



Victaulic Tools for Revit®

User Manual

Revit 2020, 2021, 2022, 2023, 2024, 2025

Table of Contents

| | |
|---|----|
| Introduction to Victaulic Tools for Revit® | 5 |
| 1) Licensing..... | 5 |
| 2) Settings Migration Tool..... | 6 |
| 3) Pipe Tools (Pipe / Duct Tagging)..... | 6 |
| 4) Pipe Tools (Pipe / Duct / Conduit Splitting)..... | 7 |
| 5) Rotate Selection | 8 |
| 6) Resize Selection | 8 |
| 7) Leveler | 9 |
| 8) Pipe Rack Tool..... | 9 |
| 9) Systemizer | 10 |
| 10) Tap Creator | 10 |
| 11) Point To Pipe Tool | 11 |
| 12) Any Connect Tool | 12 |
| 13) Disconnect Element..... | 12 |
| 14) Toggle Field Material | 12 |
| 15) Delete Pipe | 12 |
| Settings - Delete Pipe | 13 |
| 16) Selection Tool | 14 |
| 17) Riser Tool..... | 14 |
| 18) Caesar II® Export – Beta..... | 14 |
| 19) Expansion Loop | 15 |
| 20) Seismic Loop..... | 16 |
| 21) Auto Header Assembly..... | 16 |
| 22) Flip to Vic..... | 17 |
| 23) Selection To Family | 18 |
| 24) Custom Tagging | 19 |
| 25) Create Assembly / Continuous Spooling | 20 |
| Create Assembly / Continuous Spooling (Continued) | 21 |
| 26) Create Assembly and Views | 22 |
| 27) Assembly Tools..... | 23 |
| Auto Assembly | 23 |
| Combine Assemblies | 23 |
| Split Assembly | 23 |
| 28) Package Tools | 24 |

| | |
|--|-----------|
| Create Package | 24 |
| Add To Package | 24 |
| Remove From Package | 24 |
| 29) Victaulic Dock | 25 |
| Assembly Manager | 25 |
| Assembly Manager (Continued) | 26 |
| Package Manager | 27 |
| Component Bank | 28 |
| Project Mentor | 29 |
| Project Mentor Configurator | 30 |
| 30) Settings (Create Assembly Views) | 31 |
| 31) Rotate Assembly | 32 |
| 32) Multi Parameters | 32 |
| 33) Procurement Tool | 33 |
| Procurement Tool (continued) | 35 |
| 34) Fabrication Hangers | 36 |
| 35) Hanger Snap Tool | 36 |
| 36) Update Hangers | 37 |
| 37) Family Update Tool | 37 |
| 38) Other Settings | 38 |
| Procurement/Spool Settings | 38 |
| Content Settings | 39 |
| Third Party Integrations | 39 |
| 39) Victaulic SpoolTracker App Integration | 40 |
| Victaulic SpoolTracker App Integration (Continued) | 41 |
| 40) Victaulic SpoolTracker Dashboard | 42 |
| Victaulic SpoolTracker Dashboard (Continued) | 43 |
| Victaulic SpoolTracker ACC® Connection | 44 |
| 41) Victaulic Cloud Settings | 47 |
| 42) Project Maintenance | 48 |
| 43) Sequence Manager | 50 |
| 44) View Filter Generator | 51 |
| 45) Project Specification Tool | 51 |
| 46) Components Ribbon | 53 |
| Content Center | 53 |
| Content Visibility | 53 |

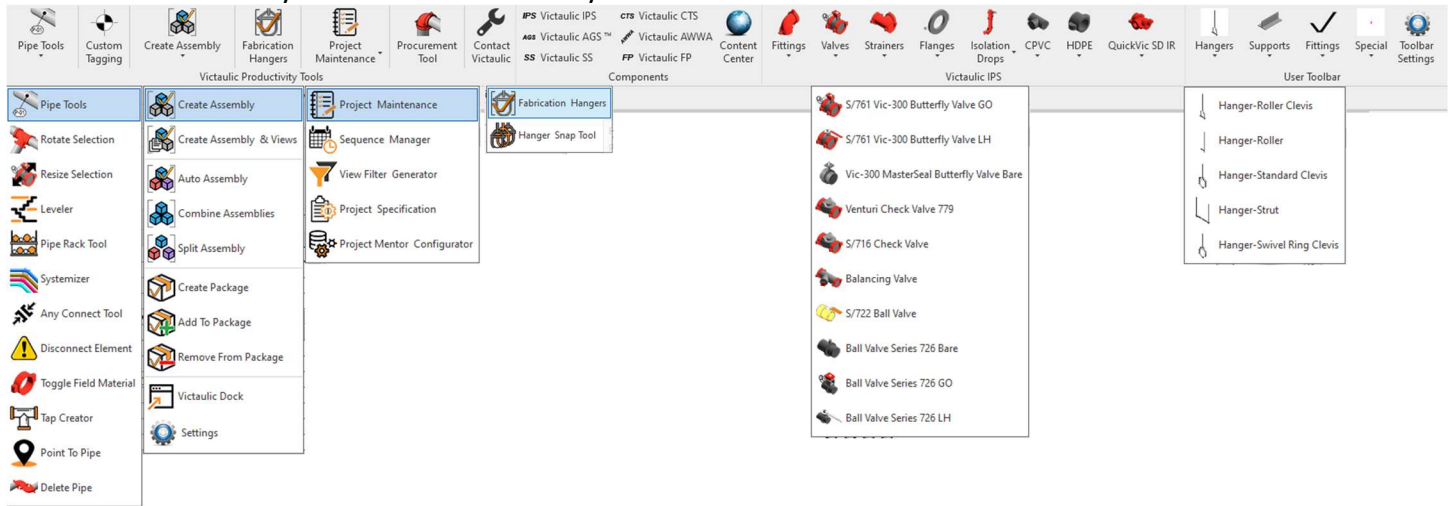
Update Available53

47) Important Information..... 54

Important Information (Continued).....55

Introduction to Victaulic Tools for Revit®

Victaulic has created a set of tools for Revit® that increase drawing productivity, overcome shortcomings in Revit MEP and allow you to do BIM efficiently.

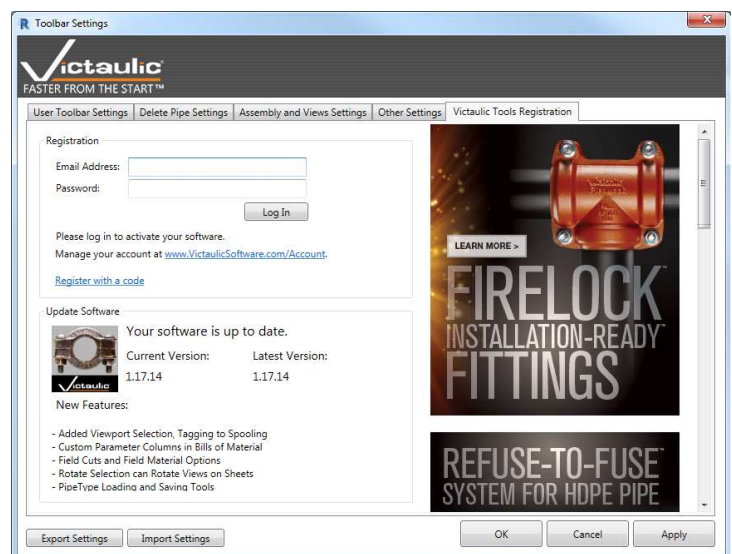
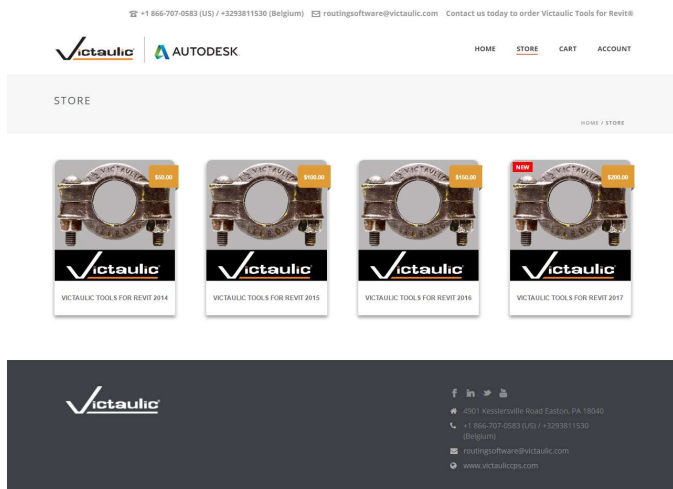


The tools can be found on the Victaulic website www.victaulicsoftware.com

1) Licensing



After downloading your 30 day free trial of Victaulic Tools for Revit, you will see a **Register Victaulic Tools** button in the ribbon of your Revit software. Licenses can be purchased from www.VictaulicSoftware.com/Store. Once purchased, use the email address and password from our store to register your software. Multiple installations can be licensed using the same email address and password combination. After your tools have been licensed you will no longer see the Register Victaulic Tools button.



2) Settings Migration Tool



Every time a user reinstalls or updates the toolbar they will be prompted with the options to keep their old settings by copying the backup settings or restoring to default by removing the backup settings.



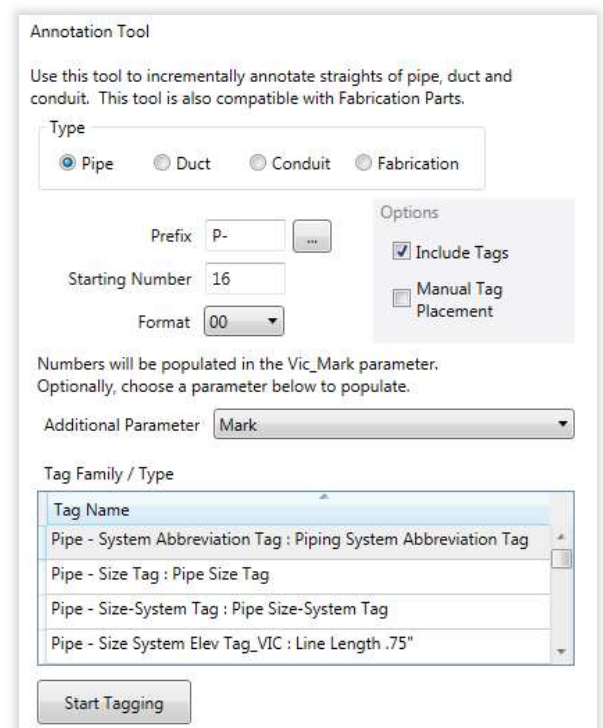
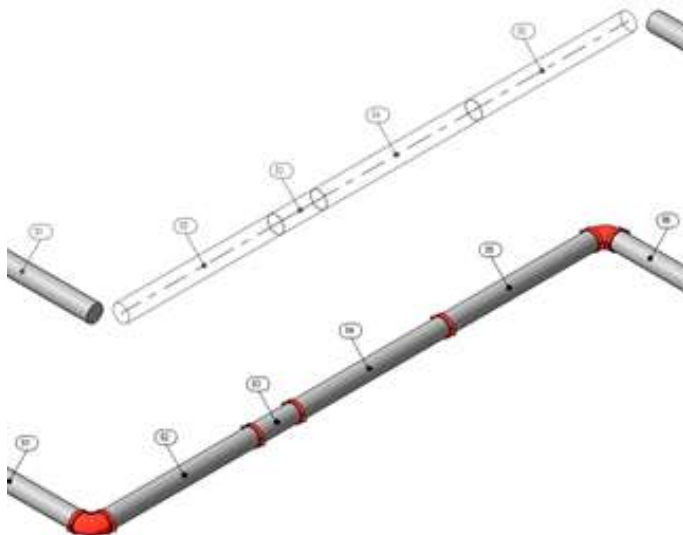
3) Pipe Tools (Pipe / Duct Tagging)

Select the **Pipe Tools** button in the ribbon and the Pipe Tagging window is displayed. You can define a prefix, starting number, and set the format of the tag numbers. You can specify a pipe tag to be placed by checking the **Include Tags** checkbox.

In the list you can specify what Pipe Tag annotation family from your project to place.

The **Vic Mark** shared parameter is created and populated with an auto-incrementing number while selecting the order of pipe. Your Annotation family must use this shared parameter for the annotation to receive the **Vic Mark** parameter values.

Select the pipe in the order you would like them tagged.



4) Pipe Tools (Pipe / Duct / Conduit Splitting)

When routing in Revit®, pipe and duct lengths are not cut into commercially available lengths. The **Pipe Tools Split Pipe/Duct** button cuts the pipe or duct at predetermined lengths. The minimum length will prevent you from having cuts that are difficult to groove.

After you select the **Pipe Tools** button in the ribbon the **Pipe / Duct Length** window will appear. Be aware the lengths are in feet or millimeters. Uncheck **Use Default Coupling** to choose a specific coupling between the pipe segments.

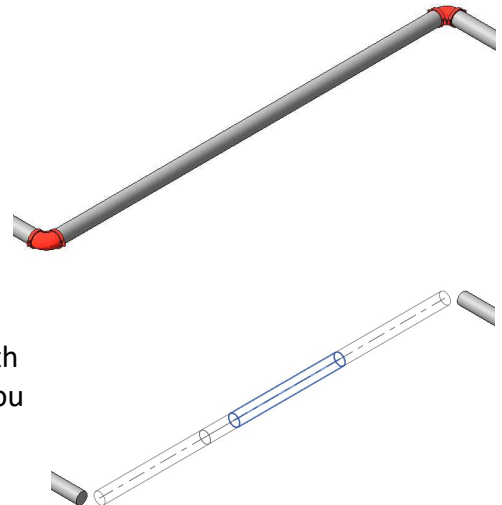
The **Use Non-Connectors** check box is only used when you specify couplings as flanges in the pipe type. A Non-Connector family will automatically be loaded. *More on this below.*

Single Click Splitting allows the user to split an entire length of pipe or duct with a single click.

When selecting, pipe and duct will start splitting from the end where your mouse pointer is located.



The **Force Length** mode can be used to set a specific length for existing pipes. Set the desired length and each pipe you click will be set exactly to the length you specified.



These splitting and forcing length tools work with all pipe types, conduit, duct, and fabrication pipework.

Splitting Tool

Use the settings below to split long lengths of pipe, duct, or conduit by the determined minimum and maximum lengths.

Mode

☒ Split Length ☐ Force Length

Standard

☒ Imperial ☐ Metric

Minimum

Maximum

Options

☒ Single Click Splitting

☒ Use Default Coupling per Pipe Type

☒ Use Non-Connectors

Coupling / Joint

Family Name

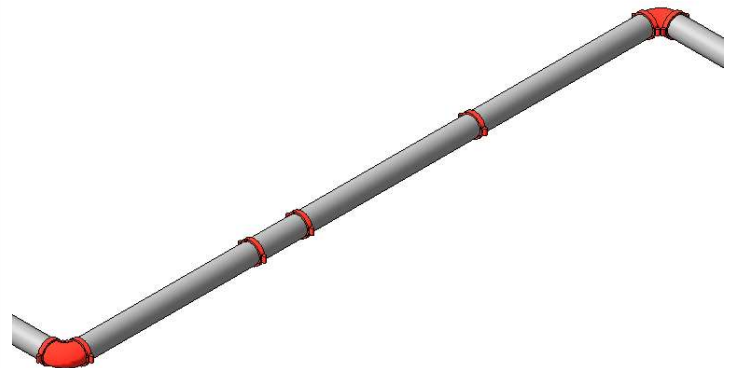
Buttweld-Weld Carbon Steel

Flange - Slip-on - Steel - Class 150

Flange - Weld Neck - Steel - Class 150

Non-Connector

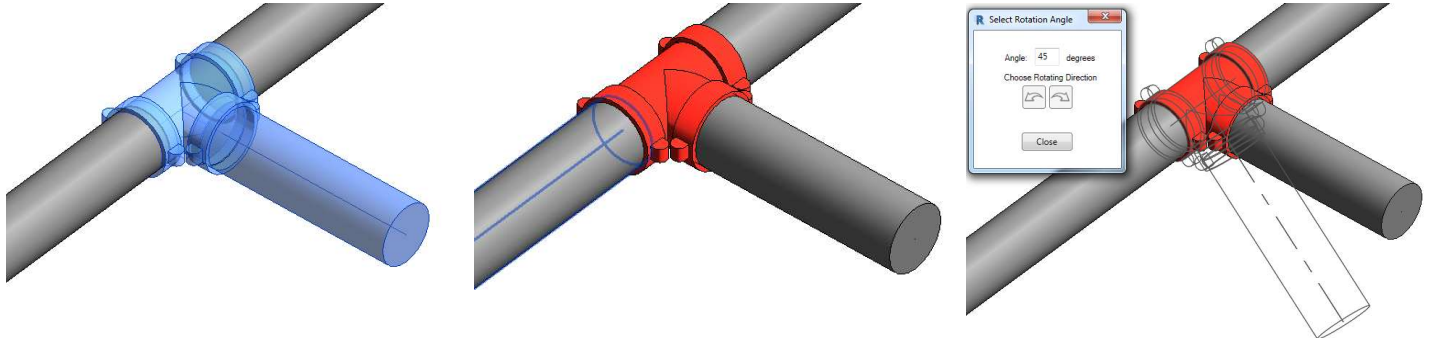
Flange - Threaded - GI - Class 125



5) Rotate Selection



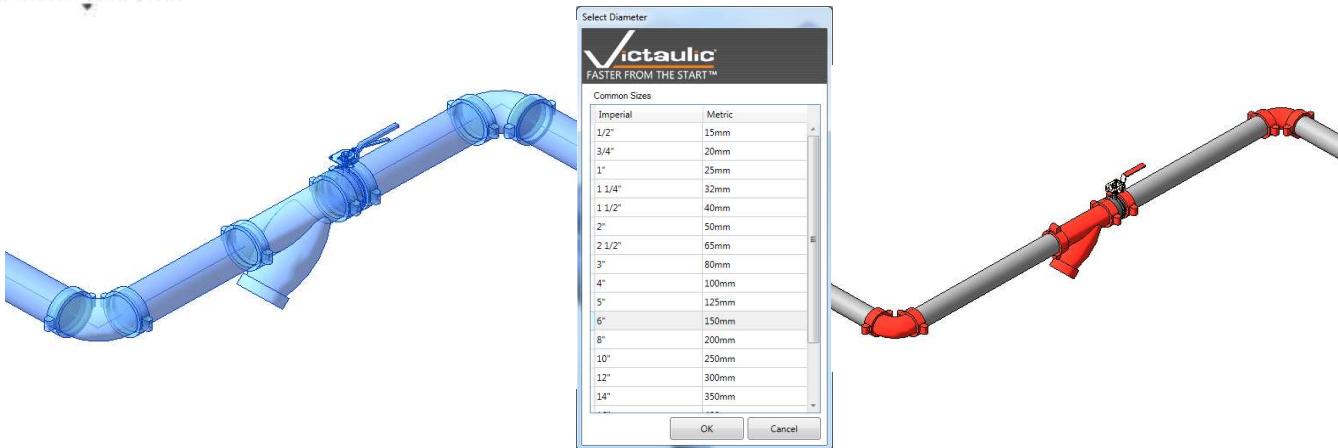
Select the families you wish to rotate click the **Rotate Selection** button. Select a pipe, coupling, or weld to define the axis of rotation and the **Select Rotation Angle** window will appear. Specify the angle and watch your selection rotate. This tool is useful when you need to route pipe from a header at an angle.



6) Resize Selection



Select the fittings and accessories you want to resize click the **Resize Selection** button. The current size will be highlighted. Select the desired size from the list and click the **Change Size** button.

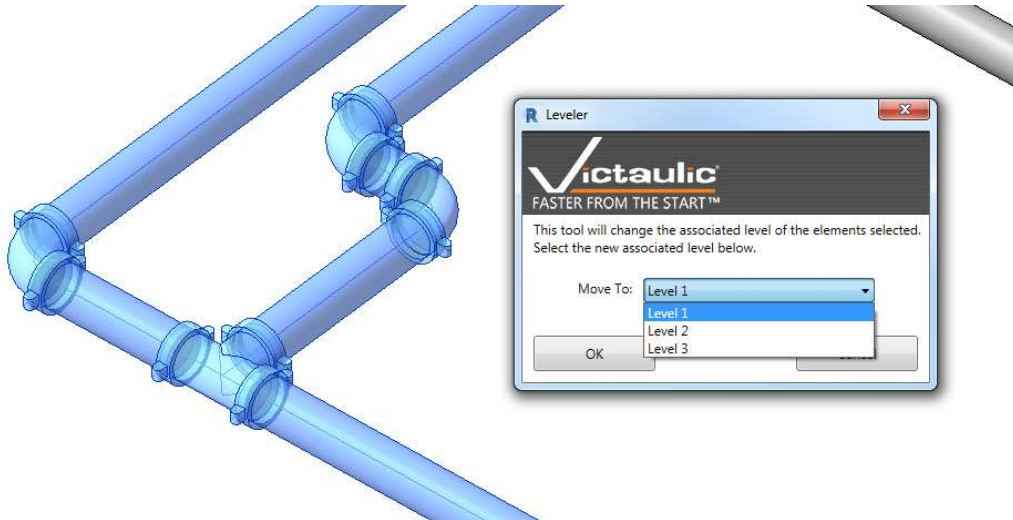


7) Leveler



The **Leveler** is a selection based tool to fix the associated reference level of elements in your project. This tool will correct the reference level of each element without moving the element or losing connectivity.

Just select the items you want to change and run the **Leveler** tool. Select the new reference Level and click **OK**. The items will be referenced to the new level retaining connectivity and their position in your model.



8) Pipe Rack Tool

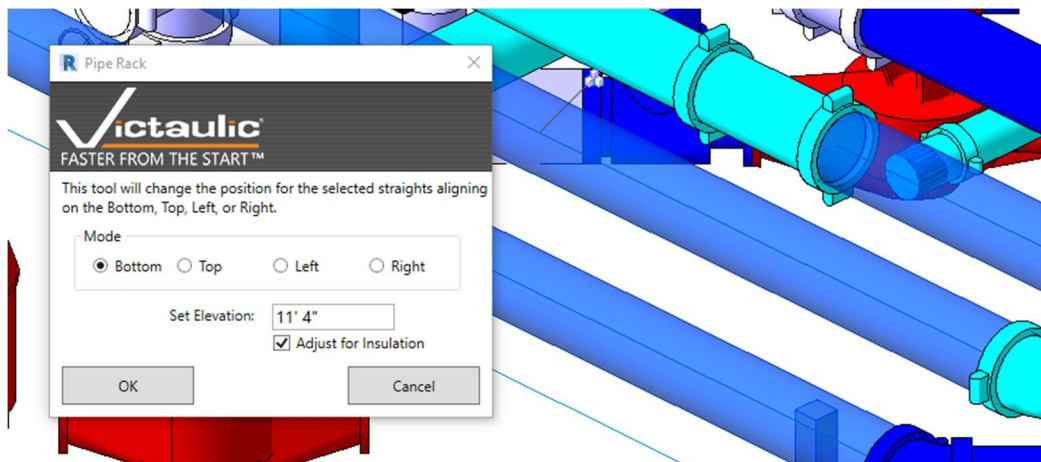


The Pipe Rack Tool is a selection-based tool to align horizontal Pipe, Duct, Conduit, and Fabrication Pipe by the bottom elevation, top elevation, and left or right orientations. Taking into consideration any Insulation specified, this tool can expedite the aligning of multiple trades that all share the same supports.

To use the Pipe Rack Tool:

1. Select one or any combination of horizontal pipes, duct, conduit, or fabrication pipe in your project.
2. Select the mode to align the straights.
3. Choose an elevation for your selection (Bottom or Top only) and click OK.

Straights in your selection will all be set to a consistent alignment adjusting for size and insulation.



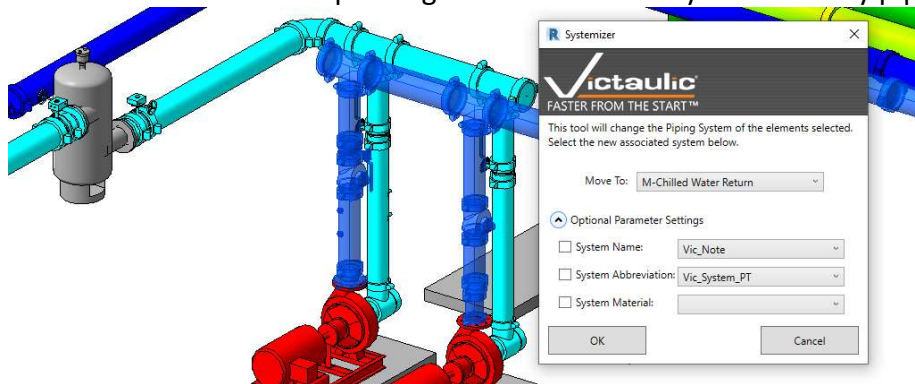
9) Systemizer



The Systemizer is a selection based tool to set piping systems. This tool automates and simplifies the setting of piping systems by allowing the user to force a piping system upon their selection. This tool will also create piping systems on items that do not have a system set.

To use the Systemizer:

1. Select one or any combination of pipes, duct, fabrication pipe in your project.
2. Choose a system for your selection and click **OK**. *Optionally specify system information to be written to parameters on the selection. This can help to organize and visualize your model by piping system.



10) Tap Creator



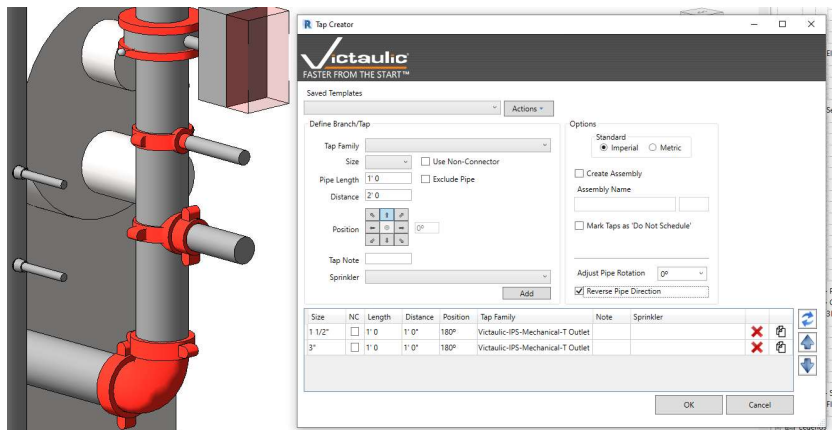
The Tap Creator is a database driven tool to create tap connections off of pipe. Historically, the task of tap placement has involved section and elevation views as well as multiple Pipe Types for correct family placement.

Whether you're placing small diameter outlets on a vertical pipe or large branches off a header, the Tap Creator will place any Tap family on any Pipe Type.

To use the Tap Creator:

1. Select one or multiple pipes in your project.
2. Select the tap family, size, length, distance, and position of the tap.
3. Optionally, specify a note to be applied to the Vic Note parameter and/or specify a sprinkler head to be placed at the end of the new pipe.
4. Edit the lines in the table to make any updates to your configuration. A preview of your changes will be available in your original view.
5. Use the Templates section to save what you've created.

Additional tools are available to create an Assembly from your newly created taps, to mark tap families as **Do Not Schedule**, and to reverse or adjust the main pipe's rotation.



11) Point To Pipe Tool



The **Point To Pipe Tool** is a tool designed to expedite the creation of pipe that may fall at odd angles and elevations. Either specify the coordinates of the pipe lengths in a spreadsheet or use a PCF file from any other drafting software. The **Point To Pipe** tool will use these coordinates to create the pipe in Revit.

Revit, like many other 3D modeling software, uses an XYZ coordinate system to specify the position and length of straights. In the event that the pipe needs to be tilted one or all planes, drawing this pipe can be a challenge.

To use the Point To Pipe Tool:

1. Acquire the coordinates of the desired pipe lengths and enter them into an Excel Spreadsheet or acquire a PCF file from any other popular drafting software.
2. Open the **Point To Pipe** tool in a 3D or Plan view of your drawing and select the spreadsheet for input.
3. Specify the units used in the spreadsheet for Pipe Size and Points.
4. Choose where the Point To Pipe tool should place the newly created pipe by using Pick Point, Project Base Point, or Project Survey Point.
5. Map the X (Northing), Y (Easting), Z (Elevation), and Pipe Size to the appropriate columns in the source spreadsheet.
6. Select the Pipe Type or Fabrication Service to use and click OK.
7. If using the Pick Point mode of Placement, select the point where the Pipe should be based in your drawing.

| | A | B | C | D | E |
|----|----------|------|-----------|------------|-----------|
| 1 | Line No. | Size | East | North | Elevation |
| 2 | Line-20 | 4 | 654047.93 | 2755470.71 | 720.356 |
| 3 | | 4 | 654048.84 | 2755471.32 | 720.505 |
| 4 | | 4 | 654049.09 | 2755472.53 | 720.546 |
| 5 | | 4 | 654060.41 | 2755480.04 | 721 |
| 6 | | 4 | 654061.31 | 2755484.47 | 721.042 |
| 7 | | 4 | 654069.31 | 2755489.77 | 721.131 |
| 8 | | 4 | 654073.46 | 2755488.93 | 721.171 |
| 9 | | 4 | 654079.50 | 2755487.71 | 721.228 |
| 10 | | 4 | 654084.87 | 2755491.27 | 721.296 |
| 11 | | 4 | 654086.93 | 2755501.46 | 721.384 |
| 12 | | 4 | 654102.34 | 2755511.67 | 721.556 |
| 13 | | 4 | 654102.63 | 2755513.06 | 721.57 |
| 14 | | 4 | 654198.70 | 2755576.74 | 722.641 |
| 15 | | 4 | 654203.98 | 2755580.24 | 722.7 |
| 16 | | | | | |
| 17 | Line-19 | 4 | 653731.87 | 2755159.47 | 728.009 |
| 18 | | 4 | 653713.09 | 2755147.02 | 728.009 |
| 19 | | 4 | 653689.08 | 2755131.11 | 728.62 |
| 20 | | 4 | 653666.42 | 2755116.09 | 728.71 |
| 21 | | 4 | 653659.62 | 2755111.58 | 728.737 |
| 22 | | 4 | 653625.62 | 2755089.04 | 728.873 |
| 23 | | 4 | 653606.73 | 2755076.52 | 728.962 |
| 24 | | 4 | 653610.46 | 2755070.88 | 728.985 |
| 25 | | | | | |
| 26 | Line-18 | 12 | 654597.78 | 2754616.31 | 717.52 |
| 27 | | 12 | 654598.55 | 2754615.15 | 717.525 |
| 28 | | 6 | 654598.04 | 2754612.65 | 717.533 |
| 29 | | 6 | 654593.98 | 2754592.59 | 717.684 |
| 30 | | 2.5 | 654514.80 | 2754540.11 | 718.001 |
| 31 | | 2.5 | 654512.21 | 2754538.39 | 718.61 |
| 32 | | | | | |



12) Any Connect Tool



The **Any Connect Tool** moves, resizes, and connects components based on the user's selection. Click the first element; then click on the second element and the second element will move and align on the connectors facing each other.

In a fitting to fitting scenario, this tool will automatically place a coupling or flange based on the settings for the **Delete Pipe** tool found on page 13.

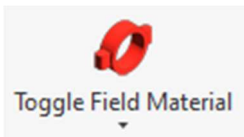
13) Disconnect Element



The **Disconnect Element Tool** will allow the user to temporarily disconnect an element in their model and make changes to that item without affecting the surrounding Piping system elements. The **Any Connect Tool** can be used to reconnect the system after changes have been made.

Click on the **Disconnect Element** button on your toolbar and select individual elements in your model to disconnect. Alternatively, highlight items in your model first, then click the **Disconnect Element** button to disconnect these items.

14) Toggle Field Material

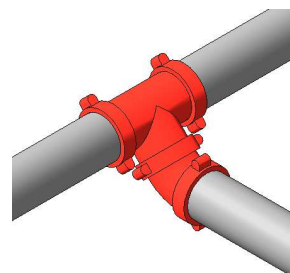
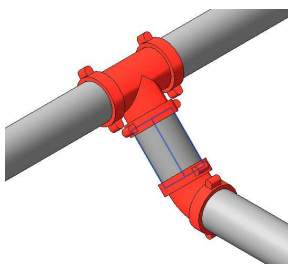


Toggle Field Material will toggle the parameter value for Vic_Field Material on and off just by clicking on the element. Creating a visibility filter for Vic_Field Material parameter is recommended when using this workflow. This tool can be used continuously allowing a drafter to visualize fabrication and installation sequences.

15) Delete Pipe



Click on the **Delete Pipe** button on your toolbar. Select the end of pipe you want the fittings to move towards. You will see the pipe delete and a multiport family is placed according to the **Delete Pipe Settings** per pipe type.



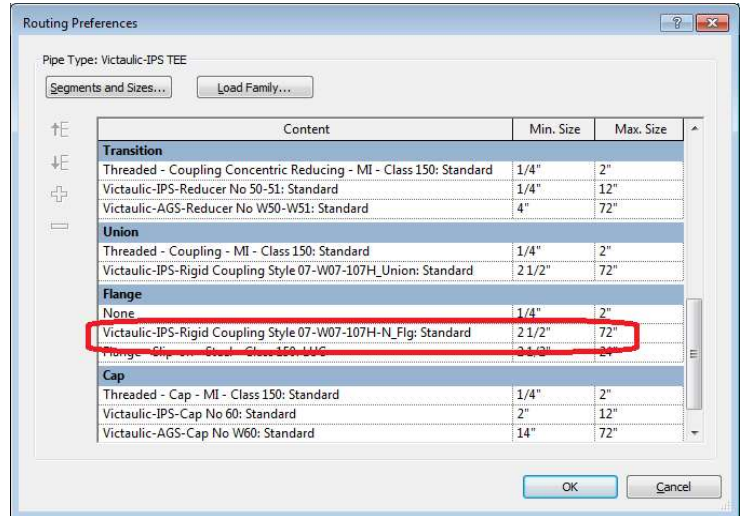
Settings - Delete Pipe



The delete pipe settings button is where you define what, if any, family is placed between fittings or accessories when you delete pipe.

If you do not specify a flange in your pipe type Routing Preferences then you do not need to set a multiport fitting in the Delete Pipe Settings. See sample Routing Preferences at right

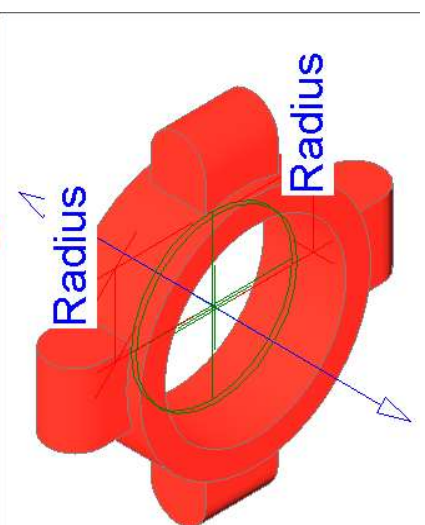
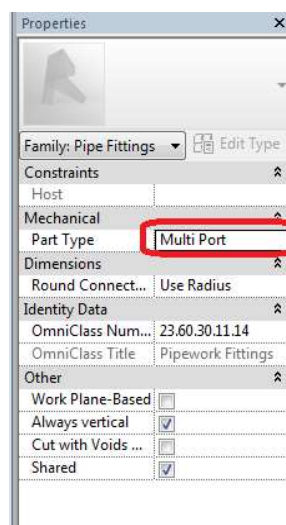
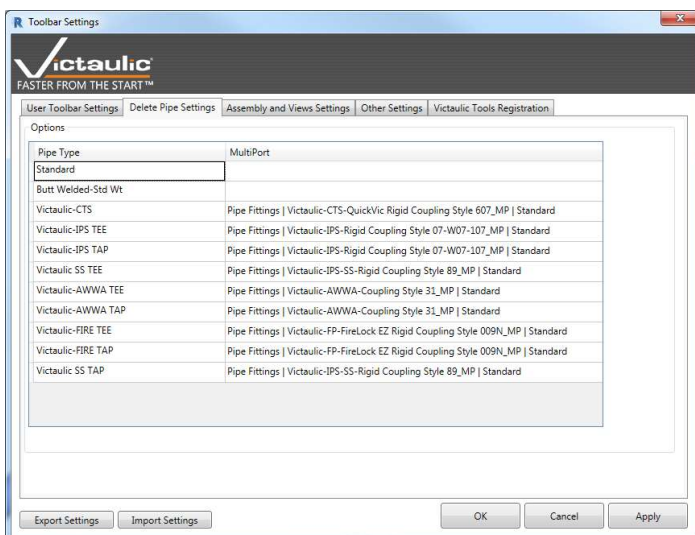
We have found that changing our coupling family to the flange part type and specifying it in the pipe type Routing Preferences as a flange, enables placement of a coupling at each connection as a flanged system would in Revit. Setting a flange you will find that deleting pipe between accessories the flange families will also delete. For this reason we have also created Multi Port part type couplings. You will find that Multi Port pipe fitting families will not automatically be deleted between accessories when the piping is changed.



Our delete pipe tool will automatically place these multiport fittings when needed. Below you can see we name our multiport families “_MP”.

Below there is also a lookup table-based system for specifying pipe fittings to use while going fitting-to-fitting. Certain pipe types will not require a setting.

Below are the default settings while using our Project Template file which is available for free from Victaulic.

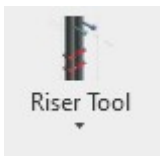


16) Selection Tool



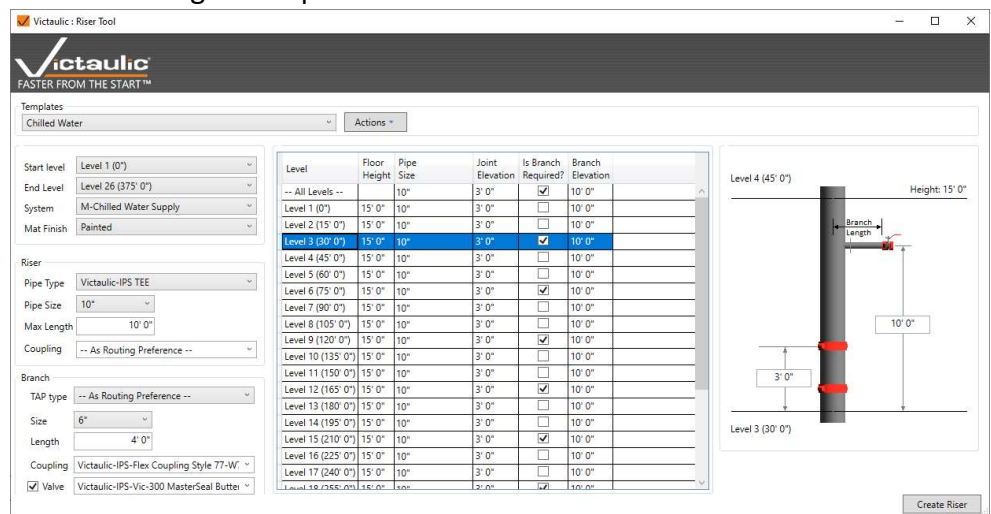
Simplify the selection of a pipe route in Revit. Select families within a system with a click of a button automatically stopping at equipment and system changes. Works for Fabrication Parts and Families

17) Riser Tool



Create a piping riser based on a template driven menu using project levels and heights to populate branch locations and fitting makeup.

- Select a template or create a new riser by selecting the starting and ending level.
- Customize the modeling preferences with many different options.
- Click **Create Riser**, then click on a point that would be in line with the main riser pipe.



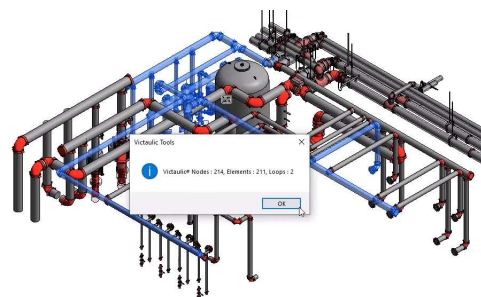
18) Caesar II® Export – Beta



This tool helps select piping systems to be exported to Caesar II®.

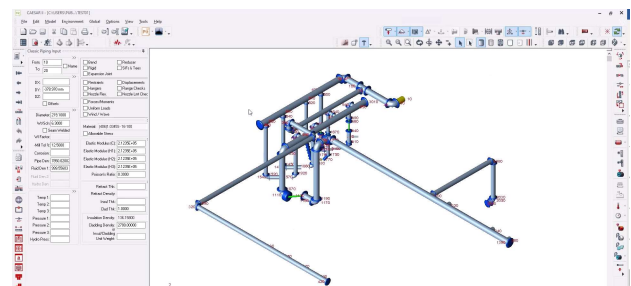
As this is a new tool, please verify any exported data and if you find issues with the export use the Contact Victaulic button on the ribbon of VTFR.

- Select the piping system in Revit.
- Click Caesar II® export under Pipe Tools Category.
- There will be a pop-up indicating the number of Elements/Loops/Nodes being exported.
- Save the Export File.



Once Exported and Saved, Open Caesar II®.

- File > Caesar II® Neutral file.
- Browse to the saved Exported File. Click Convert.
- Once Converted, click open and Browse to the File location.
- Click Piping Input and the file will Open in Caesar II®.



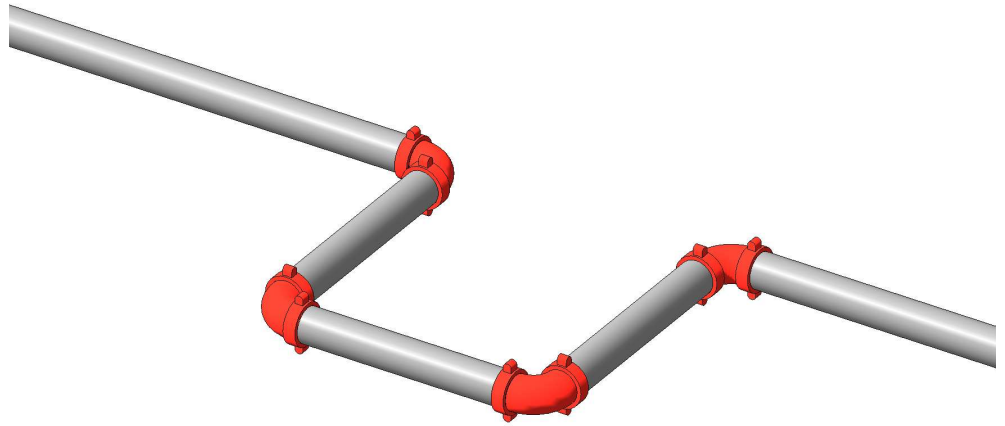
19) Expansion Loop



Creates an offset piping loop by clicking two points on a pipe. The first click indicates the direction of the loop.

points on a pipe. The first click indicates the direction of the loop.

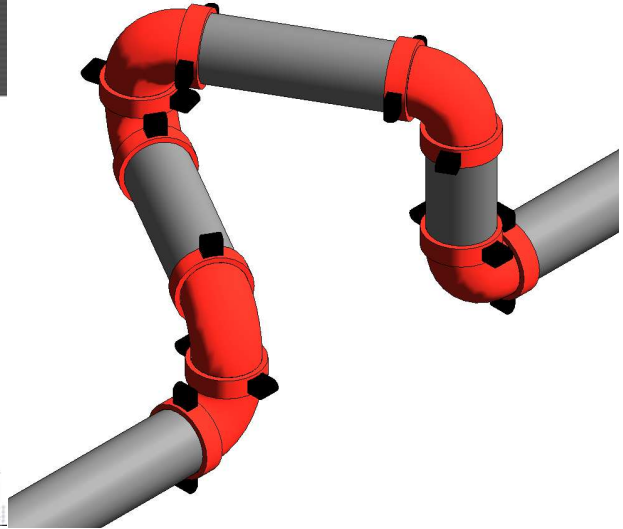
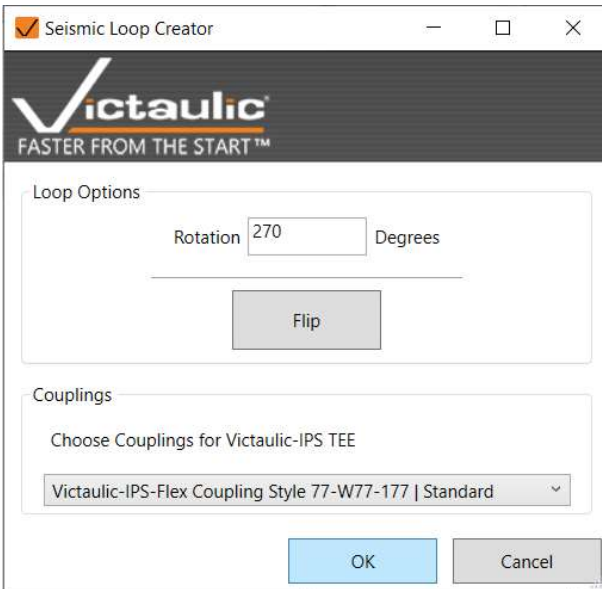
More flexibility can be added with flex couplings through the content ribbon.



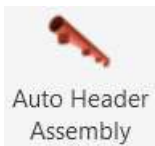
20) Seismic Loop



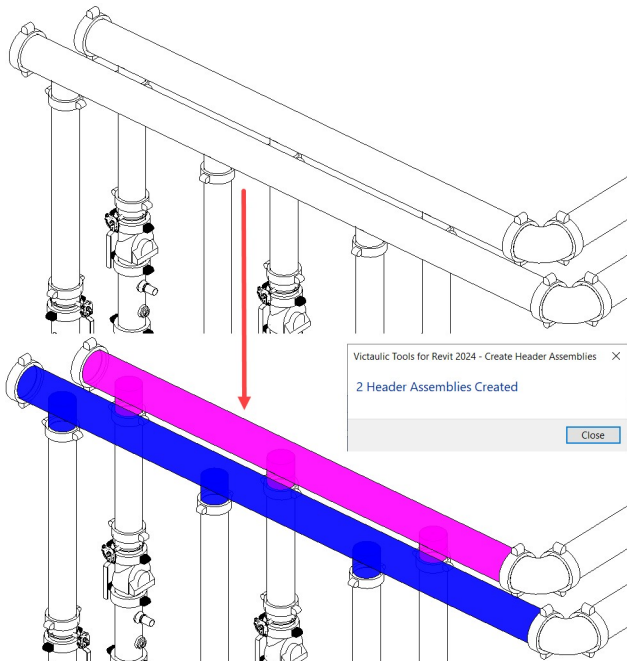
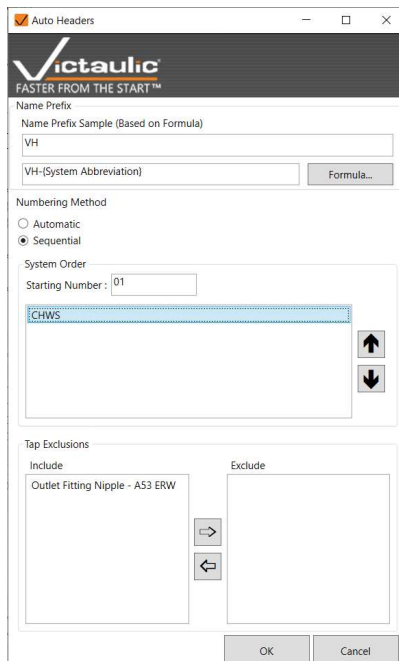
Model a Victaulic seismic joint with just a few clicks. Exclusive for Revit families. Select a location on a run of pipe to set the location for the seismic loop. In the popup window set the rotation and couplings to be placed at each joint. Click OK and the Seismic Loop will be modeled.



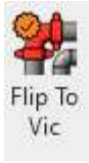
21) Auto Header Assembly



Select a model and create assemblies for all pipes that have a tap. Exclusive for Revit families. In the Auto Header window, you can define assembly naming logic, set numbering method, set system numbering order, and exclude specific small taps from creating an assembly. This tool allows users to create Victaulic Outlet Fittings No 26 and prioritize large assemblies in the shop.



22) Flip to Vic

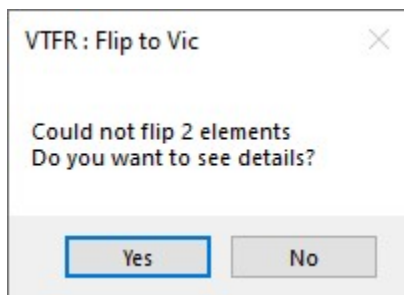
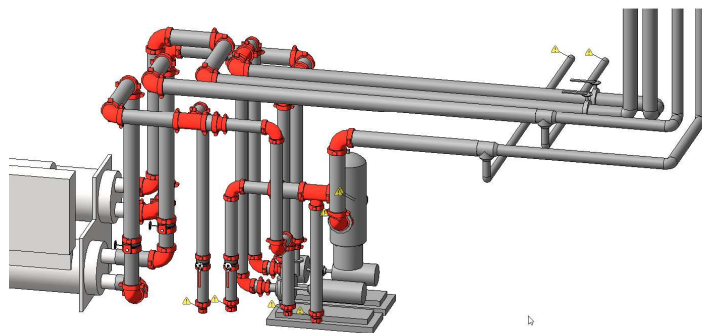
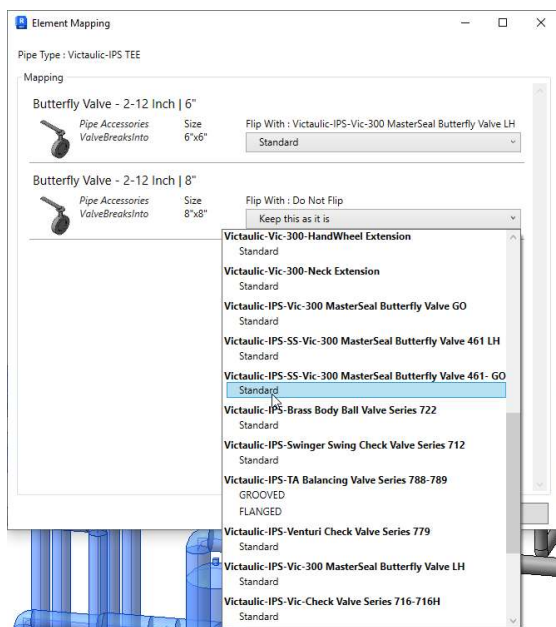
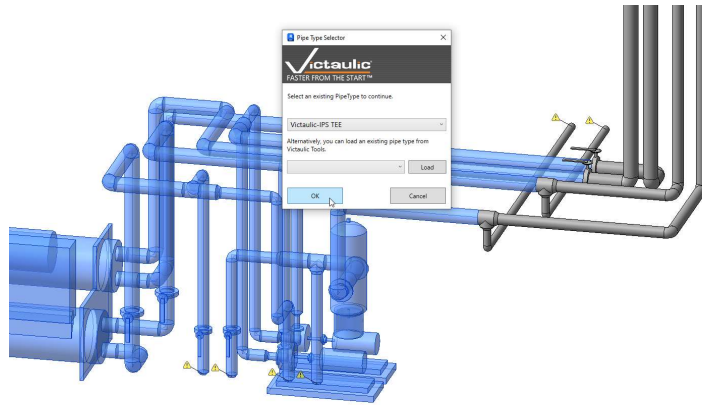


Flip To Vic allows the user to flip pipe joining methods and materials quickly and easily within a Revit® model.

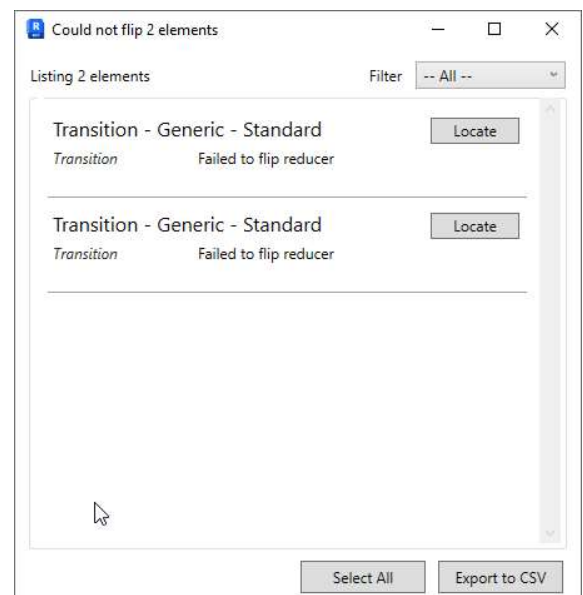
During the flip, the tool will not move pipe locations or equipment. The tool will disconnect those elements rather than force them. The **Any Connect Tool** on page 12 can be used by the modeler to move and reconnect components.

- Select any pipes, fittings, and accessories.
- Click **Flip to Vic** in the Modify Tab.
- Select a loaded Victaulic pipetype.
- Click Ok

A window will pop up if accessories were included in the selection. This window can be used to indicate how/if accessories need to flip too.



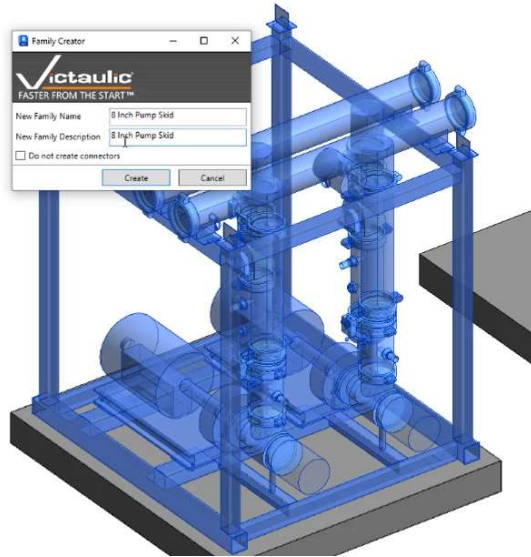
A window will pop up if the tool was not successful at flipping every component. Clicking **Yes** on this window will open a different window that can be used to locate each component and/or export a csv with the Revit® IDs of each component.



23) Selection To Family

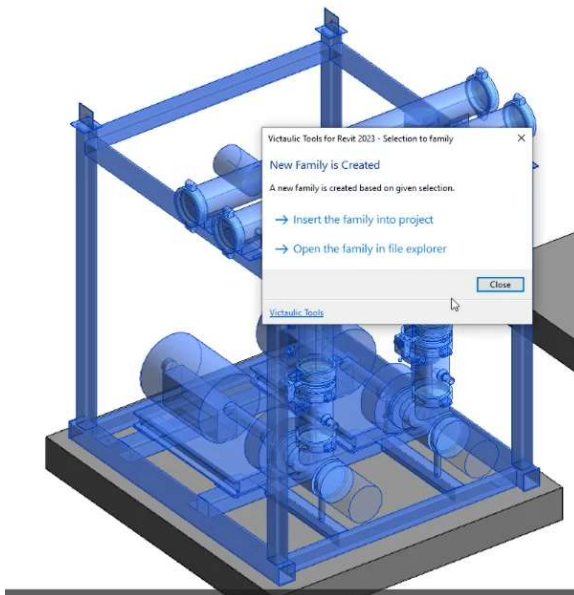


This tool creates a Victaulic family from a selection of families. The user can create a family by selecting multiple existing elements in their Revit Project.



- Users can navigate to either a 2D or 3D view in Revit Project.
- Select the elements you want to convert into a family. For instance, in the example, a Pump Skid is selected. Users can also select pipes, fittings, or other components.
- Once the element is selected, click the Selection to Family tool from the Victaulic Tools ribbon.
- This will trigger a window where you can configure the details of the family that will be created.
- Fill in the required information:
New Family Name: Provide a unique name for the family.
New Family Description: Add a brief description.
If needed, check the box to not create connectors, otherwise leave it unchecked if connectors are required.
- Click Create to generate the family.

There will be a Confirmation pop-up window with two options:



- Insert the family into project: This will directly place the newly created family into your active project.
 - Open the family in file explorer: This will open the family in Windows Explorer so that you can save or manage it externally.
- Choose the desired option to proceed.

It is important to remember that if you are working in a 2D view, the tool will create a 2D family. Conversely, if in a 3D view, it will create a 3D family.

24) Custom Tagging



Custom Tagging is a multifunction tool that assists in annotations of multiple types of families. The user can select a proper annotation symbol per family category. This tool is split into 5 sections that can be used together.

1. Templates can be utilized to save Tag selections by family category.

The **Multi-Select Elements** check box gives options for placement. Left, Right, Top, Bottom, and Scatter. With this option selected and **Manual Tag Placement** not selected, the tags will automatically be aligned to your selection. Using **Multi-Select Elements** checked with **Manual Tag Placement** checked, each component will be highlighted in red while tags are being placed.

2. Here are options to incrementally number the selected family. This tool writes to the Vic_Mark shared parameter. Included tags with our Project Template have many example annotation families that utilize this shared parameter.
3. Here are the options for leaders. Available options are Free End and Attached End. This section also allows for using this tool without placing tags. This is useful for renumbering components that already have annotations.
4. Here is where you would specify which annotation families the tool will use while placing tags. The Show column can be used to show/hide specific family categories. This assists with locating families on complicated views. The Prefix column will append a text prefix to the Vic Mark shared parameter.

*This tool is useful when creating assembly drawings and fabrication maps.
You must tab to select fittings in an assembly.

The screenshot shows the 'Custom Tagging' dialog box. At the top is the Victaulic logo and the tagline 'FASTER FROM THE START™'. Below this is a descriptive sentence: 'Using the settings below, this tool allows for exact placement of correct tags as well as incremental mark numbering.' The dialog is divided into several sections:

- Section 1 (top right):** Contains a dropdown menu for 'Victaulic Spooling Tags' and an 'Actions' button.
- Section 2 (middle left):** Includes a 'Multi-Select Elements' checkbox, an 'Align' dropdown (set to 'Scatter'), a 'Standard' dropdown (set to 'Imperial'), and a 'Length' input field (set to '1' 0"').
- Section 3 (middle right):** Includes an 'Assign Mark Numbers' checkbox, a 'Starting Number' input field (set to '01'), a 'Format' dropdown (set to '00'), and a text box explaining that numbers will be populated in the 'Vic_Mark' parameter, with an 'Additional Parameter' dropdown.
- Section 4 (bottom left):** Includes an 'Include Tags' checkbox, a 'Leader' dropdown (set to 'Free End'), and a 'Manual Tag Placement' checkbox.
- Section 5 (bottom):** A table with columns 'Show', 'Prefix', 'Category', and 'Tag'. It lists various family categories with checkboxes in the 'Show' column.

At the bottom right are 'OK' and 'Close' buttons.

| Show | Prefix | Category | Tag |
|-------------------------------------|--------|--------------------------|---|
| <input checked="" type="checkbox"/> | | Pipes | Pipe Tags Pipe - Pill Mark Tag_VIC 3 Characters |
| <input checked="" type="checkbox"/> | | Pipe Fittings | Pipe Fitting Tags Pipe Fitting - Pill Mark Tag_VIC 3 Characters |
| <input type="checkbox"/> | | Mechanical Equipment | |
| <input checked="" type="checkbox"/> | | Pipe Accessories | Pipe Accessory Tags Pipe Accessory - Pill Mark Tag_VIC 3 Characters |
| <input type="checkbox"/> | | Ducts | |
| <input type="checkbox"/> | | Duct Systems | |
| <input type="checkbox"/> | | Duct Insulations | |
| <input checked="" type="checkbox"/> | | MEP Fabrication Pipework | MEP Fabrication Pipework Tags MEP Parts - Pill Mark ITM Num Tag_VIC 3 Cha |

25) Create Assembly / Continuous Spooling



This tool allows you to select all the families you want to be in your assembly (spool) drawing. There are some key differences between this tool and the native Revit assembly tool. This tool will ensure all nested families are correctly brought into the assembly where the native Revit assembly tool ignores all nested families. The Create Assembly tool will also keep assemblies completely separate from each other. Using the native Revit assembly tool will group assemblies if the parts selected are identical to a previous assembly. Depending on your needs, you can choose to use either Assembly Creation tool.

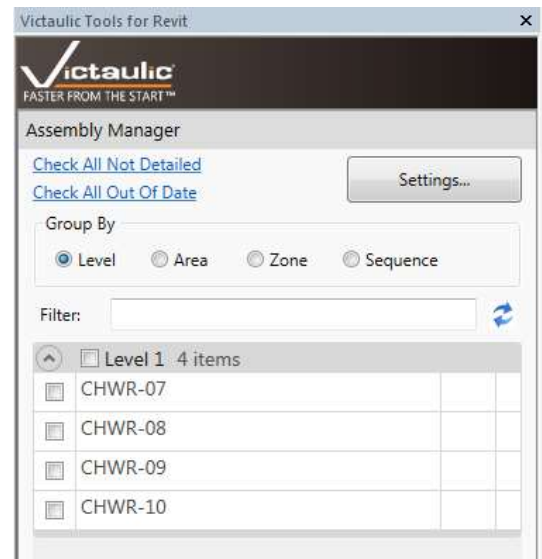
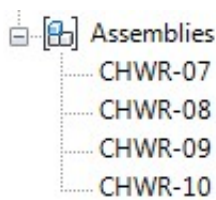
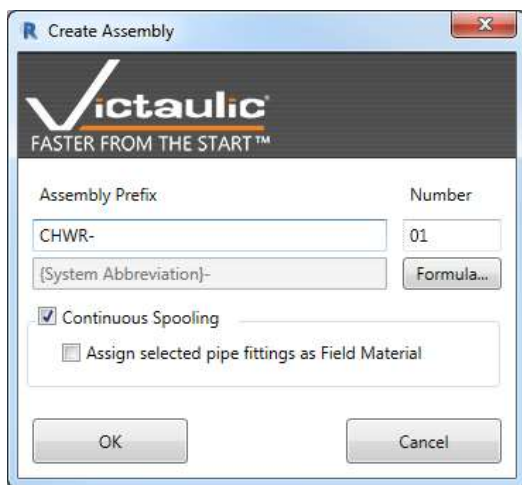
The Assembly Name window will allow you to define the assembly prefix and sequence number.

With the addition of formulas in the Create Assembly tool, parameters can be inserted as variables to populate the prefix value.

At the bottom of the project browser you will see your newly created assemblies. You will also see these newly created assemblies in the Victaulic Dock – Assembly Manager (See Pg. 14)

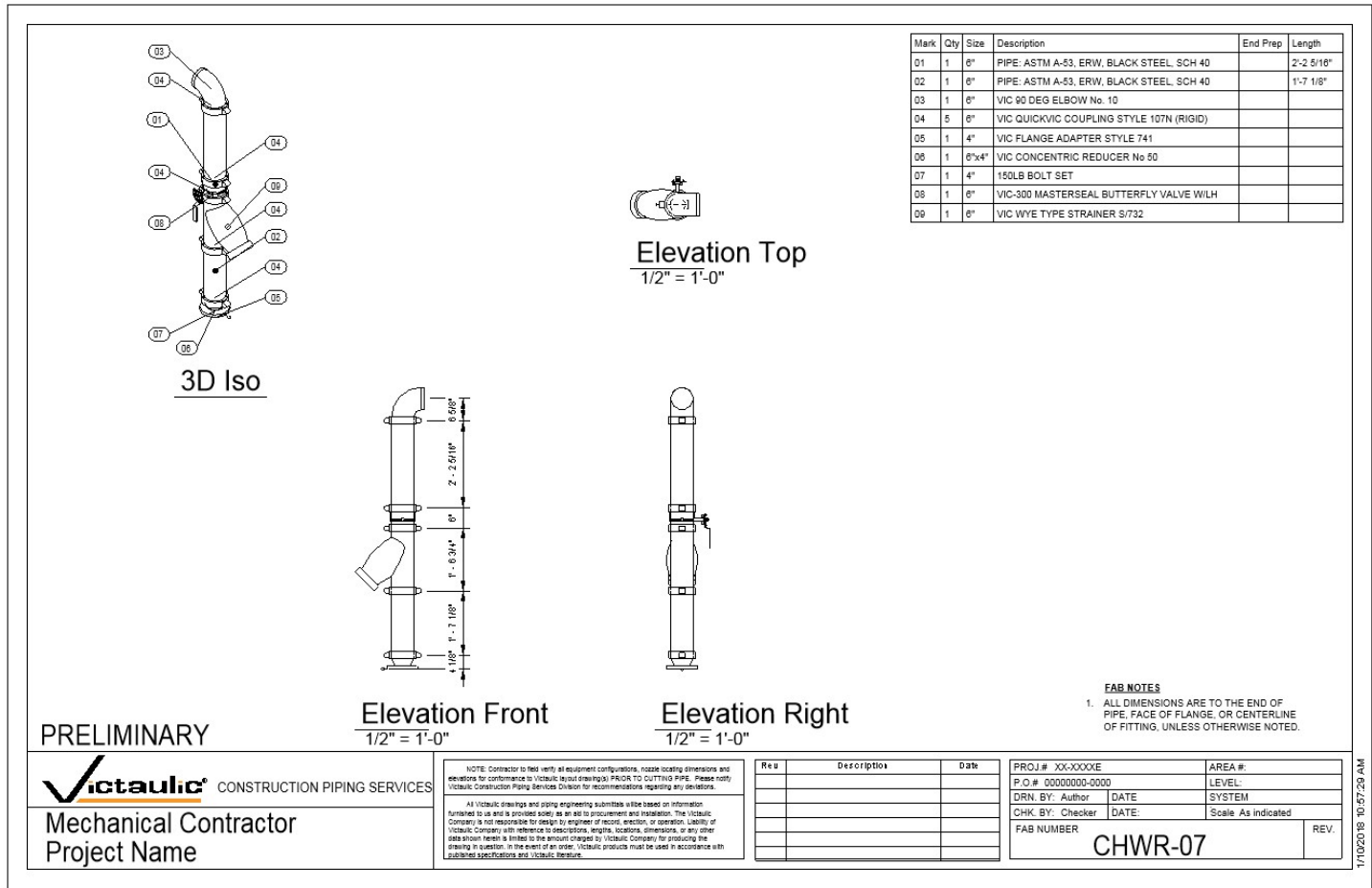
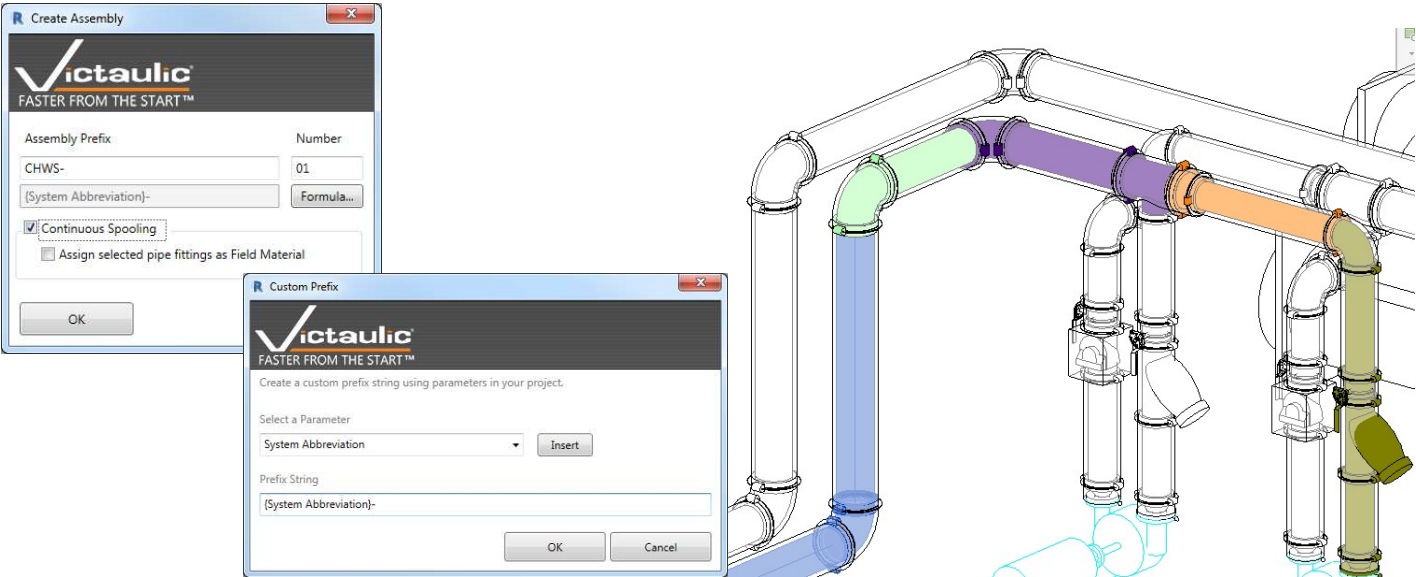
Using Continuous Spooling you will be prompted for the last component for each assembly. The components between your previous assembly and your selected element will be automatically added to the new assembly and incrementally numbered.

Field Material can also be defined. With this option checked, the last element in every defined assembly will be considered Field Material and the Vic_Field Material parameter will be set as checked.



Create Assembly / Continuous Spooling (Continued)

*Note – Be sure to look at our Project Template. We have views designed to assist in defining spools. Our template is fully equipped with View Templates, Viewports and Title Blocks that can be customized for your needs. Below is an image of our Spooling View which colorizes the components that are associated with an assembly. Also pictured is an example of an intelligent title block which will read information from your project. These and many more valuable objects are available in our project template files.



26) Create Assembly and Views



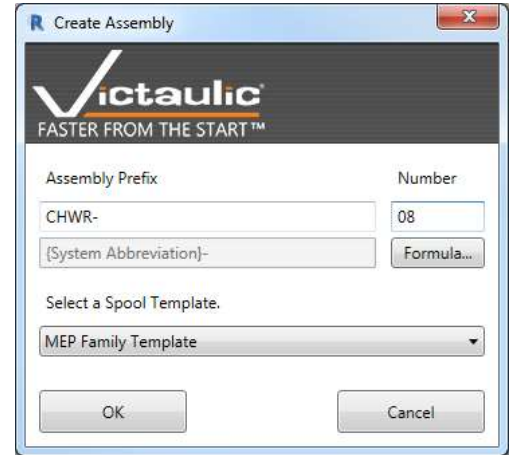
Create Assembly and Views is a very powerful tool to automate the detailing of assembly drawings (spool drawings). It utilizes a user's predetermined settings and delivers a complete spool drawing with only a few clicks.

There are two ways to use this tool:

1. For a single assembly, select a group of components and choose **Create Assembly and Views** from the Victaulic Tools Toolbar.

You will be presented with a similar window to the assembly creation tool. Note that the Spool Template section is now activated. Select one of your predetermined Spool Templates and click **OK**.

In the next section, we'll cover all the options for Spool Templates including tagging options, viewport selection and schedule creation.

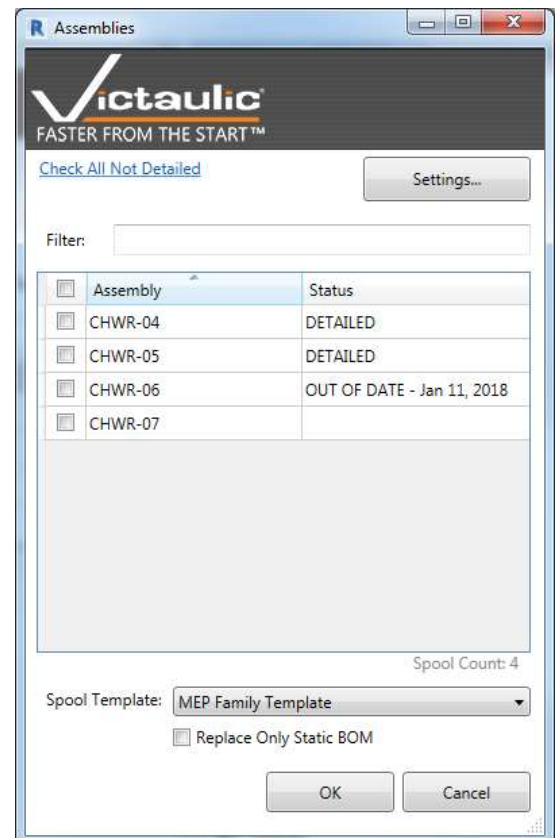


2. This tool can also be run on multiple assemblies at once. To create the views for an assembly already defined make sure you have nothing selected and click on the **Create Assembly & Views** button. A list of assemblies will be displayed allowing you to check off the views you would like to create.

This screen also includes a selection of a spool template. Assemblies that already have sheets will display as "DETAILED". It is possible to create a new sheet for previously detailed assemblies. This process will delete any views and sheets that exist and recreate the elements using the Spool Template settings.

Either use the **Settings...** button on this screen or the Settings button from the Victaulic Tools toolbar to access the Spool Templates.

Use the **Replace Only Static BOM** option to refresh the bill of material on the sheet without affecting any custom detailing you've done to sheets and views.



27) Assembly Tools

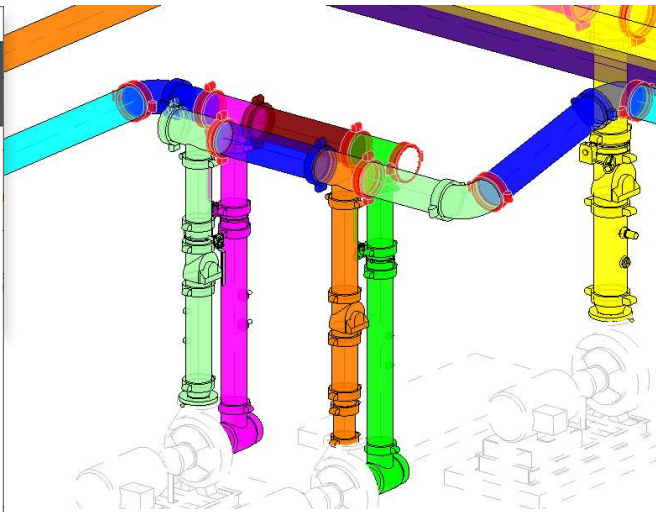
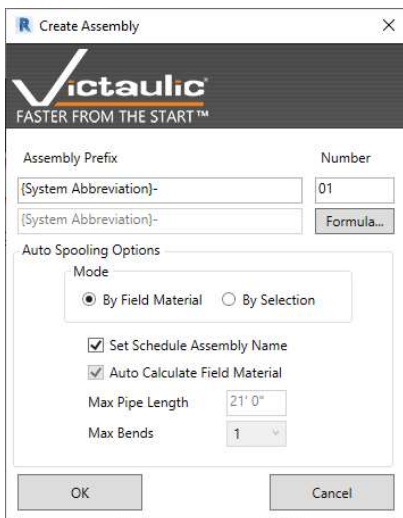
Auto Assembly



Auto Assembly is a selection based or view based tool that will divide piping systems into logical fabrication assemblies. With some variable parameters, the user can define how to handle field cut items, typical assemblies, maximum pipe length, and maximum number of bends (elbows) per assembly.

There are two ways to use this tool:

1. Make a selection to limit the items to be assembled or have nothing selected to assemble all items in your view. Run the AutoAssembly Tool, specify the prefix for the spools (Note – Prefix Formulas will not resolve until the assembly is created). Next, use the “By Field Material” mode to create assemblies between predetermined Field Material and click **OK**. (See the section on “Toggle Field Material”)
2. Make a selection to limit the items to be assembled or have nothing selected to assemble all items in your view. Using the “By Parameters” mode, specify the prefix for the spools (Note – Prefix Formulas will not resolve until the assembly is created). Adjust the variable parameters and click **OK**.



Combine Assemblies



Combine Assemblies will take all assemblies in the user's selection and combine them into one Revit assembly maintaining all the parameter values of the chosen assembly.

*Note – Combine Assemblies will add loose items in your selection to an assembly.

Split Assembly



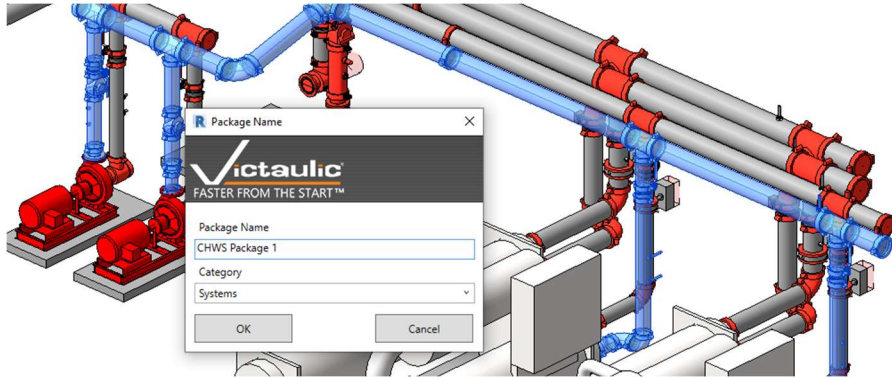
Split Assembly will take a single assembly and allow the user to select the items to be removed and placed into another assembly. With our assembly renaming feature, this tool prevents the user from having to disassemble and reassemble multiple assemblies.

28) Package Tools

Create Package



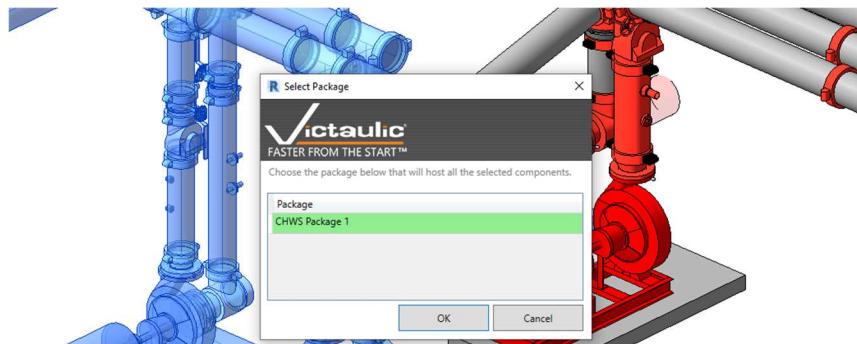
The Create Package tool will take a user's selection which may or may not contain assemblies and create a larger selection set. This package can then be detailed and tracked exactly like Revit Assemblies using the Package Manager in the Victaulic Dock.



Add To Package



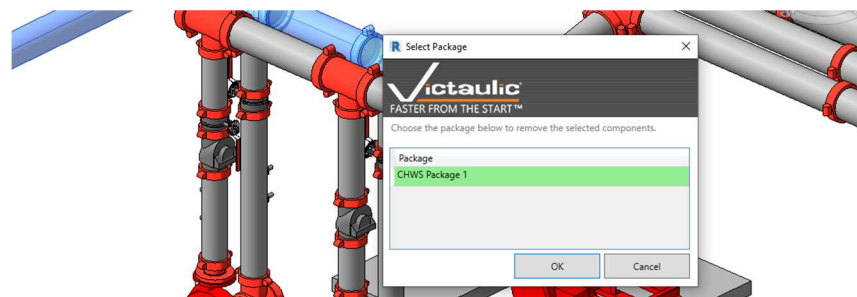
The Add To Package button will allow the user to select items outside of a Package and choose which package to include them in. A much faster way of managing items within these selection sets, the Add To Package button will save time when modeling changes are represented through fabrication.



Remove From Package



The Remove From Package button will take a user's selection and remove it from a specified package. The user is prompted with a list of packages in their selection and the selected package will have the selected items removed.



29) Victaulic Dock



The Victaulic Dock is a dockable window that can be always active while working in Revit.

The “Hamburger” button  enables navigation between the different modules below.

Assembly Manager

The Assembly Manager is a tool for organizing, processing, revising, and printing assembly sheets. As assemblies are being created and detailed, the list and status of each assembly will be updated. Detailed assembly sheets can be accessed by clicking the icon on the right side of the list. Use the **Generate Fabrication Sheets** section at the bottom to create views and sheets based on the settings described in the Settings section of this manual.

Use the **Group By** toggles to group assemblies by level, area, zone or sequence. This can be useful when processing sheets for specific sections or levels. Each section can be expanded and collapsed which can be especially valuable for larger projects with a high number of assemblies.

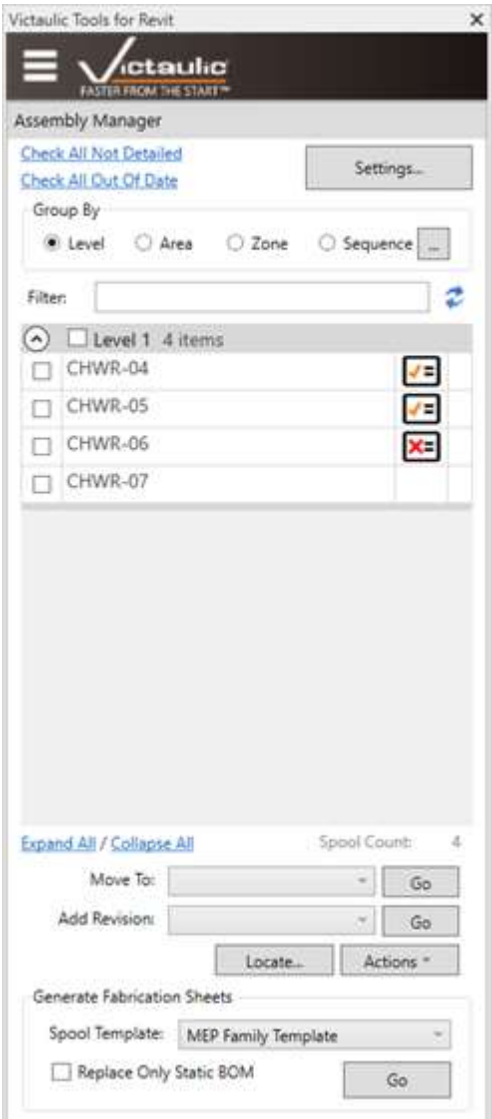
Using the **Move To** tool at the bottom, assemblies can be updated and organized by writing specific parameter values to the elements and the assembly. Reference Levels can also be adjusted using this tool without moving or disconnecting elements.

Revisions can also be added to multiple sheets at once using the **Add Revision** section.

Use the **Locate** button to highlight the components in your model that are members of the selected spools.

In the **Actions** menu, you will find Printing options, Package options, and different file exports of assemblies.

Expanding the dockable window’s width will make more fields available. With the exception of Level, typing into these fields will apply that parameter data to the elements and to the Assembly itself. This becomes a very quick way to manage parameter data of all assemblies and components.



| Assembly | Level | Area | Zone | Sequence | |
|-----------------|---------|--------|--------|----------|---|
| Level 1 4 items | | | | | |
| CHWR-04 | Level 1 | Area 1 | Zone 2 | Seq A |  |
| CHWR-05 | Level 1 | Area 1 | Zone 2 | Seq A |  |
| CHWR-06 | Level 1 | Area 1 | Zone 2 | Seq B |  |
| CHWR-07 | Level 1 | Area 1 | Zone 2 | Seq B | |

Assembly Manager (Continued)

Sheet Icons

No icon indicates that a Sheet has not been created for this Assembly.



This icon indicates that a Sheet has been created without a Static Bill of Material.



This icon indicates that a Sheet has been created with a Static Bill of Material.



This icon indicates that a Sheet has been created with a Static Bill of Material that is out of date from the model.

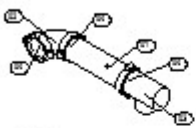
Apart from being a quick way to access the assembly sheet, each sheet icon has a different meaning. These icons are determined by the status of the Static Bill of Material. Refer to the Settings for Assemblies and Views section for further explanation on how to customize and place the Static Bill of Material.

For assemblies that use the Static Bill of Material, The Assembly Manager is aware of dimensional and parameter changes that happen in the model. If the assembly is moved in your model or if certain parameters are updated the icon will change from the orange Victaulic V to the red X. This is a notification to the user to update the Static Bill of Material for that assembly.

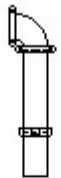
There are tools in the Assembly Manager to assist with this. At the top of the Assembly Manager is a **Check All Out of Date** button. Clicking this and then using the **Replace Only Static BOM** option while generating Fabrication Sheets will update all the Static BOMs that are out of date.

In our project template is a Sheet that takes advantage of this Static BOM Status. This will prevent a sheet from being issued with an incorrect bill of material.


| Mark | Qty | Description | End Prep | Length |
|------|-----|--|----------|------------|
| 01 | 1 | PPE 10TU 3-1/2 DRW. BLKCH STEEL SCH 40 | | 2'-10 1/2" |
| 02 | 1 | 1/2" 90 DEG ELBOW 160 10 | | |
| 03 | 1 | 1/2" 90 DEG ELBOW 160 10 | | |
| 04 | 1 | 1/2" 90 DEG ELBOW 160 10 | | |



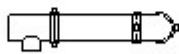
3D Iso



Elevation Top
1/2" = 1'-0"



Elevation Front
1/2" = 1'-0"



Elevation Right
1/2" = 1'-0"

OUT OF DATE - Jan 11, 2018

PRELIMINARY

MECHANICAL CONTRACTOR PROJECT NAME

REVISIONS

| Rev | Description | Date |
|-----|-------------|------|
| | | |
| | | |
| | | |
| | | |
| | | |

PROJECT INFORMATION

| | |
|--------------------|-----------|
| PROJECT NO: 000000 | DATE: |
| PROJECT NAME: | LOCATION: |
| DRW BY: | DATE: |
| CHK BY: | DATE: |
| RVS NUMBER: | |

NOTES

- ALL DIMENSIONS ARE TO THE END OF PIPE, FLANGE OR JOINT, OR CENTERLINE OF FITTING, UNLESS OTHERWISE NOTED.

WARRANTY

Victaulic Construction Piping Services warrants that the materials and equipment furnished by it for the project described herein shall be free from defects in material and workmanship for a period of 12 months from the date of completion of the project. This warranty is limited to the replacement of defective materials and equipment. It does not cover consequential damages, including lost profits, lost production, or any other damages. The warranty is void where prohibited by law.

Package Manager



Using the same familiar workflow as the Assembly Manager, use the Package Manager to manage larger selections of components. These selections can contain assembled and non-assembled parts and can be created from the Actions menu of the Assembly Manager or by using the Create Package icon in the Victaulic Tools Toolbar.

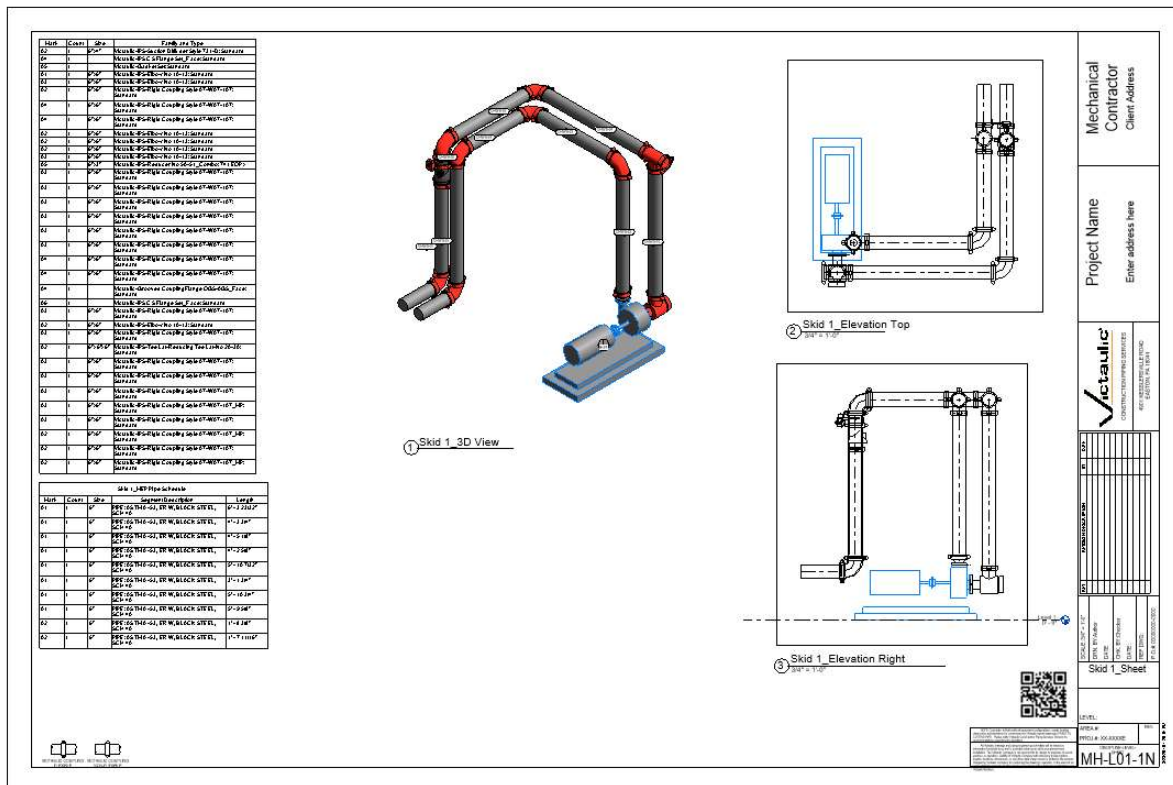
Organize Packages into categories and use Package View Settings to control how the Package Sheets are created. Use the **Generate Package Sheets** section at the bottom to create views and sheets based on the settings described in the Settings section of this manual.

Use the **Show Project Sheets** option to show all sheets in your project. You can now use the sheet icons to navigate between project sheets.

Revisions can also be added to multiple sheets at once including project sheets using the **Add Revision** section.

Use the **Locate** button to highlight the components in your model that are members of the selected Packages.

In the **Actions** menu, you will find Printing options, Package options, and different file exports of Packages.



Component Bank

The Component Bank is a tool designed to expedite the placement of components in your model. A selection-based bank can be created to store a typical combination of piping components and can then be recalled in a different project.

Being a database driven tool, measurements have been put into place to prevent conflicts between families, pipe types, materials, and systems.

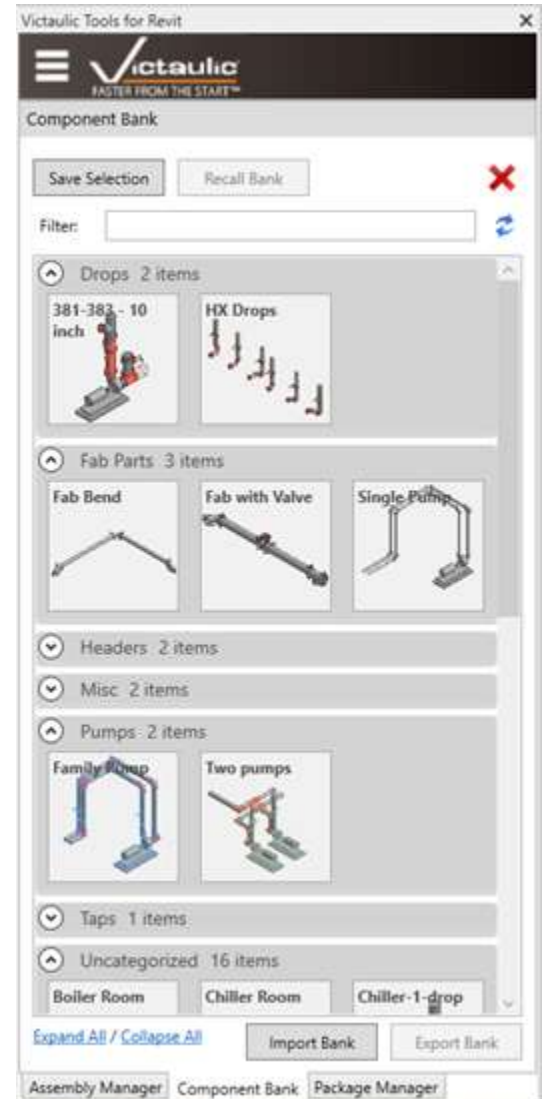
Banks can be stored, exported and shared with others using Victaulic Tools for Revit via zip files.

To save a Component Bank:

1. Make a selection of piping components in your model.
2. Click the Save Selection button in the Component Bank.
3. Assign a name to your new Bank.

To recall a Component Bank:

1. Click the icon for the bank within the Victaulic Dock.
2. Click Recall Bank.
3. In a 2D View, placement can be done with a single click inside the view.
4. In a 3D View, select a plane within the view (a floor, a concrete pad, or anything flat). This will tell the tool which level you'd like the Component Bank to be associated. Then click where you'd like the Component Bank to be placed.



There is no limit to the number of Component Banks you can have loaded. Use the filter at the top to find specific banks. Component Banks are available in any project but the associated elements are not loaded in your project until a Component Bank is placed in your model.

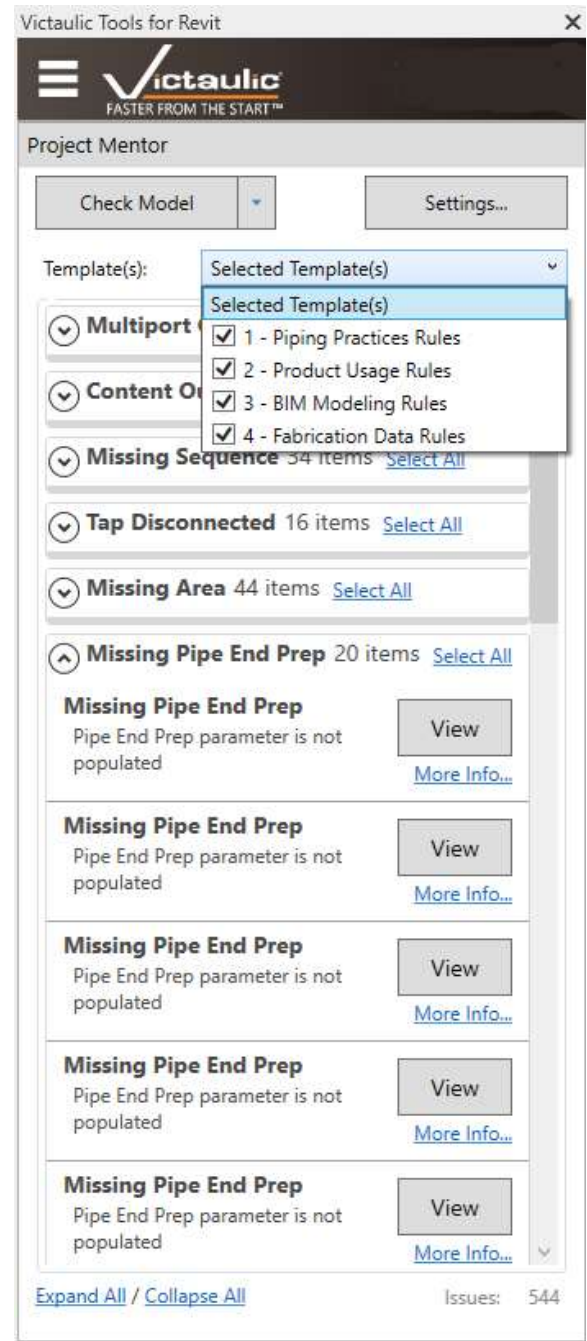
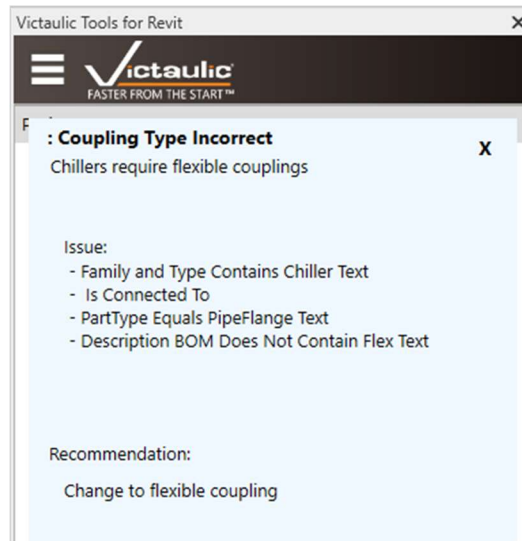
Project Mentor

The Project Mentor is a user programmable tool that will check any Revit model for specific attributes and any combinations of specific attributes among connected components to alert the user of a potential issue.

Templates can be managed and shared using the Project Mentor Configurator. Use the **Check Model** button to check your model against templates selected with checkboxes. Alternatively, use the arrow to the right and select **Run All Templates** to check your model against all saved templates.

Both model checking options can be run on an entire project or just a selection. If your selection is empty, the command will run on the entire model. If not, the command will run on only your selection.

- Exceptions to Project Mentor rules are grouped and counted with controls to expand and collapse all groupings.
- The **View** button for each rule can be used to locate the element that is causing the exception. An appropriate view will be found and zoomed in to show the element.
- The **More Info...** button will display the exception details. The name of the component, the issue rules used to find the component, as well as a recommendation are available for how to avoid this issue are displayed.



Project Mentor Configurator



The Project Mentor Configurator allows the user to configure custom rules specific to their project or organization. The Configurator is accessed through the settings button in **Project Mentor**. Each **Rule** contains **Groups** for each Family Category the user would like to check. Each **Group** contains **Rule Items** and each **Rule Item** can contain Connected Rule Items to check for connected items with specific attributes.

Project Mentor Templates can be configured using the **Actions** menu. Selected Rules can be imported and exported as well as entire Templates. Use the exported file to back up your rules or share another Victaulic Tools for Revit user. Use the filter at the top to quickly find a rule to edit.

Project Mentor Configurator

FASTER FROM THE START™

Saved Templates

Victaulic Standard Rules
 Actions
 Filter:

Rules

| <input type="checkbox"/> | Rule Category | Title | Description | | | | | | | | | | | | | | | | | | | | | | |
|--|--|----------------------|---|---|--|-----------------|-----------------|-------|-------|---------------|--|------------|----------|-----------------|----------|----------|--------|------------|------|---|--|-----------------|--|--|---|
| <input checked="" type="checkbox"/> | Piping Practices | Duplicate Couplings | Duplicate Couplings are found | ✗ | | | | | | | | | | | | | | | | | | | | | |
| <div>Rule Groups</div> <table> <thead> <tr> <th>Family Category</th> <th>Recommendations</th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>Pipe Fittings</td> <td>Change one of couplings a Non-Connector family</td> <td>✗</td> <td></td> </tr> </tbody> </table> | | | | | | Family Category | Recommendations | | | Pipe Fittings | Change one of couplings a Non-Connector family | ✗ | | | | | | | | | | | | | |
| Family Category | Recommendations | | | | | | | | | | | | | | | | | | | | | | | | |
| Pipe Fittings | Change one of couplings a Non-Connector family | ✗ | | | | | | | | | | | | | | | | | | | | | | | |
| <div>Rule Items</div> <table> <thead> <tr> <th>Attribute</th> <th>Function</th> <th>Value</th> <th>Units</th> <th></th> </tr> </thead> <tbody> <tr> <td>Description BOM</td> <td>Contains</td> <td>COUPLING</td> <td>Text</td> <td>✗</td> </tr> <tr> <td>PartType</td> <td>Equals</td> <td>PipeFlange</td> <td>Text</td> <td>✗</td> </tr> <tr> <td></td> <td>Is Connected To</td> <td></td> <td></td> <td>✗</td> </tr> </tbody> </table> | | | | | | Attribute | Function | Value | Units | | Description BOM | Contains | COUPLING | Text | ✗ | PartType | Equals | PipeFlange | Text | ✗ | | Is Connected To | | | ✗ |
| Attribute | Function | Value | Units | | | | | | | | | | | | | | | | | | | | | | |
| Description BOM | Contains | COUPLING | Text | ✗ | | | | | | | | | | | | | | | | | | | | | |
| PartType | Equals | PipeFlange | Text | ✗ | | | | | | | | | | | | | | | | | | | | | |
| | Is Connected To | | | ✗ | | | | | | | | | | | | | | | | | | | | | |
| <div>Connected Rule Items</div> <table> <thead> <tr> <th>Attribute</th> <th>Function</th> <th>Value</th> <th>Units</th> </tr> </thead> <tbody> <tr> <td>PartType</td> <td>Equals</td> <td>PipeFlange</td> <td>Text</td> </tr> <tr> <td>Description BOM</td> <td>Contains</td> <td>COUPLING</td> <td>Text</td> </tr> </tbody> </table> | | | | | | Attribute | Function | Value | Units | PartType | Equals | PipeFlange | Text | Description BOM | Contains | COUPLING | Text | | | | | | | | |
| Attribute | Function | Value | Units | | | | | | | | | | | | | | | | | | | | | | |
| PartType | Equals | PipeFlange | Text | | | | | | | | | | | | | | | | | | | | | | |
| Description BOM | Contains | COUPLING | Text | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> | Piping Practices | Flange Inconsistency | Flange Element is connected to an incompatible option | ✗ | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Drafting | Missing Sequence | Vic_Sequence Parameter is empty | ✗ | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> | Drafting | Content Mismatch | AGS Content mixed with OGS Content | ✗ | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> | Drafting | Content Mismatch | AGS Content mixed with OGS Content | ✗ | | | | | | | | | | | | | | | | | | | | | |

OK

Cancel

30) Settings (Create Assembly Views)



Within the settings window for assembly views you can define which views to create and the view template to be used when the views are placed on the selected spool sheet. Bar Codes, QR Codes, Schedules, Legends, and Victaulic's Static Bill of Material can be automatically generated using these settings (Below to the right).

The Transfer Standards button allows for quick access to the Project Maintenance / Transfer Standards screen to automate spooling setup.

There are additional settings for views and legends available with the "..." button next to each view. In this form, a user can select exactly which Viewport should be used along with options for annotating the components. The annotations behavior is similar to the Custom Tagging tool when used in Multi-Select Elements mode. The annotation tags that will be placed are from the first user defined group in the Custom Tagging tool (Below to the Left).

Use the Default View Scale option to set a default scale for all new created views. View scales specified in View Templates will take priority to this setting.

For more information on the Static Bill of Material, refer to the Procurement Tool section of this document.

The settings on this screen have identical functionality to the Packages View Settings.

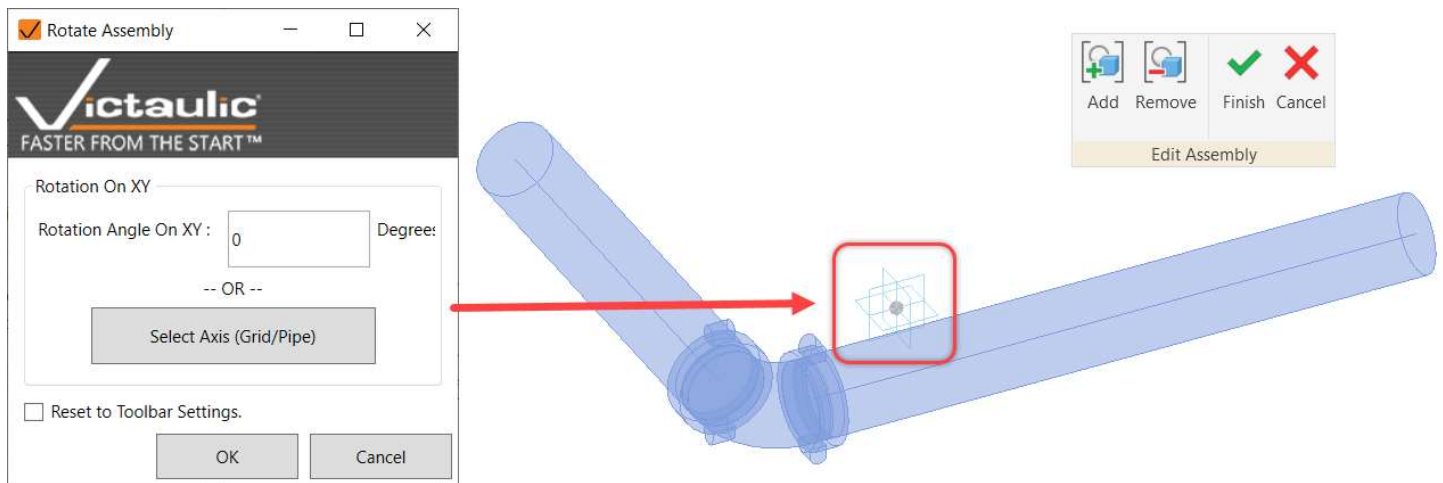
31) Rotate Assembly



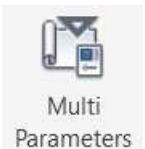
Batch edit assembly origin when not rotated correctly to give assembly views in the correct orientation.

You can use Rotate Assembly followed by recreating assembly views to fix assembly view orientation. In the past you would need to reassemble the model or rotate each assembly individually.

Note: Using Zero for “Rotation Angle On XY” will reset the selected assemblies to have their origin aligned to project north. Using the option at the bottom to “Reset to Toolbar Settings” will use what settings and logic you have selected in the VTFR settings for assembly creation.

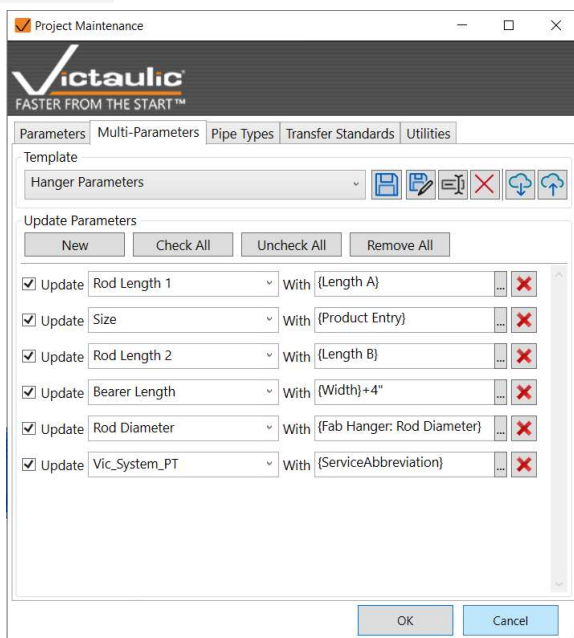


32) Multi Parameters



Create templates to push data to parameters from any hidden or visible parameter in Revit.

Rules can compound like Revit Filters.



Use simple addition and if statements.

- {Width}+4"
- {Fab Hanger: Rod Diameter}
- {Length A}
- if({Vic_Mark}=0, Yes,)
- if({Category} = Pipes, {M_Weight}*{Length}, {M_Weight})

Note: Parameters need to be the appropriate data type in IF statements.

This tool was created to give access to Fabrication Part hidden data fields and to run formulas on project parameters for reports and tags.

33) Procurement Tool



The procurement tool is a selection based bill of material tool. Inside Revit the only way to create material list is via schedules filtered on parameters, assigned to the families in the project. The **Procurement Tool** allows you to window select families for a simple, selection based bill of material.

To use, select the families you want in the bill of material and click the **Procurement Tool** button. It is always best to use a 3D view so you don't accidentally miss the selection of accessories in the vertical.

You will notice two tabs: Parts and Spool.

Parts Tab

1. Further filter your selection select the **Categories** button.
2. Adjust the Standard to view items in Imperial or Metric sizes and lengths.
3. Multiple formats of point families can be read and their locations exported to a CSV file. Mark numbering methods can include variable parameters and static text.
4. An HTML report can be generated giving accurate pipe length estimates along an efficient method of cutting to minimize material waste. Target pipe length, blade width, and minimum waste can be adjusted to improve accuracy of optimization report.
5. Victaulic parameters can be written to directly from the Procurement Tool for selected items in the table.
6. Select a format and export a CSV file from your selection using the **Export BOM** button.

| System | Vic System | Size | Description | Part Number |
|--------|------------|------|---|-------------|
| CHWS | CHWS | 3/4" | PIPE: ASTM A-53, ERW, BLACK STEEL, SCH 40 | |
| CWS | CWS | 3/4" | PIPE: ASTM A-53, ERW, BLACK STEEL, SCH 40 | |
| CWS | CWS | 8" | PIPE: ASTM A-53, ERW, BLACK STEEL, SCH 40 | |
| CWS | CWS | 8" | VIC 45 DEG ELBOW No. 11 | |
| CWS | CWS | 8" | VIC 90 DEG ELBOW No. 10 | |
| CWS | CWS | 8" | VIC 90 DEG ELBOW No. 10 | |
| CWR | CWR | 8" | VIC 90 DEG ELBOW No. 10 | |
| CHWR | CHWR | 6" | VIC 90 DEG ELBOW No. 10 | |
| CHWS | CHWS | 6" | VIC 90 DEG ELBOW No. 10 | |
| CHWS | CHWS | 8" | VIC CAP No 60 | |
| CHWR | CHWR | 8" | VIC CAP No 60 | |
| CWS | CWS | 10" | VIC CAP No 60 | |

Template: Hanger Fab Export

☒ Assign Vic, Mark Numbers

Point Prefix: [] Number: 001

☒ Clear Marks Before Numbering

☒ Overwrite Parent Mark Numbers

Points Order: ☐ X, Y, Z ☒ Y, X, Z

Additional Columns: {Bearer Length}{Rod Diameter}{Rod Length 1}{Rod Length 2}

Max Pipe Length: 21' 0"

Min Pipe Waste: 0' 1"

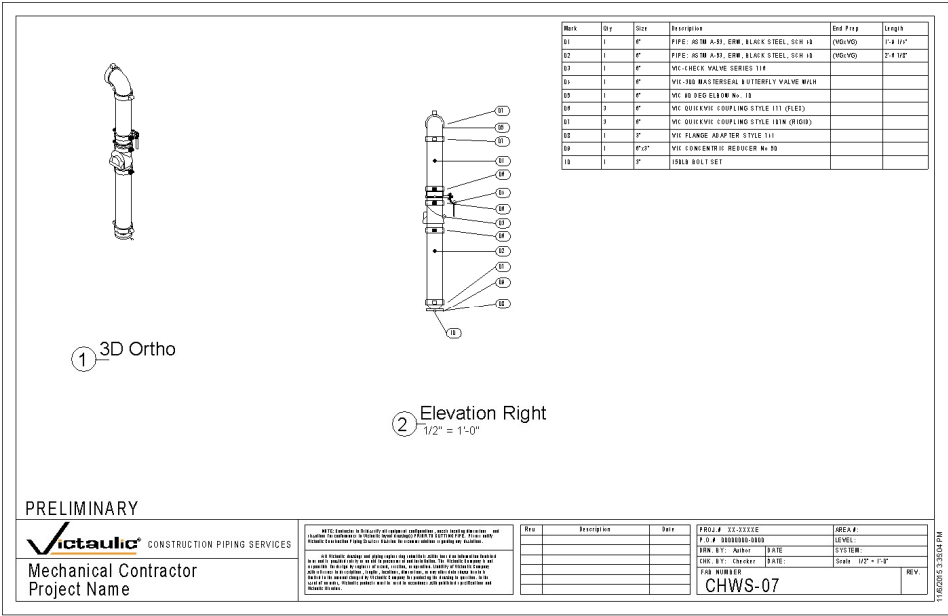
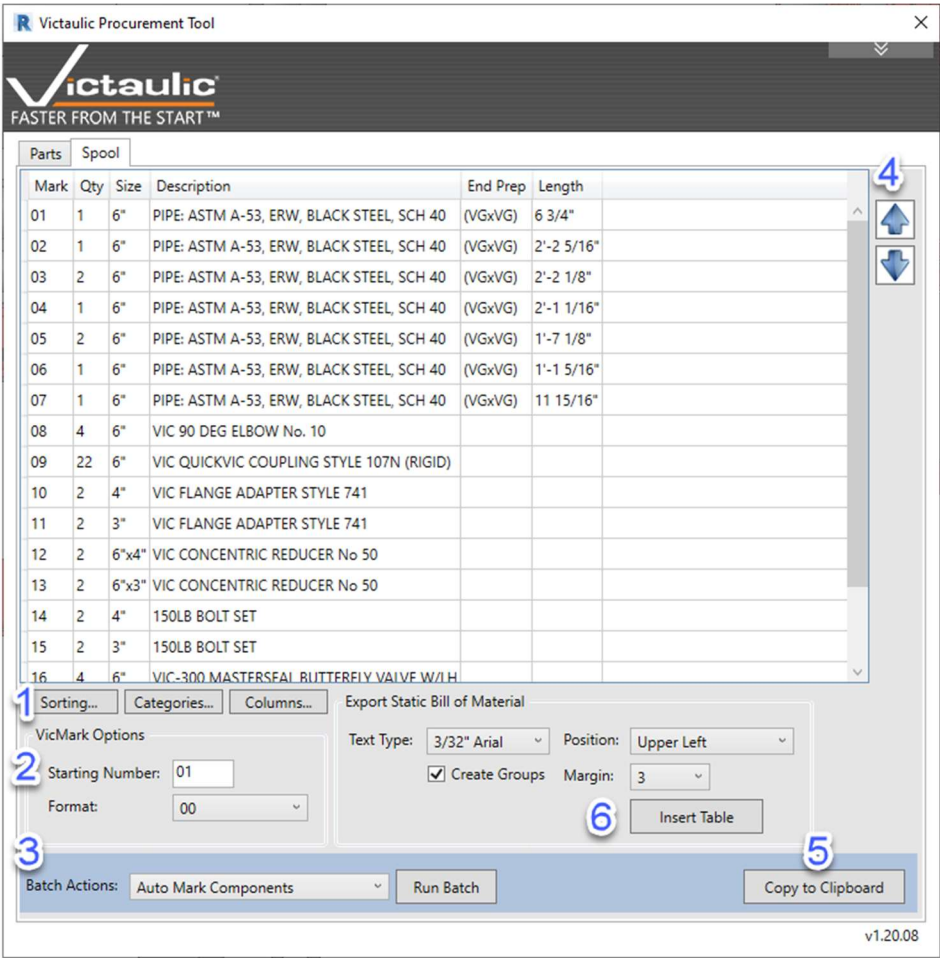
Blade Width: 0' 0.0625"

Optimization Method: ☒ Best Fit ☐ Optimized

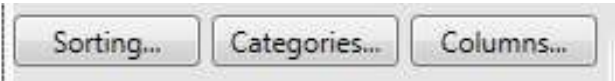
Mode: Low

The second tab in the Procurement Tool is the **Spool** tab. This tab is used for creation of fast bills of material on selections of piping within assemblies and 3D views.

- 1. Set your sorting, categories, and columns using the buttons (see following text).
- 2. Set your Vic Mark numbering format. All tags will use the Vic Mark parameter under the Construction group.
- 3. Auto Mark Components and Clear Mark will only modify selected lines above. If you select no lines above then it will run on the entire list of items. This will enable you to renumber specific areas of the material list.
- 4. When a line is selected you can reorder the material list per your needs. The **Auto Mark Components** batch action will follow the set order of items in the list.
- 5. Select all lines of the material list and click the **Copy to Clipboard** button. Next, paste as text in a text box within your sheet. The **Copy to Clipboard** button will format the material list in a way that it is readable when pasted in a text box. *To improve results use a fixed width text font for your text boxes.*
- 6. Select the Text Type, Position and Margin for your Bill of Material. Clicking **Insert Table** will place a Table-like formatted bill of material in your view or sheet.



Procurement Tool (continued)

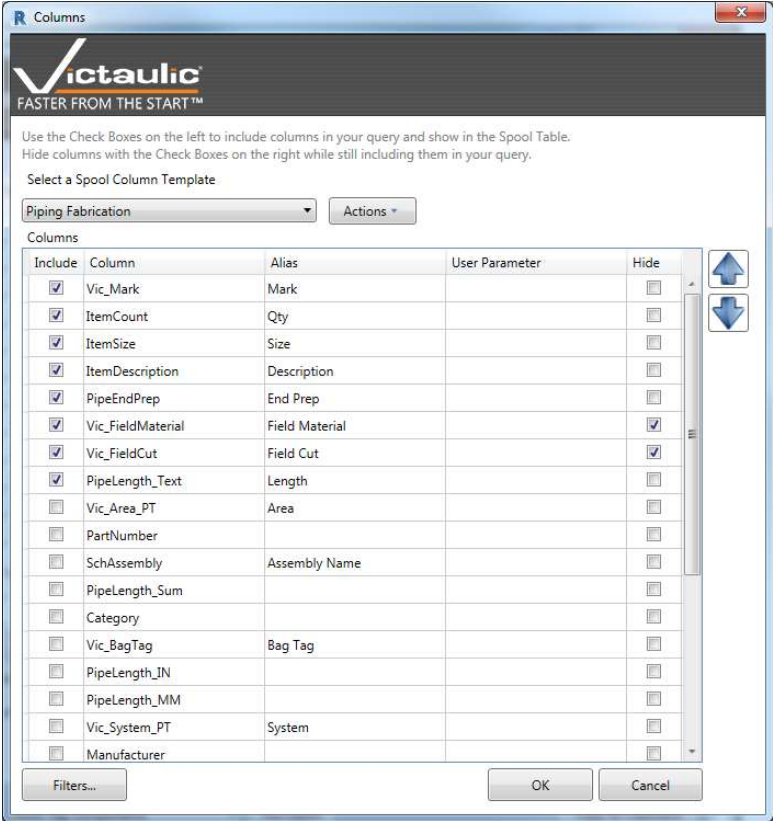
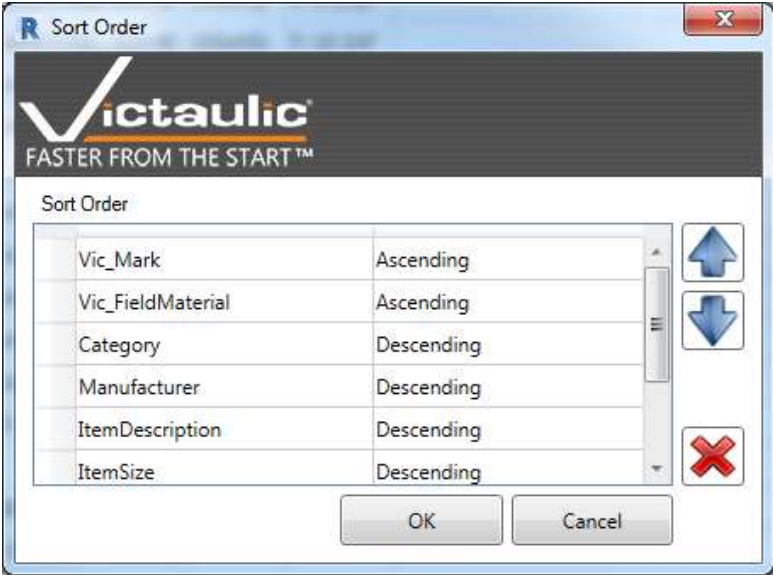


Sorting, Categories, and Columns allows you to customize the look of your bills of material.

Sort Order - To change the sort order select the left side then use the up down arrows to move. Sorting priority starts with the first record then moves down (Seen to the right).

Categories - Categories allows you to filter from the selection specific Revit family categories. You can also set a prefix for Vic_Mark tagging (Ex. P-, F-, PA-) (Below to the left).

Columns - The Columns window gives you a list of predefined columns that can be added or removed from your bill of material. The column order can be changed by using the up and down arrows. Customize or create your own Spool Column Templates to customize your Static Bill of Material (Seen below to the right).



34) Fabrication Hangers

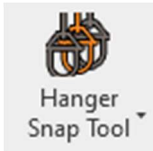


The Fabrication Hanger Tool is a placement tool for MEP Fabrication Hangers that allows the user to place an array of hangers on MEP Fabrication Pipework. It allows the user to specify the Starting and Repeating distance as well as attachment options.

The tool can be run in two different ways.

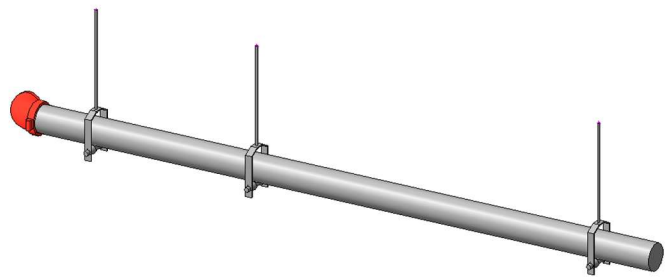
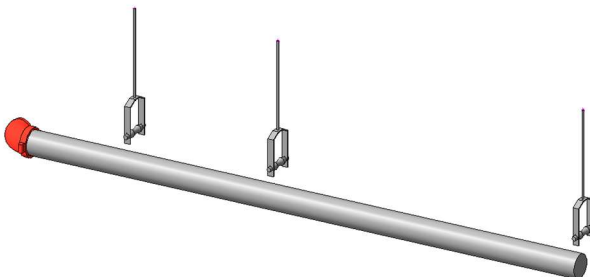
1. Run the tool with no Fabrication Hangers selected, and you'll be prompted to select a Fabrication Pipe Length. Select lengths, placement options, hanger style, and attachment options. Each Fabrication Pipe length within the same system selected thereafter will get hangers placed.
2. Select Fabrication Hangers previously placed in the model and run the tool. Use the Fabrication hangers section at the bottom to switch Fabrication Hanger style and attachment options as well as Rod Extension Length.

35) Hanger Snap Tool



With Revit family hangers, there is no connection or association between the pipe and hanger. When reconfiguring piping systems, the hanger is often left out in space. The Hanger Snap Tool will reassociate and move hangers to the correct locations on moved or new piping systems while retaining and updating hanger family data.

Simply select the misplaced hangers, click the Hanger Snap Tool, and click on the destination pipe length. Hangers will snap on to the pipe at the closest point along the pipe length.



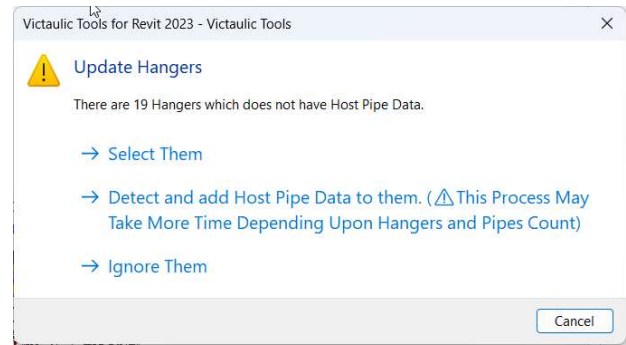
36) Update Hangers



This tool reassociates hangers to their host elements (e.g., pipes) when changes occur in the host element's location or parameters. Family hangers can lose their connection to pipes, leading to them being left behind when pipes are moved.

The Update Hangers tool ensures hangers stay correctly associated with their host elements, updating their position and construction parameters.

- Select Update Hangers under the Fabrication Hanger dropdown ribbon.
- A notification window will appear if any hangers do not have host data. This informs you that some hangers are not associated with their host element.



If you move a host pipe, click the Update Hangers button.

The tool automatically reassociates and moves the hangers to match the updated location of the host pipe. This ensures the hangers are positioned correctly.

The following parameters will also get updated on using the tool:

- Insulation Thickness
- Vic_BagTag
- Vic_Zone
- Vic_System_PT
- Vic_Area_PT
- Vic_Sequence
- Pipe Size
- Nominal Diameter
- CL Elevation

If needed, you can use the Hanger Snap Tool to manually associate a hanger with its host pipe.

This is helpful in cases where hangers are not automatically recognized by the Update Hanger Tool or additional fine-tuning is required.

37) Family Update Tool



In the family editor you can now add any of the Victaulic Shared Parameters to your custom families with a few clicks.

These parameters can make any Revit family more compatible with the toolbar's commands, annotation tags and workflows.

Tip: Clicking the “Show More” link at the bottom left of the window will show all the available parameters, many are designed to work with our Procurement Tool to enhance listing of items on a Bill of Material.

38) Other Settings



There are additional settings to further customize our software to fit your business needs. The following image shows the default settings. The settings on the left affect the Procurement Tools and Static Bill of Materials on spool sheets. The settings on the right determine how you will acquire our content and get content updates.

Toolbar Settings

Victaulic
FASTER FROM THE START™

User Toolbar Settings | Delete Pipe Settings | Assembly Views Settings | Packages Views Settings | **Other Settings** | Victaulic Tools Registration

Procurement/Spool Settings

- ☐ Procure Fabrication Ancillaries
- ☒ Auto Rotate Views on Assembly Creation
- Pipe Length Fraction Rounding - 1 / 16"
- ☐ Force Length Rounding to 6 inches
- The text below will be displayed when multiple assemblies exist with the same name. (Typical Assemblies) Use {x} to represent the number of assemblies.
MATERIAL TYPICAL OF {x} REQUIRED.
- ☐ Display Sum of Quantities in Typical Assemblies.

Field Material Settings

- ☐ Exclude Field Material from Static Bill of Material
- ☒ Separate Field Material in Static Bill of Material
- Field Material Text: FIELD MATERIAL

Field Cut Settings

- ☐ Hide Field Cut Pipe Lengths
- ☒ Use Project Spec for Field Cut Lengths
- Additional Length to Field Cut: 6 in
- Append Text to Length for Field Cut: (FCS)

Content Settings

- ☐ Show Content Updates
- ☒ Use Content Shortcuts
- ☒ Enable Real-Time Updaters
- ☐ Use Project Spec for Pipe End Prep
- ☒ Send Usage Analytics to Victaulic
- ☒ Show Victaulic Welcome Screen
- ☐ Use Custom Content Directory

Region Settings

Select your region below. The Victaulic Toolbar will display the selected region's content after clicking 'Save Settings'.

Region: United States Download Content

Units:

- ☐ As Project Units
- ☒ Imperial
- ☐ Metric

Integrated Applications

VICTAULIC® SPOOLTRACKER STRATUS

Display Settings

Victaulic Dock View Scale: 100%

Export Settings

Manage Cloud Settings OK Cancel Apply

Procurement/Spool Settings

Procure Fabrication Ancillaries – Fabrication Ancillary data is not easily visible within Revit and not available to be scheduled with standard Revit Tools. This option will add the additional ancillary data to the Procurement task and display these additional items in your Static Bill of Material.

Auto Rotate Views on Assembly Creation – Piping is not often completely drawn aligned with your project north. In assembly views with this option selected the software will rotate the components to appear as level and aligned as possible.

Pipe Length Fraction Rounding – This applies to only Imperial measuring units on Pipe Length. Typically a fabrication shop will not go any more accurate than 1/8" while some will go to a 16th of an inch.

Typical Assemblies – Depend on your customer’s needs, you may want to create one spool drawing to represent multiple groups of components. While placing the Static Bill of Material, this can be noted. If more than one instance of this assembly exists, this text will be inserted at the bottom of the table.

Display Sum of Quantities in Typical Assemblies – This option will display the total number of instances of components in the Static Bill of Material for all typical assemblies instead of the number matching the instances in the drawing.

Field Material – These options will exclude all Field Material from the Static Bill of Material or Separate the Field Material into a different table separating the tables with the Text specified.

Field Cuts – Periodically a pipe must be cut on site and the measurement is unknown back in the modeling stage. Use these settings to either hide the length or add length to Field Cut pipe.

Content Settings

Show Content Updates – With this option selected, placing a component from our toolbar will always check to see if a new version of the family exists. A screen will appear showing the current version of the family and the latest version along with what has been updated. To see all available updates, use the Content Center.

Show Victaulic Welcome Screen – This splash screen opens when Revit starts and will give you links to useful information such as our Blog, Online Tutorials, and our online store.

Enable Real Time Updaters – With this option enabled, edits to assemblies will reflect in the Assembly Manager alerting the user that something has changed on a Spool Sheet.

Use Custom Content Directory – This option will let an entire office of Revit users share the same content directory. This would allow for a content manager to only manage one folder of content rather than each user having their own.

Region Settings – Different areas of the world have different size pipe. Our content is prepared to handle these size and availability differences. Select from United States, Europe, and United Kingdom. The content folders in our toolbar will change and reflect on the region’s local sizes and availability.

Content Shortcuts – Keyboard Shortcuts can be configured to allow placement of any Family Content within or outside of the Victaulic Tools Content Ribbons. Placement of content will include advanced features such as version checking, type selection, and family replacement.

Third Party Integrations

Connect to GTP Stratus – Enter your GTP Stratus APP key to receive real-time updates from the GTP Stratus software on the status of your Assemblies and Packages. Packages specified in Victaulic Tools for Revit will be created on Stratus and Package specified in Stratus will generate in Revit through Victaulic Tools for Revit.

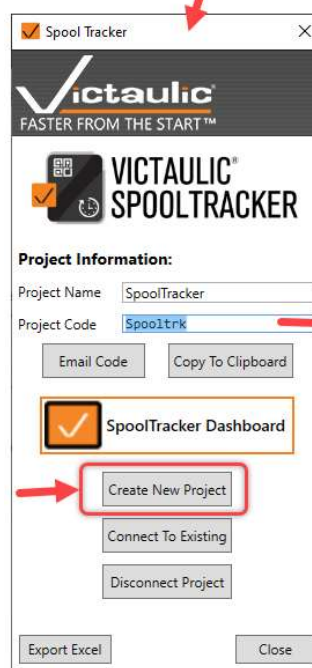
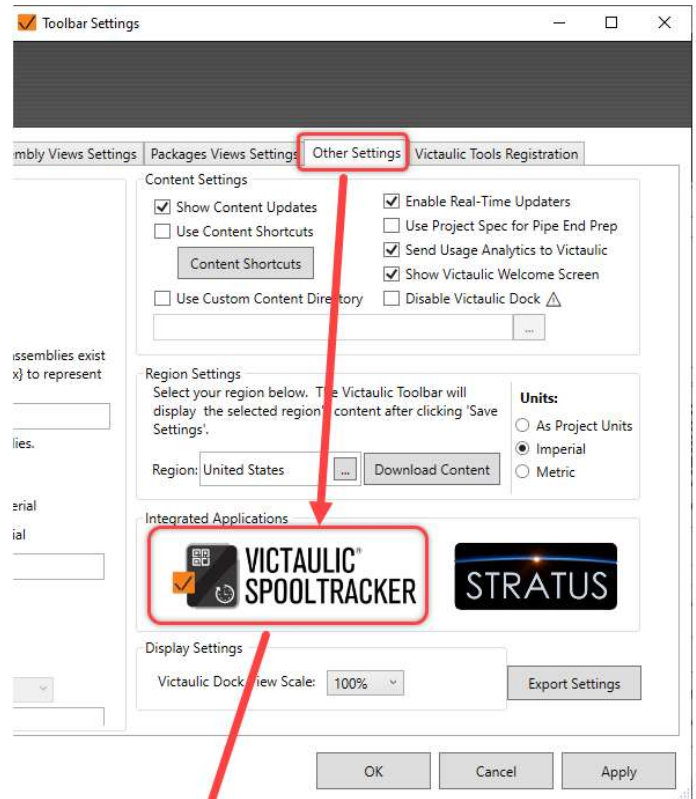
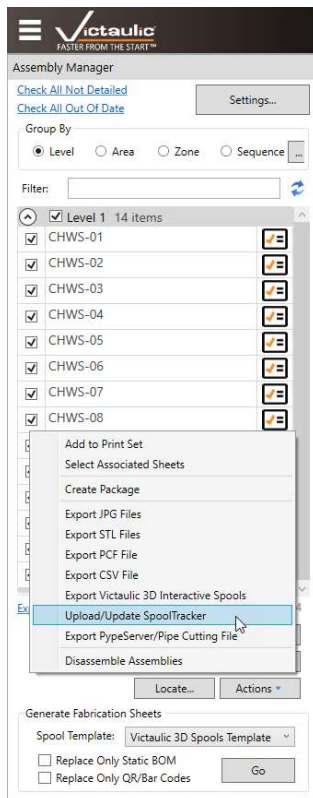
For more Third Party Integrations, see the different file exports available in the Assembly Manager.

39) Victaulic SpoolTracker App Integration

Spools managed by Victaulic Tools for Revit can be tracked from fabrication through installation with the Victaulic Spool Tracker app. The user uploading spools will need a license for Victaulic Spool Tracker through the online store. <https://www.victaulicsoftware.com/store/victaulic-spooltracker-2023/>

Please also reference support files that can be found at: <https://ws.onehub.com/folders/48hrdhxf>

1. Create a Spool Tracker project.
 - a. Click the Spool Tracker icon located in the Other Settings tab of Toolbar Settings.
 - b. Click Create New Project. A project code will be generated.
 - c. This Project code can be used to access the phone app.
 - d. Alternatively, an Organization code can be created by request and each project can be added via the web dashboard at: <https://spooltracker.victaulic.com/>
2. Upload spools to the Spool Tracker project
 - a. Select the spools to uploaded in the Assembly Manager of the Victaulic Dock.
 - b. Click Upload/Update SpoolTracker in the Actions list

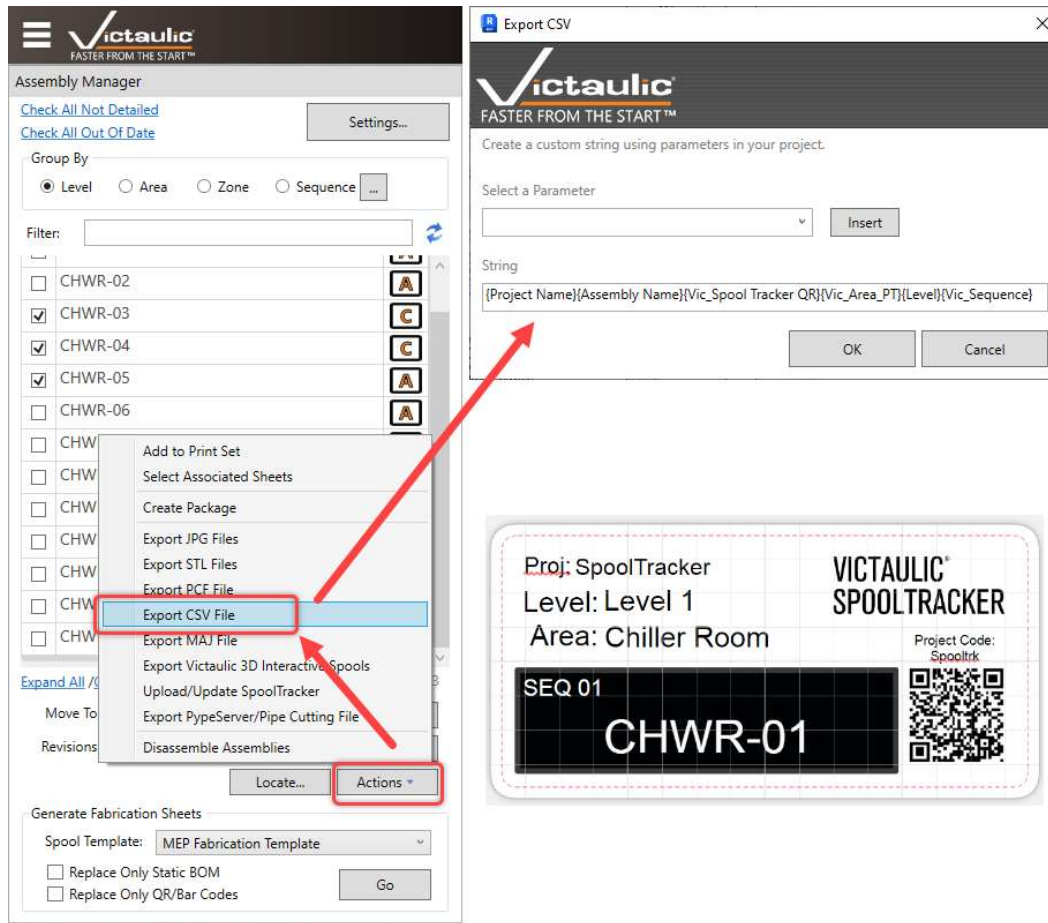


Victaulic SpoolTracker App Integration (Continued)

- c. To create labels for the spools in the shop we created the Export CSV File in the Actions dropdown in the Assembly Manager. Your label printer will be able to import this file to create all the labels for a package or sequence. Instead of using a label printer we found Avery to have a good web label creator at: <https://www.avery.com/software/design-and-print/>
Link to Template: <http://labe.ls/G77gQcV>

String Sample for Export CSV

{Project Name}{Assembly Name}{Vic_Spool Tracker QR}{Vic_Area_PT}{Level}{Vic_Sequence}



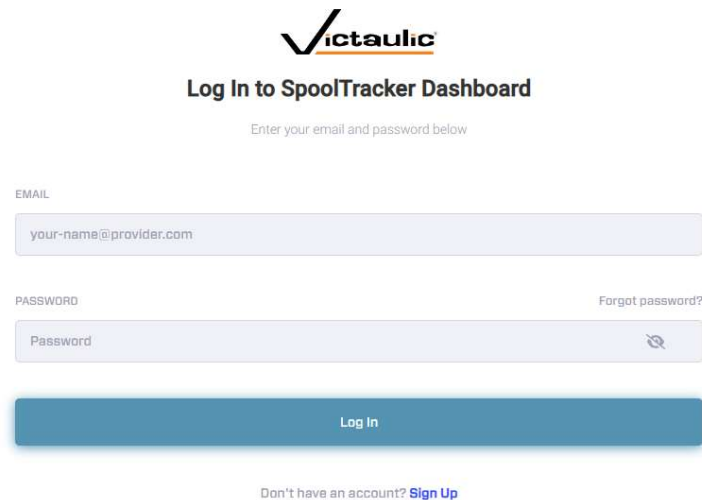
40) Victaulic SpoolTracker Dashboard

In order visualize the data collected from the SpoolTracker App and to administer the project we now have a web dashboard.

Note: SpoolTracker projects can only be created using Victaulic Tools for Revit and SpoolTracker only works for Revit projects. The creation of Revit assemblies is required to generate the QR codes needed for the App to read.

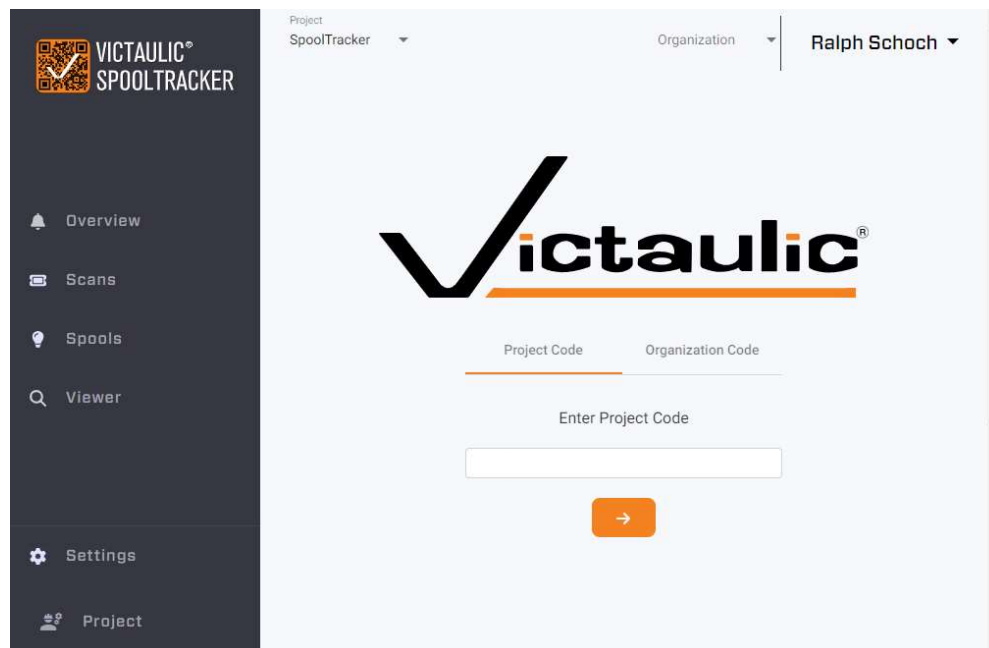
To access the Dashboard, go to: <https://spooltracker.victaulic.com/>

You will need to create a user account via the website prior to login. Use the Sign-up option at the bottom of the login screen if required.



The image shows the login interface for the Victaulic SpoolTracker Dashboard. At the top is the Victaulic logo. Below it is the title "Log In to SpoolTracker Dashboard" and a prompt "Enter your email and password below". There are two input fields: "EMAIL" with a placeholder "your-name@provider.com" and "PASSWORD" with a placeholder "Password" and a "Forgot password?" link. A blue "Log In" button is centered below the fields. At the bottom, there is a link "Don't have an account? Sign Up".

Using the assigned Project Code from VTFR will give you access to the project. The first user to login to the project will be elevated to Admin and can setup User Access, Organizations, Scan Types.



The image shows the main dashboard of the Victaulic SpoolTracker application. On the left is a dark sidebar with the "VICTAULIC SPOOLTRACKER" logo and a menu with items: Overview, Scans, Spools, Viewer, Settings, and Project. The main area has a light blue background with the Victaulic logo. Below the logo are two tabs: "Project Code" (selected) and "Organization Code". Under the "Project Code" tab is a text input field labeled "Enter Project Code" and an orange button with a right arrow. At the top right of the main area, there are dropdown menus for "Project" (set to "SpoolTracker"), "Organization", and a user profile for "Ralph Schoch".

Within the Scans Tab as Admin you can add, change, and delete scans as needed.

Victaulic SpoolTracker Dashboard (Continued)

To customize the Tasks tracked in the App you can use the Project Settings. Scan Types can be deleted, added, renamed and order changed for display by dragging the task in the list.

Task Types are:

- Non-Timed Task – Can only be assigned one time per spool. (One Time Only)
- Timed Task – One Time Only and a Timer will display to track seconds and minutes.
- Repeat Tasks – Use this task as many times as you like per spool (Good for QC checks or error tracking)

Don't forget to save your changes when done. For task types it is best to start small and add more tasks as needed. Deleting task types that have been used in the app prior is not supported. Task types can be unique by Project or Organization.

Project Settings

General **Scan Types** Members

Scan Types
Drag and Drop Scan types.

Note: Saving scan types will only affect this project's setting.

Add New +

New Scan Type

Scan Type Name *

Scan Category: Pre-Fab

Task Type

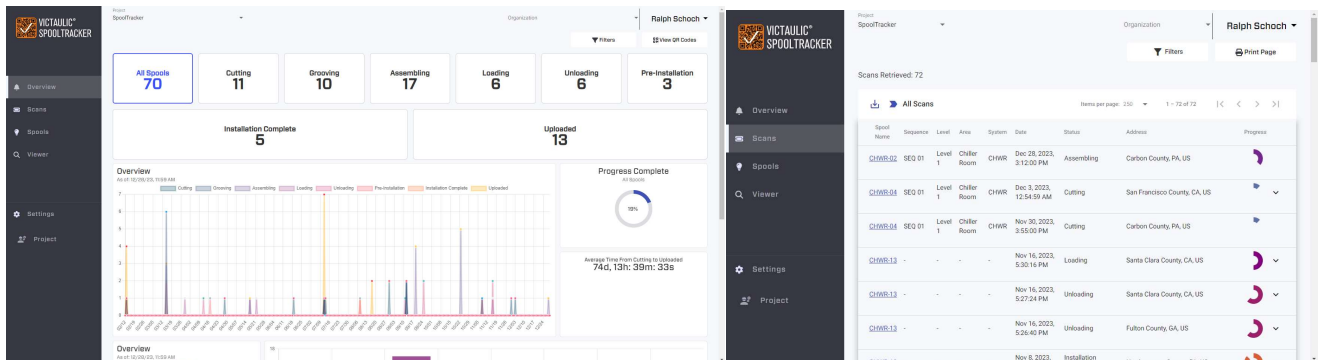
- Non-Timed Task
- Timed Task
- Repeat Tasks

Close

Reset **Save**

Scan Types List:

- Cutting
- Grooving
- Assembling
- Loading
- Unloading
- Pre-Installation
- Installation Complete
- Uploaded



Victaulic SpoolTracker ACC® Connection

ACC® Viewer Setup

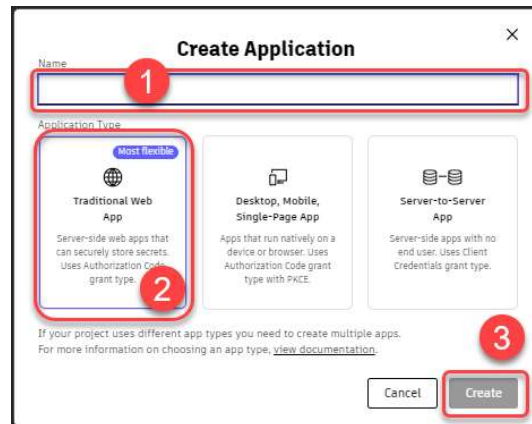
Published Views and Sheets from Revit can be viewed on the SpoolTracker Dashboard if a “Custom Integration” is created and linked to the ACC® hub. This Custom Integration is then linked in the SpoolTracker Dashboard.

To Create an Application, you need to visit the Autodesk Platform Services site at:

<https://aps.autodesk.com/myapps>.

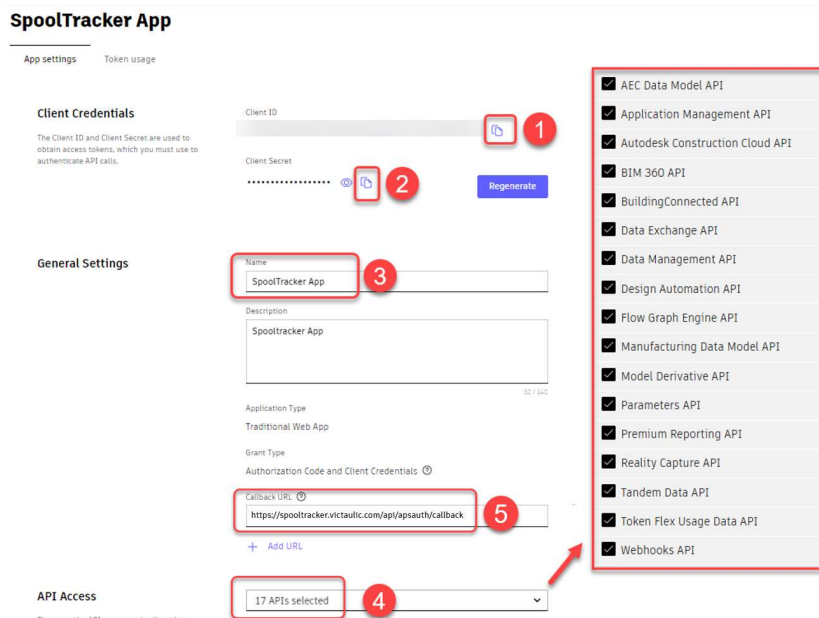
Name the Application: SpoolTracker App

Select “Traditional Web App”



Client ID and **Client Secret** will be created automatically. Copy them for safe keeping and to connect SpoolTracker to your ACC® hub. (See Image Below)

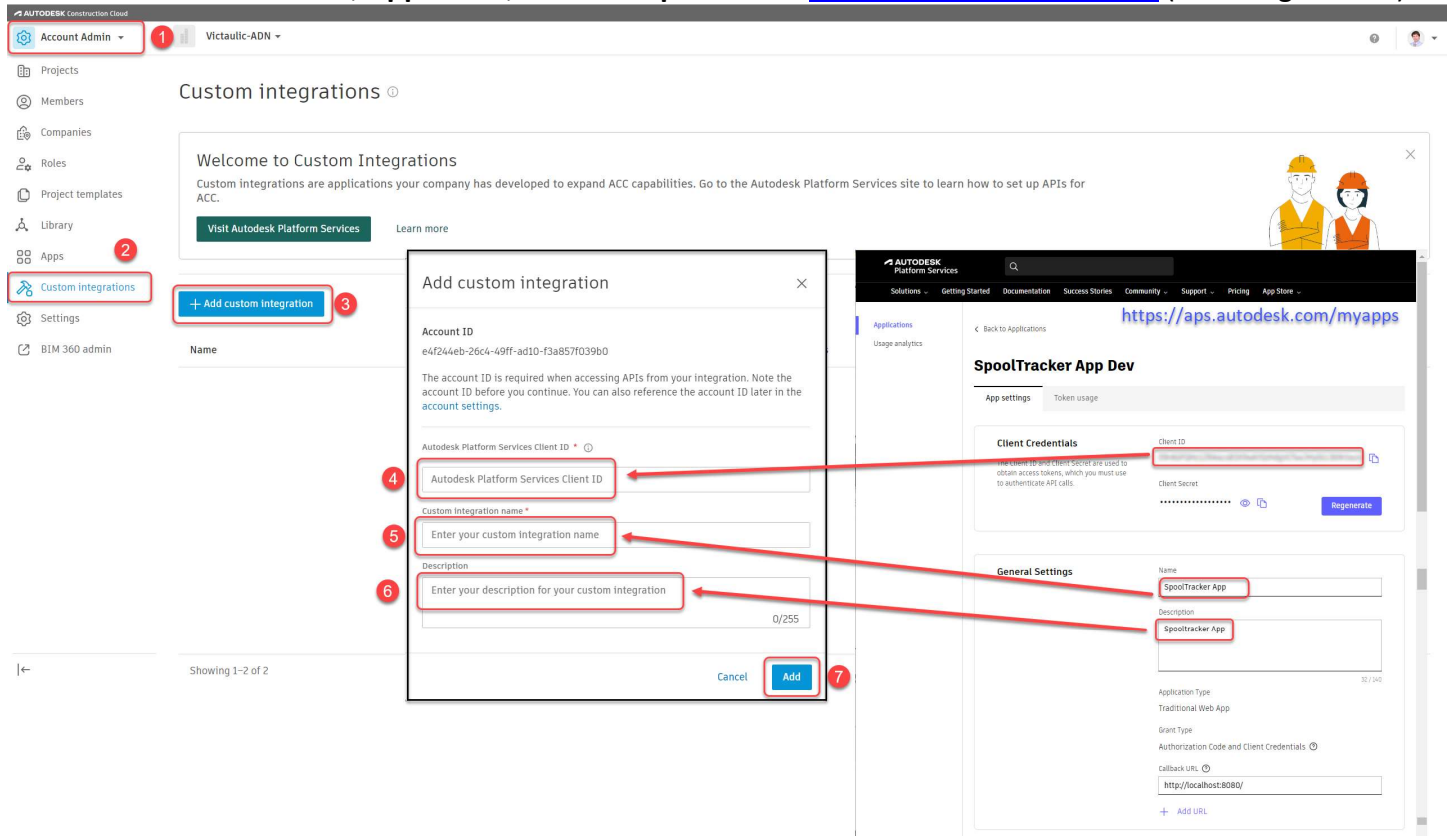
For API Access only 4 API's are currently required. To support new features please select all the additional API's. Callback URL also needs to be changed to: <https://spooltracker.victaulic.com/api/apsauth/callback> (See Image Below #4)



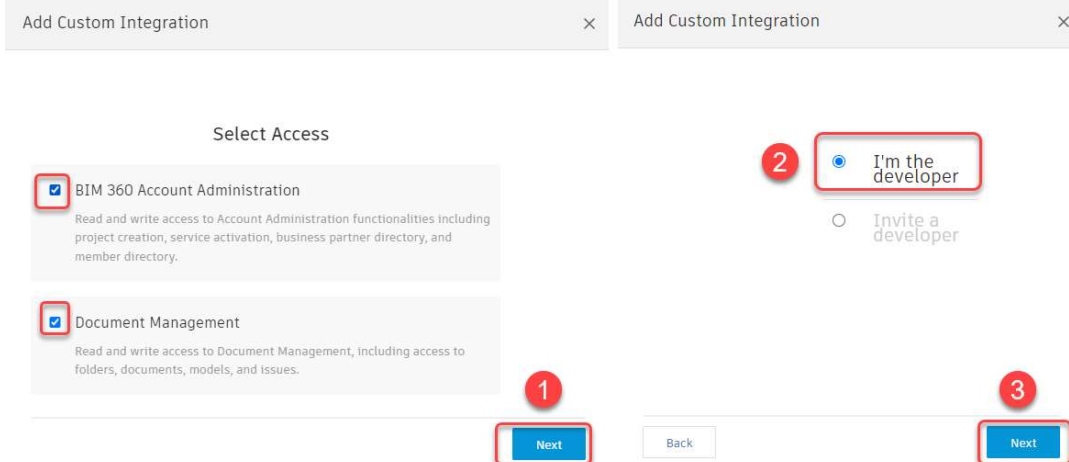
Note: Add any other admins that many need to be aware of the connection in the Collaborators area at the bottom of the webpage. Save changes when you are done. Changes can be made at any time via link above.

As an account administrator of the ACC® hub, you will need to Add the Custom Integration within the hub. ACC® and BIM 360® use the same integration, so it is best to create your “Custom Integration” in ACC®.

You will need the **Client ID**, **App Name**, and **Description** from <https://aps.autodesk.com/> (See Image Below).



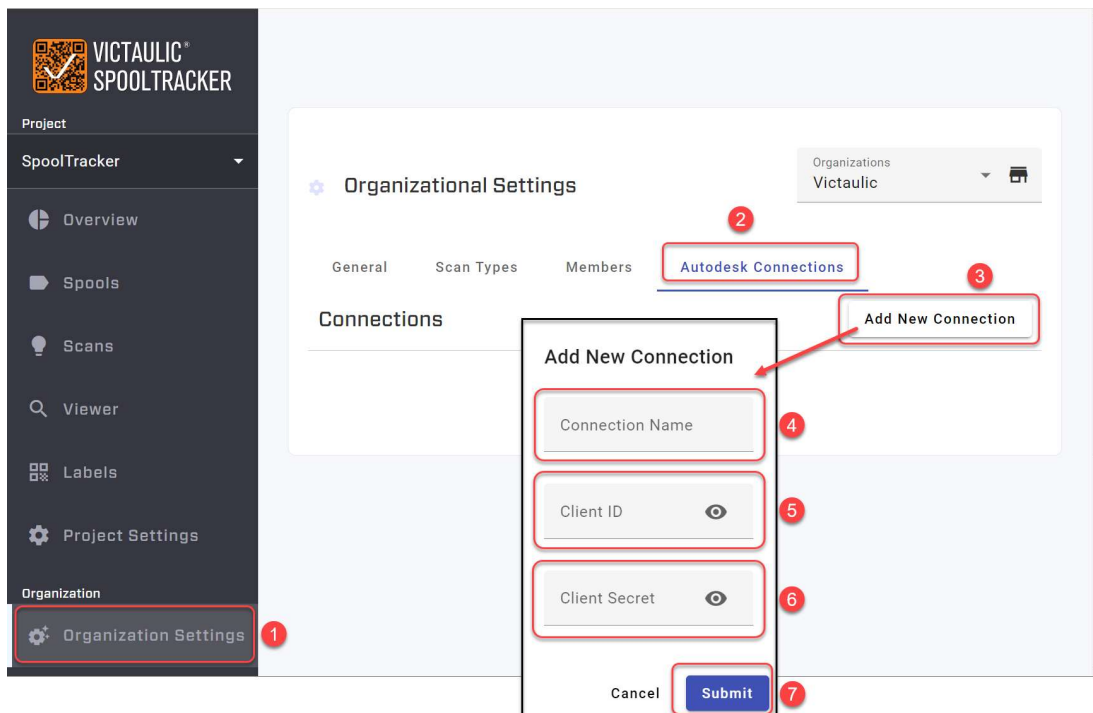
If these two screens below appear please select the options marked. In ACC® they should not appear.



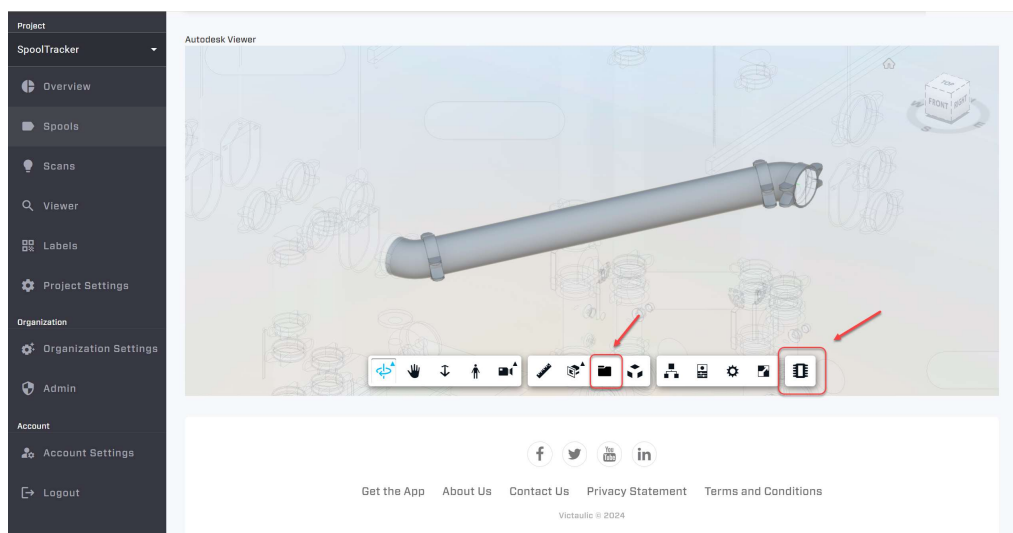
In SpoolTracker you will need an Organization created by a Victaulic Administrator. Being an administrator of the Organization you will be able to create an Autodesk® Connection.

Connection Name can be anything to help you identify the Connection. “SpoolTracker App” can be used or company/hub name in the case where multiple hubs are being linked (See Item 4 Below).

Client ID and **Client Secret** both come from the Autodesk Platform Services site <https://aps.autodesk.com/> (See Item 5 & 6 Below).



You should now see any published views and sheets in the Viewer and Spools tabs.



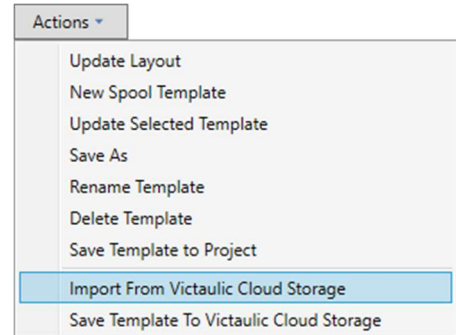
41) Victaulic Cloud Settings

Manage Cloud Settings

Throughout Victaulic Tools, there are areas where users can save their settings in the form of Templates and Presets. These settings previously were controlled by importing and exporting of settings files.

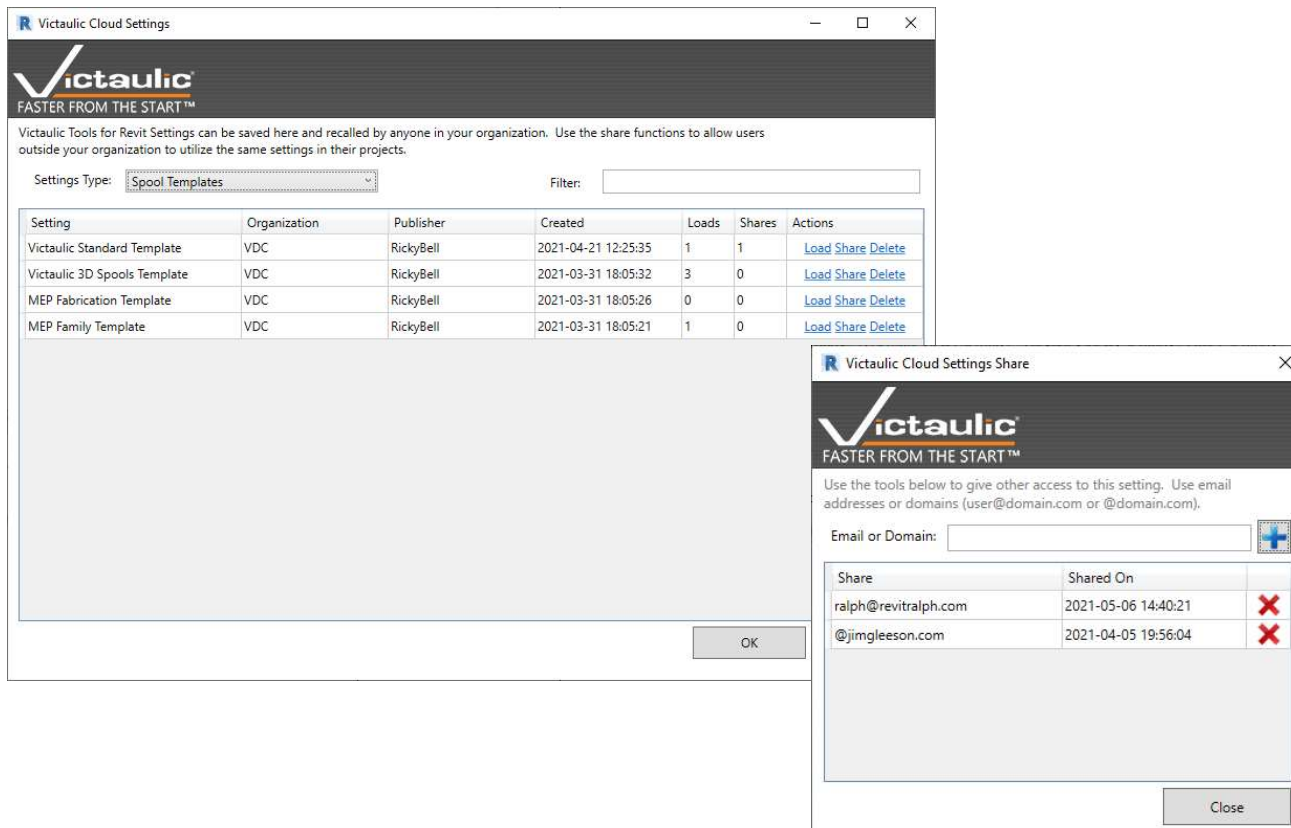
With Victaulic Cloud Settings, users can save, share, and recall settings for numerous Victaulic Tools in one place. Follow these steps to create and recall settings using Victaulic Cloud Settings.

1. Each of the Actions menus will have options to Import Settings from Victaulic Cloud Storage and Save Templates to Victaulic Cloud Storage. Find a template you'd like to save and click the Actions Menu; Save Template To Victaulic Cloud Storage.
2. To Import, click the Actions Menu; Import From Victaulic Cloud Storage.
3. Locate the Template you'd like to recall and click the Load option on the righthand side.



Sharing settings inside and outside your organization.

1. Find the setting you'd like to share and click the Share option on the righthand side.
2. In the following screen, type the user's organization email address to share to a specific user.
 - a. NOTE: this will be the Email Address used to purchase and register their Victaulic Tools for Revit Installation.
3. Optionally, share the setting file an entire domain by entering in just the @ sign and the user's domain. Anyone on that domain with an active Victaulic Tools account will see the setting available to download.



42) Project Maintenance

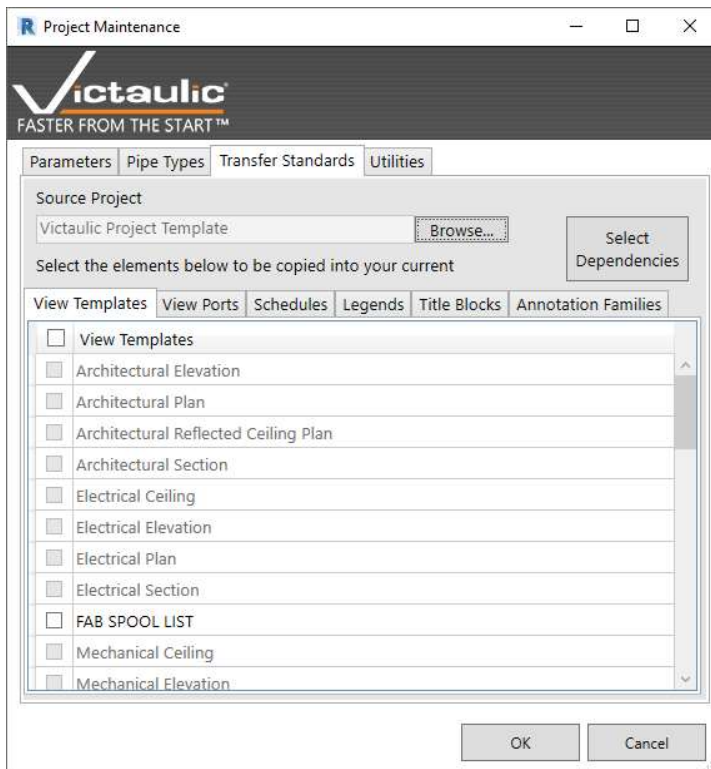


This is a tool with multiple functions. There is a series of parameters to update with project data as well as a couple tools for fixing some issues with Yes/No parameters. The Pipe Types tab offers tools to install our many pipe types but to also backup and restore pipe types.

Pipe Types - The Pipe Types tab offers a quick way to install specific Victaulic Pipe Types without the fear of duplicated families from a copy/paste approach.

There are tools at the bottom for saving Pipe Types to be recalled in a different project. You can also export the XML instruction for each pipe type and import them on another installation of Victaulic Tools for Revit (Seen to the Right).

Select Parameters to Update – This section will populate some often used shared parameters in the MEP BIM industry. Native Revit does not account for Bottom of Pipe, Top of Pipe, or Bottom of Insulation. Centerline Elevation is a shared parameter in Fabrication Pipework that is often needed in annotation tags. Schedule Assembly Name is a unique name given to each assembly created using our tool. If a user changes the name of the assembly, the shared parameter will need to be updated using this tool. The remainder of the checkboxes will update shared parameters based on the Room and Scope box the components are associated with. Yes/No parameters default to an unspecified value. This means they can't be used in formulas. This tool will set all unspecified values to False(No) to allow for formulas in schedules (Seen to the left).



Transfer Standards – Transfer Standards is a tool designed to assist in moving specific elements from Project to Project.

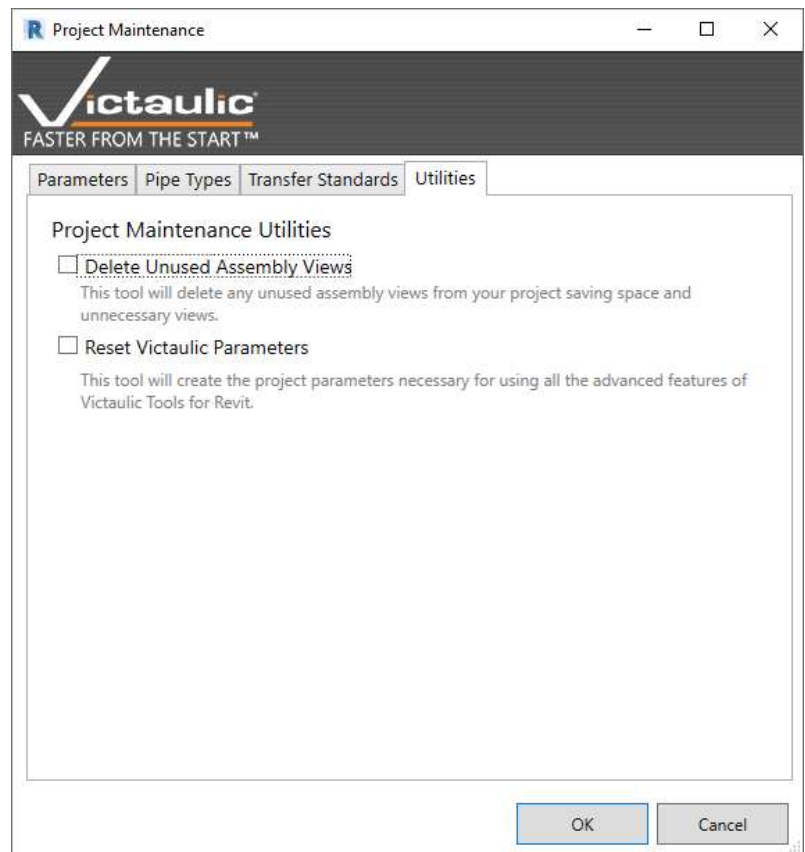
The source project always defaults to the Victaulic Project Template but any source project can be used with this tool.

Specific View Templates, View Ports, Schedule Templates, Legends, Title Blocks, and Annotation Families can be directly imported into your working project.

Elements necessary for Tagging and Spooling with Victaulic Tools for Revit will automatically be selected and imported.

Utilities/Delete Unused Assembly Views – As assembly sheets are created, extra views that aren't placed on the final drawing can add up. Use this option to delete any views that are associated with assemblies but not placed on the assembly sheet.

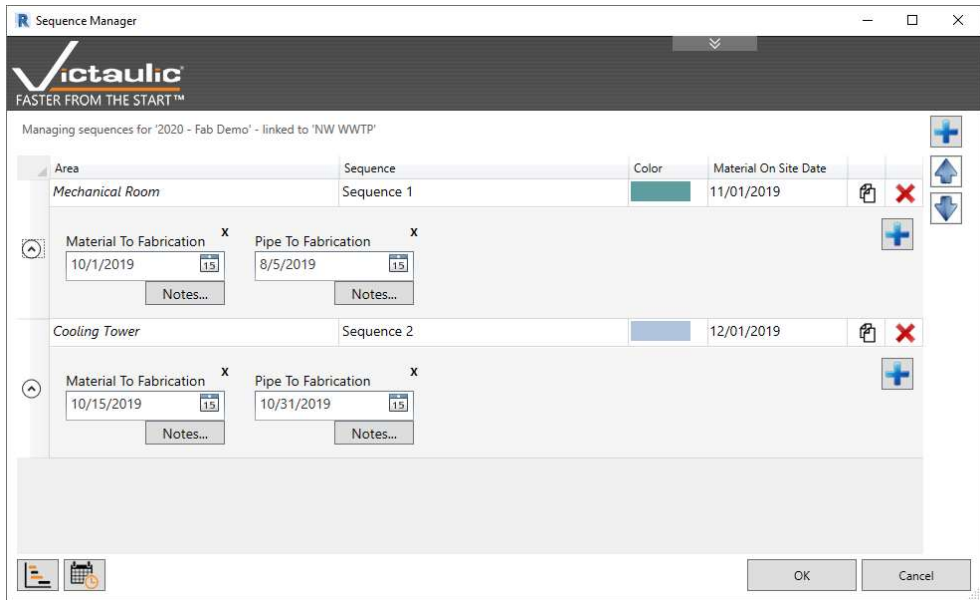
Utilities/Reset Victaulic Parameters – Victaulic Tools for Revit requires some necessary Project Parameters to function correctly. These parameters need to be associated with certain categories of families as well. This option will set all the associations of Victaulic Parameters to their default and correct values.



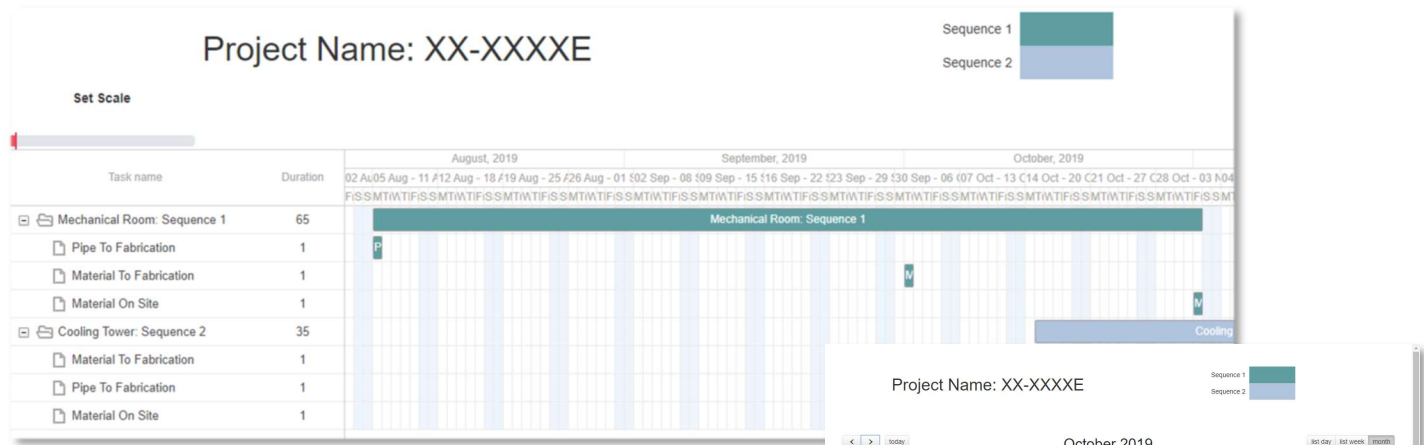
43) Sequence Manager



The Sequence Manager can help a project manager handle milestone dates for all delivery sequences for a project. The user can create and manage an unlimited amount of sequences with customizable dates, assign assemblies to sequences, and print project schedule deliverables.



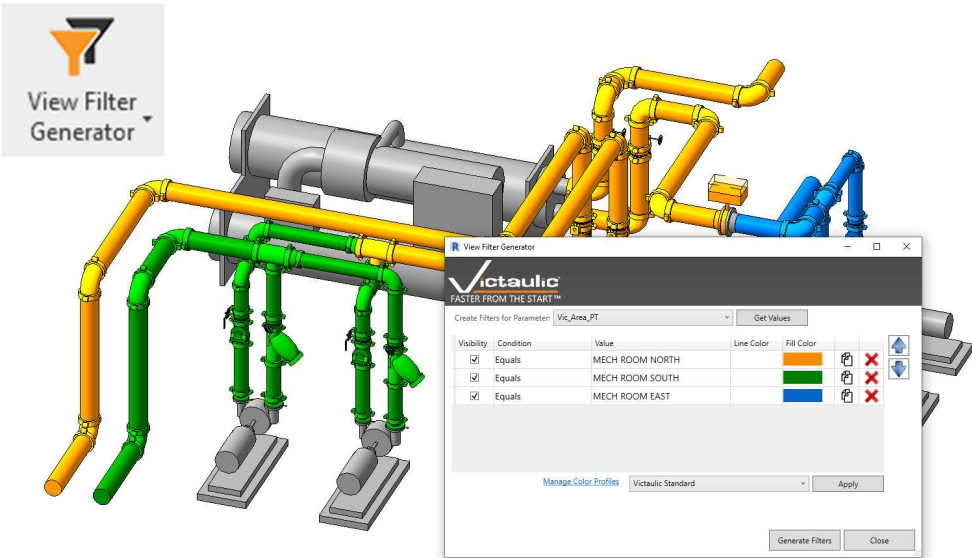
Use the **(+) Plus** button to add a sequence, name it, assign it a color, and set a Material Onsite Date. Optionally, use the down arrow to expand the dates section and add additional milestone dates to your sequence.



Use the report functionality to quickly print a Gantt chart or calendar view project schedule.

Use the Assembly Manager to assign components to a sequence.

44) View Filter Generator

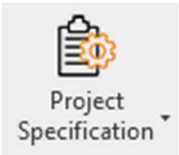


The View Filter Generator is a tool meant to simplify the creation of view filters within Revit by allowing the user to query Project Parameters and create view filters based on those unique values.

Open the tool and select a Project Parameter. Click 'Get Values' to see the unique values found in your project. Apply a fill color or line color to each of the values and click Generate Filters.

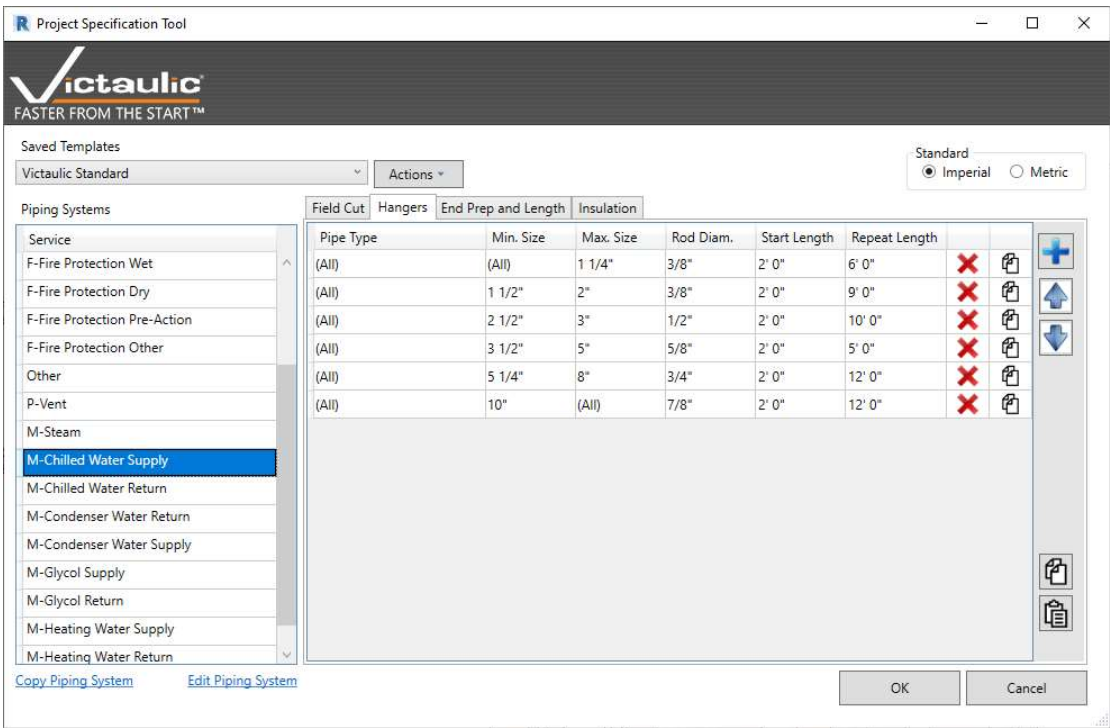
Alternatively, create and manage Color Profiles to expedite and standardize the colors chosen for each value.

45) Project Specification Tool



The Project Specification tool is a database driven tool allowing the user to save Project Specific information in Revit and recall this information further automating other Victaulic Tools.

The Project Specification tool saves Field Cut, Hanger Placement, Pipe Length, and Insulation data as it relates to piping systems and pipe types within Revit. This information can then be recalled using familiar tools such as the Pipe Tools dialog, The Hanger Placement Tool, and Victaulic's insulation tool.





| Parts | | Spool | | | |
|-------|-----|---------|---|-----------|-----------------|
| Mark | Qty | Size | Description | End Prep | Length |
| 01 | 1 | 6" | PIPE: ASTM A-53, ERW, BLACK STEEL, SCH 40 | (OGSxOGS) | 7'-8 3/4" (FCS) |
| 02 | 3 | 6" | VIC QUICKVIC COUPLING STYLE 107N (RIGID) | | |
| 03 | 2 | 0"x3/4" | 3000LB THREDOLET | | |
| 04 | 1 | 6" | VIC-300 MASTERSEAL BUTTERFLY VALVE LH&MS | | |

The **Field Cut** tab will allow the user to specify exact field cut lengths to be added to pipe lengths where the user is unsure about an exact measurement. The Procurement Tool and the Assembly Manager will reference this information when generating Bills of Material. As seen above, specific rules can be applied to pipe types by size and extra specified lengths will be added to the Bills of Material.

The **Hangers** tab captures the Rod Diameter, Start Distance, and Repeat Distance by size. Victaulic's Hanger Placement Tool will then reference this information when placing hangers. The placement tool will allow the user to switch between pipe from different systems and customized rules will apply while placing hangers.

The **End Prep and Length** tab will store information about the default Pipe End Prep and the Minimum and Maximum Lengths a pipe can be cut. The Pipe Tools dialog will reference this information when splitting pipe and the Pipe End Prep parameter can be automatically populated as the user routes pipe.

The **Insulation** Tab keeps information specific to the thickness and material of pipe insulation. Specifying values by Pipe System and by Pipe Type can automate the application of pipe insulation using Victaulic's Insulation Tool which can be found in the Modify Ribbon.



Splitting Tool

Use the settings below to split long lengths of pipe, duct, or conduit by the determined minimum and maximum lengths.

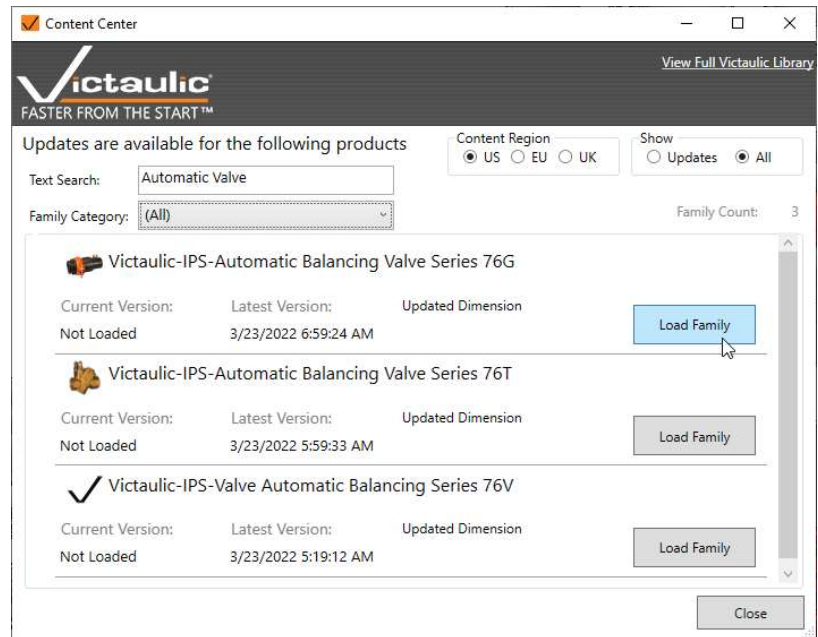
46) Components Ribbon

Content Center



Content Center is a direct link between the Revit® model and an online library of Revit families.

The tool can be used to search then, load or update any Revit® families managed by the library. There is a mode that filters to Out of Date content and enables the user to update all old content.



Content Visibility



Click **Content Visibility**

and select checkboxes to show or hide the corresponding product ribbons. By selecting the required fitting or accessory you will automatically load the family if it does not already exist in the project.

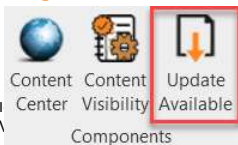
Existing families will not be overwritten. Certain families (like valves and taps) will be ready to be placed in the run of pipe.

You may continue to select products from the ribbon as they are required in your pipe system and eliminate searching your project browser to find the correct family.



Hidden Feature: If you select multiple elements in the project and then select a family from the component ribbon, the families of the same type will change to the selected family.

Update Available



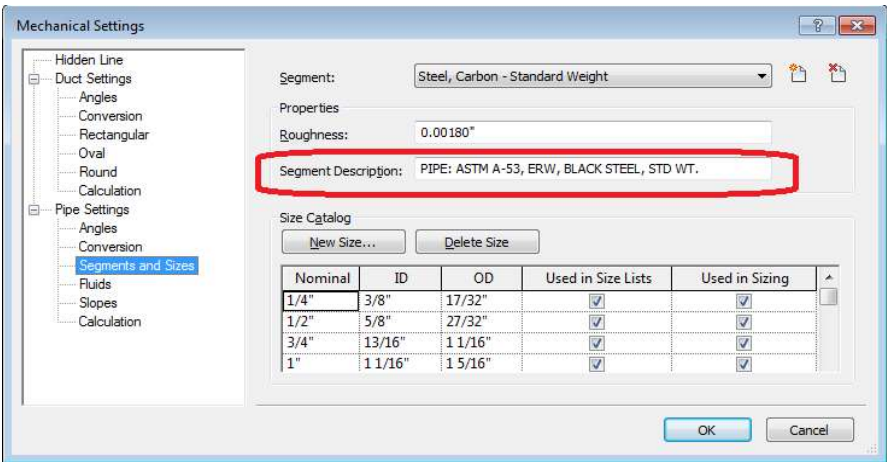
Clicking **Update Available** will download the latest product ribbons managed by Victaulic's content team. Changes will be visible after restarting Revit®

TRADEMARK OF VICTAULIC COMPANY. © 2024 VICTAULIC COMPANY. ALL RIGHTS RESERVED.

47) Important Information

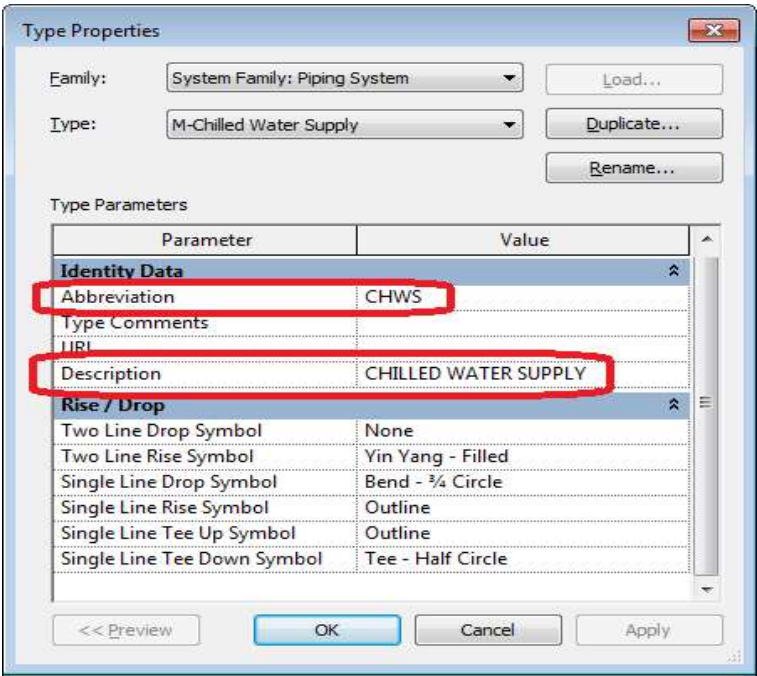
Parameters - Victaulic Tools for Revit will create multiple shared parameters within any project. By default, if the parameters already exist they will not be overwritten and data will be pushed to the existing parameters.

Pipe Descriptions - Pipe descriptions are found under Mechanical Settings (MS) – Segments and Sizes – Segment Description.



| |
|--------------------------|
| Construction |
| Pipe End Prep |
| Schedule Assembly Name |
| Vic_BagTag |
| Vic_Zone |
| Vic_Note |
| Vic_System_PT |
| Vic_Area_PT |
| Vic_Mark |
| Vic_Bottom of Insulation |
| Vic_Bottom of Pipe |
| Vic_Top of Pipe |
| Vic_Field Material |
| Vic_Field Cut |
| Vic_Sequence |
| Vic_Do Not Schedule |
| Vic_Weight |

Systems - System abbreviations and descriptions are found under Piping Systems in the project browser.



Important Information (Continued)

For VTFR to access families, settings, Pipe Types, and licensing access to the web must be present. Some web filters block this access. Primarily the end user need access to victaulic.com and victaulicsoftware.com domains.

To test access to these locations you can use the links below:

https://www.victaulicsoftware.com/version_queryapprovals.php

<https://www.victaulicsoftware.com/files/20211644331554Victaulic-IPS-Flex%20Coupling%20Style%2077-W77-177.rfa>

<https://www.victaulicsoftware.com/rest/api/setting/read.php>