

Symbol Line User Guide

STB VW Tools

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STB-VW Tools Symbol Line User Guide

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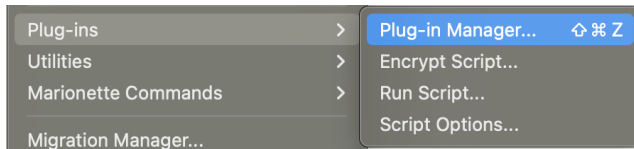
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Installation

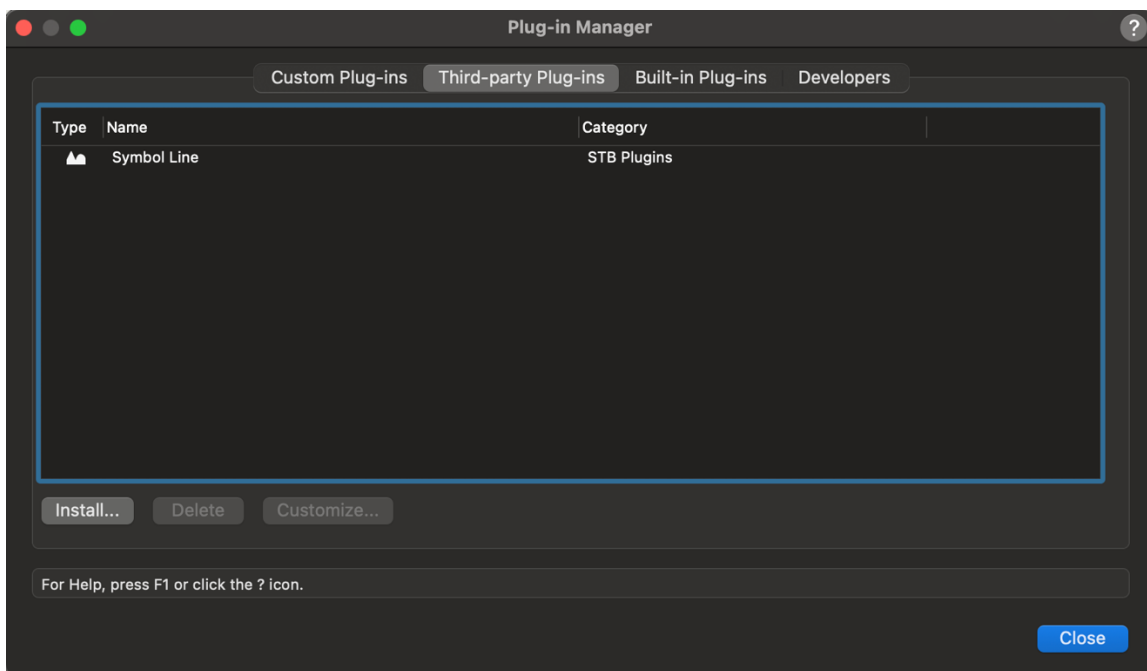
1. Download the Installer

After purchase, you will receive an email containing a Dropbox download link. This link includes a file named STB-VW Tools.vwlibrary. Download this file to your computer. Make sure the file is available offline when using cloud storage.

2. Open the Plug-in Manager: In the Vectorworks menu bar, go to: **Tools** → **Plug-ins** → **Plug-in Manager...**

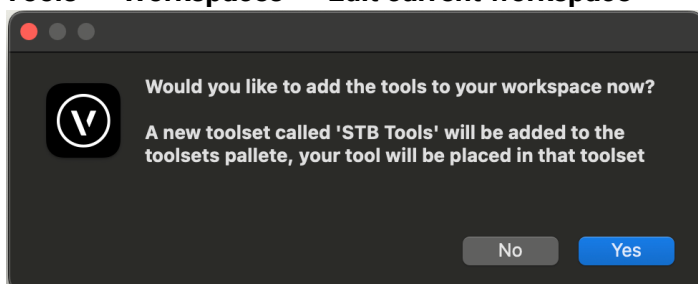


3. Install the Plugin: In the Plug-in Manager, go to the **Third-party Plug-ins** tab. Click **Install...** and select the STB-VW Tools.vwlibrary file you downloaded.

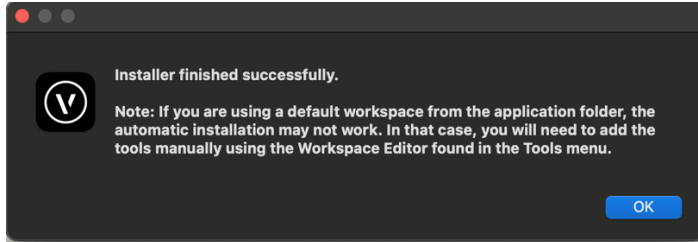


4. Complete the Installation: After selecting the .vwlibrary files you will see a dialog to add the tool to your current active workspace. Click **Yes** to do so. If you choose **No**, then you will need to manually add the tool to your workspace with the workspace editor yourself.

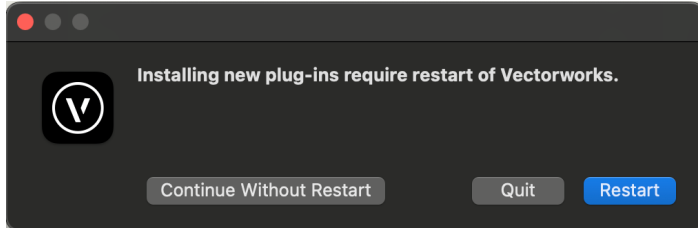
Tools → **Workspaces** → **Edit current workspace**



Next, you will see a confirmation that the installation finished successfully. Click **OK**.



5. Restart Vectorworks. Finally, you will be prompted to restart Vectorworks to initialize the new plugins. Click **Restart** to complete the installation



Tool Overview

This tool places symbols with two points along a drawn line creating a daisy chain of symbols on a line, Symbol Line!

This tool is especially useful for temporary event fencing, but can be used with any symbol that a user wants to place along a line. Why not use Duplicate Along Path? Because that command places only one point of the symbol on the line. Symbol Line places two user-definable points of the symbol on the line creating a perfectly linked chain of fences, for instance.

- **Symbol 1:** Is the main symbol to be placed along the line.
- **Symbol 2:** Can alternate placements of Symbol 1 along the line based on count or interval.
- **Symbol 3:** Is an additional symbol that can be placed at Symbol 1 or 2 insertion points.

Symbol distances are determined by:

- Insertion point and manual distance and angle field value in the Object Info Palette, OR
- Loci with symbol_line_dist record attached placed in the symbol definition.

Preparing Symbols

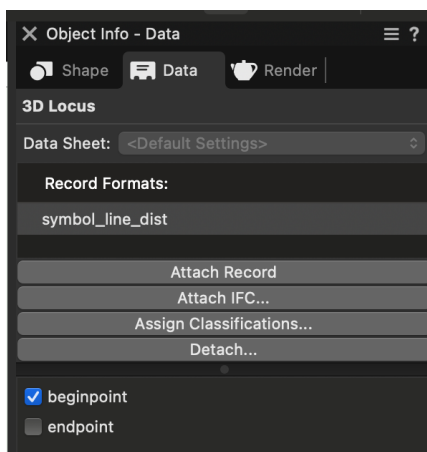
The Symbol Line tool functions with both standard and prepared symbols.

Standard Symbols If an unprepared symbol is selected, the tool uses the **Symbol Distance** and **Symbol Rotation** value from the Object Info Palette.

- The tool places the symbol's insertion point on the line.
- A second point is calculated horizontally to the right of the insertion point at the chosen **Symbol Distance** in the Object Info Palette.
- The tool rotates the symbol so that this second point also lies on the polyline. The next symbol's insertion point is placed at this intersection.

Prepared Symbols To pre-define spacing and alignment within the symbol definition, you can use Loci and the symbol_line_dist Record Format.

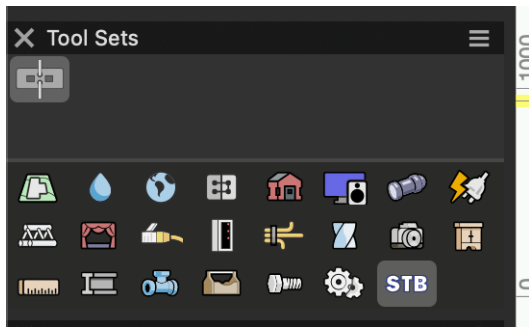
1. **Place Loci:** Edit the symbol definition and place two 2D or 3D Loci at the desired connection points.
2. **Attach Record:** Attach the symbol_line_dist record to both Loci.
 - Note: The tool automatically creates the symbol_line_dist record format in the Resource Manager upon first use in a document.
3. **Define Points:** In the Object Info Palette Data tab:
 - Select the start Locus and check **beginpoint** (leave 'endpoint' unchecked).
 - Select the end Locus and check **endpoint** (leave 'beginpoint' unchecked).



When using a prepared symbol, the tool will automatically calculate the distance and angle between these two Loci to determine precise placement along the line.

Activating the Tool

If the tool was added to the workspace during installation, you will find it located in the Tool Sets Palette in the **STB Tools** toolset. Click the **Symbol Line** tool icon.



Tool Modes In the Tool Mode Bar:

- **Vertex Modes:** Select a mode to define how the polyline is drawn (e.g., Corner Vertex, Bézier Vertex).
- **Preferences:** Click the icon to open the object properties and select a symbol before drawing.



If a symbol is not pre-selected, the tool prompts for a symbol selection when the first line is drawn.

Object Info Parameters

Symbol Line

Symbol 1 Settings

Pick Symbol 1 from Resource Browser

Symbol 1:

Symbol 1 Distance:

Symbol 1 Rotation:

☐ Symbol 1 Flip

Symbol 2 Settings

Pick Symbol 2 from Resource Browser

Symbol 2:

Symbol 2 Interval:

Symbol 2 Count:

Symbol 2 Distance:

Symbol 2 Rotation:

☐ Symbol 2 Flip

☐ Symbol 2 Start

☐ Symbol 2 End

Symbol 3 Settings

Pick Symbol 3 from Resource Browser

Symbol 3:

Symbol 3 Interval:

Symbol 3 Count:

☐ Symbol 3 Flip

☐ Symbol 3 Start

☐ Symbol 3 End

☐ Symbol 3 Cluster in Symbol 2 Gaps

☐ Symbol 3 Spread in Symbol 2 Gaps

Symbol total Counts

Symbol 1 Count:

Symbol 2 Count:

Symbol 3 Count:

Symbol 1 Parameters

These parameters control the primary repeating symbol.

- **Pick Symbol 1 from Resource Browser:** Opens the Resource Selector to choose the primary symbol.
- **Symbol 1:** Displays the name of the currently selected symbol.
- **Symbol 1 Distance:**
 - **Standard Symbols:** Sets the distance between symbol insertion points.
 - **Prepared Symbols:** This value is automatically entered based on the distance between the 2 loci. In this case you can not change the value manually anymore.

- **Symbol 1 Rotation:** Adds a rotational offset to the calculated alignment, allowing you to correct the orientation of symbols that were not drawn horizontally to the right of the insertion point.
 - **Symbol 1 Flip:** Mirrors the symbol across the path.
-

Symbol 2 Parameters

These parameters control the secondary alternating symbol pattern.

- **Pick Symbol 2 from Resource Browser:**
Opens the Resource Selector to choose the secondary symbol. Symbol 2: Displays the name of the currently selected symbol.
- **Symbol 2:** Displays the name of the currently selected symbol. To clear the selection of a chosen Symbol 2 select None in the drop-down list.
- **Symbol 2 Interval:** Enter a value to repeat Symbol 2 at regular intervals along the line (e.g. entering 5 places Symbol 2 at every 5th position).
- **Symbol 2 Count:** Enter a value to place a fixed number of Symbol 2 instances along the line.
- **Symbol 2 Distance:**
 - **Standard Symbols:** Sets the distance between symbol insertion points for Symbol 2.
 - **Prepared Symbols:** This value is automatically entered based on the distance between the 2 loci with symbol_line_dist record in the symbol definition. In this case you cannot change the value manually anymore.
- **Symbol 2 Rotation:** Adds a rotational offset to the calculated alignment, allowing you to correct the orientation of symbols that were not drawn horizontally to the right of the insertion point.
- **Symbol 2 Flip:** Mirrors the symbol across the path.
- **Symbol 2 Start:** Forces Symbol 2 to appear at the start of the line.
- **Symbol 2 End:** Forces Symbol 2 to appear at the end of the line.

When **Symbol 2 Start**, **Symbol 2 End**, or both are checked in the Object Info Palette, the total number of Symbol 2 placements remains equal to the value entered in the **Symbol 2 Count** field.

Symbol 3 Parameters

Selects an additional symbol to place along the line. Unlike Symbols 1 and 2, this is an extra overlay that does not participate in the alternating pattern.

- **Pick Symbol 3 from Resource Browser:**
Opens the Resource Selector to choose the secondary symbol.
Symbol 3: Displays the name of the currently selected symbol. To clear the selection of a chosen Symbol 3 select None in the drop-down list.
- **Symbol 3 Interval:** Enter a value to repeat Symbol 3 at regular intervals along the line (e.g. entering 5 places Symbol 3 at every 5th position).
- **Symbol 3 Count:** Enter a value to place a fixed number of Symbol 3 instances along the line.
- **Symbol 3 Flip:** Mirrors the symbol across the path.

- **Symbol 3 Start:** Forces Symbol 3 to appear at the start of the line. When checked in the Object Info Palette, the total number of Symbol 3 placements remains equal to the value entered in the **Symbol 3 Count** field.
- **Symbol 3 End:** Forces Symbol 3 to appear at the end of the line. When checked in the Object Info Palette, the total number of Symbol 3 placements remains equal to the value entered in the **Symbol 3 Count** field.
- **Symbol 3 Cluster in Symbol 2 Gaps:** When enabled, confines Symbol 3 placements to the intervals between Symbol 2 instances (where Symbol 1 is placed), grouping them together.
- **Symbol 3 Spread in Symbol 2 Gaps:** When enabled, distributes Symbol 3 placements evenly within the intervals between Symbol 2 instances (where Symbol 1 is placed) instead of across the whole line.

Note on Rotation/Distance: Symbol 3 does not have manual distance or rotation fields; it is always placed and rotated according to the geometry orientation defined in the symbol definition.

Symbol Total Counts

- **Symbol 1, 2, & 3 Count:** Displays the total amount of symbols in the currently selected Symbol Line Object.

Note: Nested symbols (symbols inside other symbols) are **not** displayed in these totals. We recommend using **Worksheets** to generate accurate final counts for nested symbols or to calculate totals across the entire project.

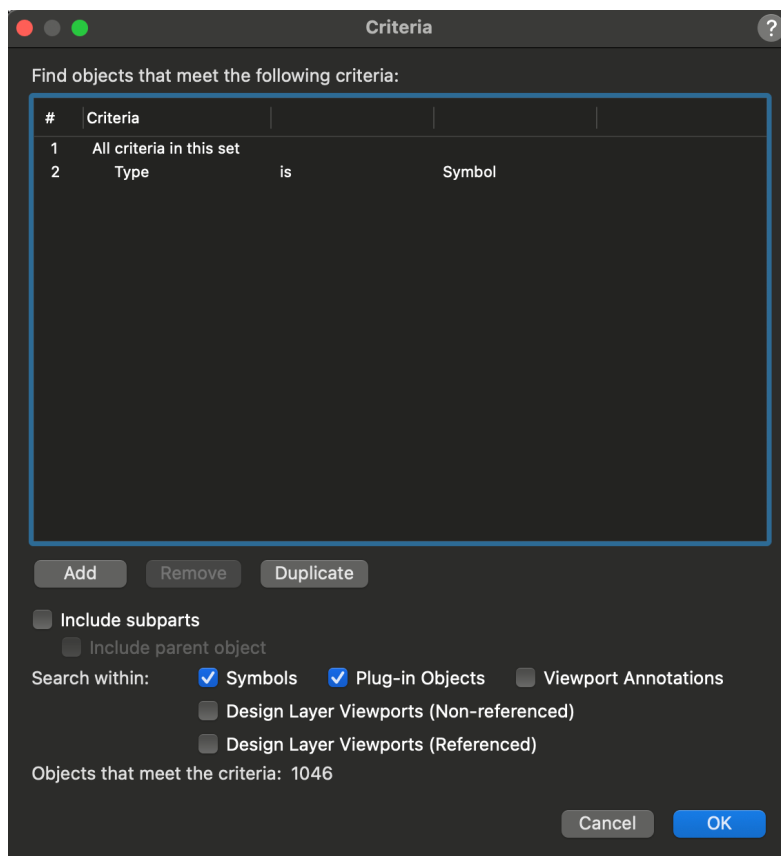
Counting Symbols with Worksheets

For accurate project-wide totals—especially when using nested symbols—we recommend creating a **Worksheet** with a **Database Report** rather than relying solely on the **Total Counts** in the Object Info Palette.

To set this up correctly, you must configure the **Criteria** dialog as follows:

1. **Set the Main Criteria:** Set the primary criteria to **Type is Symbol**.
2. **Search Within Plug-in Objects:** You **must** check the box for **Search within: Plug-in Objects**. Since the *Symbol Line* object is a Plug-in Object, the worksheet needs this option checked to "look inside" the object and count the symbols used within the Symbol Line Object.
3. **Search Within Symbols (For Nested Parts):** If your primary symbols contain other symbols inside them (nested symbols), you must also check **Search within: Symbols**. This ensures the report counts every individual sub-component accurately.

Tip: An example file containing a pre-configured worksheet is included in your purchase download package. You can use this as a starting point for your own reports.



Support & Contact

Need assistance or have a question about the Symbol Line tool? We are here to help.

Get in Touch We invite you to visit our support page and fill in the contact form for the quickest assistance. This helps us gather the necessary details to solve your issue faster.

- **Support Page & Contact Form:** <https://stb-vw.com/support>

Alternative Contact You can also reach us directly via email if you prefer.

- **Email:** support@stb-vw.com

Tip: Whether you use the form or email, please include your **Vectorworks version** (e.g., 2025) and your **Operating System** (macOS or Windows) so we can help you more efficiently

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