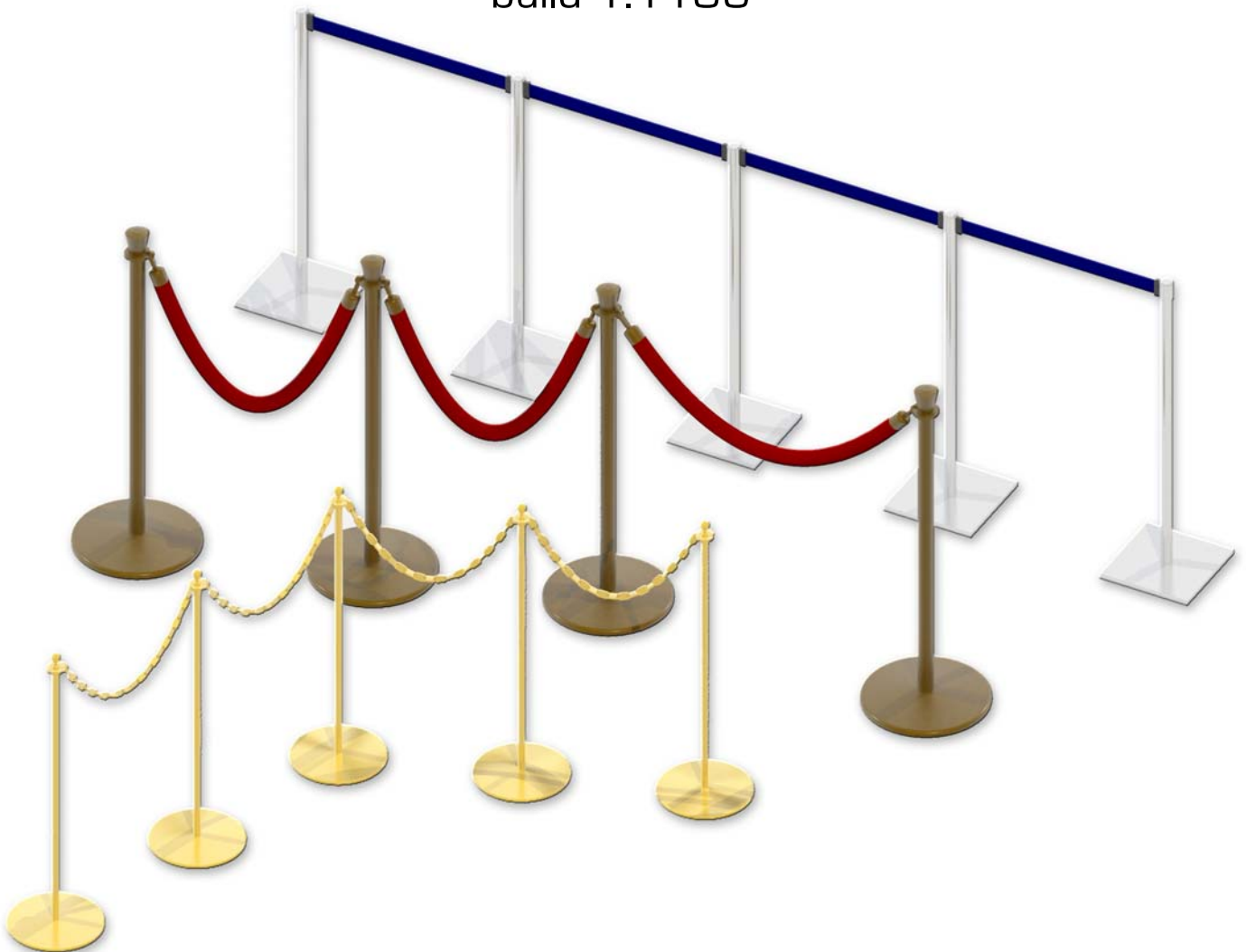


# Stanchion Layout

build 1.1135



manual



Nashville, TN, USA  
www.landrudeesign.com  
main@landrudeesign.com

*Stanchion Layout* is a Vectorworks® Plug-In that enables you to insert Hybrid (2D and 3D) layouts of stanchions and associated belts, chains, ropes.

### **Notable features:**

- Vectorworks® Spotlight® and Designer® are not required. *Stanchion Layout* works in any 2020 or newer Vectorworks® product.
- Models can be single straight or arc segments or follow intricate paths (like Vectorworks® Polylines). Resizing and reshaping *Stanchion Layout* runs is as easy as dragging, adding, subtracting, and redefining Control Points.
- Many aspects of the object geometry are adjustable on-the-fly, such as stanchion base and post dimensions; belt, rope, and chain dimensions; and stanchion spacing .
- All 3D model elements are automatically textured. 3D colors and textures are chosen and applied directly through a familiar "3D Options" dialog, which displays thumbnails of available textures. Several stock Textures are generated on-the-fly. The tool recognizes textures in the current drawing, as well as Vectorworks® and Spotlight® defaults.
- The different parts of each *Stanchion Layout* object can be assigned to different Classes and users can choose which parts are assigned to Classes and can define custom Class names.
- Select text can be shown on drawings and various data, such as part counts, can be tracked in WorkSheets and Reports.

## Table of Contents

[System Requirements and License](#) ..... 4

[Installation](#) ..... 5-6

[General Introduction](#) ..... 7

[Settings](#) ..... 8-9

[3D Options](#) ..... 10

[Text Options](#) ..... 11

[Parts Classes](#) ..... 11

***Stanchion Layout* requires Vectorworks® and Renderworks® 2020 or newer.****License**

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

- 1) You agree that you are using *Stanchion Layout* under a license granted by Landru Design.
- 2) You agree that all title, ownership, rights, intellectual property rights in and to *Stanchion Layout* 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 *Stanchion Layout* and any related derivative works.
- 3) You agree not sell, rent, lend, loan, lease or otherwise transfer or distribute the *Stanchion Layout* software. Furthermore, you agree not to modify, disassemble, decompile, or reverse-engineer the *Stanchion Layout* software.
- 4) You agree that a download/license of *Stanchion Layout* 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 *Stanchion Layout*.
- 6) You agree that *Stanchion Layout* 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 *Stanchion Layout*.
- 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. With Vectorworks® running, open the Plug-in Manager through your Vectorworks® menu ([Tools][Plug-ins][Plug-in Manager...]).
2. Select the “Third-party Plug-ins” tab.
3. Click the “Install...” button.
4. 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 (*Stanchion Layout.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.

5. In the dialog that opens, click the “Restart” button.
6. 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:

UnZip the Zip file you downloaded, **keeping the folder structure it contains intact**. You will end up with three 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>Stanchion Layout</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® 2024 (or, 2023, 2022, 2021, or 2020) “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, *Stanchion Layout.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.**

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 *Stanchion Layout* 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."

## Using *Stanchion Layout*

Starting with pre-existing geometry:

Select lines, polygons, arcs, and/or polylines. **While in 2D/Plan View**, Select the *Convert to Stanchion Layout* menu item. A *Stanchion Layout* 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."

Creating *Stanchion Layout* models from-scratch:

Select the *Stanchion Layout* icon from the tool palette into which you added it earlier. Click in your drawing where you want your *Stanchion Layout* object to start. Click again, as many times as you wish, to define stanchion locations (very-much like placing Vectorworks® Polyline tool vertices). Double-click to finish defining your *Stanchion Layout* model's path. If an initial settings dialog appears, make any default changes you wish and click "OK."

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 *Stanchion Layout* object(s) selected, make sure the Shape tab is in the forefront of the Object Info palette to make adjustments.

To resize or alter the shape of a *Stanchion Layout* object, enable Vectorworks'® Interactive Scaling, double-click the object to activate the Reshape tool, and move, add, subtract, or redefine *Stanchion Layout*'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 *Stanchion Layout*'s parameters will be visible or available in the Object Info 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 Stanchion Layout* replaces selected lines, polygons, arcs, and/or polylines with *Stanchion Layout* models, mimicking the given element's shape.

*Stanchion Layout*'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.*

## Settings



**Class, Layer, X, Y, Z, and Rotation:** Settings similar to other Vectorworks® symbols and objects.

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

### Stanchions:

**Post Height:** The height of the post, measured from the top of the base.

**Post Diameter:** The diameter of the post.

**Post Top Type:** Options for the type of top structure for the post: “Simple” (flat), “Crown,” and “Ball.”

**Post Color:** The Color and/or Texture of the post as assigned through the “3D Options” dialog. ([See page 10 for more information.](#))

**Base Type:** Options for the type of base: “Round” and “Square.”

**Base Height:** The height of the stanchion base.

**Base Width:** The width of the base.

**Base Color:** The Color and/or Texture of the base as assigned through the “3D Options” dialog. ([See page 10 for more information.](#))

### Stringers:

**Stringer Type:** Options for possible stringer types: “Belt,” Rope,” and “Chain.” ([“Belt” shown here. See page 9 for information regarding “Rope” and “Chain.”](#))

**Belt Length:** The maximum length of the belt.

**Belt Color:** The Color and/or Texture of the belt as assigned through the “3D Options” dialog. ([See page 10 for more information.](#))

**Belt Clip Color:** The Color and/or Texture of the belt mounting clip as assigned through the “3D Options” dialog. ([See page 9 for more information.](#))

### Spacing and Counts:

**Ideal Spacing:** The ideal stanchion-to-stanchion spacing you wish. *Stanchion Layout* will calculate the best actual spacing based on even divisions of the length of a given segment.

**Actual Spacing:** The actual calculated stanchion-to-stanchion spacing.

**End Stanchions:** Options for drawing the end stanchions: “Both,” “First,” and “Last,” or “None.”

**Total Stanchions:** The calculated number of stanchions.

**Total Belts:** The calculated number of belts. (*...or ropes...or chains...*)

**3D Options...:** Opens the “3D Options” dialog, through which colors and/or textures are assigned to 3D parts. ([See page 10 for more information.](#))

**Location:** The *Stanchion Layout*’s location (such as Lobby).

**Position:** The *Stanchion Layout*’s position (such as Will-Call A-L).

**Unit:** The *Stanchion Layout*’s unit number or designator.

**Purpose:** The *Stanchion Layout*’s purpose (such as Queue 1).

**Cart ID:** The *Stanchion Layout*’s storage cart ID.

**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 *Stanchion Layout* text. ([See page 11 for more information.](#))

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

**Parts Classes...:** Opens the “Parts Classes” dialog, used to assign the different elements comprising the *Stanchion Layout* model to different Classes. ([See page 11 for more information.](#))

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

**Stanchion Layout Build:** The build number of the *Stanchion Layout* Plug-In Object code.



## Settings, continued...

### Other Stringer Types:



#### Rope:

**Rope Length:** The length of the rope.

**Rope Diameter:** The diameter of the rope.

**Rope Color:** The Color and/or Texture of the rope as assigned through the “3D Options” dialog. [\(See page 10 for more information.\)](#)

**Rope Cap Color:** The Color and/or Texture of the rope end caps as assigned through the “3D Options” dialog. [\(See page 10 for more information.\)](#)



#### Chain:

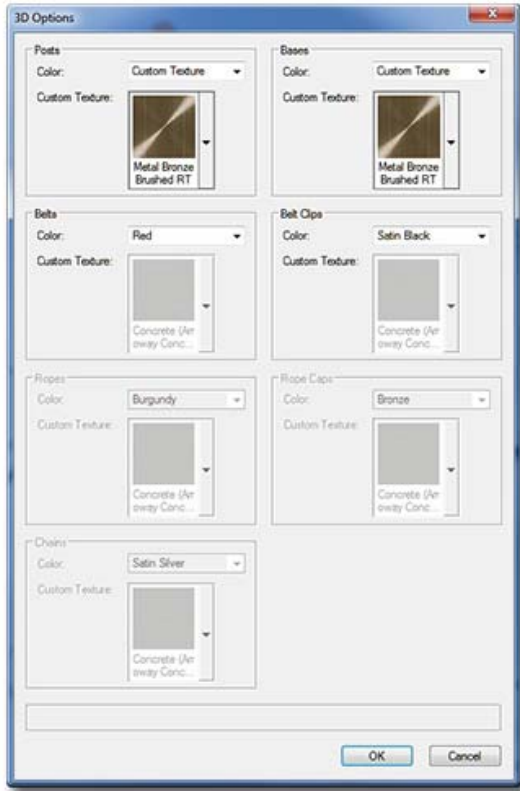
**Chain Length:** The length of the chain

**Single Link Length:** The length of an individual link of chain. The link width will re-size appropriately.

**Chain Color:** The Color and/or Texture of the chain as assigned through the “3D Options” dialog. [\(See page 10 for more information.\)](#)

## 3D Options dialog

This dialog opens when you click the “3D Options...” button in the Object Info Palette. Different items are enabled or disabled depending on the options that are selected for a given object



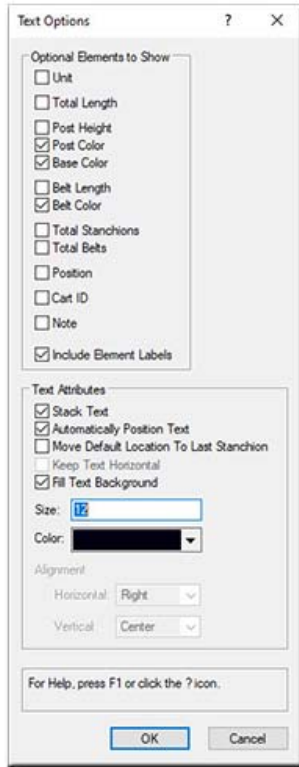
**Color:** Possible attributes for the 3D portions of the *Stanchion Layout* objects. Included here are basic colors, “Class Textures” (*only present if the given part is assigned to a Class in the “Class Options...” dialog*), and “Custom Texture,” which assigns the texture picked in the “Custom Texture” pop-up.

**Custom Texture:** Renderworks® textures available to the selected *Stanchion Layout* object. This list is populated with textures contained in the current document, in files in the default Renderworks® texture folders, and in the on-line Service Select library. (*Only enabled if the “Custom Texture” color is chosen.*)

### To Assign Textures By-Class:

- 1) The given part **MUST** be assigned to a Class in the “Class Options...” dialog. ([See page 11 for more information.](#))
- 2) The Class for the given part **MUST** be set to assign textures. (*Both boxes checked in the “Other” tab at the bottom of the Vectorworks® “Edit Class(es)” dialog.*)
- 3) “Class Textures” **MUST** be chosen in the Color pop-up.

## Text Options dialog



### Optional Elements to Show:

A list of potential text elements that can be shown as part of the *Stanchion Layout* model. Only items appropriate for a given *Stanchion Layout* function will be enabled.

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

### Text Attributes (only enabled if at least one text element is selected to be shown):

**Stack Text:** Causes 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 *Stanchion Layout* object’s origin (or end, based on the “Move Default Location to Last Stanchion” setting). Untoggling this box will display a Control Point for the text, allowing the text to be dragged to other locations.

**Move Default Location to Last Stanchion:** Switches the default text position for the “Automatically Position Text” setting and the “Default Text Locations” button.

**Keep Text Horizontal:** Keeps text horizontal, regardless of the *Stanchion Layout* rotation angle.

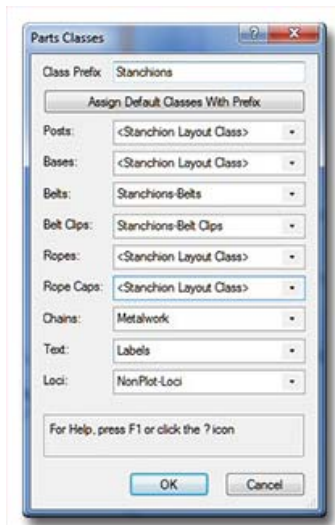
**Fill Text Background:** Makes text background opaque.

**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.

## 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:** Populates each of the Class Pop-Ups with suggested Class names, each (except for “Loci”) with the prefix as entered in the “Class Prefix” box.

**Posts, Bases, Belts, etc.:** The Class to which the given part is assigned. Existing Classes can be chosen or new Classes can be created on-the-fly. “<Stanchion Layout 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...

**Posts and Bases** are using the Stanchion Layout object’s overall Class.

**Belts, Belt Clips, Ropes, Rope Caps, and Loci** are all assigning the given parts to Classes generated by clicking the “Assign Default Classes With Prefix” button.

**Chains and Text** elements are assigned to custom Classes.