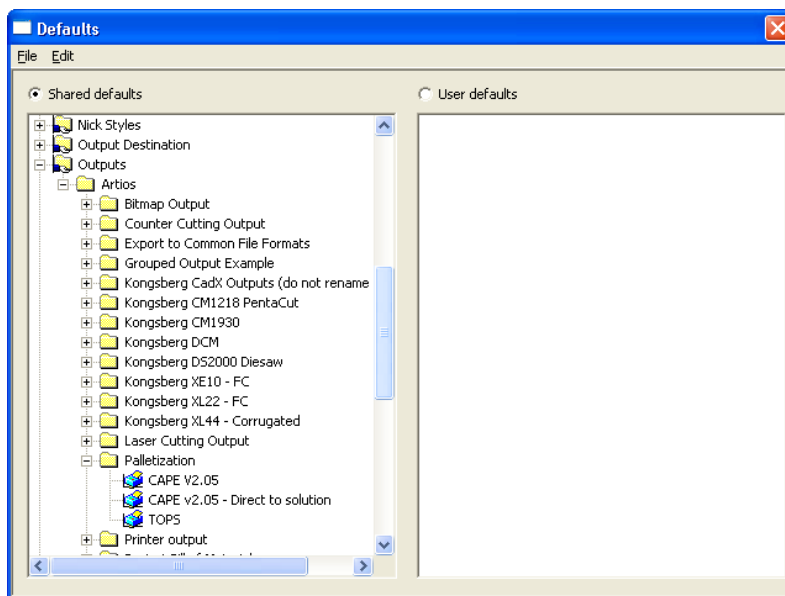


Appendix II

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.

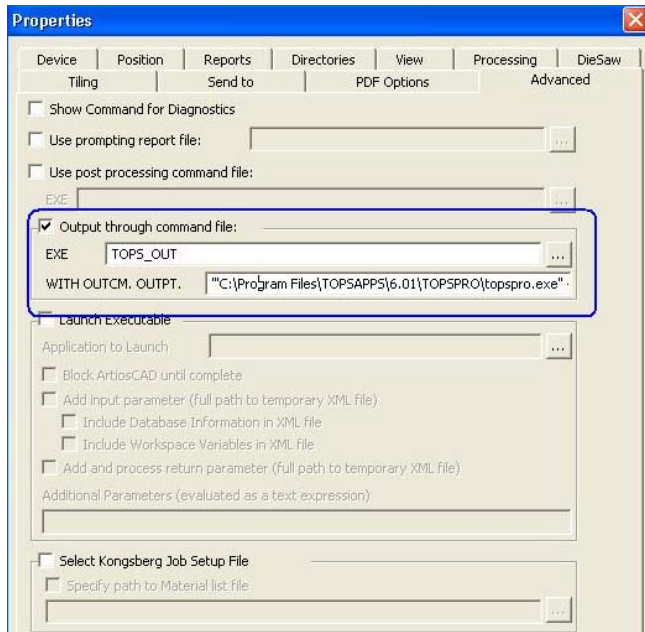
Steps involved:

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

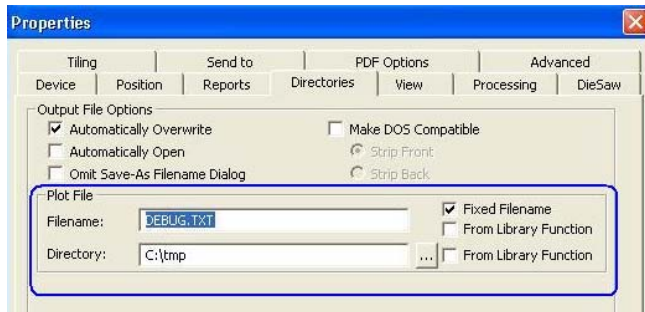


- c. Double click on the **TOPS** icon to set the details.
- d. Click on the **Advanced** tab. The **WITH OUTCM.OUTPUT** should have the current install of TOPS Pro with full path and INI information within single quotes.

*Example: "C:\Program Files\TOPSAPPS\6.01\TOPSPRO\topspro.exe"
-ini=C:\PROGRA~1\TOPSAPPS\6.01\TOPSPRO\topspro.ini'*



- e. 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.



- f. Click OK and save the defaults.