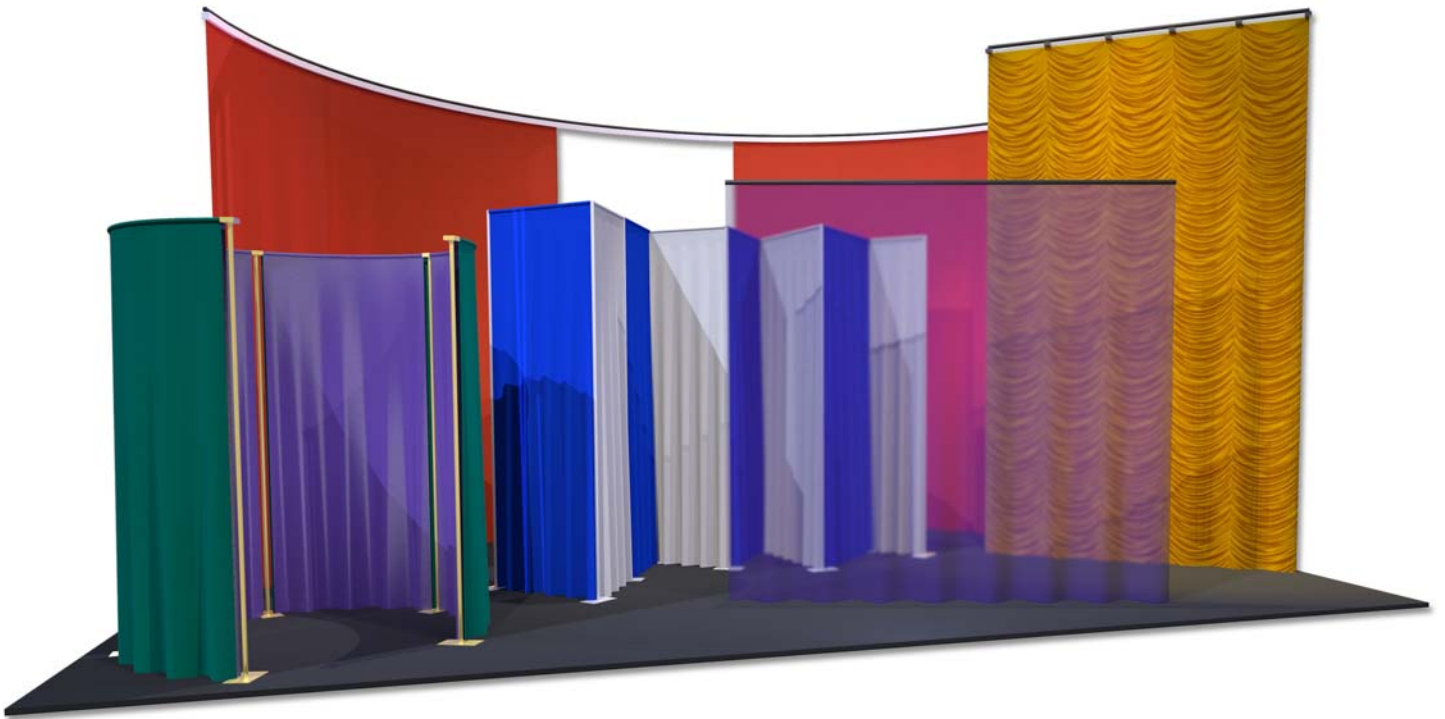


# SoftGoods 2

build 2.5503



manual



Nashville, TN, USA  
[www.landrudeesign.com](http://www.landrudeesign.com)  
[main@landrudeesign.com](mailto:main@landrudeesign.com)

*SoftGoods 2* is a Vectorworks® Plug-In that enables you to insert Hybrid (2D and 3D) models of curtains, truss borders, and pipe-and-drape runs.

### Notable features:

- Vectorworks® Spotlight® and Designer® are not required. *SoftGoods 2* works in any 2023 or newer Vectorworks® product.
- Models can be single straight or arc segments or follow intricate paths (like Vectorworks® Polylines) and can be created from-scratch or based on pre-existing geometry (lines, arcs, polygons, and polylines).
- Many aspects of the object geometry are adjustable on-the-fly, such as curtain heights, pleat geometry, and curtain openings, tracks, and pipes.
- The different parts of each *SoftGoods 2* object can be assigned to different Classes.
- All appropriate model elements are automatically textured. In addition to opaque single-color drapes, *SoftGoods 2* can create models with easily-mapped images (with adjustable scale and positioning), scrims, and, multi-color panels. *SoftGoods 2* uses the Vectorworks® Resource Selector system and recognizes a custom Texture folder in which libraries of custom Textures and images can be stored. *SoftGoods 2* also ships with a folder containing a Vectorworks® file holding sample custom Textures and/or images and other files stocked with Textures representative of a few popular Rose Brand® fabrics. **NEW in version 2.5**, custom Textures can be applied to hardware.
- *SoftGoods 2* calculates drape panel counts, taking into account things like additional “tied” fullness and adjacent drape panel overlap. Also, *SoftGoods 2* can show breaks and panel overlap for multi-panel curtains, truss borders, and pipe-and-drape segments.
- Select text can be shown on drawings and various data can be tracked in WorkSheets and Reports. Dimensions can be rounded to the nearest inch or millimeter. Text blocks can include bubbles and leader lines.
- **NEW in version 2.5**, when using Vectorworks 2022® or newer, *SoftGoods 2* takes advantage of “Widget Groups,” allowing parts of the Object Information Palette to shrink as-needed.
- **NEW in version 2.5**, *SoftGoods 2* offers Vectorworks® “Styles” functionality.

*Notable Features, continued...*

- **NEW in version 2.5**, several new parameters have been added (“Position,” “Purpose,” “Drape Clips,” “Sandbags,” “Container ID,” “Vendor,” and “Cost.”) **NEW in version 2.5034**, *SoftGoods 2* are additional “Location” and “Unit” fields.
- **NEW in version 2.5034**, Resources created by *SoftGoods 2* are automatically placed in appropriate Resource Manager folders.

#### ***In Curtain or Truss Border mode...***

- Bottom and top curtain trims can be spec’ed, allowing softgoods heights to be maintained while different trims are illustrated.
- Weights are handled in terms of total and/or distributed values - and - weights can be estimated based on fabric specification, managed through a “Raw Materials Options” dialog.
- Solenoids can be placed along the *SoftGoods 2* path.
- **NEW in version 2.5034**, is a “Traveler” option, which causes drape count and weight calculations to treat curtains with openings as open travelers as opposed to legs or narrower curtains on longer pipes.

#### ***In Curtain mode...***

- **NEW in version 2.5038**, curtain openings can be specified by entering either opening width or drapery width(s).

#### ***In Pipe-and-Drape mode...***

- Models of pipe-and-drape runs use stock and custom slider sizes, have various hardware visibility settings, and allow users to track counts for hardware and drape sections.
- Users have the ability to turn highlighting of non-standard segments in pipe-and-drape runs on and off.
- **NEW in version 2.5**, double-wall pipe-and-drape runs can be created, with each side/wall having separate 3D Options.
- **NEW in version 2.5**, pipe-and-drape bases’ pin location can be specified, causing bases to shift forward or backward (for doing things like creating pipe-and-drape runs along walls).
- **NEW in version 2.5**, labels for Pipe-and-Drape runs have been added. Label location and custom text can be spec’ed, as can the inclusion of Plug-In Object Path direction arrows.
- **NEW in version 2.55**, “Drape Bottom Height” has been added, allowing for the creation of entrances/exits in drape runs.
- **NEW in version 2.55**, a “Non-Sleeve Drape” toggle has been added, allowing for the specifying of drape that straddles uprights - such as drapes that use hook-and-loop material (like Velcro®) or ties.

## Table of Contents

<a href="#"><u>System Requirements and License</u></a> .....	5
<a href="#"><u>Installation</u></a> .....	6-7
<a href="#"><u>General Introduction</u></a> .....	8
<a href="#"><u>Curtain and Truss Border Modes</u></a> .....	9-11
<a href="#"><u>Pipe-and-Drape Mode</u></a> .....	12-14
<a href="#"><u>3D Options</u></a> .....	15-16
<a href="#"><u>Raw Materials Options</u></a> .....	17
<a href="#"><u>Text Options</u></a> .....	18
<a href="#"><u>Parts Classes</u></a> .....	19
<a href="#"><u>Weight Estimating Feature Notes</u></a> .....	20

***SoftGoods 2* requires Vectorworks® and Renderworks® 2023 or newer.****License**

By downloading and using this (or any) version of any of *SoftGoods 2*, you agree to the following:

- 1) You agree that you are using *SoftGoods 2* under a license granted by Landru Design.
- 2) You agree that all title, ownership, rights, intellectual property rights in and to *SoftGoods 2* and all copies thereof, regardless of form (including, but not limited to, computer or source code and any related documentation), are owned or expressly licensed by Landru Design. Such rights extend to all updates of *SoftGoods 2* and any related derivative works.
- 3) You agree not sell, rent, lend, loan, lease or otherwise transfer or distribute the *SoftGoods 2* software. Furthermore, you agree not to modify, disassemble, decompile, or reverse-engineer the *SoftGoods 2* software.
- 4) You agree that a download/license of *SoftGoods 2* is intended for a single, individual user. Please contact Landru Design for multi-user/site licensing.
- 5) You agree that this license may be terminated by Landru Design if you fail to comply with its terms and conditions. You agree that, upon such termination, you will destroy (or permanently erase) all copies of *SoftGoods 2*.
- 6) You agree that *SoftGoods 2* is provided "as is" and is provided without warranty of any kind, either express, implied, or statutory, including but not limited to, any implied warranties of merchantability or fitness for a particular purpose. You agree not to hold Landru Design or any of their owners, personnel, subsidiaries, or affiliates responsible for any damages of any kind resulting from the use of this software, including but not limited to, inaccuracies, loss of data, loss of goodwill, work stoppage, computer or software failure or malfunction - and all other direct, indirect, incidental, special, exemplary or consequential damage and losses. In the event that Landru Design is found liable to you, you agree that such liability shall not exceed the amount of fees paid by you for the use of *SoftGoods 2*
- 7) You understand and agree that the calculations and any suggested weights provided by these tools are intended as estimates only and that Landru Design makes absolutely no representations, guarantees, or warranties regarding their accuracy. You acknowledge that you are **STRONGLY** advised to perform your own calculations and to confirm all weights. You agree to assume all liability arising from using these tools and agree to hold harmless and indemnify Landru Design in the event that miscalculations and/or inaccurate data causes or allows loss or damage of any kind.

## Installation

If the tools were installed through the Vectorworks 2021® (or newer) Partner Products system, this section does not apply.

Using the Vectorworks® Plug-in Manager Installer:

1. Back up any pre-existing content, like fabric Textures, you might wish to save.
2. With Vectorworks® running, open the Plug-in Manager through your Vectorworks® menu ([Tools][Plug-ins][Plug-in Manager...]).
3. Select the “Third-party Plug-ins” tab.
4. Click the “Install...” button.
5. In the dialog that opens, find the Zip file that you downloaded from our server. Select that file and click the “Open” button. Contents of the Zip file will be copied into the appropriate folders in your User Folder structure:
  - Manual → “...Plug-ins\Landru Manuals”
  - *LandruStrings.vwr* → “...Plug-ins”
  - Tools (*SoftGoods 2.vso*) and Commands (\*.vsm files) → “...Plug-ins\Landru Tools”
  - *Texture\_Destroyer\_20\*\*.vwx* → “...Plug-ins\Landru Utilities” (*This file contains a script for users who are needing to open files created in Vectorworks® versions older than 2014 and are having issues with Textures created by our tools not being generated correctly. If this applies to you, open the file and follow the instructions. If not, simply ignore this folder and file.*)

The installer will also move pre-existing copies of any Landru Design Tools and Commands to the “...Plug-ins\Landru Tools” folder.

6. In the dialog that opens, click the “Restart” button.
7. After re-opening Vectorworks®, add the newly-installed tools and commands to your Workspace. See below if you’re not sure how to do that.

Manually installing the Tools and Commands:

*If you’re transitioning from a version of SoftGoods 2 older than build 2.41 or from the original version of SoftGoods, note that, as described below, the approach for installing this new version is slightly different...*

UnZip the Zip file you downloaded, **keeping the folder structure it contains intact**. You will end up with four folders, the contents of which will need to be copied as-directed, **without Vectorworks® running**:

“Landru Manuals”	“Landru Utilities”
This folder contains the PDF manual for <i>SoftGoods 2</i> . Copy this folder to wherever you’d like on your hard-drive.	This folder contains a file called “Texture_Destroyer_20**.vwx.” This file contains a script for users who are needing to open files created in Vectorworks® versions older than 2014 (including Template files) and are having issues with Textures created by our tools not being generated correctly. If this applies to you, copy this folder to wherever you’d like on your hard-drive, open the file, and follow the instructions. If not, simply ignore or delete this folder and file.

**“Plug-Ins”**

This folder and its sub-folder contain six files: the actual Plug-In file, four Command files, and a resource file.

As the folder name hints, copy the contents of the downloaded “Plug-ins” folder into your Vectorworks® 2025 (or, 2024, 2023, or 2022) “Plug-ins” folder. The “Plug-ins” folder is found either in your main application folder or in your User folder.

If you have older versions of the supplied files installed, you'll need to delete the old files or move them to another folder before adding the new files.

If you wish, *SoftGoods 2.vso* and the \*.vsm files can be placed in a sub-folder of the Plug-ins folder other than “Landru Tools” but ***LandruStrings.vwr* MUST be placed in the “Plug-Ins” folder.**

**“Libraries”**

This folder contains a folder containing one or more folders and Vectorworks® files containing sample custom Textures and/or images available for use by *SoftGoods 2*, including Textures representative of a few popular Rose Brand® fabrics.

As the folder name hints, copy the subfolders of the downloaded “Libraries” folder - structure intact - into your Vectorworks® 2026 (or, 2025, 2024, or 2023) “Libraries” folder, being sure to back up any pre-existing content files you might wish to save. The “Libraries” folder is found either in your main application folder or in your User folder. **It is VERY important that you copy this folder structure intact into the “Libraries” folder.**

If these folders already exist on your system, simply copy the files you downloaded into them. **Again, be sure to back-up and/or rename any existing files that you don't want over-written.**

After copying the folders and files and re-opening Vectorworks®, add the newly-installed tool and commands to your Workspace. See below if you're not sure how to do that.

Adding the Tools and Commands to your Workspace:

1. Click...[Tools]...[Workspaces]...[Workspace Editor]. Make sure "Edit current workspace" is selected and click "OK."
2. In the resulting dialog, click the "Tools" tab.
3. Scroll down the “Tool” section (*the left side*) until you see the "Landru" section. Click the "+."
4. Drag the *SoftGoods 2* icon to an existing Tool Set in the “Palette” section (*the right side*). If desired, drag “New Tool Set” into the “Palette” section to create a new Tool Set.

Optional...

5. Click the "Menus" tab.
6. Scroll down the “Commands” section (*the left side*) until you see the "Landru" section. Click the "+."
7. Drag the desired Command items into the desired positions in the "Menus" section (the right side).
8. Click "OK."

If you chose to install any of the three optional Commands:

- 1) *Check or Add Landru Keys...* will allow you to check which Landru Design license keys are installed and to add additional keys as-needed. *Remove Landru Keys* will allow you remove Landru Design license keys.
- 2) *Resource Folder Names...* will allow you to specify Resource Manager folder names used to store Resources created on-the-fly or imported by the tools.

## Using *SoftGoods* 2

Starting with pre-existing geometry:

Select lines, polygons, arcs, and/or polylines. **While in 2D/Plan View**, Select the *Convert to SoftGoods 2* menu item. A *SoftGoods 2* model will replace the selected geometry, mimicking that geometry's shape. If an initial settings dialog appears, make any default changes you wish and click "OK."

*If you're transitioning from the original version of SoftGoods, note that, as described below, the approach for using this new version is significantly different...*

Creating *SoftGoods 2* models from-scratch:

Select the *SoftGoods 2* icon from the tool palette into which you added it earlier. Click in your drawing where you want your *SoftGoods 2* object to start. Click again, as many times as you wish, to define curtain vertices (very-much like using the Vectorworks® Polyline tool). Double-click to finish defining your *SoftGoods 2* model's path. If an initial settings dialog appears, make any default changes you wish and click "OK." *Note...: to create arc-shaped curtains, use Vectorworks® "Point On Arc" vertex mode/type.*

The *Check and Add License Keys* dialog may appear the first time you use this tool. If so, paste/enter the key provided by Landru Design, click the "Add" button, and then the "OK" button. If the key entered is correct, you should not see this dialog again. If you don't have a key, visit [the Landru Design Web site](#) for information about purchasing a license.

With the newly-placed *SoftGoods 2* object(s) selected, make sure the Shape tab is in the forefront of the Object Information Palette to make adjustments.

To resize or alter the shape of a *SoftGoods 2* object, enable Vectorworks'® Interactive Scaling, double-click the object to activate the Reshape tool, and move, add, subtract, or redefine *Softgoods 2's* Control Points (the small blue squares that appear in the model) in a similar fashion to manipulating Vectorworks'® Polyline geometry.

To keep the interface clean, not all of *SoftGoods 2's* parameters will be visible or available in the Object Information Palette at all times. Some will be seen or enabled for only specific instances.

If you chose to install any of the four optional Commands:

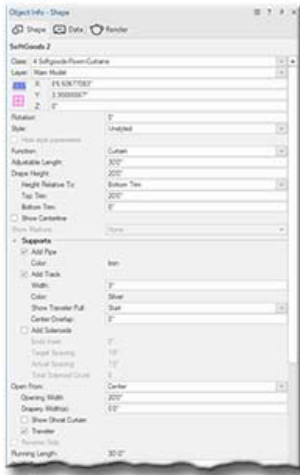
- 1) *Check or Add Landru Keys...* will allow you to check which Landru Design license keys are installed and to add additional keys as-needed. "Remove Landru Keys" will allow you remove Landru Design license keys.
- 2) *Resource Folder Names...* will allow you to specify Resource Manager folder names used to store Resources created on-the-fly or imported by the tools.
- 3) *Convert To SoftGoods 2* replaces selected lines, polygons, arcs, and/or polylines with *SoftGoods 2* models, mimicking the given element's shape.

*SoftGoods 2's* different settings are detailed in the pages that follow...

*Please forgive any discrepancies between this manual, its illustrations, and reality. It is often easier to make software fixes and/or additions than it is to keep a manual current.*



## Function: Curtain or Truss Border



**Class, Layer, X, Y, Z, and Rotation:** Settings similar to other Vectorworks® symbols and objects. (“Z” is the distance from the drawing’s chosen Design Layer’s ground plane to the bottom of the Curtain or Truss Border.)

**Style:** Options for creating and using *SoftGoods 2* Plug-In Object Styles.

**Hide Style Parameters:** Hides parameters set to be controlled by the chosen Style.

**Function:** “Curtain,” “Truss Border,” or “Pipe-and-Drape.”

**Curtain:** Draws curtain and theatrical teaser elements centered on the reference geometry.

**Truss Border:** Draws curtain elements offset relative to the reference geometry (mimicking truss borders). Offset side is changed using “Reverse Side.”

**Pipe-and-Drape:** Draws a pipe-and-drape run.

(See Pages 12-14 for more information on “Pipe-and-Drape” settings.)

**Adjustable Length:** The user-defined length of the *SoftGoods 2* object. (Only available if the *SoftGoods 2* object contains ONLY 2 point vertices, creating a straight-line/single-segment *SoftGoods 2* object.)

**Drape Height:** The height of the softgoods, as measured from the insertion point.

**Height Relative To:** The dimension to be fixed when editing “Height:” “Bottom Trim” or “Top Trim.”

**Top Trim:** The trim of the softgoods, as measured from the object’s Design Layer ground plane to the top - not including pipe, track, or solenoids. (Available if the “Curtain” or “Truss Border” “Function” is chosen.)

**Bottom Trim:** The trim of the softgoods, as measured from the object’s Design Layer ground plane to the bottom. (The equivalent of the PIO instance “Z” value. Available if the “Curtain” or “Truss Border” “Function” is chosen.)

**Show Centerline:** Draws the *SoftGoods 2* centerline or, if the “Truss Border” Function” is chosen, the reference line.

**Show Markers:** Draws hash marks defining the start-point and/or end-point of the *SoftGoods 2* object.

**Add Pipe:** Draws a supporting pipe. (Available if the “Curtain” “Function” is chosen.)

**Color:** 3D color of the supporting pipe as specified in the “3D Options” dialog. (See pages 15-16 for more information.)

**Add Track:** Draws a curtain track. (Available if the “Curtain” “Function” is chosen.)

**Width:** The width of the curtain track. (Available if “Add Track” is toggled on.)

**Color:** 3D color of the curtain track as specified in the “3D Options” dialog. (See pages 15-16 for more information.)

**Show Traveler Pull:** Draws a graphic showing on which end of a track traveler pull lines are located - “None,” “Start” or “End.” (Available “Add Track” is toggled on.)

**Center Overlap:** The center overlap of a bi-part curtain. (Enabled if “Add Track” is toggled on and “Open From” “Center” is chosen..)

**Add Solenoids:** Places solenoids equally-spaced along the *SoftGoods 2* path. (Available if the “Curtain” “Function” is chosen.)

**Ends Inset:** The distance the first and last solenoids are inset from the start-point and end-point of the *SoftGoods 2* object. (Available if “Add Solenoids” is toggled on and if the *SoftGoods 2* path is not closed.)

**Target Spacing:** The ideal solenoid spacing you wish to set. (Available if “Add Solenoids” is toggled on.)

**Actual Spacing:** The actual solenoid spacing, as calculated by *SoftGoods 2*. (Available if “Add Solenoids” is toggled on.)

**Total Solenoid Count:** Total number of solenoids created. (Available if “Add Solenoids” is toggled on.)

**Open From:** “None,” “Start,” “Center,” or “End.” Creates an opening in the curtain. (Available if the “Curtain” Function is chosen AND the *SoftGoods 2* object is either a single, straight-segment or single, arc-segment object.)

**Opening Width:** The width of the “Open From” opening. (Available if an “Open From” choice other than “None” is picked. Dimensions entered will change the Drapery Width(s).)

**Drapery Width(s):** The width(s) of the drapery remaining when an opening is specified. (Available if an “Open From” choice other than “None” is picked. Dimensions entered will change the Opening Width.)

**Show Ghost Curtain:** Draws 2D ghost curtain geometry in the curtain opening. (Available if an “Open From” choice other than “None” is picked.)

**Traveler:** Causes drape count and weight calculations to treat curtains with openings as open travelers - as opposed to legs or narrower curtains on longer pipes. (Enabled if an “Open From” choice other than “None” is picked.)

**Reverse Side:** Switches the side of the reference line on which the truss border is drawn. (Enabled if the “Truss Border” Function is chosen.)

**Running Length:** The total width - or linear dimension - of the pipe-and-drape run. (Visible if the *SoftGoods 2* object contains MORE THAN just 2 point vertices, creating a run that is something other than a straight-line/single-segment *SoftGoods 2* object.)

## Curtain or Truss Border parameters, continued...



**Stock Drape Width:** The width of an individual stock drape panel.

**Minimum Overlap:** The minimum overlap of adjacent drape panels.

**Vertical Tied Fullness %:** Fullness that should be added as the softgoods are attached to pipe, truss, railings, etc.

**Total Drape Count:** Taking into account the “Open From” setting, the “Open From” Width,” the “Traveler” setting, the “Stock Drape Width,” “Minimum Overlap,” and “Tied Fullness %,” the total number of drape panels needed for a given *SoftGoods 2* curtain or truss border. *(For example, if a given curtain is a total of 30' wide and your stock panels are 10' wide, a total of 3 panels will be needed.)*

**Show Drape Breaks:** Shows graphic indication of starting-points of individual drape panels.

**Show Overlap:** Shows graphic indication for amount of overlap (if any) for adjacent drape panels.

**Drape Clips:** Clip count or note.

**Sandbags:** Sandbag count or note.

**Simple 2D and Simple 3D:** Creates lines or flat surfaces instead of curtain curves.

**Pleat Width and Pleat Depth:** Settings for changing pleat geometry. *(Visual parameters only - controls how 2D and/or 3D geometry are created.)*

**Flip Pleats:** Swaps “positive” and “negative” portions of the curtain geometry. *(Visual parameter only - controls how 2D and/or 3D geometry are created.)*

**Adjust Starting and Adjust Ending:** Adjusts starting and ending points of truss borders. *(Available if the “Truss Border” Function is chosen.)*

**3D Options...:** Opens the “3D Options” dialog. This dialog will allow you to switch and manipulate the attributes of the 3D portion of the drapery and hardware parts of the *SoftGoods 2* model. [\(See pages 15-16 for more information.\)](#)

**Current Drape Option:** The currently-chosen 3D option for drapery.

**Main Material Type:** Note about the curtain’s or truss border’s main material type.

**Color:** Note about the curtain or truss border material color. *(This has no effect on the fill color of the 3D model elements.)*

**Raw Width:** The width of the bolt of raw fabric used to create the main part of the curtain or truss border. *(Enabled if “Weights from Raw Specifications” is toggled on.)*

**Lining Material Type:** Curtain or truss border lining information.

**Raw Width:** The width of the bolt of raw fabric used to create the curtain’s or truss border’s lining. *(Enabled if “Weights from Raw Specifications” is toggled on and if “Lining Material Type” is not blank or “None.”)*

**Top Finish:** Different finishes for the curtain’s or truss border’s top.

**Spacing:** Tie, hook, or grommet spacing. *(Available if an appropriate “Top Finish” is chosen.)*

**Bottom Finish:** Different finishes for the curtain’s bottom.

**Pipe Note:** Bottom pipe note, such as pipe type. *(Available if an appropriate “Bottom Finish” is chosen.)*

**Sides Finish:** A selection of different finishes for the curtain’s sides.

**Vertical Sewn Fullness %:** Manufactured curtain or truss border vertical fullness (pleat) information. *(This is solely for weight calculations and has no effect on the construction of the 3D model elements or in “Total Drape Count.” Use “Vertical Tied Fullness %” to affect the latter. This parameter DOES affect weight calculations if “Weights From Raw Specifications” is toggled on.)*

**Horizontal Sewn Fullness %:** A place for entering manufactured horizontal curtain or truss border fullness information (for example, for Austrian curtains). *(This is solely for weight calculations and has no effect on the construction of the 3D model elements or in “Total Drape Count” but DOES affect weight calculations if “Use Raw Specifications” is toggled on.)*

\*\*\* [See “Notes About SoftGoods 2’s Weight Estimating Feature” on page 20 for more detailed information about the next several parameters.](#) \*\*\*

**Use Raw Specifications:** Calculates total and distributed weights based on curtain size and specifications of the fabric, hardware, and raw materials used to create the curtain or truss border.

## Curtain or Truss Border parameters, continued...



**Calculation Reference:** The fabric weight reference for calculating “Specified Raw” weights below: ounces per linear yard, ounces per square yard, or grams per square meter. *(Enabled if “Use Raw Specifications” is toggled on.)*

**Main Specified Raw (oz) or Main Specified Raw (g):** The raw fabric weight (in the appropriate unit) for the main part of the curtain or truss border for the chosen “Calculation Reference.” *(Enabled if “Use Raw Specifications” is toggled on. The actual unit displayed is based on the file’s chosen structural unit.)*

**Lining Specified Raw (oz) or Lining Specified Raw (g):** The raw fabric weight (in the appropriate unit) for the lining of the curtain or truss border for the chosen “Calculation Reference.” *(Enabled if “Use Raw Specifications” is toggled on and “Lining Material Type” is not blank or “None.” The actual unit displayed is based on the file’s chosen structural unit.)*

**Raw Materials Options...:** Opens the “Raw Materials Options” dialog. This dialog will allow weight values to be entered for non-fabric raw materials and select hardware. *(Enabled if “Use Raw Specifications” is toggled on. [See page 17 for more information.](#))*

**Raw Total Weight:** The calculated total raw weight of the curtain or truss border - including finishes and/or chosen hardware. *(Enabled if “Use Raw Specifications” is toggled on.)*

**Raw Distributed Weight:** The calculated distributed raw weight of the curtain or truss border - including finishes and/or chosen hardware. *(Enabled if “Use Raw Specifications” is toggled on.)*

**Safety Margin (%):** The desired safety margin, based on a percentage of the calculated “Raw Total” curtain weight. *(Enabled if “Use Raw Specifications” is toggled on.)*

\*\*\* If “Use Raw Specifications.” above, is selected, the next 2 parameters are calculated values only and are disabled. \*\*\*

**Final Total Weight:** The final total weight of the curtain or truss border - including “Safety Margin.”

**Final Distributed Weight:** The final distributed weight of the curtain or truss border - including “Safety Margin.”

\*\*\* Assuming “Use Raw Specifications” is NOT selected...: If a “Final Total Weight” value is entered, “Final Distributed Weight” will be automatically calculated. If a “Final Distributed Weight” value is entered, “Final Total Weight” will be automatically calculated. \*\*\*

**Location:** The curtain’s or truss border’s location (such as Break-Out Room #4).

**Position:** The curtain’s or truss border’s position (such as Upstage Center).

**Unit:** The curtain’s or truss border’s unit number or designator.

**Purpose:** The curtain’s or truss border’s purpose.

**Container ID:** The curtain’s or truss border’s storage container (box, hamper, road-case, etc.) ID.

**Vendor:** Vendor information for the curtain or truss border.

**Cost:** The cost of the curtain or truss border.

**Note:** A general note (such as a stock number).

**Text Options...:** Opens the “Text Options” dialog. This dialog will allow you to show or hide and change attributes of *SoftGoods 2* text. *([See page 18 for more information.](#))*

**Default Text Positions:** Returns text to its default location. *(Enabled if text has been inserted.)*

**Parts Classes...:** Opens the “Parts Classes” dialog, used to assign the different elements comprising the *SoftGoods 2* model to different Classes. *([See page 19 for more information.](#))*

**Update:** Regenerates the *SoftGoods 2* object. You might need to click this if you’re making changes regarding using Class Attribute settings.

**SoftGoods 2 Build:** The build number of the *SoftGoods 2* Plug-In Object code.

**Load Information:** Braceworks®-related parameters and controls. The Weight values in this section are determined by parameters elsewhere in the Object Information Palette and should not be edited, here. For Vectorworks 2021® and newer, “Total Weight” and “Distributed Weight” are disabled.

## Function: Pipe-and-Drape



**Class, Layer, X, Y, Z, and Rotation:** Settings similar to other Vectorworks® symbols and objects. (“Z” is the distance from the drawing’s chosen Design Layer’s ground plane to the bottom of the Pipe-and Drape geometry.)

**Style:** Options for creating and using *SoftGoods 2* Plug-In Object Styles.

**Hide Style Parameters:** Hides parameters set to be controlled by the chosen Style.

**Function:** “Curtain,” “Truss Border,” or “Pipe-and-Drape.”

**Curtain:** Draws curtain and theatrical teaser elements centered on the reference geometry.

**Truss Border:** Draws curtain elements offset relative to the reference geometry.

([See previous pages for more information on “Curtain” and “Truss Border” settings.](#))

**Pipe-and-Drape:** Draws a pipe-and-drape run.

**Adjustable Length:** The user-defined length of the *SoftGoods 2* object. (Only available if the *SoftGoods 2* object contains ONLY 2 point vertices, creating a straight-line/single-segment *SoftGoods 2* object.)

**Drape Height:** The height of the pipe-and-drape drapery.

**Drape Bottom Height:** The vertical measurement from the object’s insertion point to the bottom of the pipe-and-drape drapery.

**Overall Height:** The overall height of the pipe-and-drape run, including all hardware, as measured from the insertion point. (Enabled if “Drape Bottom Height” is any measurement other than 0. This is the total of the Drape Height and the Bottom Drape Height.)

**Non-Sleeve Drape:** Creates drapery that uses hook-and-loop material (like Velcro®) or ties to attach to sliders instead of sleeves or pockets. “Non-sleeve” drape straddles uprights (does not start and stop at uprights like sleeve drapery).

**Double Wall:** Causes a double-wall format (using hanger blocks as-appropriate).

**Show Centerline:** Draws the pipe-and-drape run’s centerline.

**Draw Slider(s):** Draws the sliders.

**Slider Options:** Different standard slider lengths, including “Custom.” If you choose “Custom,” *SoftGoods 2* will create the number of per-segment sliders shown in “Slider Total” (see below), otherwise, *SoftGoods 2* will calculate counts and lengths based on the “Target Length” you enter and the reference line length. (If you’ve chosen “Custom” or if *SoftGoods 2* has to create non-standard sliders for your model, the non-standard geometry will be red in color and a “Contains Non-Standard Slider(s)” warning/note will appear in the Object Information Palette.)

**Divisions Per Segment:** The number of upright-to-upright divisions desired in each corner vertex-to-corner vertex segment of the Pipe-and-Drape run. (Available if “Custom” “Slider Option” is chosen.)

**Target Length:** The ideal slider length you wish to set. If you enter a dimension within the capabilities of the standard slider you’ve chosen, *SoftGoods 2* will estimate the best length based on even divisions of the total Pipe-and-Drape run length. Otherwise, *SoftGoods 2* will correct your entry.

**Actual Length:** The actual individual slider length, as calculated by *SoftGoods 2*. (If your *SoftGoods 2* model is a multi-segment object containing different lengths, “Actual Length” will say “Widths Vary.”)

**Division Total:** The total number of upright-to-upright divisions the Pipe-and-Drape run.

**Highlight Non-Standard Slider Segments:** Causes non-standard slider segment geometry to be highlighted.

**Running Length:** The total width - or linear dimension - of the pipe-and-drape run. (Only available if the *SoftGoods 2* object contains MORE THAN just 2 point vertices, creating a run that is something other than a straight-line/single-segment *SoftGoods 2* object.)

**Hardware to Include:** Options as to which hardware to create: “All,” “Sliders Only,” and “Sliders and Uprights Only.”

**Base Options:** Standard base plate sizes or a standard boom base. (Enabled if “All” “Hardware to Include” is chosen.)

**Base Diameter:** The diameter of the boom base. (Enabled if “Boom Base” “Base Option” is chosen.)

**End Hardware:** Options for which of the end bases and upright poles to show: “Both,” “First,” and “Last,” or “None.”

**Base Pin Location:** Options for choosing which base pins the upright poles are to use: “Center,” “Front,” or “Back.”

“Front” and “Back” will shift all bases backward or forward relative to the Plug-In Object Path. (For a Plug-In Object Path drawn left-to-right, “backward” is above the Path and “forward” is below the Path.)

**First Plate Shift and Last Plate Shift:** Options for shifting the end base plates: “None,” “In,” and “Out.”

**Base Color:** 3D color of the bases as specified in the “3D Options” dialog. ([See pages 15-16 for more information.](#))

**Upright Color:** 3D color of uprights as specified in the “3D Options” dialog. ([See pages 15-16 for more information.](#))



## Pipe-and-Drape parameters, continued...



**Slider Total, Upright Total, Double Wall Hanger Total, and Base Total:** The calculated number of sliders, upright poles, double wall hangers, and bases.

**Show 3D Uprights:** Shows the 3D upright poles so pipe-and-drape runs appear to be a solid run of curtain in renderings.

**Stock Drape Width:** The width of an individual stock drape panel.

**Minimum Overlap:** The minimum overlap of adjacent drape panels.

**Vertical Tied Fullness %:** Fullness that should be added as the softgoods are attached to pipe-and-drape sliders.

**Total Drape Count:** Taking into account the “Stock Drape Width,” “Minimum Overlap,” and “Tied Fullness %,” the total number of drape panels needed for a given Pipe-and-Drape run. (For example, if your run has 3, 8' sliders and your stock panels are 5' wide, a total of 6 panels will be needed.)

**Show Drape Breaks:** Shows starting-points of individual drape panels in a multi-panel pipe-and-drape segment.

**Show Overlap:** Shows amount of overlap (if any) for adjacent drape panels in a multi-panel pipe-and-drape segment.

**Drape Clips:** Drape clip count or note.

**Sandbags:** Sandbag count or note.

**Simple 2D and Simple 3D:** Will create lines or flat surfaces instead of drape curves.

**Pleat Width and Pleat Depth:** Settings for changing pleat geometry. (*Visual parameters only - controls how 2D and/or 3D geometry are created.*)

**Flip Pleats:** Swaps “positive” and “negative” portions of the curtain geometry. (*Visual parameter only - controls how 2D and/or 3D geometry are created.*)

**3D Options...:** Opens the “3D Options” dialog. This dialog will allow you to switch and manipulate the attributes of the 3D portion of the drapery and hardware parts of the *SoftGoods 2* model. ([See pages 15-16 for more information.](#))

\*\*\* For a Plug-In Object Path drawn left-to-right, the Double Wall “Front Drape Line” is below the Path and “Back Drape Line” is above the Path. \*\*\*

**Current Option:** The currently-chosen 3D Curtain option for the front (or only) drape line.

**Current Option (Back):** The currently-chosen 3D Curtain option for the back drape line. (*Enabled if “Double Wall” is selected.*)

**Main Material Type:** A note about the main curtain material type for the front (or only) drape line.

**Color:** A note about the curtain material color for the front (or only) drape line. (*This has no effect on the fill color of the 3D model elements.*)

**Main Material Type (Back):** A note about the main curtain material type for the back drape line. (*Enabled if “Double Wall” is selected.*)

**Color (Back):** A note about the curtain material color for the back drape line. (*This has no effect on the fill color of the 3D model elements. Enabled if “Double Wall” is selected.*)

**Final Total Weight:** The final total weight of the pipe-and-drape run.

**Final Distributed Weight:** The final distributed weight of the pipe-and-drape run.

\*\*\* If a “Final Total Weight” value is entered, “Final Distributed Weight” will be automatically calculated. If a “Final Distributed Weight” value is entered, “Final Total Weight” will be automatically calculated. \*\*\*

**Location:** The pipe-and-drape run’s location (such as Main Show Floor).

**Position:** The pipe-and-drape run’s position (such as NE Corner).

**Unit:** The pipe-and-drape run’s unit number or designator.

**Purpose:** The pipe-and-drape run’s purpose.

**Container ID:** The pipe-and-drape run’s storage container (box, hamper, road-case, etc.) ID.

**Vendor:** Vendor information for the pipe-and-drape run.

**Cost:** The cost of the pipe-and-drape run.

**Note:** A general note (such as a stock number).

## Pipe-and-Drape parameters, continued...



**Text Options...:** Opens the “Text Options” dialog. This dialog will allow you to show or hide and change attributes of *SoftGoods 2* text. ([See page 18 for more information.](#))

**Default Text Positions:** Returns text to its default location. (*Enabled if text has been inserted.*)

**Parts Classes...:** Opens the “Parts Classes” dialog, used to assign the different elements comprising the *SoftGoods 2* model to different Classes. ([See page 19 for more information.](#))

**Update:** Regenerates the *SoftGoods 2* object. You might need to click this if you’re making changes regarding using Class Attribute settings.

**SoftGoods 2 Build:** The build number of the *SoftGoods 2* Plug-In Object code.

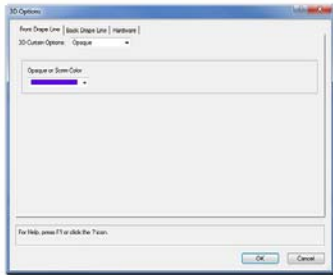
**Load Information:** Braceworks®-related parameters and controls. The Weight values in this section are determined by parameters elsewhere in the Object Information Palette and should not be edited, here. For Vectorworks 2021® and newer, “Total Weight” and “Distributed Weight” are disabled.



## 3D Options dialog (“Front Drape Line” and “Back Drape Line” tabs)

\*\*\* For a Plug-In Object Path drawn left-to-right, the “Front Drape Line” is below the Path and “Back Drape Line” is above the Path. \*\*\*

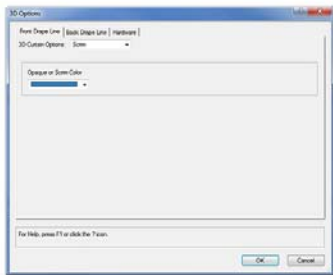
**3D Options:** A pop-up list of attribute options for the 3D drape portions of the SoftGoods 2 model:



Opaque

**Opaque:** SoftGoods 2 creates and assigns an opaque texture and the Vectorworks® Color Picker is used to choose the desired color.

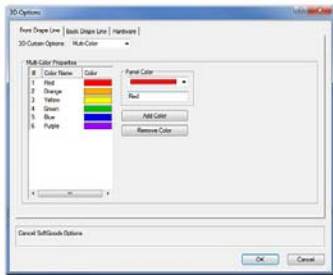
[See note below regarding applying Curtain, Truss Border, and Pipe-and-Drape Drapery color By-Class .](#)



Scrim

**Scrim:** SoftGoods 2 creates and assigns a semi-opaque or scrim-like texture and the Vectorworks® Color Picker is used to choose the desired color.

[See note below regarding applying Curtain, Truss Border, and Pipe-and-Drape Drapery color By-Class .](#)



Multi-Color

**Multi-Color: Only available for Pipe-and-Drape models.** SoftGoods 2 creates and assigns an opaque texture. The Vectorworks® Color Picker is used to choose a color for each pipe-and-drape segment. New colors are added and existing colors are removed using the “Add Color” and “Remove Color” buttons. Colors can be named prior to their being added by entering a name in the space provided. (Up to 13 colors can be chosen.) Colors can be rearranged by dragging color numbers to different locations in the list. If more panels exist than the number of colors chosen, the colors will repeat sequentially in the order listed.

[See note below regarding applying Curtain, Truss Border, and Pipe-and-Drape Drapery color By-Class .](#)



Custom

**Custom:** SoftGoods 2 assigns the Renderworks Texture chosen in the “Texture” Resource Selector and displays a preview of that Texture applied to a sample curtain in the “Preview” window. The “Texture” Resource Selector offers Renderworks Textures available in the current working file, in Vectorworks® files stored in the “Libraries\Defaults\Soft Goods - Custom Textures” and “Libraries\Defaults\Video Screen\Screen Images” folders (found in your User or main Vectorworks® application folder) and in the on-line Service Select library.

**Scale And Adjust Texture:** Toggle to enable Texture scaling and adjustment (for printed/painted backdrops and the like). Untoggle to allow SoftGoods 2 to map the Texture based only on the Texture’s defined size and to tile the Texture both horizontally and vertically (for material Textures and similar).

If **Scale and Adjust Texture** is toggled, the following parameters are enabled:

**Scale:** The scale of the Texture. “100%” fits the Texture to the curtain’s width.

**Horizontal Shift and Vertical Shift:** Horizontal and vertical shift of the Texture in terms of a percentage of the Texture’s scaled size.

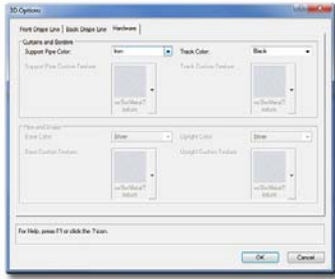
**Flip Texture:** Toggle to flip (or reverse) the Texture horizontally.

**Tile Texture:** Toggle to tile (or, repeat) the Texture both horizontally and vertically.

**Class Attributes:** Causes the drape’s color and Texture to be controlled by Class settings. ([See note below.](#))

### 3D Options dialog (“Hardware” tab)

Different items are enabled or disabled depending on the options that are selected for a given object



**Color:** Possible colors for 3D portions of the hardware generated by the *SoftGoods 2* object. Included here are basic colors and “Custom Texture,” which assigns the texture picked in the “Custom Texture” pop-up.

**Class Texture:** Causes the hardware part’s Texture to be controlled by Class settings. (*See note below.*)

**Texture:** Renderworks® textures available to the selected *SoftGoods 2* object. This list is populated with textures contained in the current working file in Vectorworks® files stored in the Libraries\Defaults\Event Planning\Stage” and “Libraries\Defaults\Renderworks - Textures” folders (found in your User or main Vectorworks® application folder) and in the on-line Service Select library. (*Only enabled if the “Custom Texture” Color is chosen.*)

#### To apply Textures By-Class:

- 1) The given part must be assigned to a Class in the *SoftGoods 2* "Class Options" dialog other than the Overall Plug-In Object Class (*Using the “Parts Classes” dialog; [See page 19 for more information.](#)*).
- 2) In the Textures tab of the "Edit Class(es) dialog for the specified Class, "Use at Creation" must be enabled and "Object and Component Textures" must be toggled ON.
- 3) “Class Textures” or “Class Attributes” MUST be chosen in the appropriate Color pop-up.

*If Textures By-Class is enabled for the fabric part of a given object and if the chosen Texture uses the “Obj. Attribute” Color setting (such as the stock “vsDrapeTexture” Texture), the fabric’s color will be that of the Class’ fill color.*



Raw Materials Options dialog

Raw Materials Options

Calculation Reference:

Distributed Weight

Total Weight

Top Pipe:

(lb/ft)

2.75

(lb)

82.5

Bottom Pipe:

(lb/ft)

2.75000011

(lb)

82.50001728

Track:

(lb/ft)

2.35

(lb)

70.5

Track Rollers:

(lb/ft)

0.875

(lb)

26.25000441

Chain:

(lb/ft)

0.21

(lb)

6.30000106

Lead Tape:

(lb/ft)

0.17500001

(lb)

5.2500011

Rope Ties:

(lb/ft)

0.12500001

(lb)

3.75000079

"S" Hooks:

(lb/ft)

0.12500001

(lb)

3.75000079

Snap Hooks:

(lb/ft)

0.12500001

(lb)

3.75000079

Twill Ties:

(lb/ft)

0.12500001

(lb)

3.75000079

Tensioning Lines:

(lb/ft)

0.0075

(lb)

0.15000003

Webbing:

(lb/ft)

0.18749997

(lb)

5.62500017

Hook and Loop:

(lb/ft)

0.18749997

(lb)

5.62500017

Single Solenoid (lb):

0.50008559

For Help, press F1 or click the ? icon.

OK

Cancel

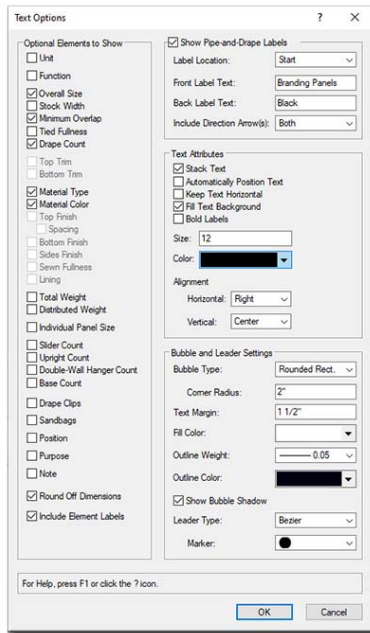
This dialog allows weight values to be entered for the various pieces of hardware and other raw materials available as options and finishes for *SoftGoods 2* configurations. As options are chosen in the Object Information Palette, appropriate lines, here, will be enabled, allowing weight values to be entered.

Either metric or imperial values are displayed, based on the chosen file structural units.

If the “Distributed Weight” radio button is selected, weight values should be entered in terms of grams-per-meter or U.S. pounds-per-foot. “Total Weight” values will then be calculated based on the overall length of the *SoftGoods 2* instance.

If the “Total Weight” radio button is selected, weight values should be entered in terms of kilograms or U.S. pounds. “Distributed Weight” values will then be calculated based on the overall length of the *SoftGoods 2* instance.

## Text Options dialog



### Optional Elements to Show:

A list of potential text elements that can be shown as part of the *SoftGoods 2* model. Only items appropriate for a given *SoftGoods 2* Function will be enabled. For example, as seen here, when creating “Curtain” or “Truss Border” models, the elements appropriate for “Pipe-and-Drape” runs are disabled.

**Round Off Dimensions:** Round off displayed dimensions to the nearest inch or millimeter.

**Include Element Labels:** Include the label for each text element shown - for example “Overall Size:” or “Note:.”

**Show Pipe-and-Drape Labels** (*Enabled if the “Pipe-and-Drape” “Function” is chosen*): Select to show Pipe-and-Drape side/wall labels: (“Front”/“Back,” “Good”/“Bad,” “Branding Panels”/“Black,” etc.).

**Label Location:** Select location(s) for Pipe-and-Drape labels, relative to the whole Plug-In Object Path (*not an individual segment*): “Start,” “End,” “Start and End” or “Center.”

**Front Label Text** and **Back Label Text:** Enter label text for the front or back side/wall of the Pipe-and-Drape run. (*For a Plug-In Object Path drawn left-to-right, “Front” is below the Path and “Back” is above the Path.*)

**Include Direction Arrow(s):** Label Text with which to include Plug-In Object Path direction arrow(s): “Both,” “Front,” “Back” or “None.”

### Text Attributes (*Enabled if at least one text element is selected to be shown.*):

**Stack Text:** To cause multiple text elements to be created as separate lines, as opposed to one, single, line for all.

**Automatically Position Text:** If this item is toggled, text will always be placed at the *SoftGoods 2* object’s origin.

Untoggling this box will display a Control Point for the text, allowing the text to be dragged to other locations.

**Keep Text Horizontal:** Keeps text horizontal, regardless of the *SoftGoods 2* rotation angle.

**Fill Text Background:** Makes text background opaque.

**Bold Labels:** Embolds element labels.

**Size:** The size of the text element, in points.

**Color:** The color of the text element using the Vectorworks® Color Picker.

**Horizontal and Vertical Alignment:** Options for setting text alignment and justification.

### Bubble and Leader Settings (*Enabled if at least one text element is selected to be shown.*):

**Bubble Style:** The style of the bubble around the text: “None,” “Box,” or “Rounded Rect.”

**Corner Radius:** The radius size of the rounded rectangle corners. (*Enabled if the “Rounded Rect.” Bubble Style is chosen.*)

**Text Margin:** The size of the margin around the text.

**Fill Color:** The fill color of the bubble.

**Outline Weight:** The line weight of the bubble outline.

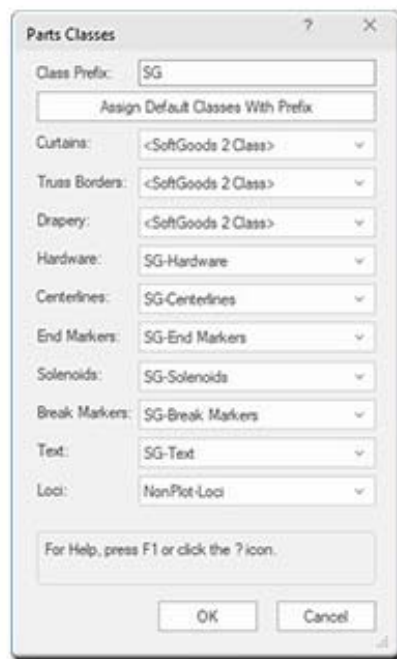
**Outline Color:** The line color of the bubble outline.

**Show Bubble Shadow:** Give the bubble a drop-shadow.

**Leader Type:** The style of the bubble leader line: “None,” “Line,” or “Bezier.”

**Marker:** Options for setting text alignment and justification. (*Enabled if a Leader Type other than “None” is chosen.*)

## Parts Classes dialog



**Class Prefix:** The prefix that will be applied to each suggested Class generated if the “Assign Default Classes With Prefix” button is clicked.

**Assign Default Classes With Prefix:** A button to populate each of the Class Pop-Ups with suggested Class names, each (except for “Loci”) with the prefix as entered in the “Class Prefix” box.

**Curtains, Truss Borders, Drapery, etc.:** *The Class to which the given part is assigned. Existing Classes can be chosen or new Classes can be created on-the-fly. “<SoftGoods 2 Class>” signifies that the individual part is simply using the given object’s overall Class. By-default, “Loci” are assigned to the “NonPlot-Loci” Class and all other parts are assigned to the object’s overall Class.*

In the example to the left...

**Curtains, Truss Borders, and Drapery** are all using the SoftGoods 2 object’s overall Class.

**Hardware, Centerlines, End Markers, Solenoids, Break Markers, and Text** are all assigning the given parts to Classes generated by clicking the “Assign Default Classes With Prefix” button.

## Notes About SoftGoods 2 's Weight Estimating Feature

If “Use Raw Specifications” is NOT selected...

Entering a total curtain weight into the “Final Total Weight” field will calculate “Final Distributed Weight.” Entering the distributed curtain weight into the “Final Distributed Weight” field will calculate “Final Total Weight.”

For either, values entered are intended to include any/all elements the given SoftGoods 2 instance represents. Changing instance dimensions will have no effect on either value.

If “Use Raw Specifications” IS selected...

First, it is important to remember that the weights calculated are GENERAL ESTIMATES ONLY. There are far too many variables involved to guarantee any level of precision. We STRONGLY advise the confirming of all weights with trained professionals and actual vendors.

That being said...

The overall curtain and lining weights will be estimated based on the panel count and size and the specified raw fabric, hardware, and raw material weights. The raw fabric weights are given in either grams or U.S. ounces and correspond either to the reference chosen in the “Calculation Reference” Pop-Up menu - and, is determined by whichever method the given supplier specifies weight. The “Linear” weight corresponds to the specified raw widths.

Paint and moisture allowances should be included in the “Safety Margin (%)” parameter.

The “Raw” weights take into account all fabric but no hardware.

The “Final” weights take into account all elements AND the specified safety margin.