CCS323401

Revit Fabrication Parts - Modular Spooling

Ralph Schoch
Victaulic

Learning Objectives

- Learn the challenges to detailing modular construction in Revit
- Learn advanced ways to create assemblies and modules in Revit
- Learn how to access the data in Revit to manage your fabrication process
- Learn how Revit can enable better project management and reduce risk

Description

This session will cover the Revit process required to go beyond spooling, to creating packages and modular fabrication using the new Victaulic Tools for Revit package feature. See how to easily create Revit assemblies and add them to a package, and from that package create all the sheets and bills of materials required, all while tracking material for fabrication. You never need to leave Revit or rely on time-consuming work-arounds to get the job done. The hands-on session will reinforce best piping practices and give users the tools they need to take their businesses to the next level.

Speaker

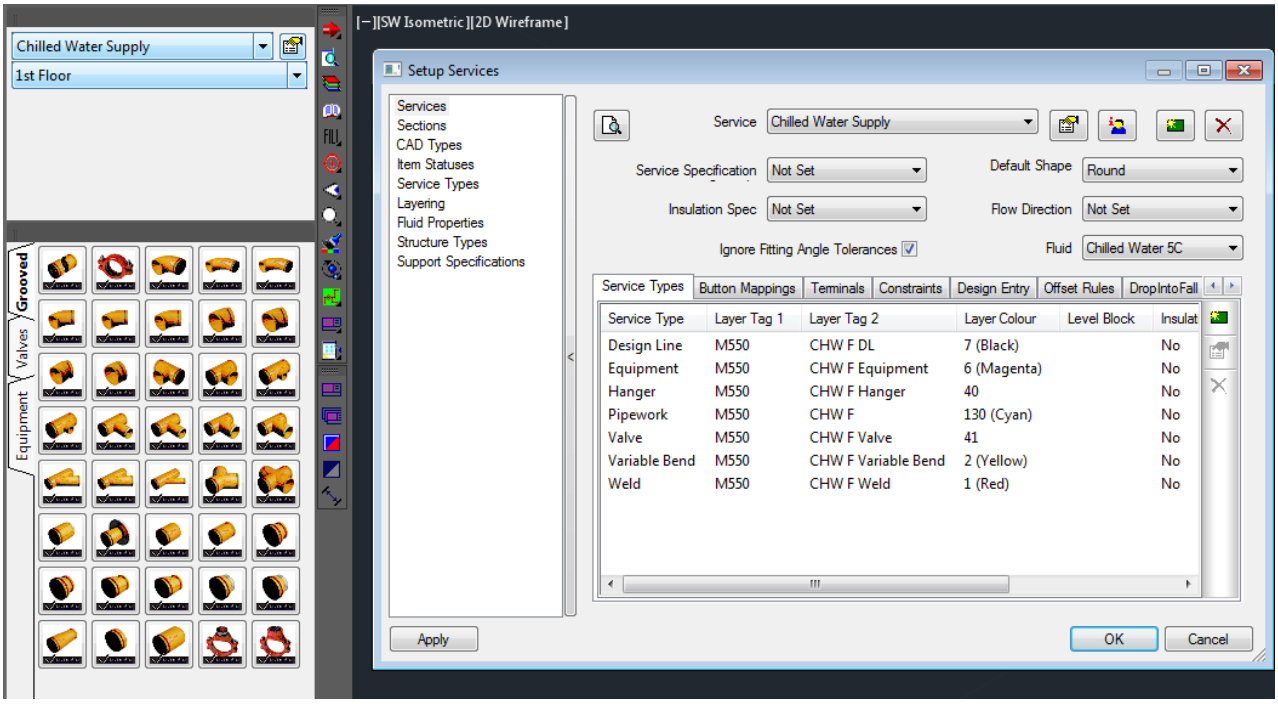
Ralph Schoch is the Software, Technology, and Internal Support Manager in the Virtual Design and Construction (VDC) department at Victaulic, a leading manufacturer of mechanical pipe-joining and fire protection systems. For 23 years he has been devoted to 3D piping system layout and design for global projects. His interest in 3D modeling software led him to begin developing content for Revit in 2009. Ralph develops Revit families and add-in applications that allow engineers and contractors to design piping systems within Revit using Victaulic products. These families and tools have been used around the world from engineering to construction with full fabrication from the Revit model. In addition to Revit, Ralph has experience in Autodesk Fabrication, Navisworks, Inventor, Solidworks, and Bentley Autoplant. He is a board member for the Lehigh Valley BIM Professionals Group and is a member of Autodesk Developers Network and Professional Member of AUGI. He also enjoys speaking at conference events for Autodesk University, BILT, and various other industry events.

What are Fabrication Parts?

Autodesk Fabrication – CADmep is an AutoCAD arx based software developed in the late 1980's by MAP out of Europe. It uses the same database thru its suite of products (FABmep, ESTmep, & CAMduct).

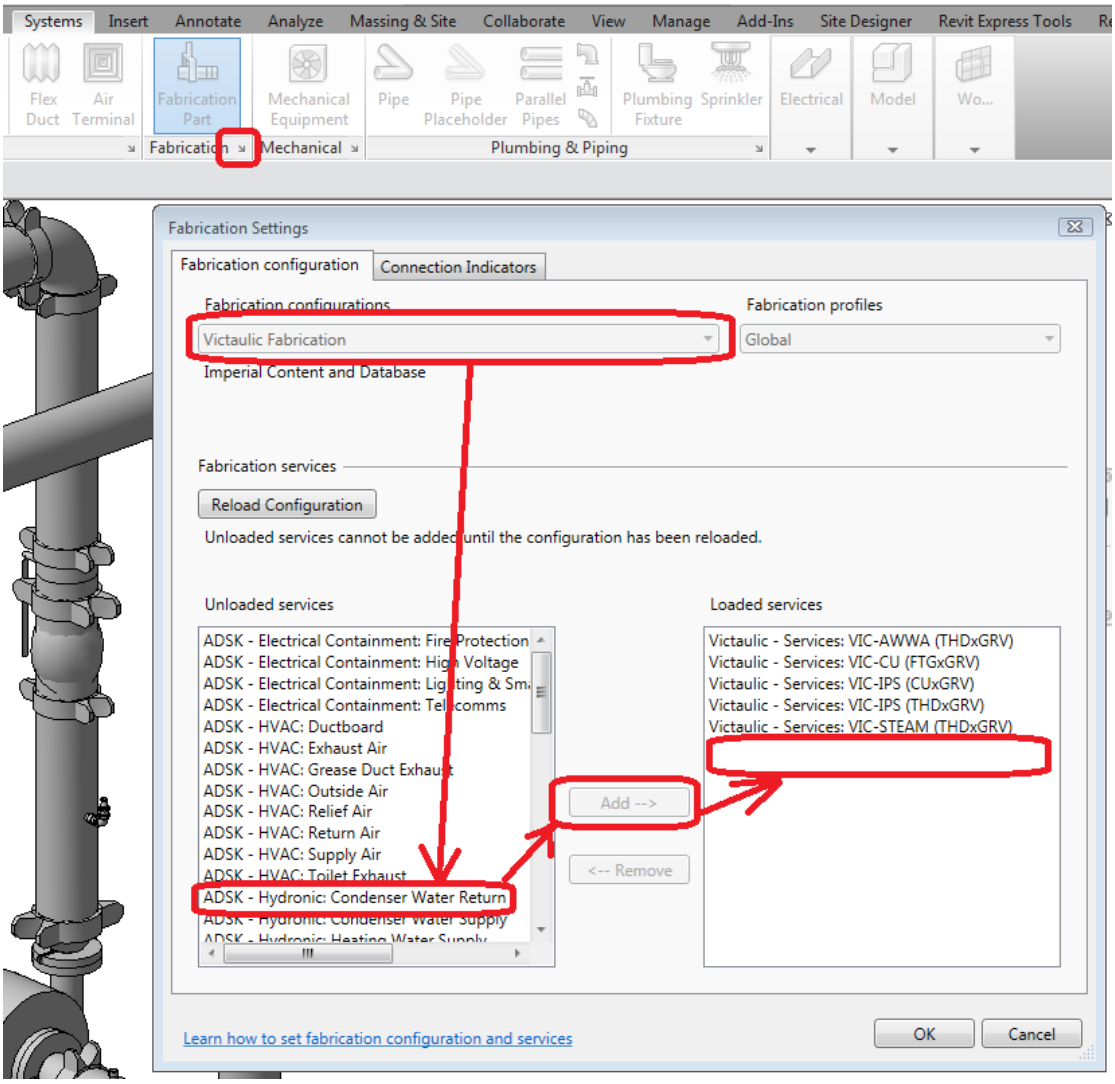
There are three basic elements to fabrication.

- Configuration/Database – contains connector, specification, & pricing information
- ITM files – Based off specific patterns developed by Autodesk (One pattern for all elbows, one pattern for all valves)
- Services – Define what products are placed when routing a specific system based on pipe size and material.

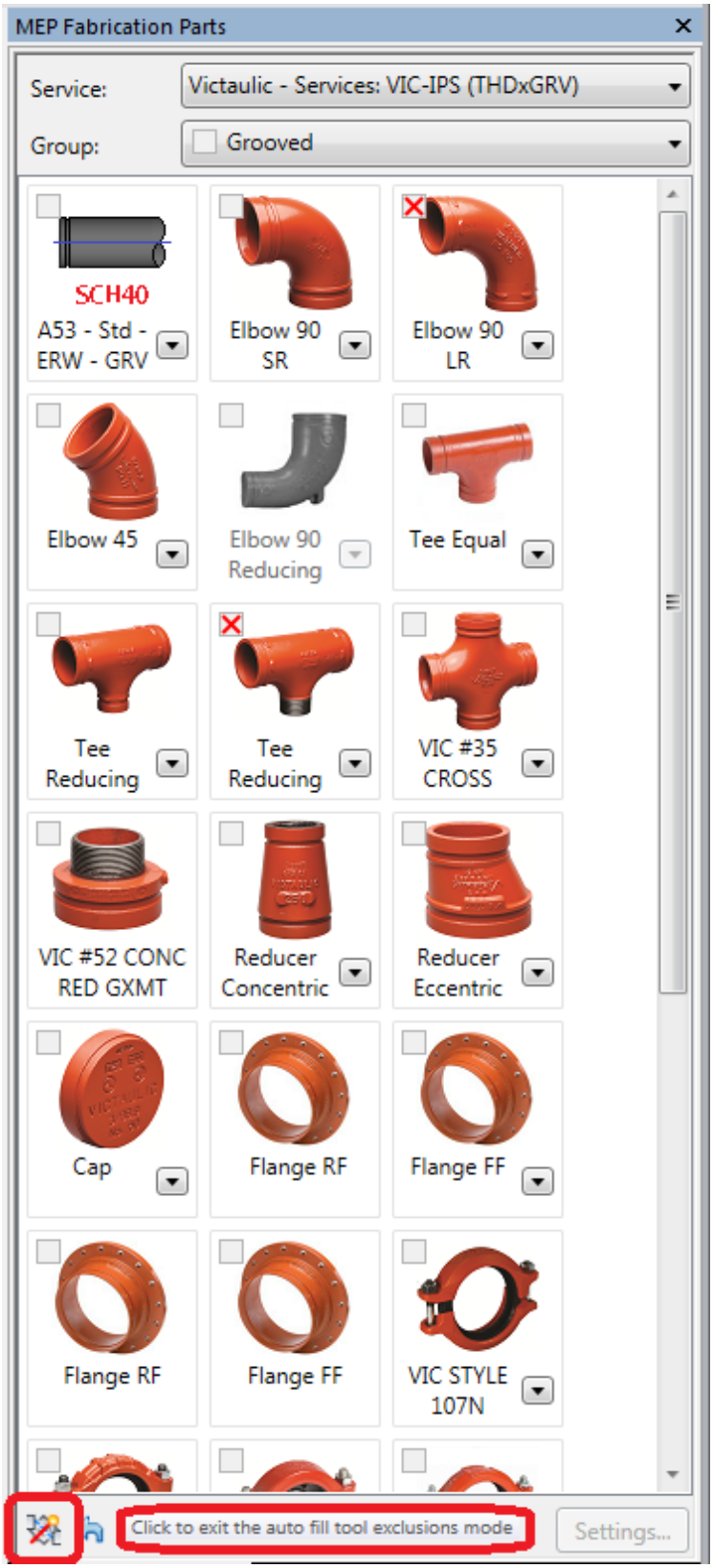


Accessing the Fabrication Configuration in Revit

Keyboard shortcut “FS” you will access the Fabrication Settings window, there you can select the desired fabrication configuration. Imperial and Metric configurations are available or load a customize company specific configuration. Note: To customize the configuration this is limited to the Fabrication software and not currently available in Revit.



Placing Fabrication Parts



Using the keyboard shortcut “PB” the MEP Fabrication Parts palette will appear.

Select your desired Service and Group.

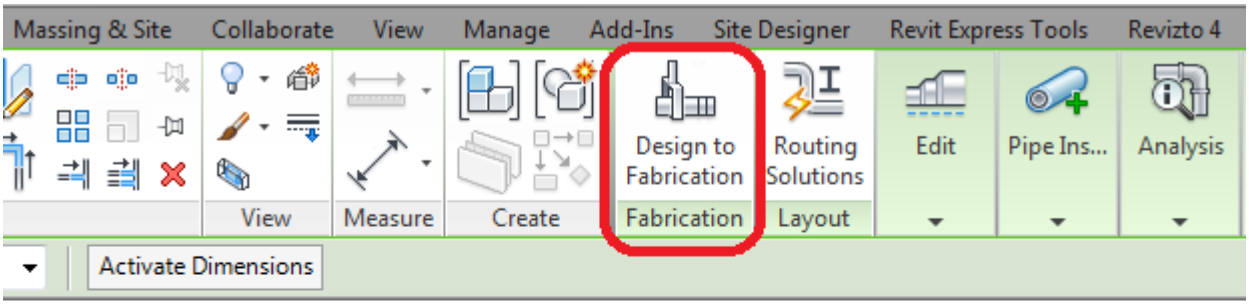
Now you can place fabrication parts using any of the parts buttons.

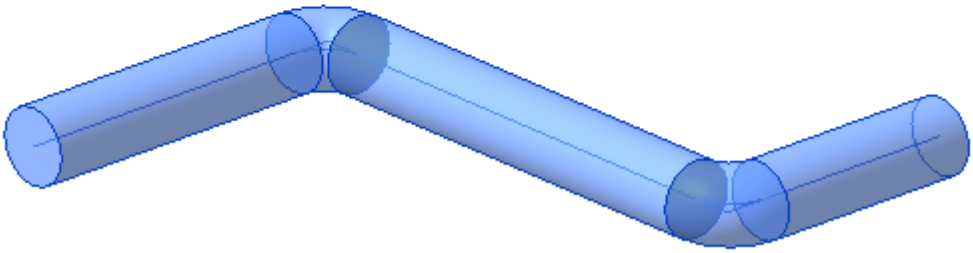
Notice some buttons have an arrow revealing addition parts available in the same button.

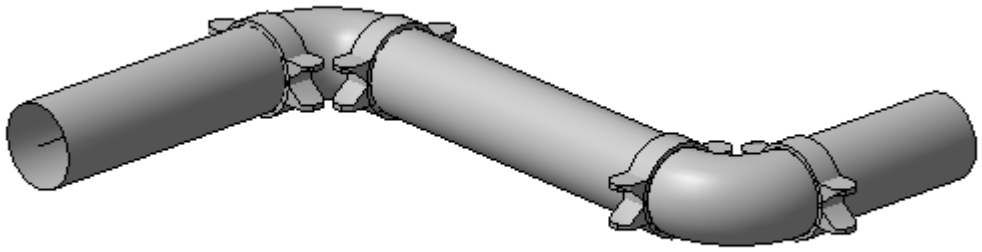
With Revit 2017.1 you now have the auto fill tool exclusions mode.

Design to Fabrication

Convert Revit design routings to fabrication parts by making a selection and you will see the Design to Fabrication button appear in the contextual ribbon. This also allows you to convert to fabrication parts.

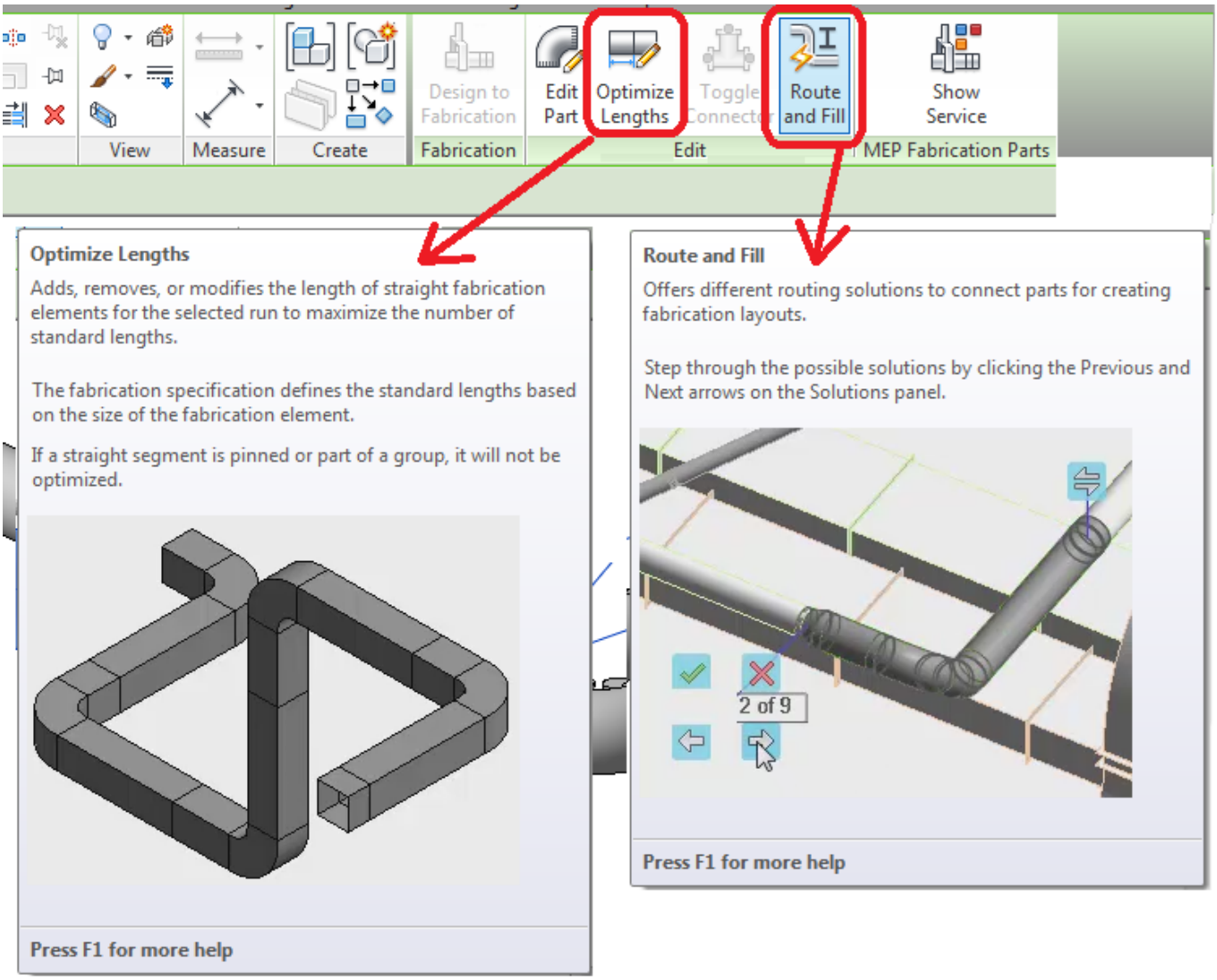






Fabrication Routing

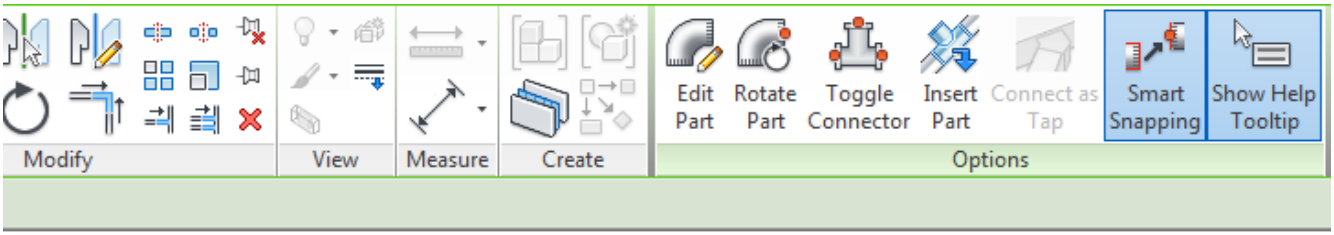
Select a run of parts and have the option to Optimize Lengths and Route and Fill.

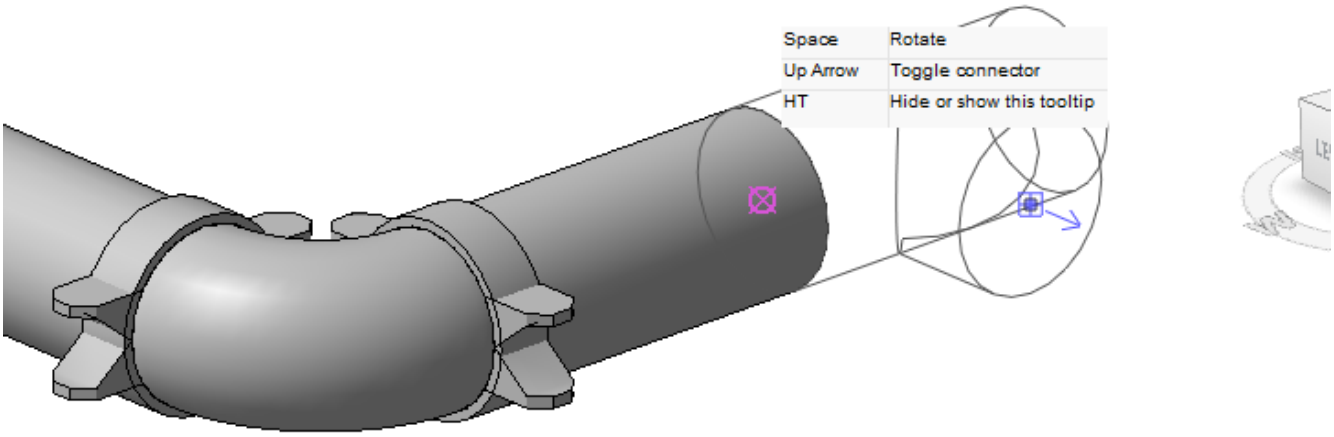


Fabrication Routing

As you place fabrication parts you are presented many options.

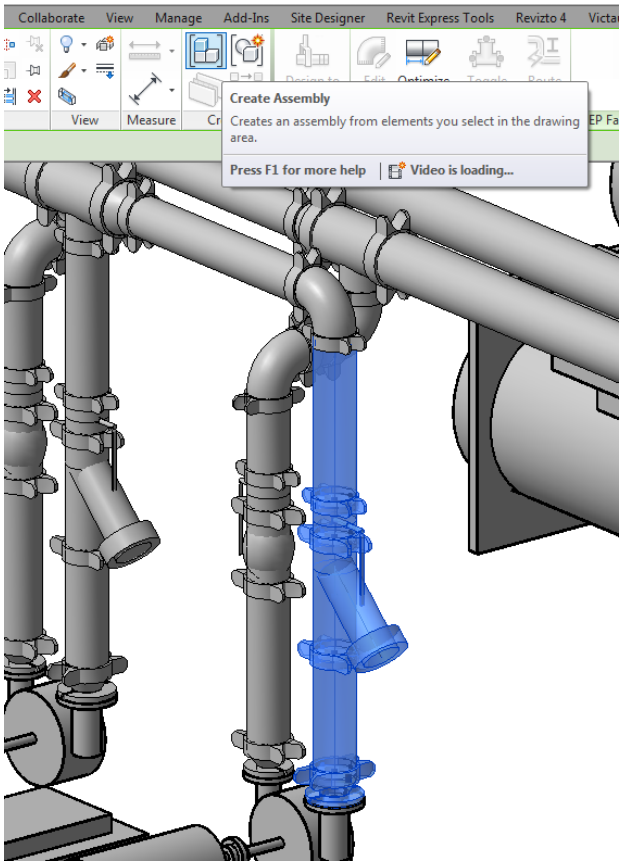
- Rotate Part (Space Bar)
- Toggle Connector (Up Arrow)
- Insert Part (Set to a Keyboard Shortcut)
- Connect as Tap
- Show Help Tooltips



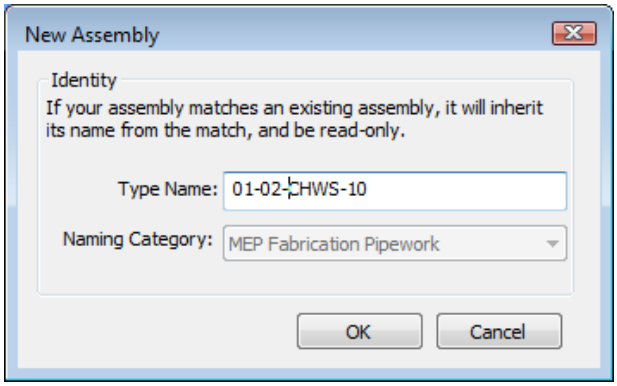


Creating Assemblies (Spools)

Select the group of components to become the new Assembly. Click the Create Assembly button.

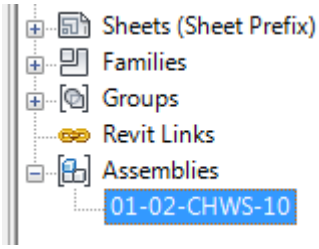


Define the spool name and sequential number.

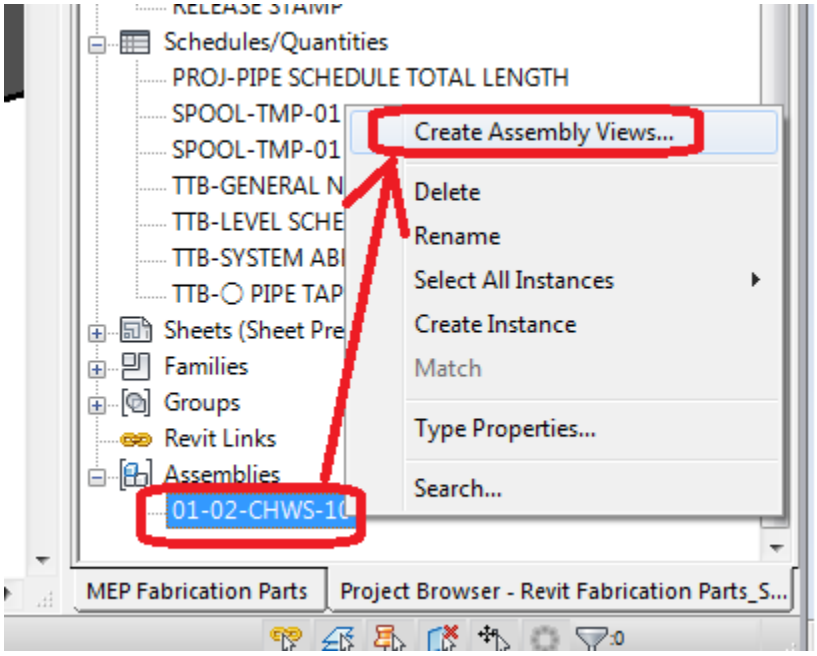


Creating Assemblies (Spools)

In the bottom of the Project Browser you will see the new Assembly appear.

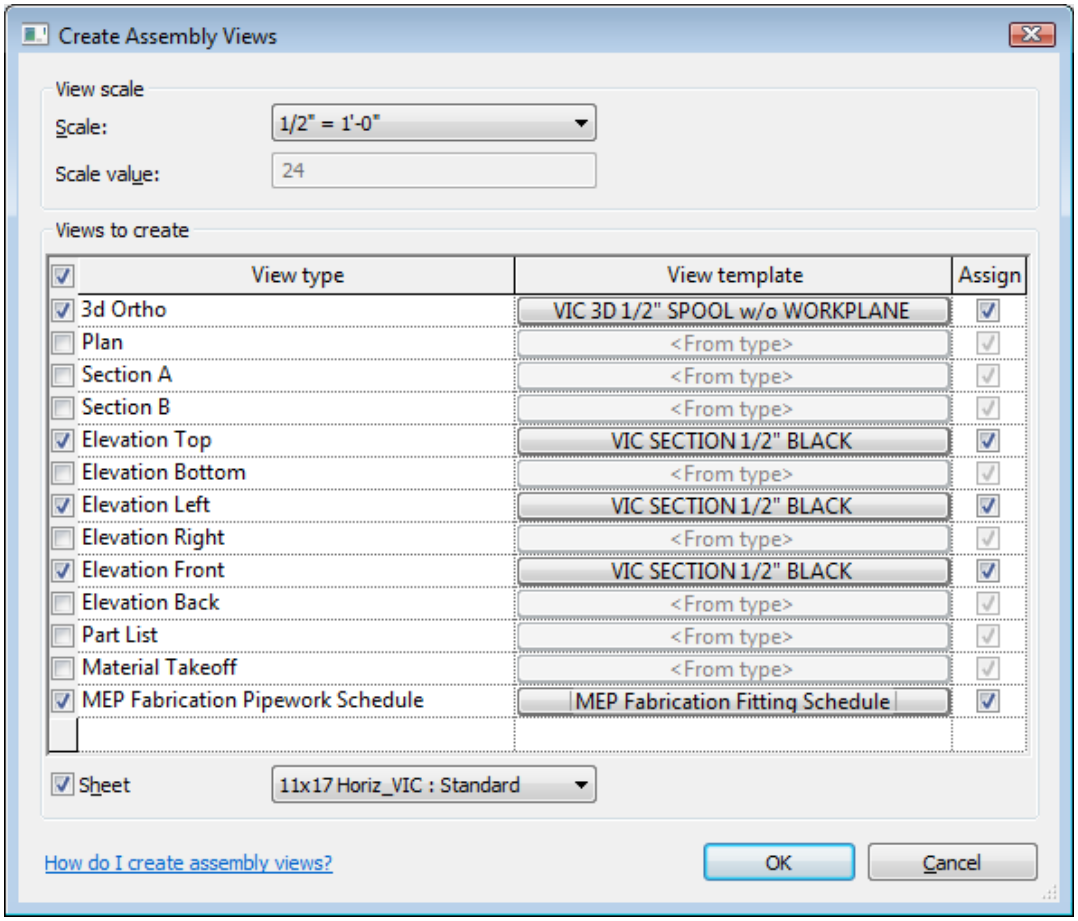


Right click on the assembly in the project browser and select Create Assembly Views.

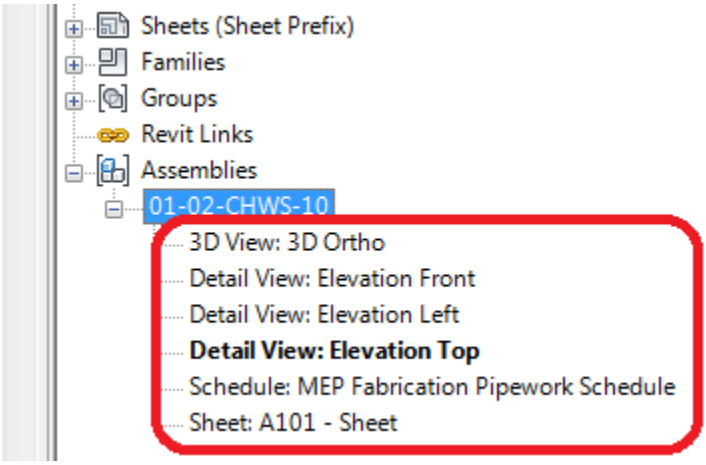


Creating Assemblies (Spools)

Create the Assembly Views – be sure to select the correct View Templates.

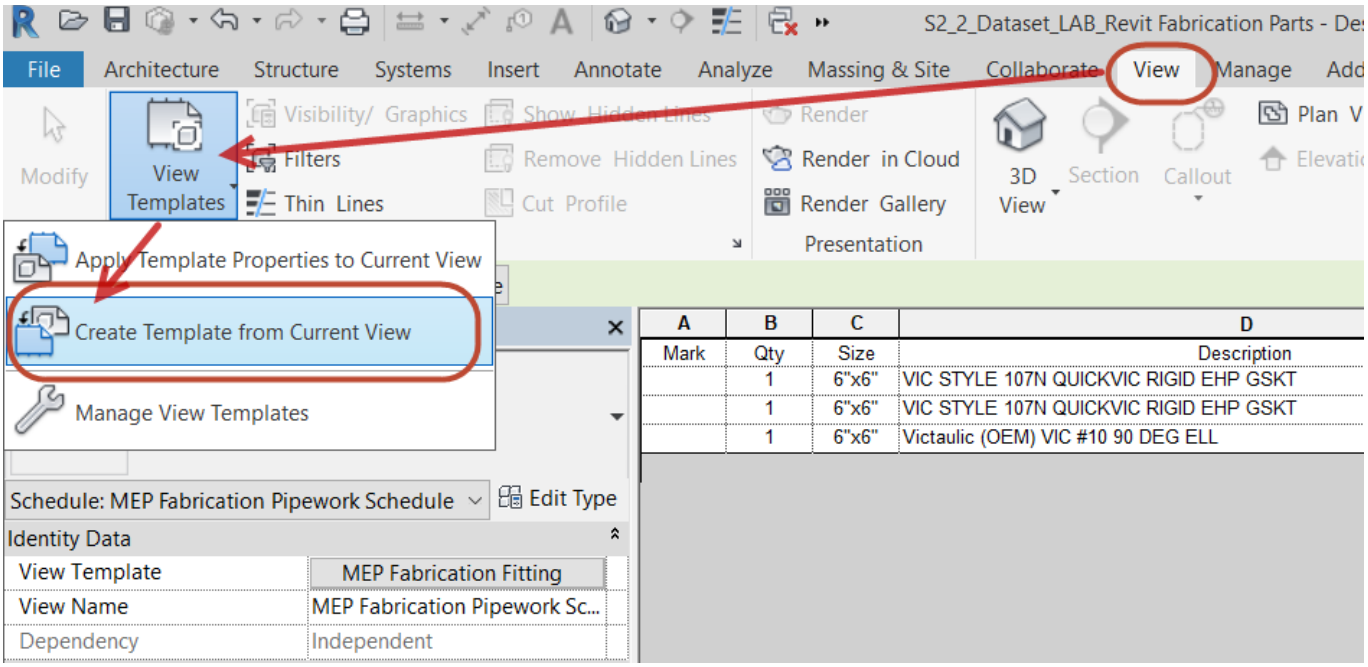


After clicking OK you will see the views and sheet appear in the project browser.



Creating Assemblies (Spools)

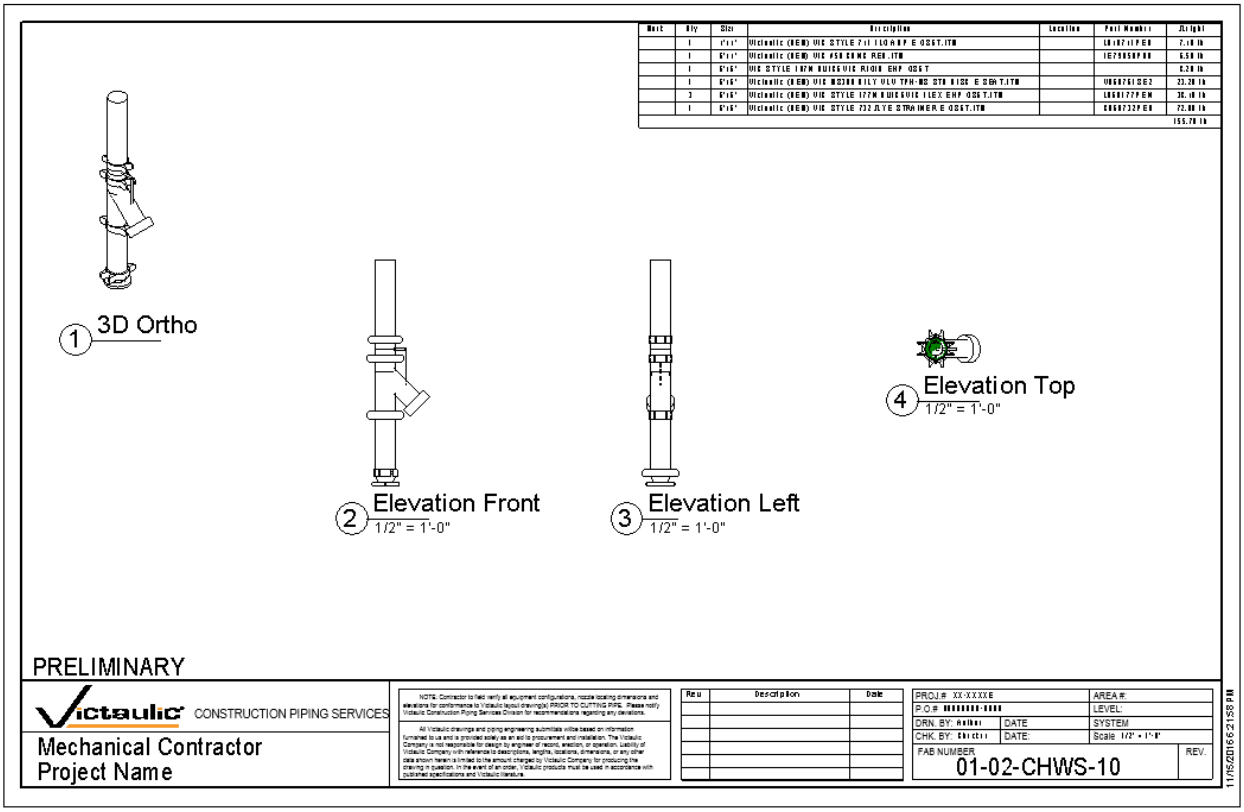
Tip: To create a view template for the MEP Fabrication Schedule in assemblies you will need to create a blank schedule first. Modify the blank schedule to your needs and then you can create a view template from the current view.



The schedules in assemblies are different than the schedules in the rest of the project browser and view templates from other schedules will not in assembly views.

Creating Assemblies (Spools)

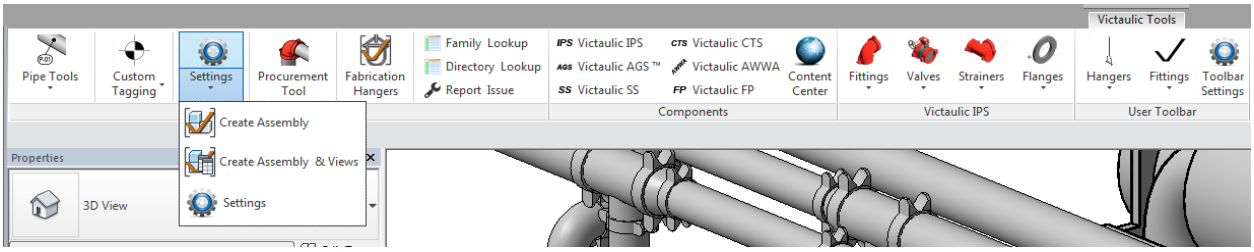
Open the Sheet and Drag and drop the views on the sheet. You will see that even the schedule is using a view template to assure the correct display of your views.



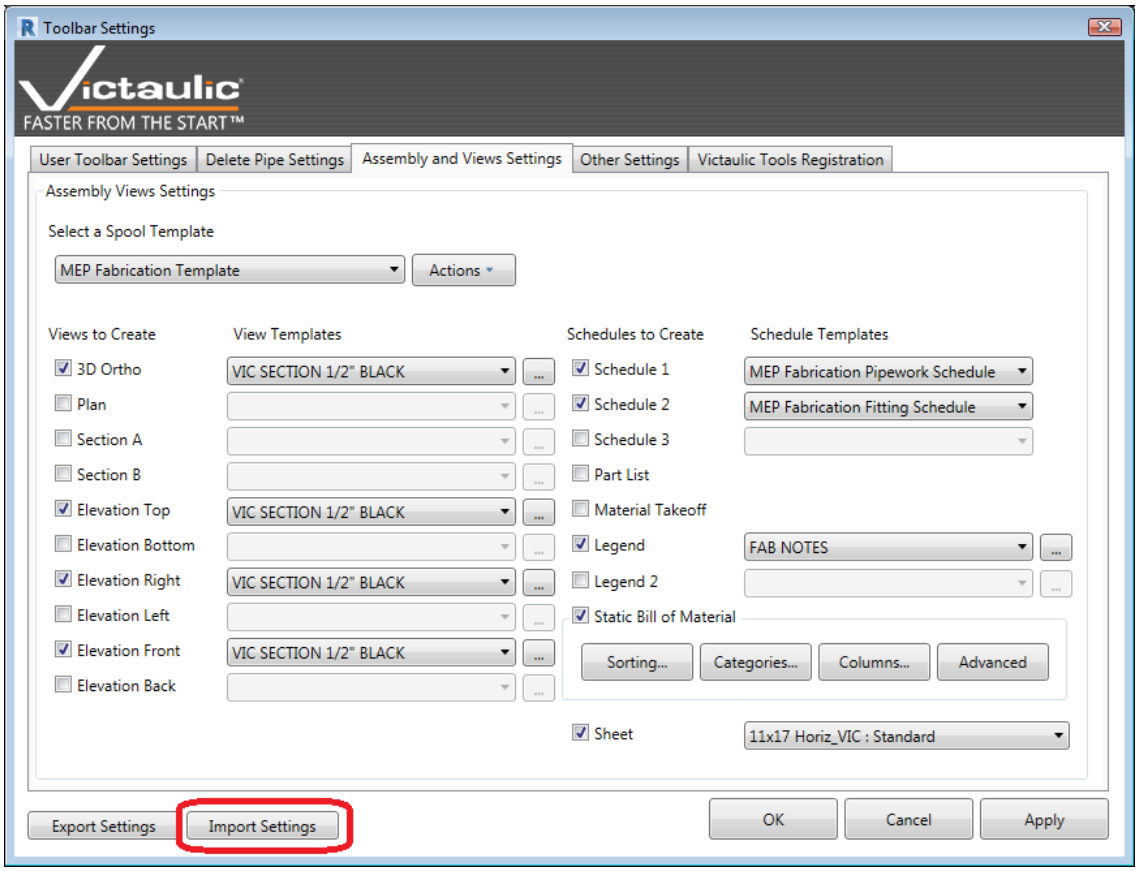
Creating Assemblies (Spools)

Now we are going to use Victaulic Tools for Revit
www.VictaulicSoftware.com

Click the Settings button under Create Assembly

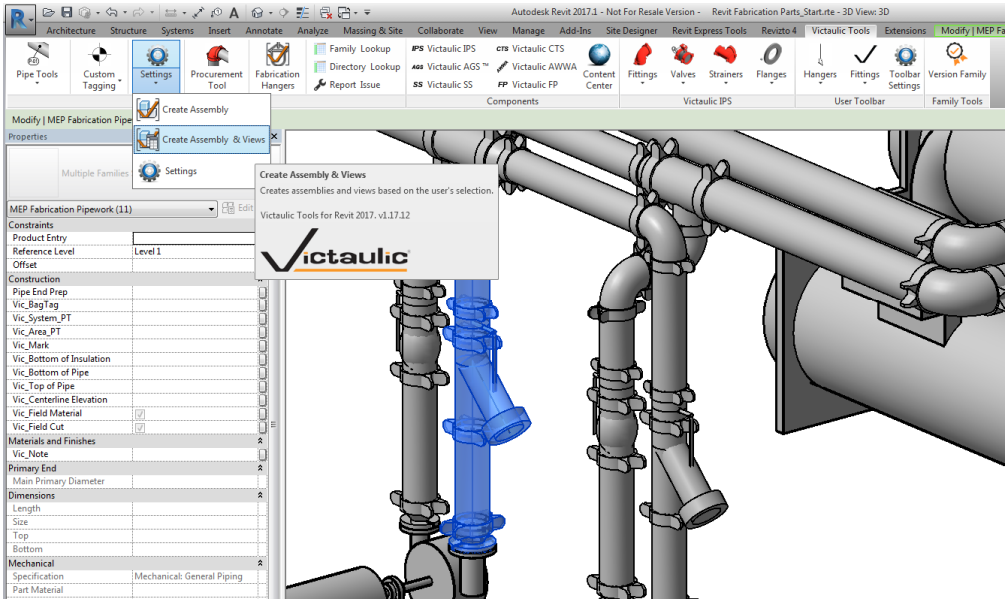


For ease of setup we are going to import the settings from the text file provided.

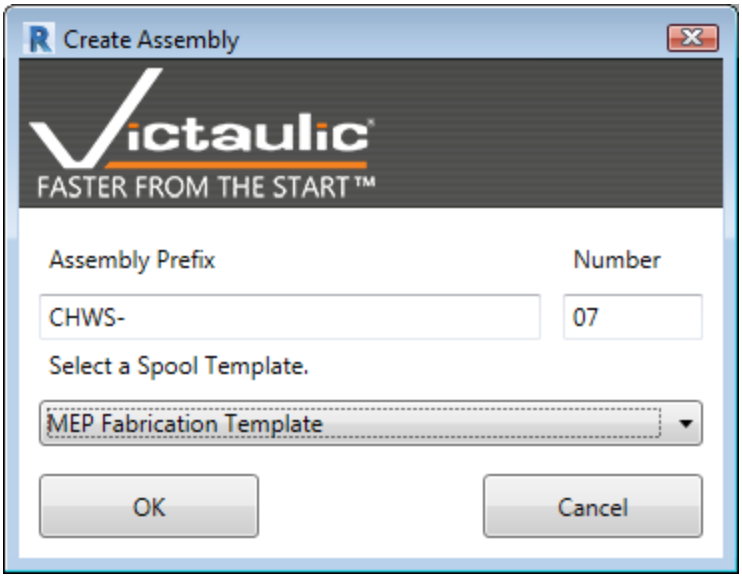


Creating Assemblies (Spools)

Now click the “Create Assembly and Views” button after selecting the items you want on the assembly.

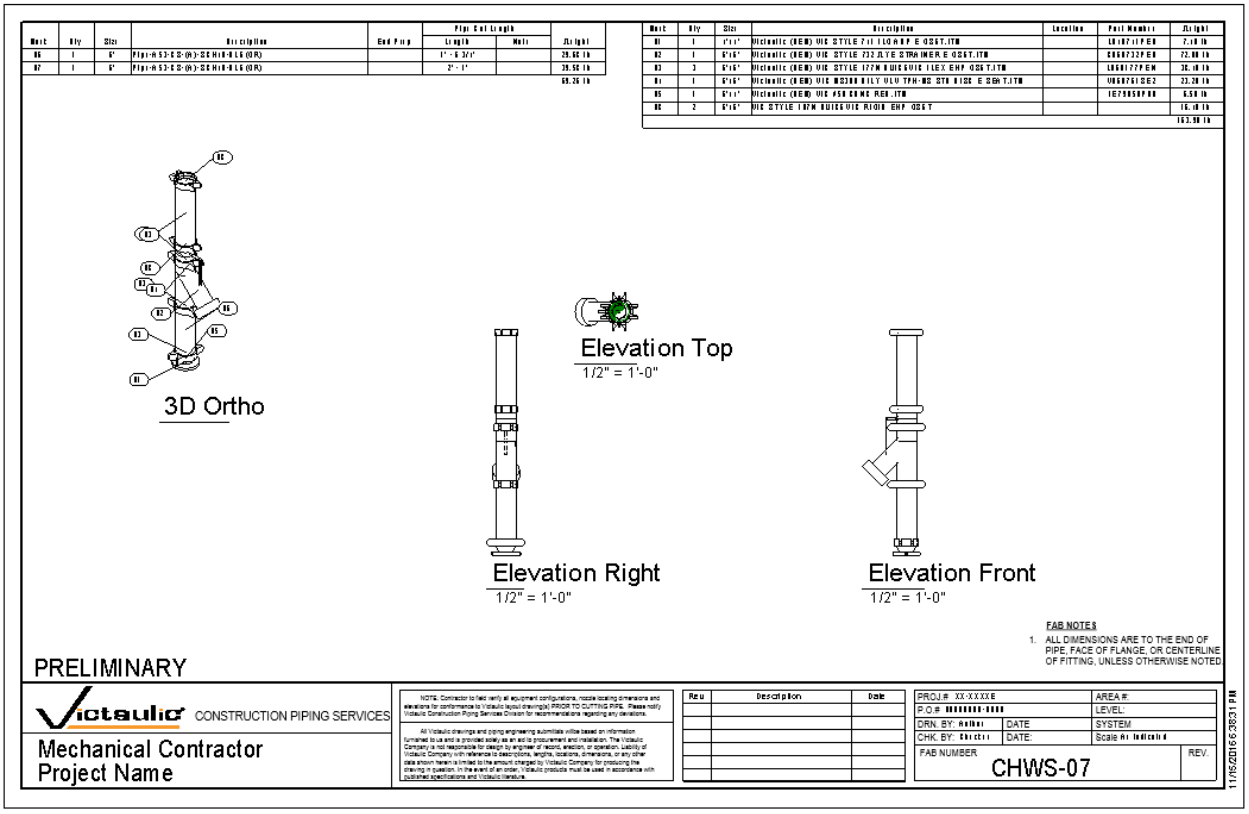


Select the “MEP Fabrication Template” and click Ok.



Creating Assemblies (Spools)

The assembly is created, views are placed on the sheet, and tags are placed and auto sequenced. View location is also set based on your settings.



Fabrication Parts (Updates)

- Automatic cut in of tees, valves, or taps – Revit 2016 R2
- Added hidden lines – Revit 2016 R2
- Added trim/extend editing – Revit 2017
- Added model categories Revit 2017
- MEP Fabrication Containment, Ductwork, Hangers, Pipework
- Ability to resize routing Revit 2017.1
- Ability to swap fittings – Revit 2017 and better for 2017.1
- Awesome Tagging for - Revit 2017 (Elevation at location)
- Improved AutoCAD Exports - Revit 2016 R2
- Route and Fill auto routing – Revit 2017
- Slope routing improvements – Revit 2018
- Auto Route and Fill – Revit 2018
- Ability to resize and change service – Revit 2018.2

Fabrication Parts (plus)

- Database controls content – all content consistence with patterns supplied by Autodesk
- Pricing, labor, and part number data available
- Dimensionally accurate
- One source of content for both Fabrication and Revit
- Large Database of Manufactures content
- Autodesk commitment of development

Fabrication Parts (negative)

- No flow calculations
- Must use ESTmep or CADmep to edit and create services
- Learning curve in the ESTmep and CADmep can be steep. Creating content and services requires some effort.

Victaulic Tools for Revit®

User Manual
Revit 2018, 2019, 2020

I-VTFR | 8834 | Rev G UPDATED 10/2019
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Introduction

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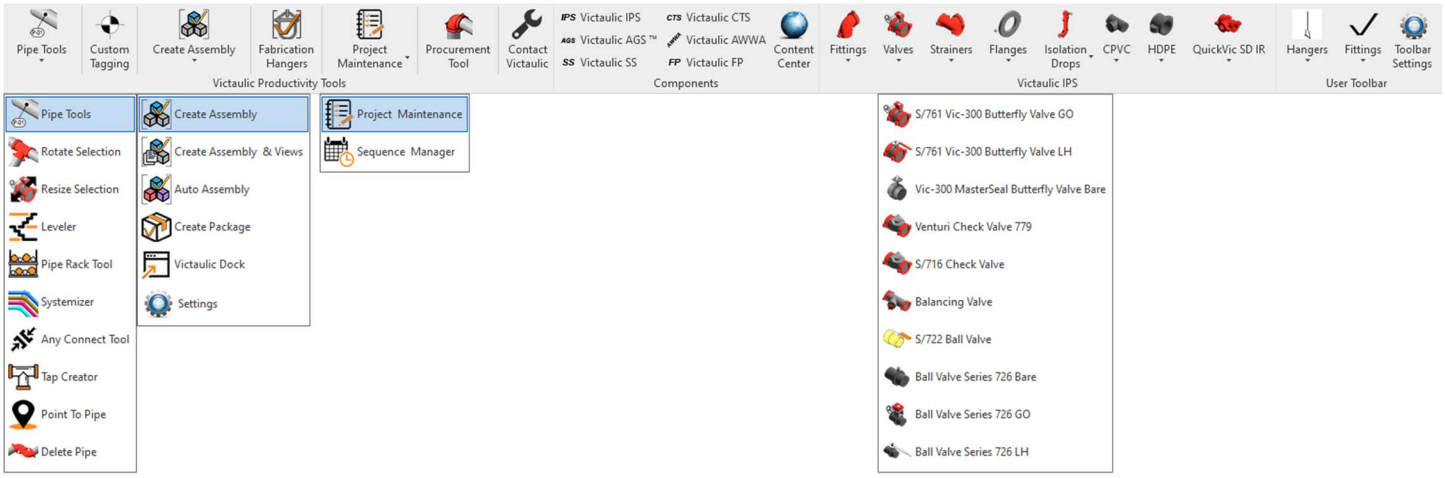
Introduction to Victaulic Tools for Revit®

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

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14-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.

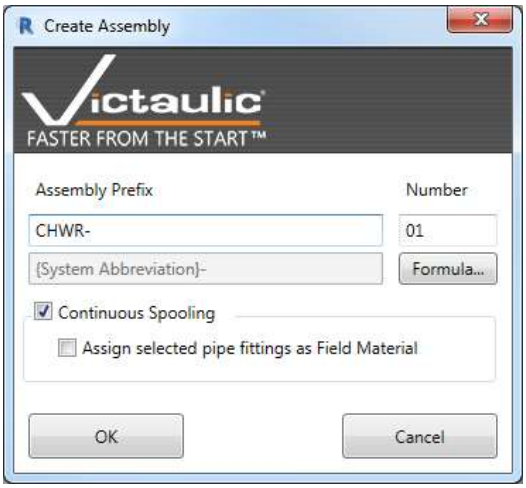
The Assembly Name window will allow you to define the assembly prefix and sequence number.

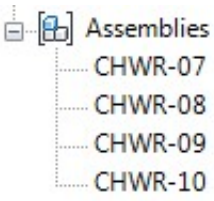
With the addition of formulas in the Create Assembly tool, parameters can be inserted as variables to populate the prefix value.

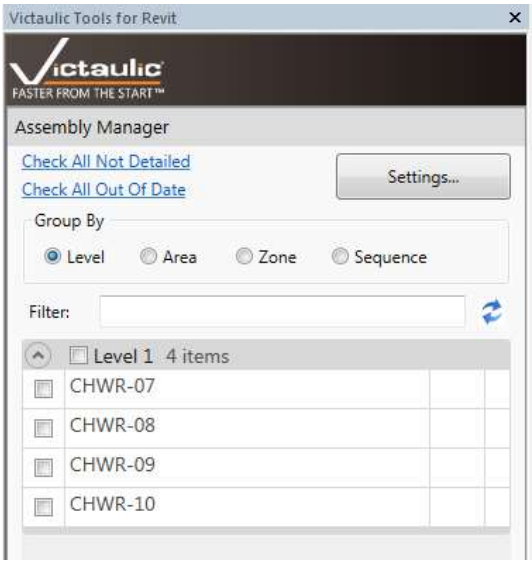
At the bottom of the project browser you will see your newly created assemblies. You will also see these newly created assemblies in the Victaulic Dock – Assembly Manager (See Pg. 14)

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.







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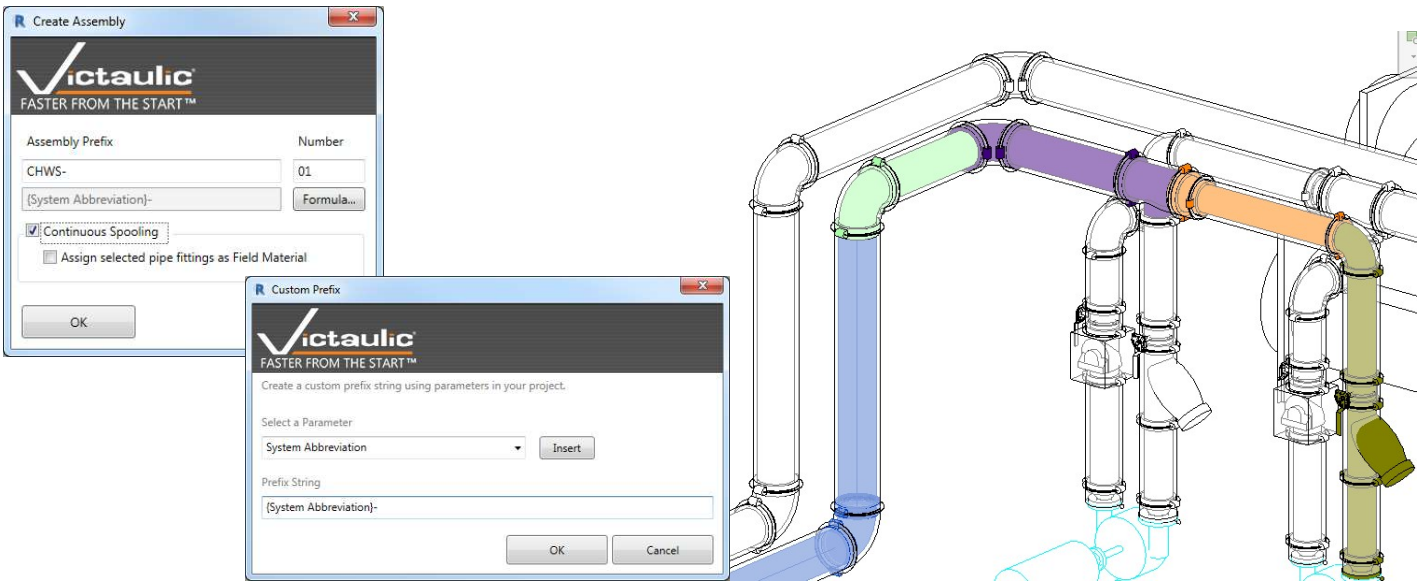
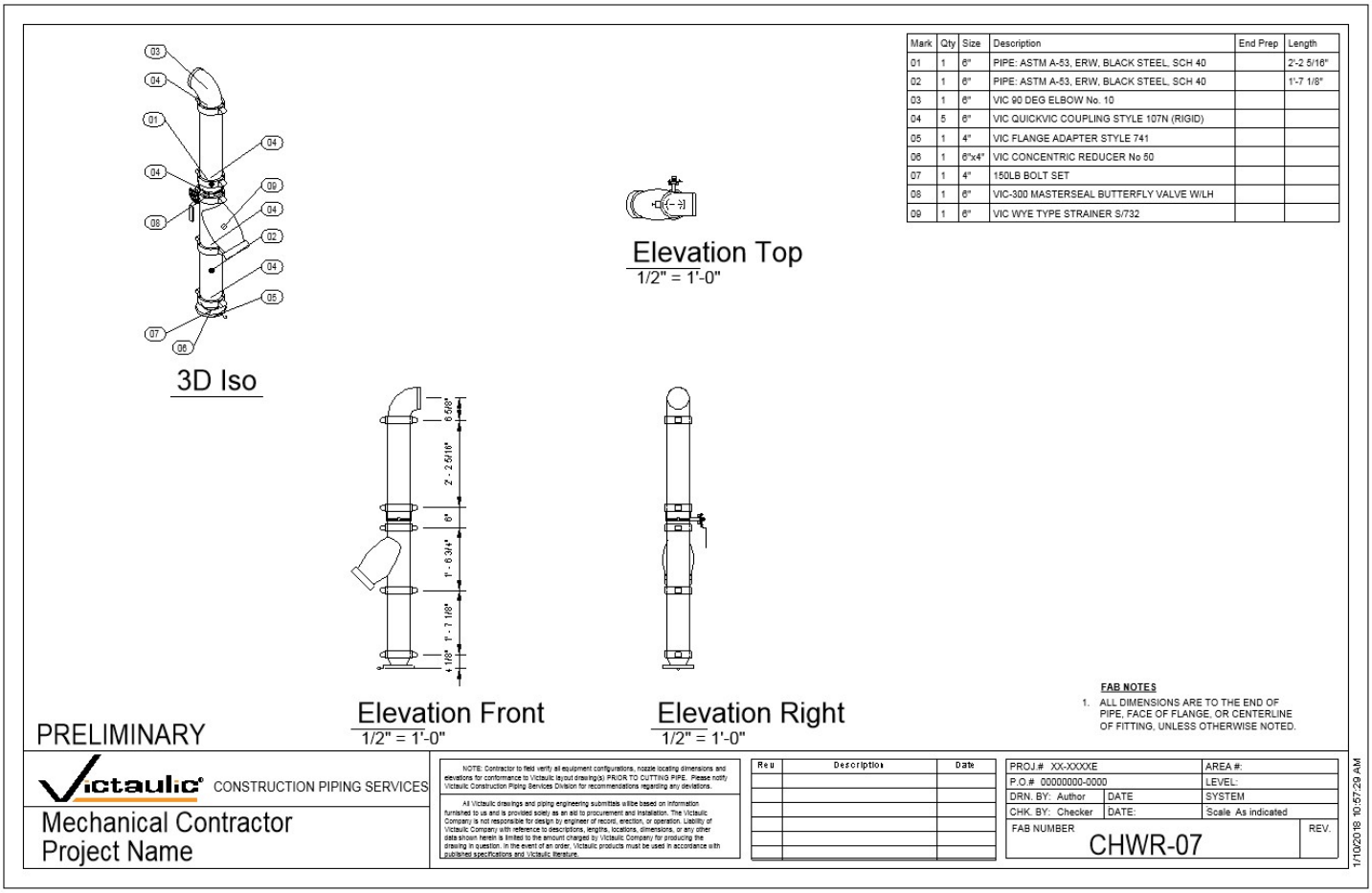
Create Assembly / Continuous Spooling (Continued)

*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.





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15-Create Assembly and Views

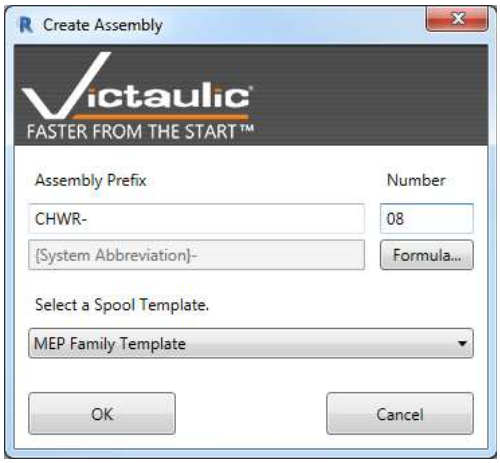
Create Assembly and Views is a very powerful tool to automate the detailing of assembly drawings (spool drawings). It utilizes a user's predetermined settings and delivers a complete spool drawing with only a few clicks.

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.

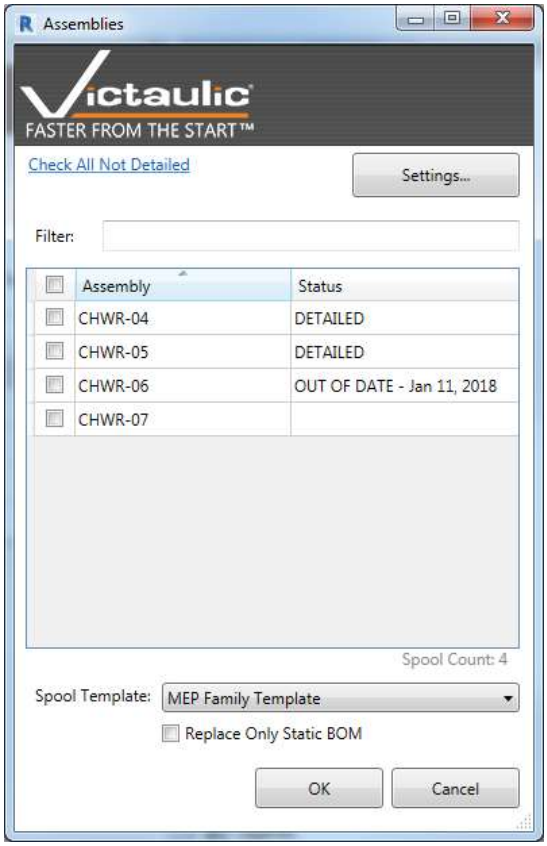


2. This tool can also be run on multiple assemblies at once. To create the views for an assembly already defined make sure you have nothing selected and click on the **Create Assembly & Views** button. A list of assemblies will be displayed allowing you to check off the views you would like to create.

   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.



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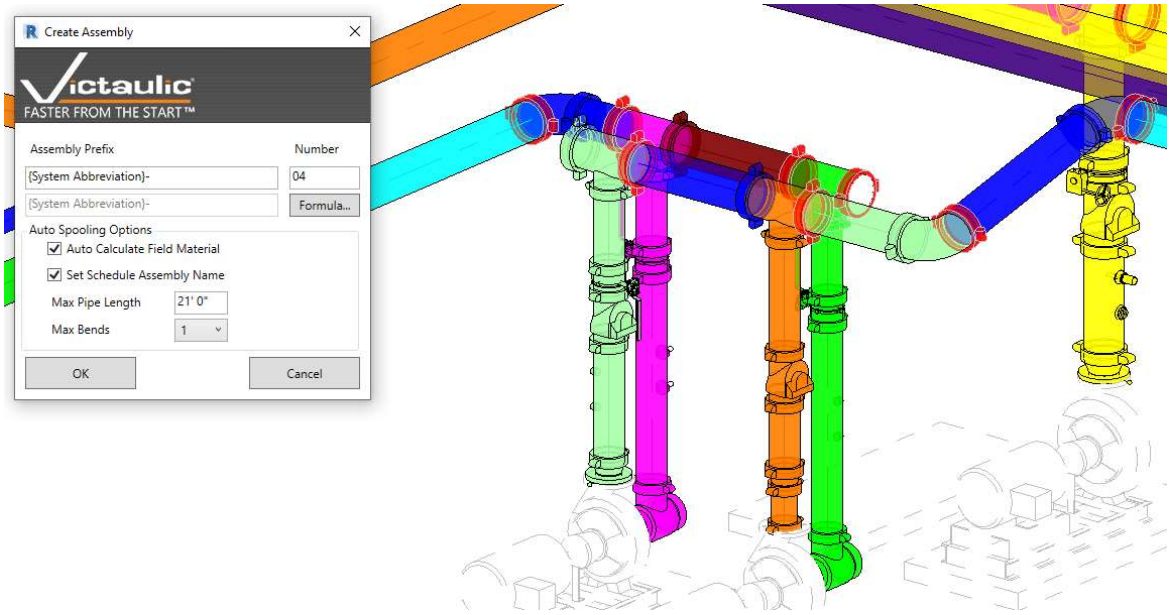
16-Auto Assembly

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 in your model first and run the Auto Assembly Tool. Specify the prefix for the spools (Note – Prefix Formulas will not resolve until the assembly is created). Adjust the variable parameters and click **OK**.

2. Run the tool on all visible items in your view. This process guarantees that nothing in your view is missed and all items are included in assemblies.



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.

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.

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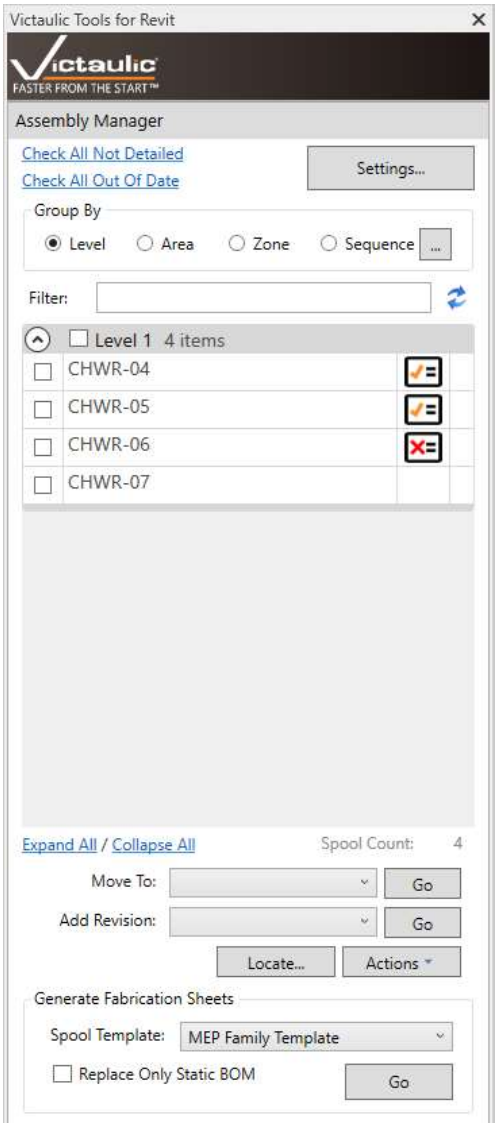
17-Victaulic Dock / Assembly Manager

The Victaulic Dock is a dockable window that can be available at all times while working in Revit. The Assembly Manager is a tool for organizing, processing, revisioning, 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

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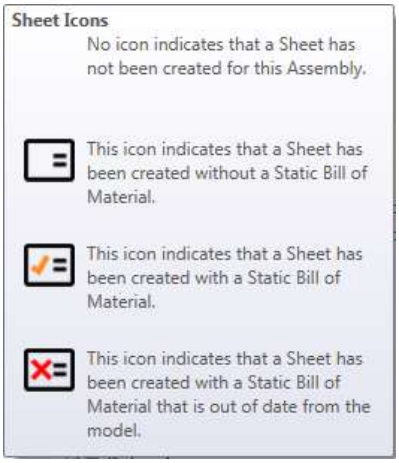
Victaulic Dock / Assembly Manager (Continued)

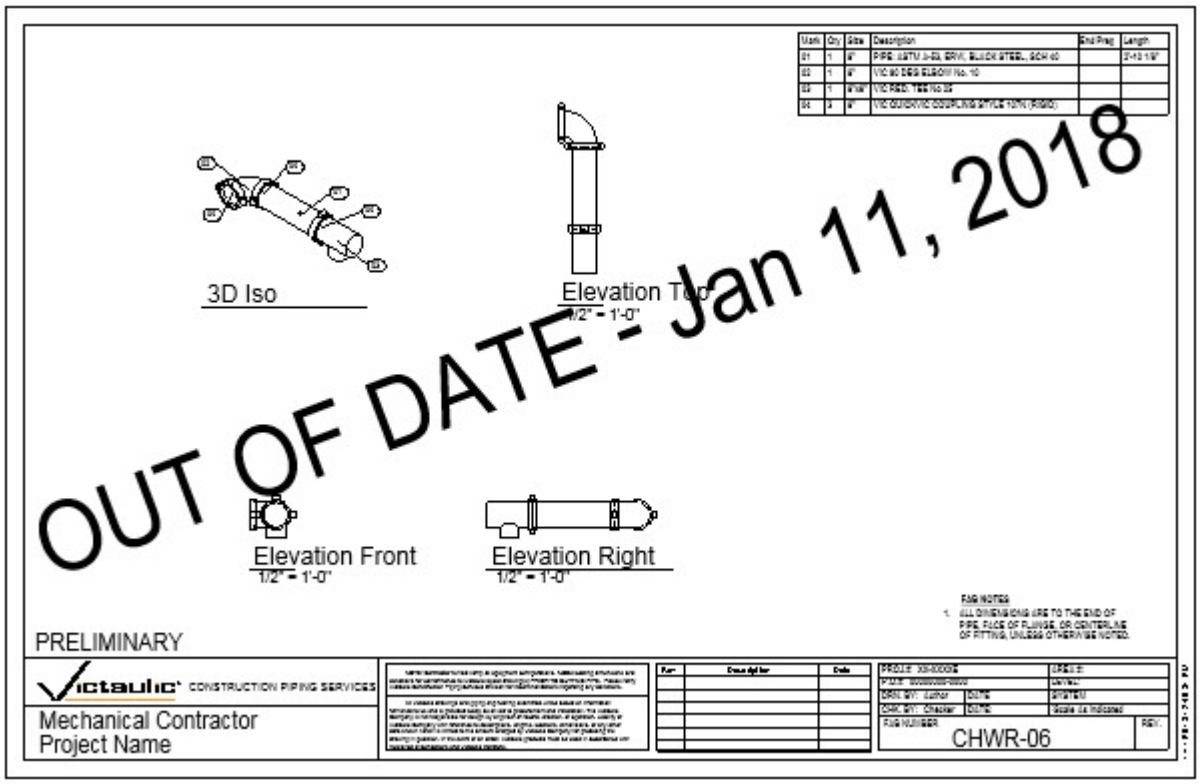


Apart from being a quick way to access the assembly sheet, each sheet icon has a different meaning. These icons are determined by the status of the Static Bill of Material. Refer to the Settings for Assemblies and Views section for further explanation on how to customize and place the Static Bill of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



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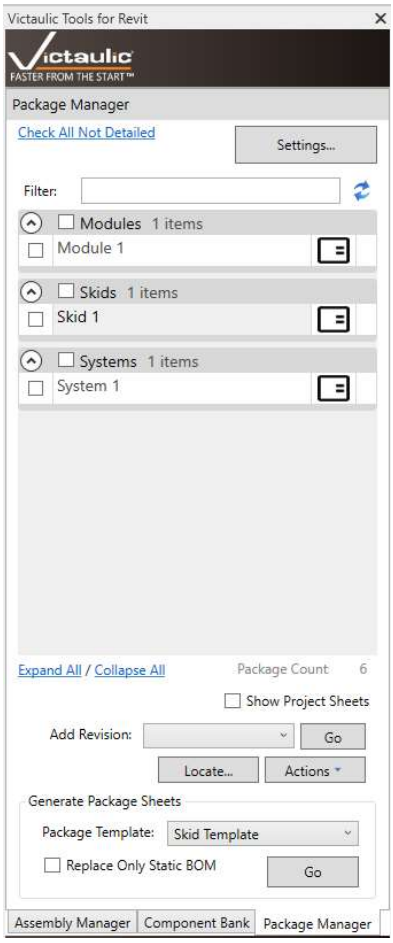
18-Victaulic Dock / Package Manager

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.



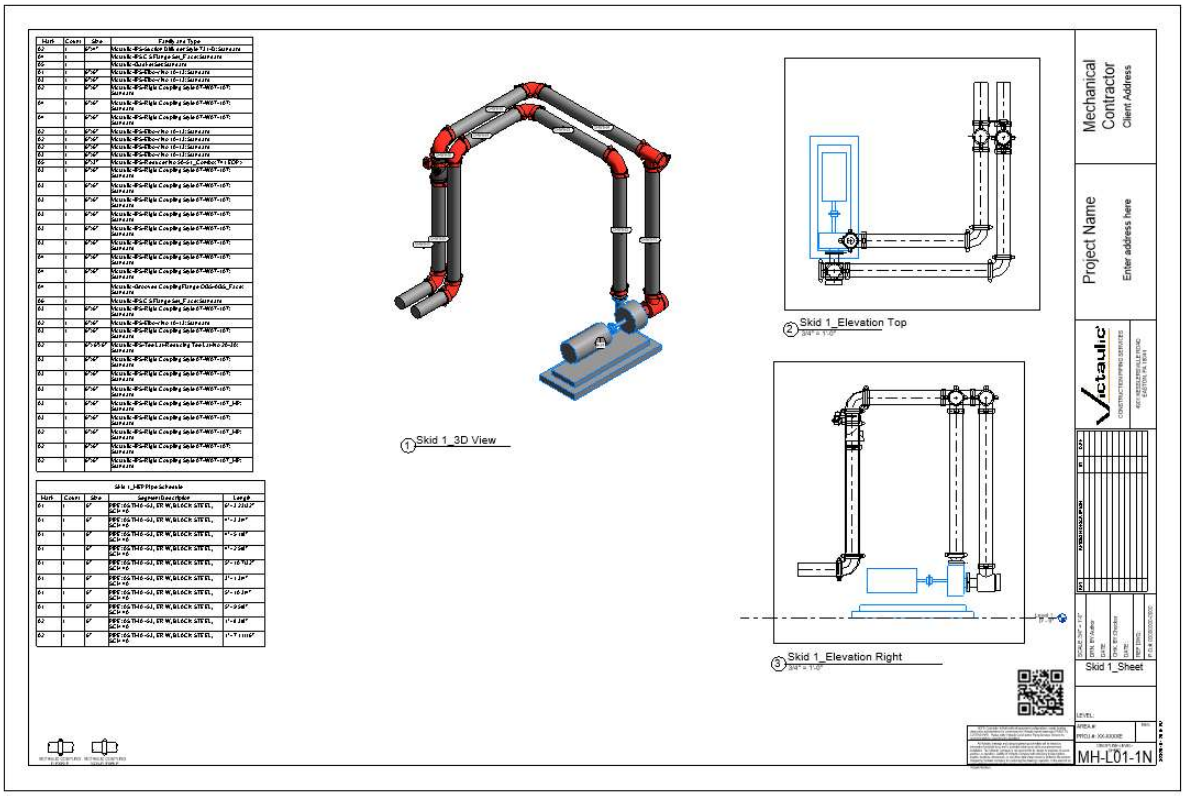
Organize Packages into categories and use Package View Settings to control how the Package Sheets are created. Use the **Generate Package Sheets** section at the bottom to create views and sheets based on the settings described in the Settings section of this manual.

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.



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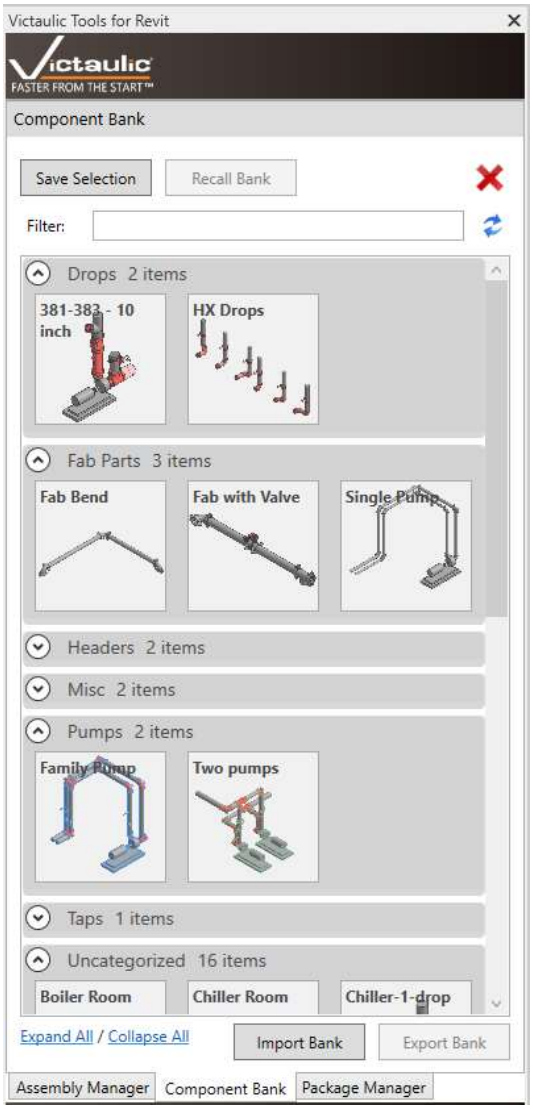
19-Victaulic Dock / Component Bank

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.

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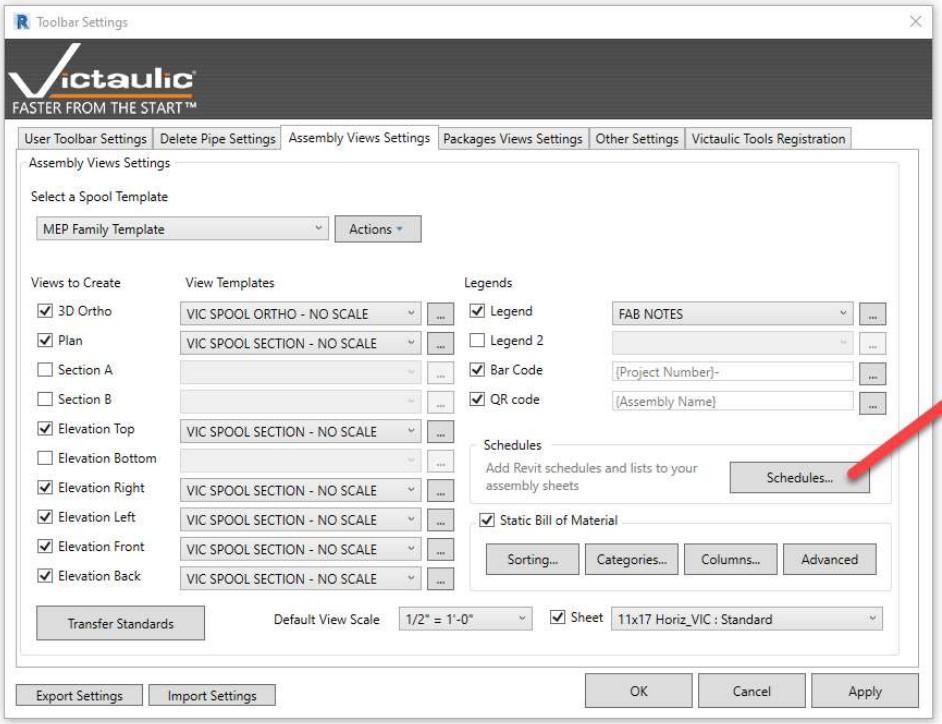
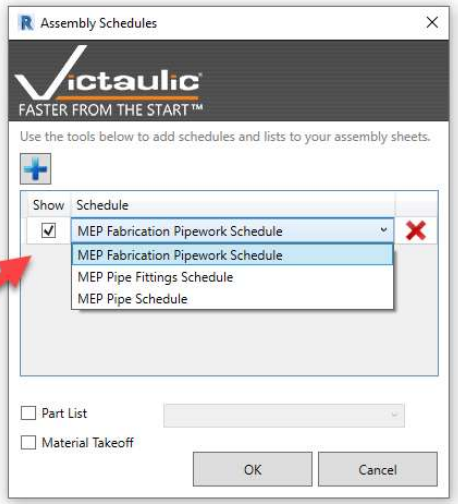
20-Settings (Create Assembly Views)

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.

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21-Procurement Tool

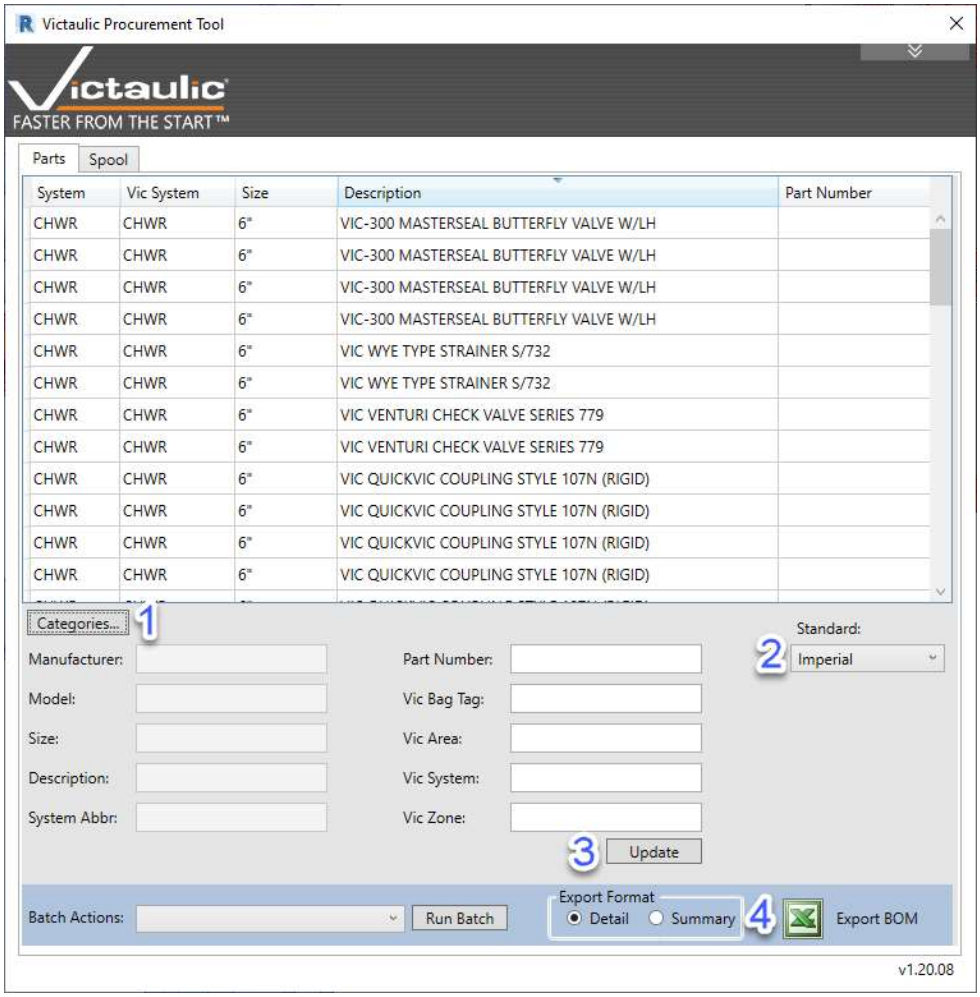
The procurement tool is a selection based bill of material tool. Inside Revit the only way to create material list is via schedules filtered on parameters, assigned to the families in the project. The **Procurement Tool** allows you to window select families for a simple, selection based bill of material.

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 accidently 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. Certain parameters can be written to directly from the Procurement Tool for items selected in the Parts table.
4. Select a format and export a CSV file from your selection using the **Export BOM** button.



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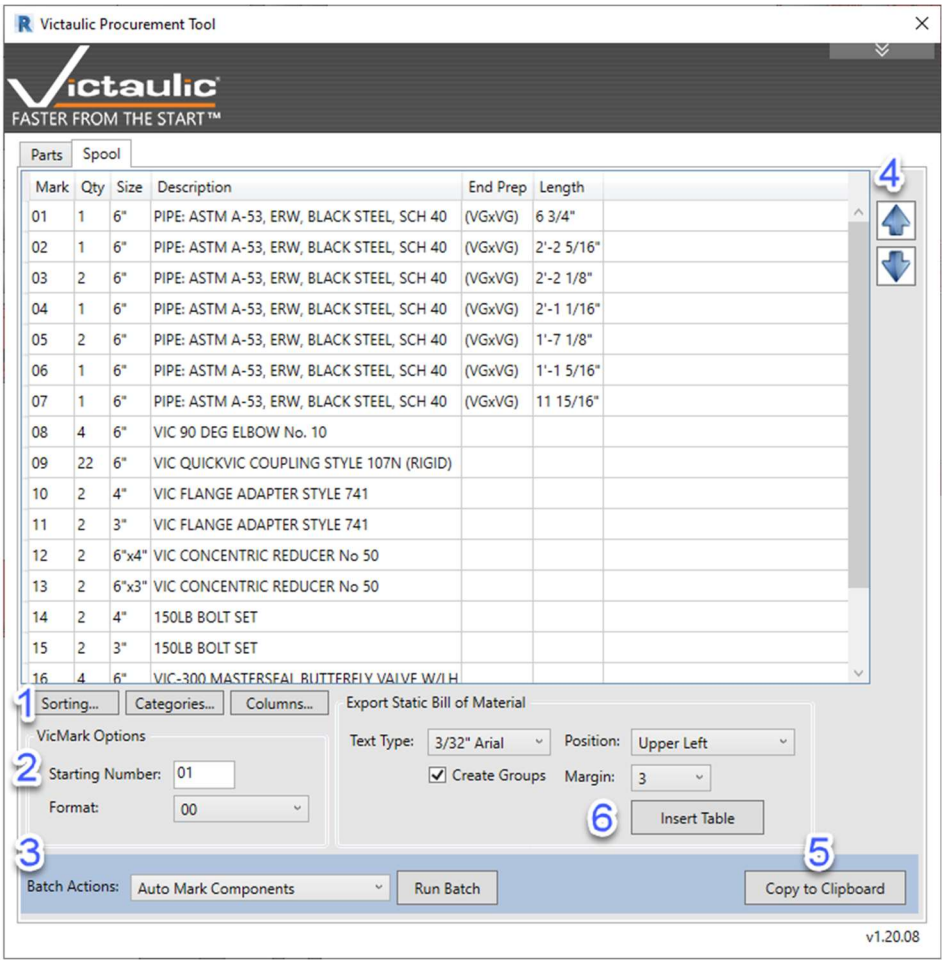
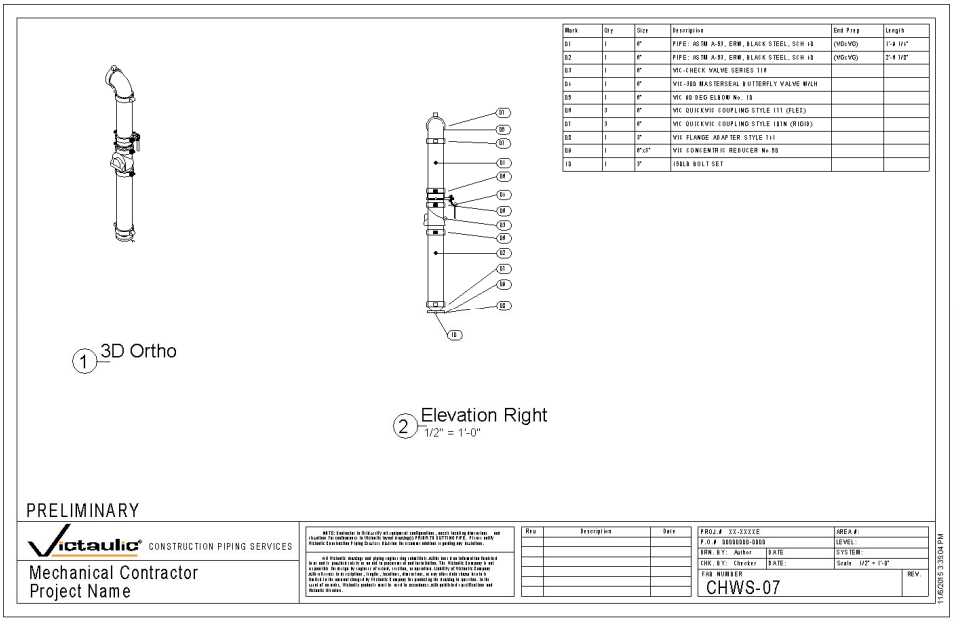
The second tab in the Procurement Tool is the **Spool** tab. This tab is used for creation of fast bills of material on selections of piping within assemblies and 3D views.



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.



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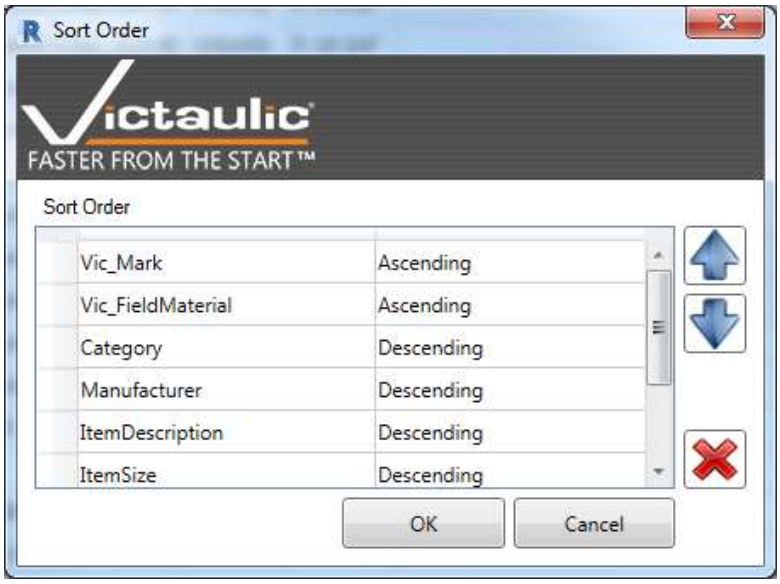
Procurement Tool (continued)

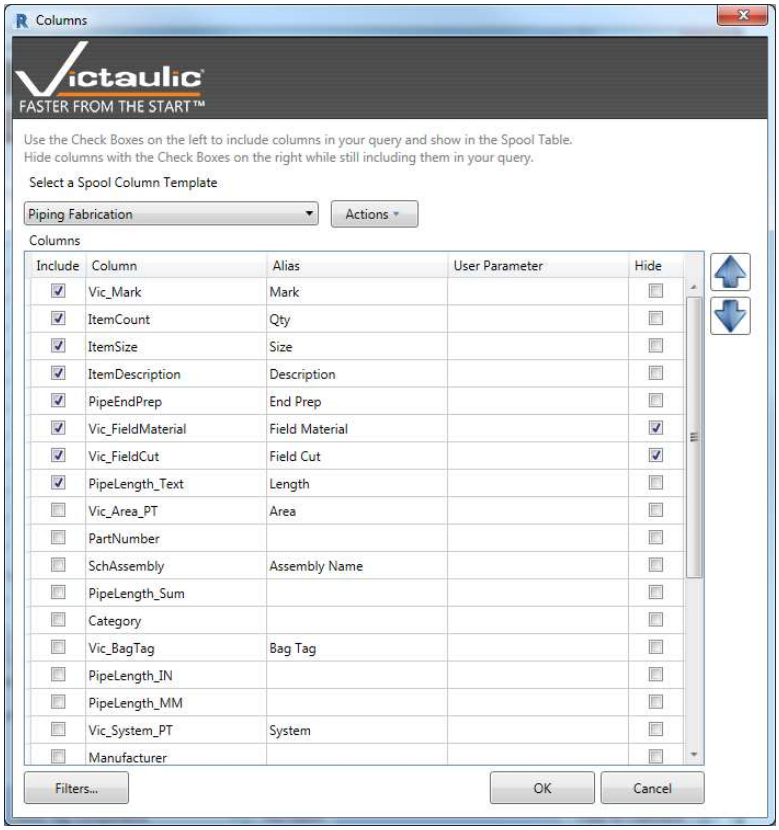
Sorting, Categories, and Columns allows you to customize the look of your bills of material.

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).



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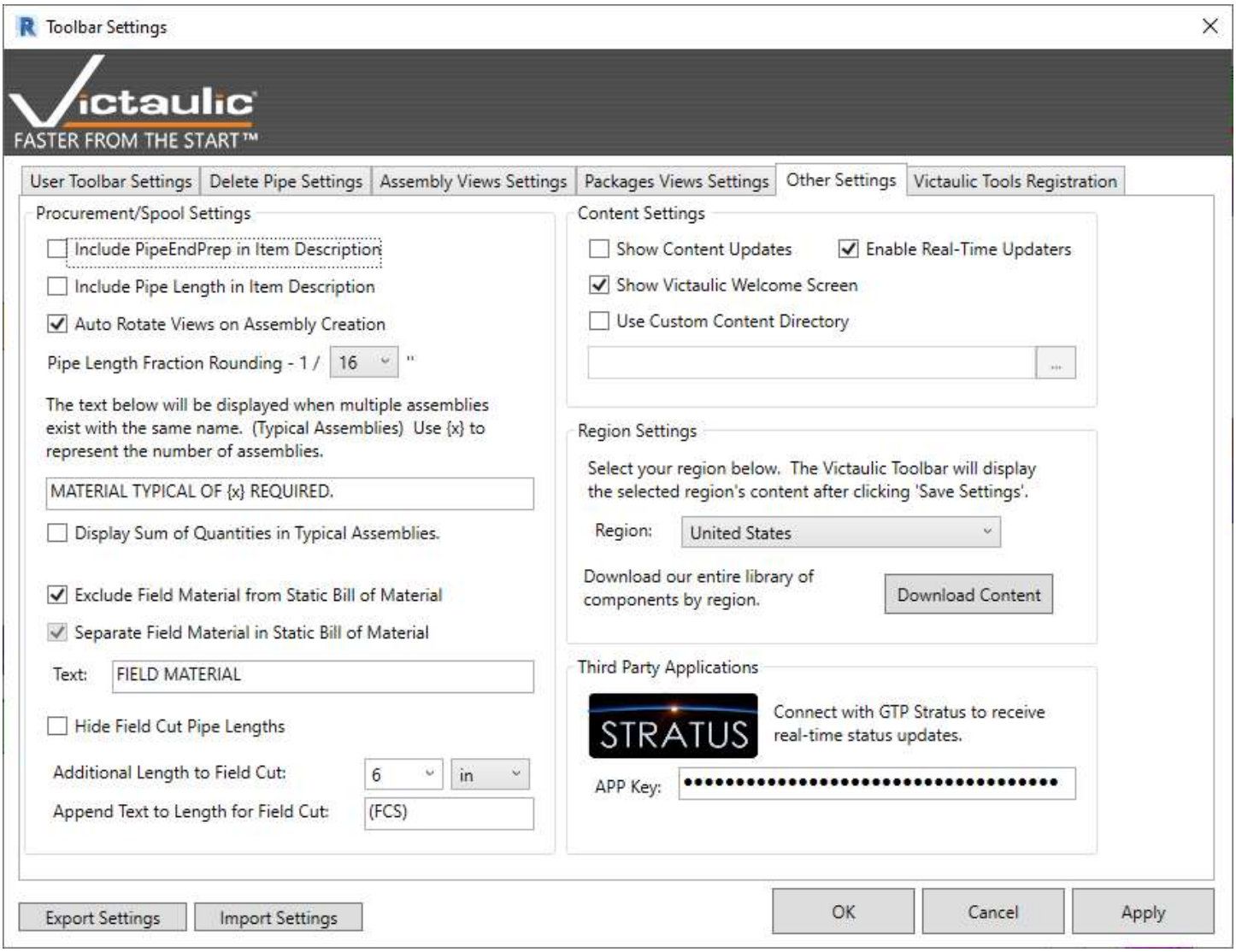
22-Other Settings

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.



Procurement/Spool Settings

Include PipeEndPrep in Item Description – This will append the Pipe End Prep shared parameter's value to the end of the segment description when viewing pipe in the Procurement Tool.

Include Pipe Length in Item Description – This will append the pipe length value to the end of the segment description when viewing pipe in the Procurement Tool. To change from Imperial to Metric, set the value in the Procurement Tool.

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.

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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

Notify Me of 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.

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.

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.

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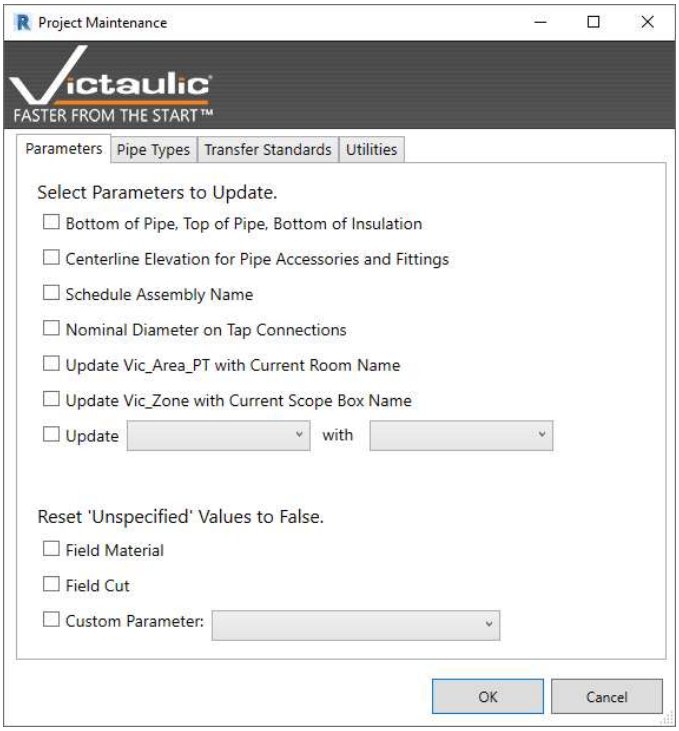
23-Project Maintenance

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.



<u>Select Parameters to Update</u> – 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.

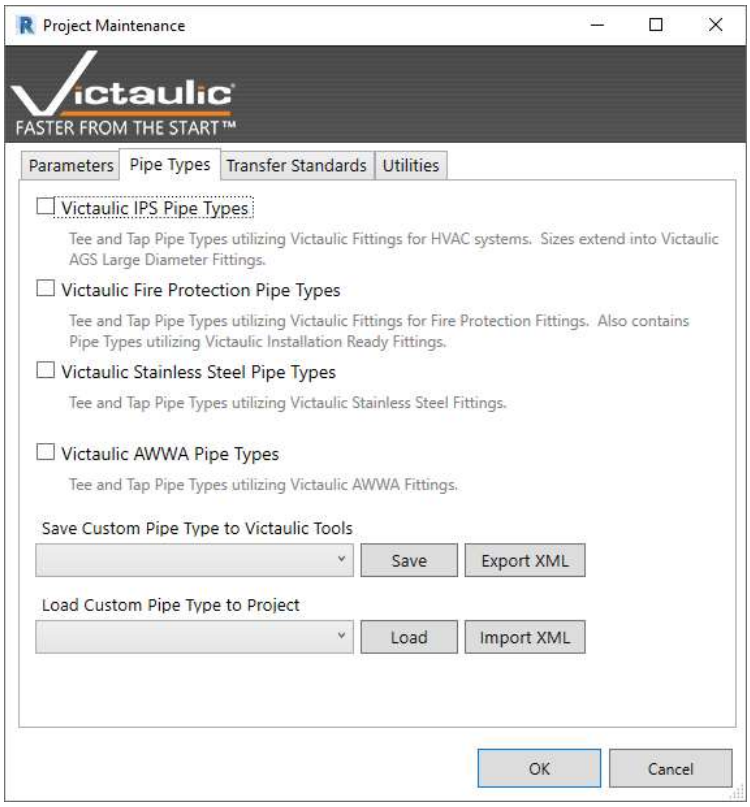
Schedule Assembly Name is a unique name given to each assembly created using our tool. If a user changes the name of the assembly, the shared parameter will need to be updated using this tool.

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).

<u>Pipe Types</u> - 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).



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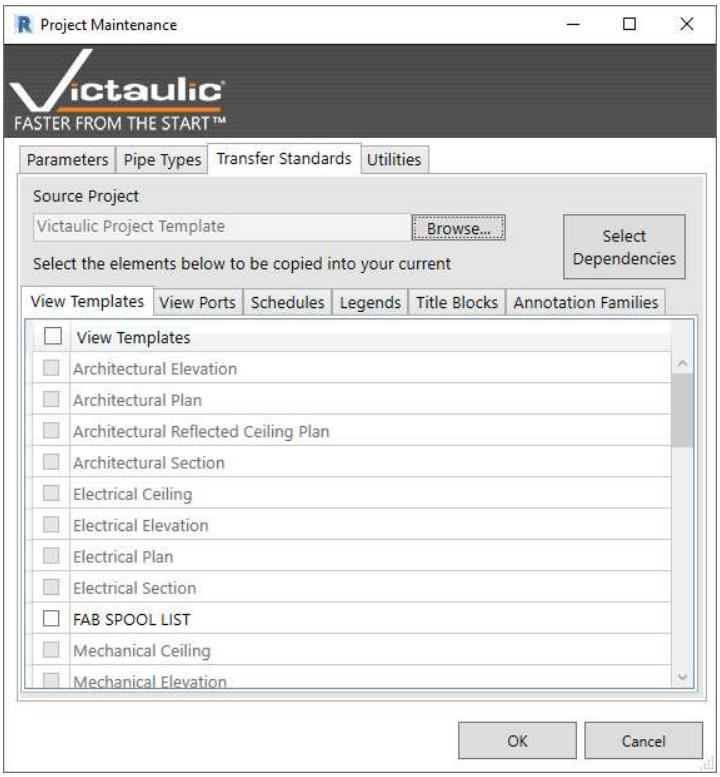


Transfer Standards – Transfer Standards is a tool designed to assist in moving specific elements from Project to Project.

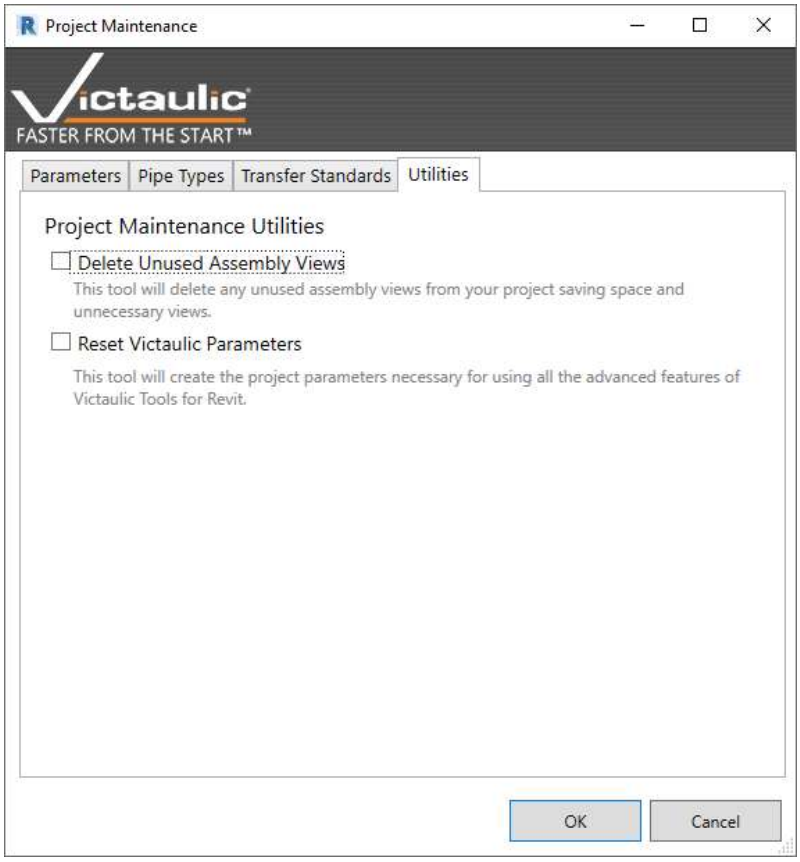
The source project always defaults to the Victaulic Project Template but any source project can be used with this tool.

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.



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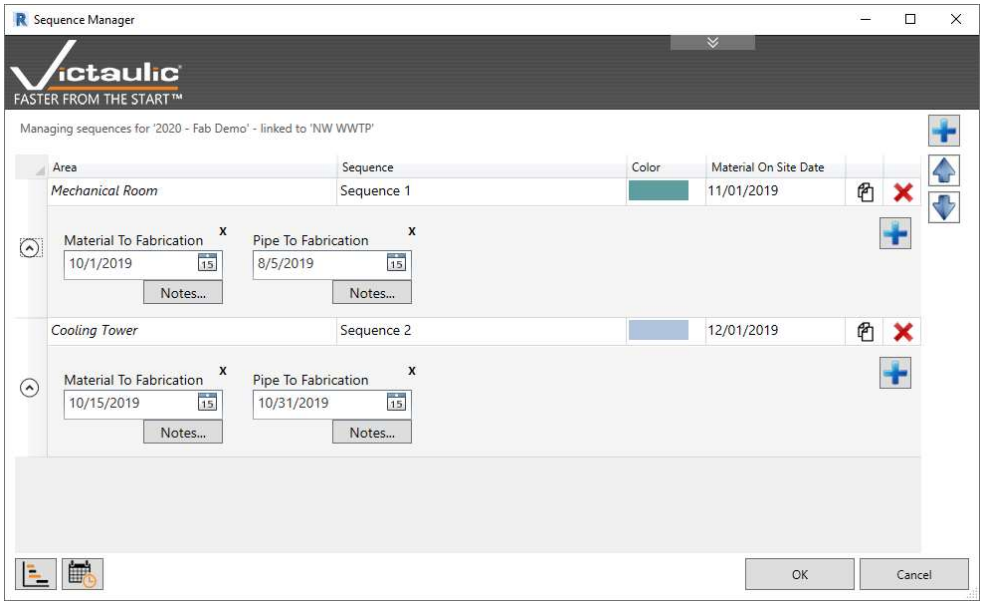
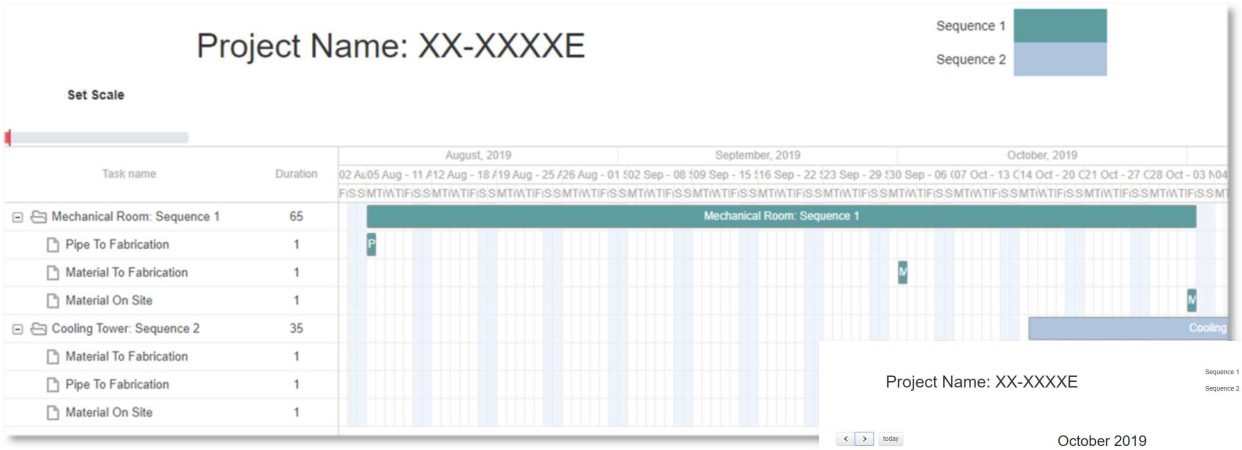
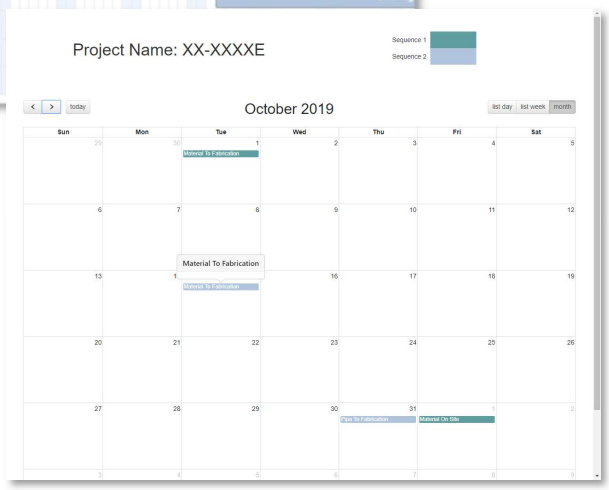
24-Sequence Manager

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.

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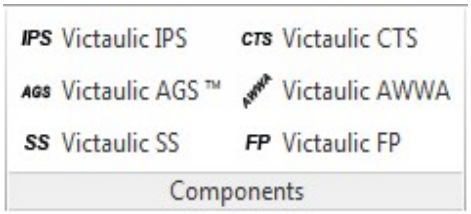
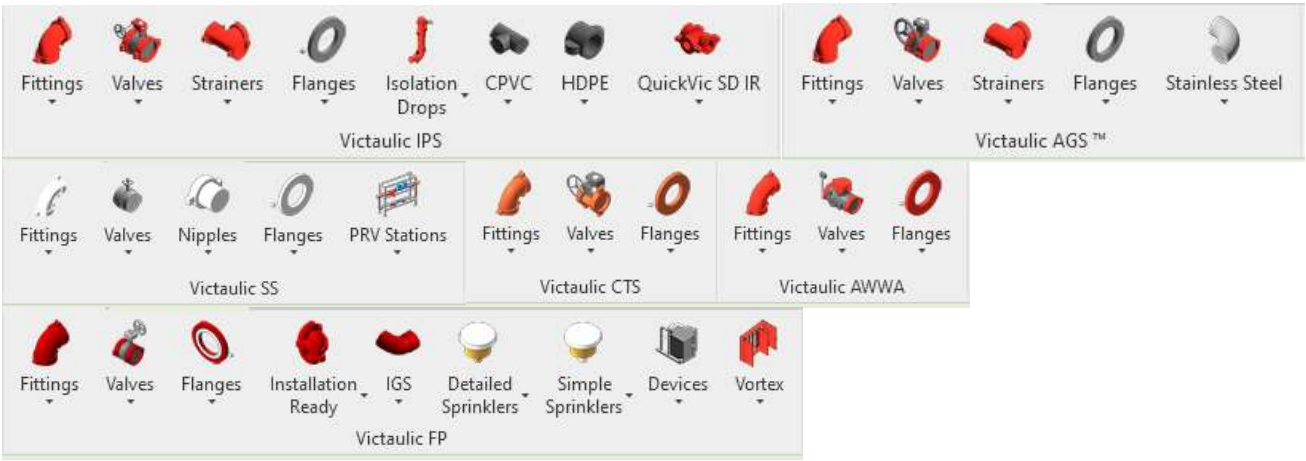
25-Components Ribbon



Select each module to expand and shrink the corresponding product ribbon. By selecting the required fitting or accessory you will automatically load the family if does not already exists in the project.

Existing families will not be overwritten. The family 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.

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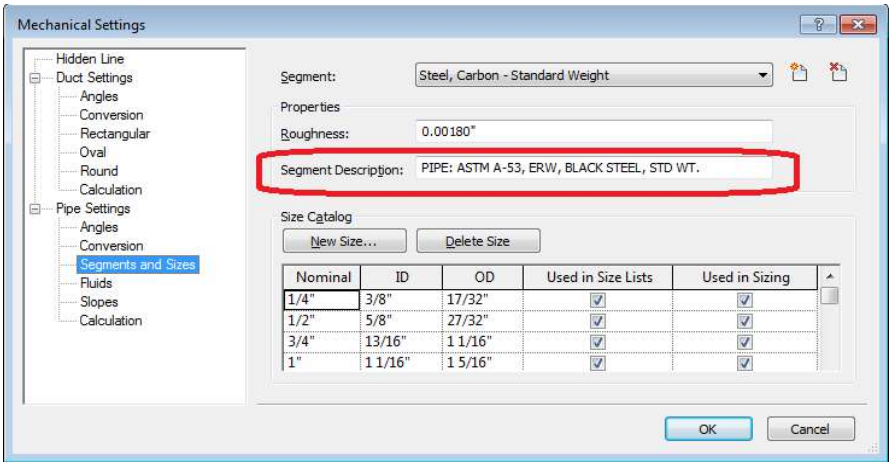
26-Important Information

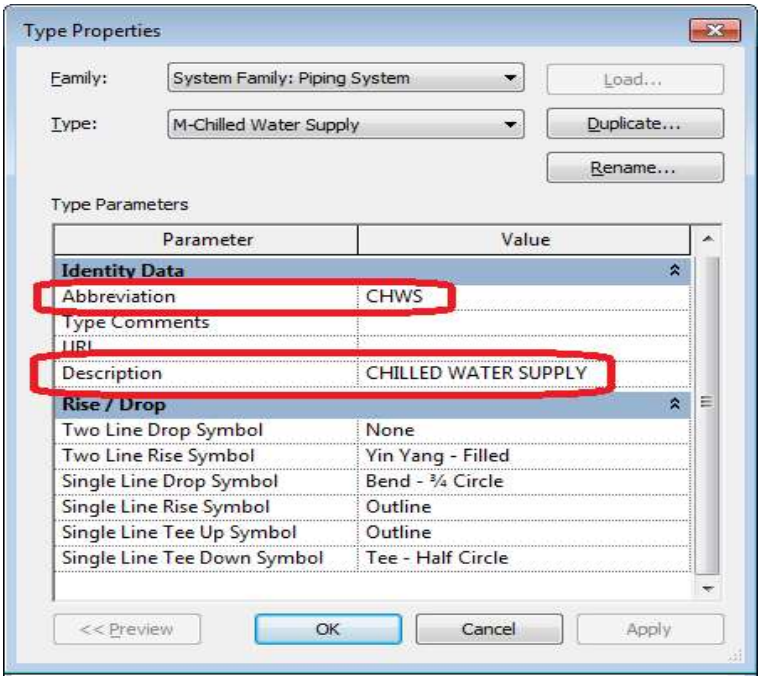
Parameters - Victaulic Tools for Revit will create multiple shared parameters within any project. By default, if the parameters already exist they will not be overwritten and data will be pushed to the existing parameters.

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

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



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



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