Autodesk

Specs and Catalogs Editor

Contents

Introduction to the Specs and Catalogs Editor

1

With the Specs and Catalogs Editor, you can create and modifiy spec files using industry standard parts catalogs.

Use the Specs and Catalogs Editor to organize catalogs, modify the dimensional and data properties of piping components. You can also set part-use and branch fitting preferences used in AutoCAD Plant 3D when routing pipe.

The Specs and Catalogs Editor interface is divided into the following three tabbed workspaces:

- The Spec Editor
- The Branch Table Editor
- The Catalog Editor

The Specs and Catalogs Editor is a stand-alone application that does not require a licensed installation of AutoCAD Plant 3D or an individual license.

Specs, catalogs, and the 3D model are independent after they are created. You can copy part information from a catalog to a spec. When the spec is complete the catalog is not required to use the spec. Likewise, a component added to the the 3D model no longer requires the spec.

Work with Spec-Driven Piping Models

Piping projects in AutoCAD Plant 3D use spec files that you create in the Specs and Catalogs Editor to provide information about piping components and routing priorities. To begin routing pipe and inserting parts in AutoCAD Plant 3D, you first load a spec file in a piping model. Several sample spec files are provided with the Specs and Catalogs Editor.

Understand Spec and Catalog Files

The Specs and Catalogs Editor uses two file formats:

- AutoCAD Plant 3D Spec Files (**.pspx*, **.pspc*). PSPX and PSPC files are a pair, and should be copied and managed together. You cannot rename spec files.

- AutoCAD Plant 3D Catalog File (**.pcat)*. PCAT files contain catalog part information.

When you work in the editor, the changes you make are not immediately saved. To commit changes, you save the file. If you want to undo changes, you can close the spec sheet or catalog without saving.

Work with Default Piping Industry Catalogs

You use industry standard catalogs in the Specs and Catralogs Editor to create spec files. You can copy, modify, and save catalog files to create custom catalogs. AutoCAD Plant 3D supports modeling with all of the parts contained in the default catalogs.

- *ANSI Catalog.pcat* - Piping

- *DIN Catalog.pcat* - Piping

- *DIN Valve catalog.pcat* - Valves

- *Ductile Iron Pipes.pcat* - Piping

- *General Pipes.pcat* - Piping

- *Plastic Pipes.pcat* - Piping

- *Steel Pipes.pcat* - Piping

- *Valve Catalog.pcat* - Valves

- *VALVE Imperial Catalog.pcat* - Valves

Work With Specs

2

You can use the Spec Editor to create and modify specs.

A spec includes a spec sheet and a branch table. You can add parts to the spec sheet and use them in AutoCAD Plant 3D when routing pipe. You can use the Spec Editor to perform the following tasks:

■ Create, view, and edit a spec.

■ Add parts to a spec sheet from a catalog.

■ Set part-use priority for part groups based on part size.

■ Assign parts to use as branch fittings.

■ View, filter and locate parts in parts catalogs.

■ Assign wall thickness to DIN parts.

■ Export a spec sheet to Microsoft® Excel®, or import a modified spec sheet from Excel.

Standard catalogs are installed under the shared content folder (for example: *C:\AutoCAD Plant 3D\Catalogs*). You can move them to a different location. Catalog files are used to create project spec files, but catalogs are not part of a project.

Spec files are installed under the shared content folder (for example: *C:\AutoCAD Plant 3D\Specs*) and to the default project folder. If you create a new project, spec files are copied from the shared content folder to the new project.

By default, spec files are project specific with each project including its own spec files. If you want to share spec files between projects, you can change the spec file folder using AutoCAD Plant 3D Project Setup. For more information see Set Plant 3D Paths.

You can set AutoCAD Plant 3D to check periodically for changes to a spec file. When you add a part to a piping model, the model retains all the information, even if you remove the part from the spec file.

Create Specs

You can use the Spec Editor to create a spec, or modify an existing spec.

In the Spec Editor, you can create a spec sheet from parts that you copy from the catalogs. Catalog parts are displayed by row in the catalog pane of the Spec Editor. Parts added to the spec from the catalog include the full range of sizes for each part. You can manage how different part sizes are used in the spec sheet.

To open a spec file in the Spec Editor

1 On the File menu, click Open Spec.

2 In the Open file dialog box, click a spec file (for example: *C:\AutoCAD Plant 3D\Specs\CS300.pspx*).

3 Click Open.

The spec file opens and displays a spec sheet.

To create a spec file

1 In File menu, click New ➤ Create Spec.

2 In the Create Spec dialog box, under Spec Name, click the [...] button and browse to the folder where you want to save the spec file. Append a file name for the spec file to the folder path (for example: *C:\AutoCAD Plant 3D\Specs\New_Spec.pspx*).

3 In the Spec Description box, enter a description.

4 In the Load Catalog list, click the catalog you want to load with the spec file.

5 Click Create.

To create a spec file from an existing spec file

1 In the Spec Editor, on the File menu, click New ➤ Create Spec From Existing Spec.

2 Under Source Spec Name, click the [...] button. In the Open dialog box, do one of the following:

■ Browse to the existing spec file you want to duplicate.

■ In the File Name box, enter the path to the file (for example: *C:\AutoCAD Plant 3D\Specs\CS300.pspx*).

3 Under New Spec Name, enter a name for the file.

4 Under Spec Description, enter a description.

5 Click Create.

> **NOTE** You cannot use windows explorer to rename spec files. The PSPX is a package file that contains a named reference to the PSPC.

To save a spec file

■ In the File menu, click Save.
If you have not previously saved the spec, the Save As dialog box displays.

Quick Reference

Commands

No entries

System Variables

No entries

Interface Reference

Creates and modifies spec sheets.

Creates a spec file.

Creates a spec file from an existing spec.

Modify Specs

Use the Spec Editor to add parts from a catalog to a spec sheet.

To build a spec, you add parts from a catalog to the spec sheet. You can assign preferences to parts when multiple parts of the same type or size are available in a spec.

The catalogs do not contain multiple copies of the same components in different materials or schedules when the components are otherwise identical. To differentiate these components, you can override certain property values when you copy them to the spec from the catalog. You can also edit part properties in the Spec Sheet after the part is added to the spec.

A spec sheet may contain parts from more than one catalog.

You can add and customize parts properties in a spec, add notes for individual parts, and add a general description.

To add parts to a spec sheet from a catalog

1 In the Spec Editor, open an existing spec file or create a spec.

2 If the catalog that you want is not open, do the following:

■ On the File menu, click Open Catalog.

■ In the Open file dialog box click a catalog file (for example: *C:\AutoCAD Plant 3D\Catalogs\VALVE Catalog.pcat*).

■ Click Open.

3 If you want to limit the number of parts that display in the catalog table, in the filter lists, set a filter (for example: Short Description - Ball Valve).

4 In the catalog table, select one or more parts.

5 Click Add to Spec.

> **NOTE** You can modify the properties for Material, Material Code, and Schedule at the time you add the parts to a spec using Property Overrides.

To add parts with modified Material, Material Code, or Schedule.

1 On the Catalog pane, select Apply Property Overrides to Parts Added to Spec.

2 In the Material box, enter a material (for example: CS).

3 In the Material Code box, enter a material code (for example: A106).

4 In the Schedule box, enter a schedule (for example: 40).

5 Click Add to Spec.

NOTE To modify additional properties, such as Long Description, you can Edit Parts in the Spec Sheet pane after the part is added to the spec.

To remove parts from a spec sheet

1 In the Spec Editor, on the Spec Sheet pane, click a part or a group.

2 Click Remove from Spec.

To edit a spec sheet description

1 In the Spec Editor, on the Spec Sheet pane, right-click the upper-left corner description area. Click Edit Spec Description.

2 In the Edit Spec Description dialog box, enter a description.

3 Click OK.

To add notes to spec sheet parts

1 In the Spec Editor, on the Spec Sheet pane, right-click a group name (for example: --- Pipe ---).

2 Click Add Notes.

3 In the Add Notes To Group dialog box, enter a note.

4 Click OK.

The note displays above the group on the Spec Sheet pane. You can right-click on the note to remove it.

To display metric or imperial units

1 In the Spec Editor, on the Specs menu, click Layout and Settings.

2 In the Spec Editor Layout and Settings dialog box, in the Display Nominal Sizes in Spec As list, click a unit type.

3 Click OK.

Layout and Settings

To add custom properties to parts in a spec

1 In the Spec Editor, on the Spec Sheet pane, click a part (for example: a valve).

2 Click Edit Parts.

3 In the Edit Parts dialog box, click the Edit Properties tab.

4 Under Property Definition, in the Display Name box, enter a name (for example: Valve Code).

5 In the Field Type list, click a type (for example Numeric Value).

6 In the Default Value box, enter a default.

If the field type is Yes/No (Check Box) enter a default value of **True** or **False**.

7 If the Field Type is Text do the following:

■ In the Field Size box, enter a size between 1 and 255.

8 Click Add.

9 Click OK.

Edit Parts

Quick Reference

Commands

No entries

System Variables

No entries

Interface Reference

Creates and modifies spec sheets.

Adds a note to a spec sheet group.

Edits the spec sheet description.

Sets preferences for the Spec Editor workspace layout.

Set Part Use Priority

You can specify different parts to use when routing different piping sizes in the Plant 3D model.

You can assign certain sizes of a part to include in a spec. After you assign part sizes, if you have more than one part of the same size (size conflict) you can set part use priority. The part-use priority designates which parts to use by default when routing in a Plant 3D model.

For example, if you have both SW and WN flanges in your spec, you can assign the WN flanges priority. When you route pipe in the 3D model, the WN flange is used by default. To use a SW flange instead, you can substitute the flange. You can also place the SW flange from a tool palette or the Spec Viewer.

On a Spec Sheet pane, a yellow warning icon appears in the Part Use Priority column for parts that have more than one part available in the spec for a specific size. To resolve the size conflict, click on the icon.

NOTE An additional level of part-use priority for piping fittings is achieved by setting up branch table fitting options. For more information, see Modify Branch Tables on page 16.

To assign part-use priority

1   In the Spec Editor, on the Spec Sheet pane, in the Part Use Priority column, click a yellow warning icon.

2   In the Part Use Priority dialog box, under Assign Part Use Priority, in the Size Conflicts list, click a size.

3   In the Spec Part Use Priority list, click a part.

4   Click the up and down arrows to move the part up or down the list.

5   Select the Mark as Resolved check box for each resolved size conflict.

 When all conflicts are resolved for a part, the yellow warning icon changes to a green dot.

NOTE You can select all unresolved items in the Size Conflicts list and select the Mark as Resolved to resolve multiple part conflicts.

To exclude part sizes in a spec

1   In the Spec Editor, on the Spec Sheet pane, click a part.

2   Click Edit Parts.

3   In the Edit Parts dialog box, in the Do Not Include column, select one or more check boxes.

4   Click OK.

Edit Parts

Quick Reference

Commands

No entries

System Variables

No entries

Interface Reference

Creates and modifies spec sheets.

Sets the order that parts are used based on part size.

Generate Wall Thickness Values for DIN Parts

You can generate wall thickness values for DIN parts based on selected part properties.

To generate correct wall thickness values, you can use an editable mapping table to match selected part property values from a piping spec to a mapping table. Unlike ANSI parts, DIN parts obtain wall thickness values from various combinations of parts properties. You use the mapping table to match up the values of specific properties of DIN parts with the same values of the coordinating properties in the wall thickness mapping table.

In some cases, depending on the properties criteria you select for a part, no wall thickness value may exist. In other cases, multiple wall thickness values may exist. You can assign a value to a part from the mapping table if there are no values returned. When there are several properties matches returned, you can select the most appropriate value to use.

Following are parts properties you can select individually or in combination to generate wall thickness values:

■ Nominal Diameter

■ Pressure Class

■ Material Code

■ Design Pressure Factor

- Design Standard

- Schedule

- Industry Standard

The Nominal Size property is a required match to serve as a basis for wall thickness mapping. You can select the remaining properties as required or optional matches.

Following is the workflow for assigning wall thickness values to DIN parts:

- Select required properties for DIN parts to match in the mapping table to generate wall thickness values.

- Assign specific wall thickness values to parts based on mapping table results.

- Edit mapping table values when necessary.

You can add DIN and ANSI parts to the same spec sheet and generate wall thickness values only for parts in a spec derived from the DIN catalog.

To assign wall thickness mapping criteria for DIN catalog parts

1   In the Spec Editor, click Specs menu ➤ Assign DIN Wall Thickness.

2   In the Assign DIN Wall Thickness dialog box, under Wall Thickness Mapping Criteria, in the Required Match column, select one or more properties that are required to match mapping table properties.

3   If there are more than one DIN catalog used in the current spec, in the Catalog list, select another catalog and repeat step 2.

To edit wall thickness mapping criteria for DIN catalog parts

➤   In the Spec Editor, click Specs menu ➤ Assign DIN Wall Thickness.

Quick Reference

Commands

No entries

System Variables

No entries

Interface Reference

Assign DIN Wall Thickness Mapping Dialog Box on page 36

Assigns wall thickness mapping criteria for DIN catalog components.

Edit DIN Wall Thickness Mapping Table Dialog Box on page 42

Edits the DIN wall thickness mapping table options.

Export and Import Spec Data

Export and import spec sheet data using Microsoft Excel.

You can export spec data to a Microsoft Excel spreadsheet, and you can import specification information from Excel into a spec.

A number of restrictions exist when importing data from an Excel spreadsheet.

■ You must export using a Full Spec Data Export. This creates a Spec Data worksheet in the exported file.

■ You cannot add additional rows to the Spec Data worksheet. Each row contains a PnPID that must match the existing PnPID in the spec.

■ You cannot modify Read-only properties. Properties that are Read-only in the Edit Parts dialog are protected (locked) in the exported spreadsheet.

■ You cannot remove or rename columns from the spreadsheet. The header cell that contains the property name is protected.

When importing modified spec information from Excel, you can accept or reject changes to individual parts.

When you import Spec or Catalog parts, you can specify which changes to accept and which to reject. Importing data into the Specs and Catalogs editor

is like importing data into the AutoCAD Plant 3D Data Manager. For more information, see Accept and Reject Edits.

To export spec or catalog data to Excel

1   In the toolbar, click Export to Excel.

2   In the Export Data dialog box, under Select Export Settings, click the appropriate export setting.

    If you plan to modify and import the data, use a full data export.

3   In the box labeled Enter a File Name and Location For Exported Data, click Browse.

4   In the Save As dialog box, in the File Name box, enter a name for the exported file. Navigate to and click a folder in which to save the file.

5   Click Save.

To change a spec part description using Excel formulas

1   Open a spreadsheet that was exported from a spec (for example: C:\AutoCAD Plant 3D\Specs\CS300.xlsx).

2   Click the Spec Data tab to make it the active worksheet.

3   Right-click the header of the Part Size Long Desc column. Click Format Cells.

4   In the Format Cells dialog box click General.

    If the cell type is Text, you cannot create a formula.

5   Click OK.

6   Click in a cell that you want to modify (for example: F2) to highlight it.

7   In the Formula bar, enter a formula. For example:

    ```
    =G2 & " w. hand lever , " & H2 & "nd, " & I2 & ", " & AB2 & "lb
     ," & X2
    ```

8   Right-click the cell. Click copy.

9 Paste the formula to additional cells.

10 Save the Excel Spreadsheet and exit Excel.

Quick Reference

Commands

No entries

System Variables

No entries

Interface Reference

Spec Editor on page 29

Creates and modifies spec sheets.

Resolve Excel Import Changes Dialog Box on page 49

Resolves changes made to imported Excel files.

Modify Branch Tables

You can use the Branch Table Editor to assign priority branch fittings when routing pipe in a piping model.

When you route pipe in a AutoCAD Plant 3D model, branch table assignments determine the type and size fitting the piping model uses when joining branch and header pipes.

You use branch table information in a spec to cross-reference the size of a header with the size of a branch and insert the appropriate default fitting into a AutoCAD Plant 3D model.
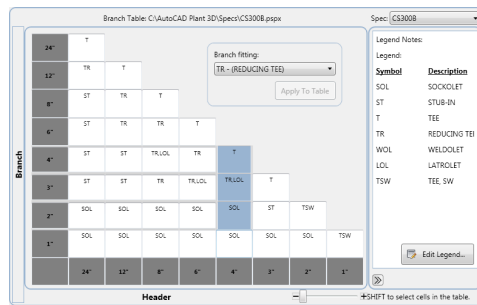
In the branch table, the cell where the header size column and branch size row meet displays a legend symbol that identifies the fitting to use for that branch. You can assign more than one legend symbol to a branch cell. For example, you can assign both a reducing tee and a latrolet to the same 3" x 4" cell.
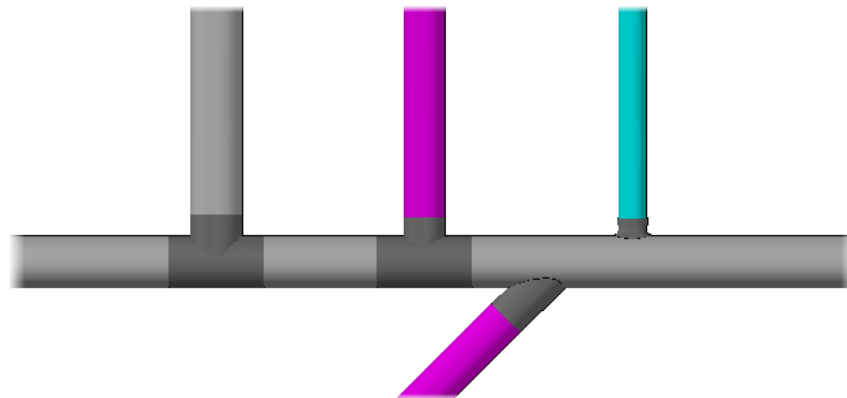
A tee, reducing tee, latrolet, and sockolet are some of the branch types you can set in the branch table.

Assign Branch Fittings to Use in a Piping Model

You perform the following steps to assign fittings in the branch table:

■ Identify all branch fittings in a spec to use in a piping model. In the spec, you select which fittings to use in the branch table. The fittings you select appear as symbols in branch table cells, and are referenced in the legend of the branch table.

■ When more than one fitting of a specific size is available as a branch, set the default branch fittings.

■ Assign branch fittings to cells in the branch table for all header and branch pipe size matchups.

You can add more than one fitting to a branch table cell. In addition to default parts, you can add additional parts to be available when routing and branching pipe.

Customize the branch table

You can change the position and label of the Header and Branch axes in the branch table. By default, the Header axis is positioned at the bottom of the table and the Branch axis is positioned at the left. You can also add notes to the legend, add shading to branch table cells, and choose to display or hide the branch table legend.

To add and remove branch fittings

1 In the Branch Table Editor, on the Legend pane, click Edit Legend.

2 In the Branch Table Setup dialog box, under Branch Connection Part Setup, click Add Branch.

3 In the new branch row, in the Part Type list, click the desired connection part type or Pipe (stub-in).

4 If you want to override part use priority, in the Spec Part list, click a specific part.

5 If you want to use an additional reducing part to to connect to the branch pipe, do the following:

■ Select Add Reducer

■ In the new reducer row, in the Part Type list, click the reducing part type.

- If you want to override part use priority for the reducing part, in the Spec Part list, click a specific reducing part.

6 In Legend Symbol, double-click and enter the branch symbol.

7 Click OK.

To select multiple cells in the branch table

1 In the Branch Table Editor, on the branch table, click a cell for the starting point.

2 Do one of the following:
- To select sequential cells, press and hold the SHIFT key and click on another cell in the table. Release the SHIFT key.

- To select multiple non-sequential cells, press and hold the CTRL key while clicking cells. Release the CTRL key.

To assign branch fittings in the branch table and set their priority

1 In the Branch Table Editor, on the branch table, click one or more cells that intersect with the header and branch sizes for which you want to provide a fitting.

2 Right-click any selected cell. Click Multi Branch Selection.

3 In the Select Branch List dialog box, in the Use Branch column, select the branch fittings you want to use in the piping model.

4 Click the Priority arrows to move the fitting up or down the list.

5 Click OK.

Quick Reference

Commands

No entries

System Variables

No entries

Interface Reference

Branch Table Editor on page 31

Assigns branch fittings to use when connecting a branch in AutoCAD Plant 3D. The branch table is saved in the spec file with the spec sheet.

Branch Table Setup Dialog Box on page 37

Defines the fittings that are used in the branch table. You can also set display options for the branch table.

Select Branch List Dialog Box on page 49

Sets the preferred order of branch components used when routing and branching pipe in AutoCAD Plant 3D.

Select Branch Connection Dialog Box on page 50

Sets a branch type when the existing branch type is not valid.

Work With Specs in a Plant 3D Model

Use a pipe spec to route pipe and add piping components in the 3D model.

After you have finished creating a spec, you can save it to the project spec file location to begin using it. There is no additional configuration required. For more information see Set Plant 3D Paths.

Use a Spec in a Plant 3D Model

With a spec file, you can route pipe or place piping components.

Before reouting pipe, you select a pipe spec. For more information, see Set Plant 3D Paths.

You can create a custom tool palette from a spec to simplify the process of placing parts in the 3D model.

To use a spec in a Plant 3D model

1 On the ribbon, click Home tab ➤ Part Insertion panel.

2 In the Specs list, click a spec.
The spec sheet is displayed in the Spec Editor pane.

To view a spec sheet in a Plant 3D model

1 In the Specs list, click a spec.

2 On the ribbon, click Home tab ➤ Part Insertion panel ➤ Spec Viewer.

3 In the Spec Viewer, in the Spec Sheet, click a part.
PLANTSPECVIEWER

To insert parts from a spec sheet into a drawing

1 On the ribbon, click Home tab ➤ Part Insertion panel ➤ Spec Viewer.

2 In the Spec Viewer, on the Spec Sheet, click a part that you want to include in the 3D model.

3 Under Part Details, click Insert In Model.
PLANTSPECVIEWER

To add parts from a spec sheet to a tool palette

1 On the ribbon, click Home tab ➤ Part Insertion panel ➤ Spec Viewer.

2 In the Spec Viewer, in the Part Sizes pane, click a part to add to the tool palette.

3 Under Part Details, click Add To Tool Palette.
PLANTSPECVIEWER

To create a custom Tool Palette from a spec sheet

1 On the ribbon, click Home tab ➤ Part Insertion panel ➤ Spec Viewer.

2 In the Spec Viewer, under Part Details, click Create Tool Palette.
PLANTSPECVIEWER

Quick Reference

Commands

No entries

System Variables

No entries

Interface Reference

Spec Viewer

Update a Spec in a Plant 3D Model

In AutoCAD Plant 3D, you can set spec update options to check for changes to a spec and update it when they occur.

You are prompted to update the spec and the model when a change to a spec is detected.

You can select the parts or properties you want to update and set the time interval between automatic updates.

To update a Plant 3D model with a changed spec

1   In AutoCAD Plant 3D, on the application status bar, click Spec Update Check.

   If no spec updates are available, the Checking For Updates To Drawing's Specs dialog box closes.

2   In the Spec Update Available message box, do one of the following:

   ■   Click Apply Spec Updates To The Part In The Model to update a 3D model.

   ■   Click Do Not Apply Spec Updates To The Part In The Model to leave a 3D model unchanged.

3   To apply updates to a 3D model whenever updates become available, select Always Apply Part Information Changes.

   PLANTSPECUPDATECHECK

To set automatic spec updates

1 In AutoCAD Plant 3D, on the application status bar, right-click Spec Update Check. Click Settings.

2 In the Spec Update Check dialog box, under Spec File Check, do the following:

■ To check for spec updates automatically when AutoCAD Plant 3D is opened, select On Startup.

■ To check for spec updates periodically, select Automatic. In the Hours Between Checks box, enter the number of hours between checks.

3 Click OK.

NOTE Automatic updates run at the time interval you specify. When a spec update is available, a balloon tip notification presents you with the option to update the 3D model. No notification is displayed when there are no spec updates available.

Quick Reference

Commands

PLANTSPECUPDATECHECK

System Variables

PLANTSPECNOTIFY

Interface Reference

Spec Update Check Dialog Box

Work With Catalogs

3

You can use the Catalog Editor to open the standard parts catalogs provided with AutoCAD Plant 3D, modify their contents, and then save them as custom catalogs.

Browse Catalogs

You can use filters to help you locate parts in a catalog to add to a spec.

You can apply filters to properties, such as pressure class and material, to locate parts. You can reset parts display filters independently of the common filters.

Use the parts display filters to search attributes within the results of the Common Filters. You can also locate parts in a catalog using text string searches in the catalog filter categories.

To use Common Filters to locate catalog parts

1   In the Spec Editor or the Catalog Editor, under Common Filters, in the Select Part Category list, click a part category.

2   In the Main End Connection list, click the main end connection type.

3   If desired, in the Size Range, Reducing Size Range, and Units lists, click the appropriate filter items. Click Reset to clear all filters.

NOTE You can use Common Filters and the parts display filters independently of each other. You can click Clear Filter to clear parts display filters while retaining the Common Filters criteria. However, when you click Reset in the Common Filters group, all filters are cleared, including the parts display filters.

To search for catalog parts

1 In the Spec Editor or Catalog Editor, in the catalog pane, in the Filter column, click Clear Filter to clear the catalog parts display filters.

2 In any filter list box, click ***ALL*** to highlight the phrase. Enter a tilde (~) followed by the text string of the desired search term. For example: if you enter ~bl in the Class Name list, the results include all Class Names that contain bl. In this example, SpectacleBlind and Bleedring classes are displayed.

To reorder catalog table columns

In the Catalog pane, click and drag the header for any column horizontally to the location where you want to place it.

Quick Reference

Commands

No entries

System Variables

No entries

Interface Reference

Catalog Editor on page 33

Modifies catalog content to customize part information. You add and remove parts from a catalog. You can change part properties, including part dimensions for use in AutoCAD Plant 3D modeling.

Expand Group Dialog Box on page 46

Displays all part sizes for a part group.

Create and Modify Catalogs

You can add or remove items from a catalog, change parts information, or add parts from a spec sheet into a catalog.

You can copy a catalog and modify the copy as needed. You can also duplicate a catalog part family and modify it to create a new one.

Create Custom Specs From Catalogs

Using the Specs and Catalogs Editor, you can use complete ANSI and DIN parts catalogs and specialized catalogs for nozzles, placeholder parts, and structural components. Copy the default catalogs and parts supplied with the Specs and Catalogs Editor to create new, modified, or repurposed catalogs and parts.

You can use two sets of parts filters to quickly locate parts in a catalog. Use any combination of all available filters to locate the catalog parts you want.

To open a default catalog

1   In the Spec Editor, click File menu ➤ Open Catalog.

2   In the Open dialog box, click the catalog file (*.pcat*) you want to open.

3   Click Open.
    The catalog file opens in the Catalog panel.

To create a catalog from an existing catalog

1   In the Spec Editor, click File menu ➤ New ➤ New Catalog From Existing.

2   In the New Catalog From Existing dialog box, under Source Catalog File, do one of the following:
    - Enter the path to the catalog file you want to duplicate.

    - Click the [...] button and browse to the file you want to duplicate (for example: *ANSI Catalog.pcat*). Click the file and click Create.

3   Under New Catalog File, click the [...] button.

4   In the Save As dialog box, enter the new file name (for example: *ANSI_copy)*.

5   In the Spec Editor, click File menu.

6 Click Open.

7 In the New Catalog File box, enter the new file name. For example, *ANSI_copy*.

The duplicate catalog file opens in the Catalog pane in the Spec Editor.

To duplicate a single catalog part

1 In the Catalog Editor, in the Catalog pane, right-click a part family.

2 Click Add Copy to Catalog.

Add Copy To Catalog

To duplicate a catalog part family

1 In the Catalog Editor, in the Catalog Parts Table, right-click a part family. Click Duplicate Selected Part Family.

2 In the Duplicate Part Family dialog box, enter a new unique part family name.

3 Click Create.

To copy and modify a catalog part

1 In the Catalog Editor, in the Catalog Parts Table, click a part to modify and copy.

2 In the Common Properties pane, in the properties boxes, enter new data or modify existing data for the selected part.

3 In the Tools pane, under Common Filters, click Add Copy to Catalog.

To remove parts from a catalog

1 In the Catalog Editor, click a part from an open catalog to duplicate and modify.

2 Click Remove From Catalog.

NOTE Removing parts from the default catalogs is not recommended. The best practice is to make a copy of a catalog to modify.
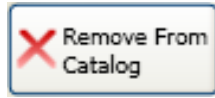
To synchronize a spec file with a catalog

1   In the Catalogs menu, click Synchronize Specs With Catalogs.

2   In the Open dialog box, click a spec file that is not already open.

3   Click Open.

To import an AutoCAD MEP catalog

■   At the Command prompt, enter **plantamepimportcatalog**.

NOTE This procedure must be performed in AutoCAD Plant 3D.

Quick Reference

Commands

PLANTAMEPIMPORTCATALOG

System Variables

No entries

Interface Reference

Catalog Editor on page 33

Modifies catalog content to customize part information. You add and remove parts from a catalog. You can change part properties, including part dimensions for use in AutoCAD Plant 3D modeling.

Add Parts To Spec Dialog Box on page 35

Adds catalog parts to one or more spec files.

Create Catalog From Existing Catalog Dialog Box on page 41

Creates a catalog from an existing catalog file.

Duplicates a part family in a catalog.

Adds and modifies property definitions in a catalog.

Interface Reference

A
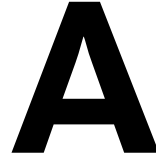
The Interface Reference contains information the tabbed workspaces and dialog boxes in the AutoCAD Plant 3D Specs and Catalogs Editor.

Specs and Catalogs Editor

Creates and modifies spec and catalog files. You use parts catalogs to create and modify a spec file for use in AutoCAD Plant 3D. A spec file contains a spec sheet and a branch table.

Spec Editor

Quick Reference

Creates and modifies spec sheets.

Using the Spec editor, you can add parts from a catalog to create a spec sheet. You can then specify which fittings to use when routing for a specific pipe size.
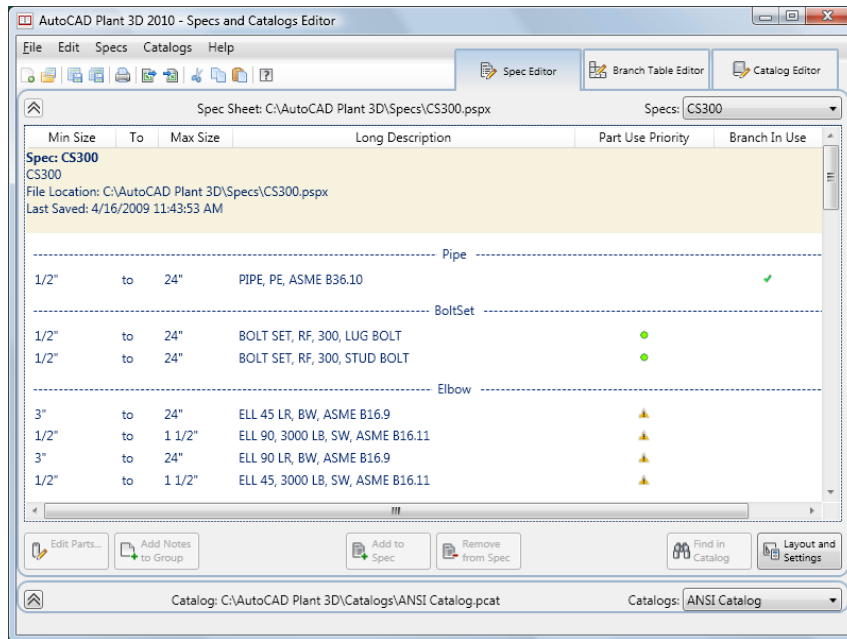
Spec Sheet

Min Size Displays the smallest size that is included in the spec for the part. You can use the Part List Tab (Edit Parts dialog box) on page 43 to change the size range.

Max Size Displays the largest size that is included in the spec for the part.

Part Use Priority Sets the order that parts are used based on part size. A warning icon displays when a size conflict exists and priority has not been set. A green circle displays when size conflicts are resolved.

Right-click in the column to display the Part Use Priority dialog box on page 48.

Branch in Use Displays a check icon if a part is used in the Branch Table on page 31.

Edit Parts Displays the Edit Parts dialog box on page 43.

Add Notes to Group Displays the Add Notes To Group dialog box on page 34.

Add to Spec Adds the parts selected in the Catalog window to the spec. If you have Property overrides on page 31 set, the parts added to the spec use the override values.

When you add parts to the spec, all part sizes in the part group are included. You can use the Edit Parts dialog box on page 43 to specify a size range in the spec.

Remove from Spec Deletes the selected parts from the spec.

Find in Catalog Locates the selected part in the catalog. The catalog that contains the part is made current and a column filter is set. You can clear the filter to display all parts in the catalog.

Layout and Settings Displays the Spec Editor Layout and Settings dialog box on page 51.

Property overrides

Apply property overrides to parts added to spec Sets property values to use when adding a part from the catalog to the spec sheet. Property overrides provide a quick way to set the properties for the parts added to the spec.

The override properties are Material, Material Code, and Schedule. In AutoCAD Plant 3D 2010, you cannot specify other property types to override.

Reset Removes all common filters.

Clear Filter Removes column filters, including the description filter set with Find in Catalog on page 31.

Branch Table Editor

Quick Reference

Assigns branch fittings to use when connecting a branch in AutoCAD Plant 3D. The branch table is saved in the spec file with the spec sheet.

When you route pipe in a AutoCAD Plant 3D model, branch table assignments in the pipe spec determine the fitting type and size to use.
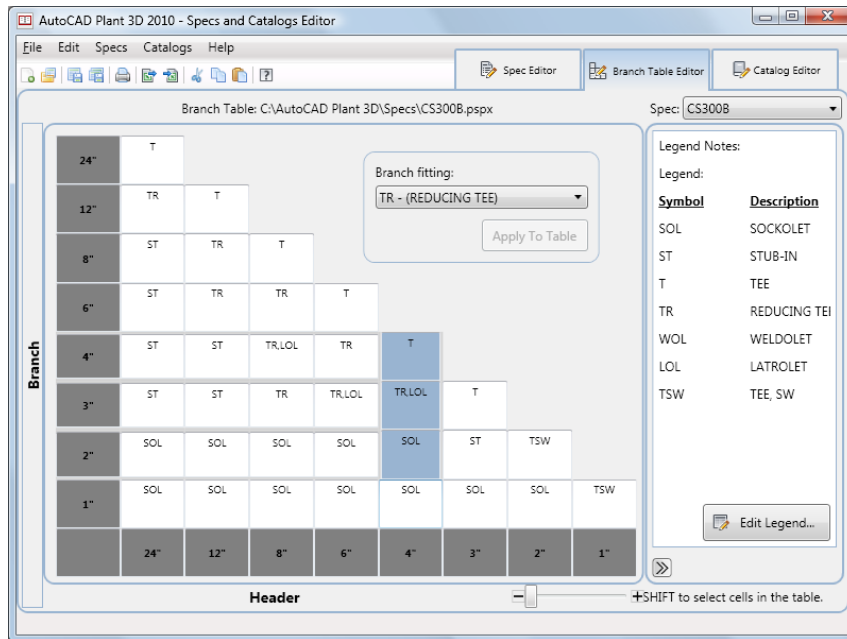
Branch Fitting Sets the current fitting type or stub-in. Setting a value does not update the selected branch table cells immediately. To apply the current fitting type, click Apply to Table.

If you want more than one type of branch, you can use the Select Branch List dialog box on page 49 to set multiple branch types.

Apply to Table Sets the Branch Fitting value to the cells selected in the branch table.

**Edit Legend** Displays the Branch Table Setup dialog box on page 37

NOTE You can select multiple cells in the branch table. Press SHIFT to extend cell selection. Press CTRL to select and clear a cell.

Catalog Editor

Quick Reference

Modifies catalog content to customize part information. You add and remove parts from a catalog. You can change part properties, including part dimensions for use in AutoCAD Plant 3D modeling.
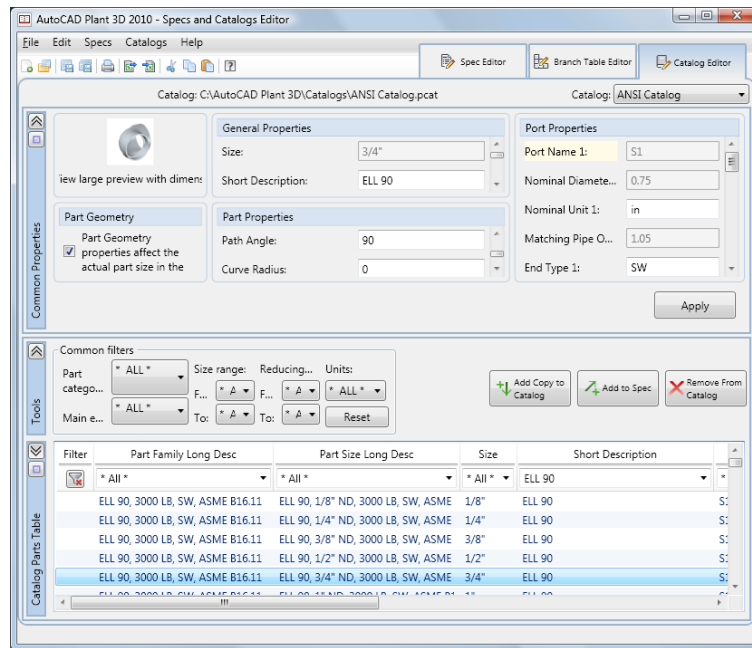
Common Properties
Sets part properties. Modified property values are not immediately updated in the Catalog Parts table on page 34. To set property values you must apply them to the parts selected in the table or add a copy of the parts to the catalog.

Part Geometry Specifies whether you can set dimensions. Not all parts support setting dimensions.

IMPORTANT If you change part geometry values, the values are not verified. AutoCAD Plant 3D model behavior is not defined for unexpected values.

Display only editable properties When selected, most Read-only properties are not displayed.

General Properties Sets the property values shared by all parts. The Size property cannot be modified because it is derived from primary dimensions.

Part Properties Sets part property values, such as manufacturer, design standard, and so on.

Port Properties Sets values that define how the part connects to pipe or pipe components.

Apply Applies modified property values to the selected items in the Catalog Parts Table.

Tools
Common Filters Limits the display of parts in the parts table. You can apply more than one filter at a time.

Reset Removes filters to display all items in the Catalog Parts Table.

Add Copy to Catalog Adds new items to the Catalog Parts Table. If you have modified any Common Properties, the properties are assigned to the new catalog part.

Remove From Catalog Removes the parts selected in Catalog Parts Table.

Catalog Parts Table
Displays catalog parts. You can press SHIFT and CTRL to select multiple parts in the table.

You can use the Common Properties on page 33 window to modify additional properties, or use the Modify Catalog Properties dialog box on page 46 to add custom properties.

Dialog Boxes

This section provides a reference to all dialog boxes in the AutoCAD Plant 3D Specs and Catalogs Editor.

Add Notes To Group Dialog Box

Quick Reference

Adds a note to a spec sheet group.
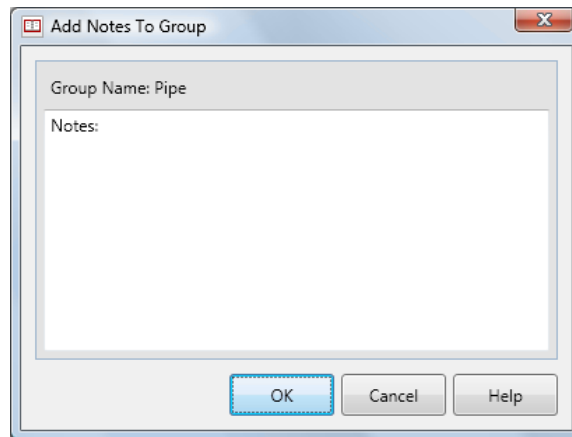
List of Options

Group Name Specifies the name of the spec sheet group. The note is set for the entire group. Notes are included when the spec sheet is printed.

Notes Edits the note. You can right-click to spell check.

Add Parts To Spec Dialog Box

Quick Reference

Adds catalog parts to one or more spec files.
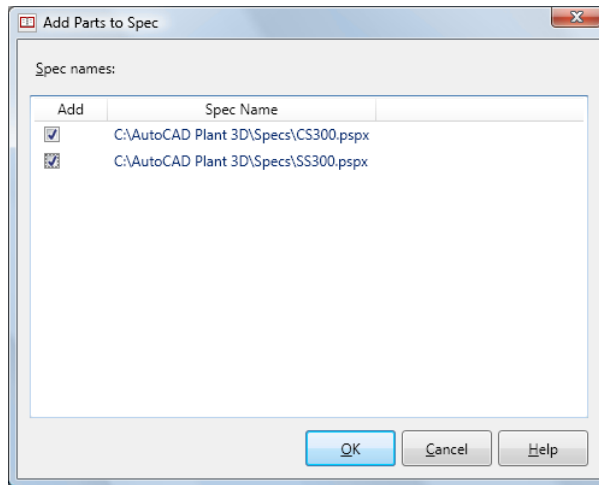
List of Options

Add Sets the spec files to add catalog parts. A spec file must be open to appear in the list.

Assign DIN Wall Thickness Mapping Dialog Box

Quick Reference

Assigns wall thickness mapping criteria for DIN catalog components.
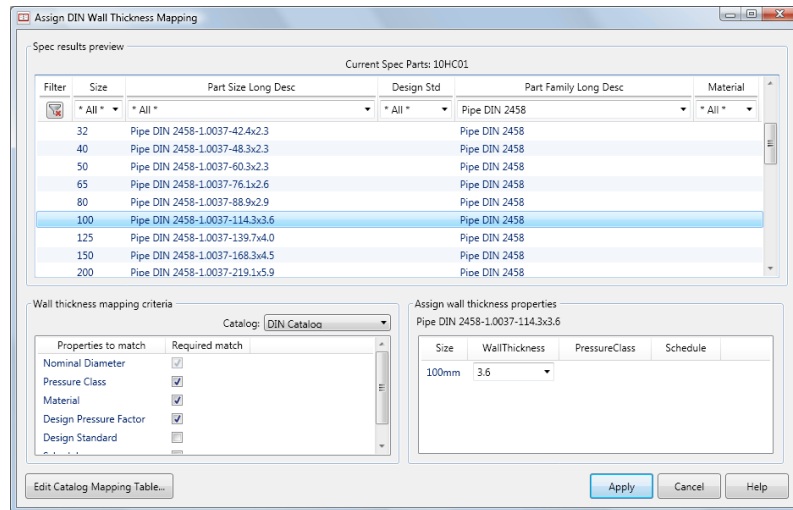
List of Options

Spec Results Preview Displays parts in the current spec sheet. You can select a part to assign its wall thickness.

Wall thickness mapping criteria Specifies the properties for which a match is required. If the check box is clear, the match is optional. If the required properties match more than one wall thickness, priority is given to wall thickness with optional matches.

Assign wall thickness properties Sets the wall thickness for the part selected in the Spec Results Preview. If more than one wall thickness matches, you can specify a different value in the Wall Thickness list.

If you specify a wall thickness value, the value specified is saved in the spec sheet.

Edit Catalog Mapping Table Displays the Edit DIN Wall Thickness Mapping Table dialog box on page 42. The wall thickness map is saved with the catalog.

Branch Table Setup Dialog Box

Quick Reference

Defines the fittings that are used in the branch table. You can also set display options for the branch table.
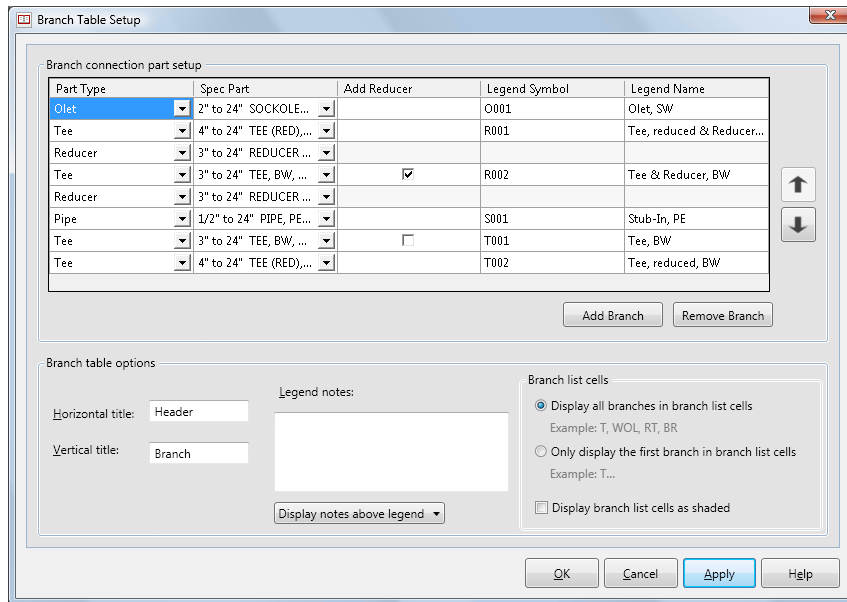
Branch Connection Part Setup

Specifies branch fittings to use in the branch table and sets branch fitting priority.

Part Type Specifies the fitting to use for the branch type. Specify pipe as the part type for a stub-in.

Spec Part Specifies a part. If you set *Use preferred part from pipe spec* the part use priority in spec sheet is used.

Add Reducer Adds an additional part to use for the branch. If selected, a second row is added for the branch connection. For example, you can add a reducer to a tee.

Up Arrow Moves the branch fitting up the part setup table. The table order is for display purposes only, and does not change branch use preference.

Down Arrow Moves the branch fitting down the part setup table.

Add Branch Adds a row to the part setup table.

Remove Branch Removes a row from the part setup table.

Branch Table Options

Sets display options for axis and a note.

Horizontal Title Labels the horizontal axis of the branch table.

Vertical Title Labels the vertical axis of the branch table.

Legend Notes Adds a note to the branch table.

Branch list cells

Sets display options for branch lists. A branch list specifies more than one branch type in a branch table cell. You can assign a branch list using the

Display All Branches In Branch List Cells Displays all branch types in a branch list cell.

Only Display The First Branch In Branch List Cells Displays the branch type with the part use priority of 1 in a branch list cell.

Display Branch List Cells As Shaded Displays branch list cells with a gray highlight.

Create Spec Dialog Box

Quick Reference
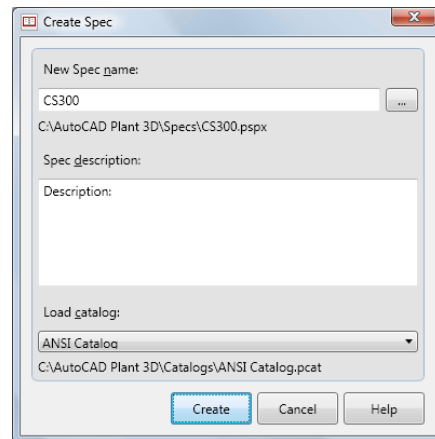
Creates a spec file.

List of Options

New Spec File Specifies the file name for the new spec.

Spec Description Specifies the spec description.

Load Catalog Sets a primary catalog to load with the new spec. Additional catalogs can be loaded later.

Create Spec From Existing Spec Dialog Box

Quick Reference

Creates a spec file from an existing spec.
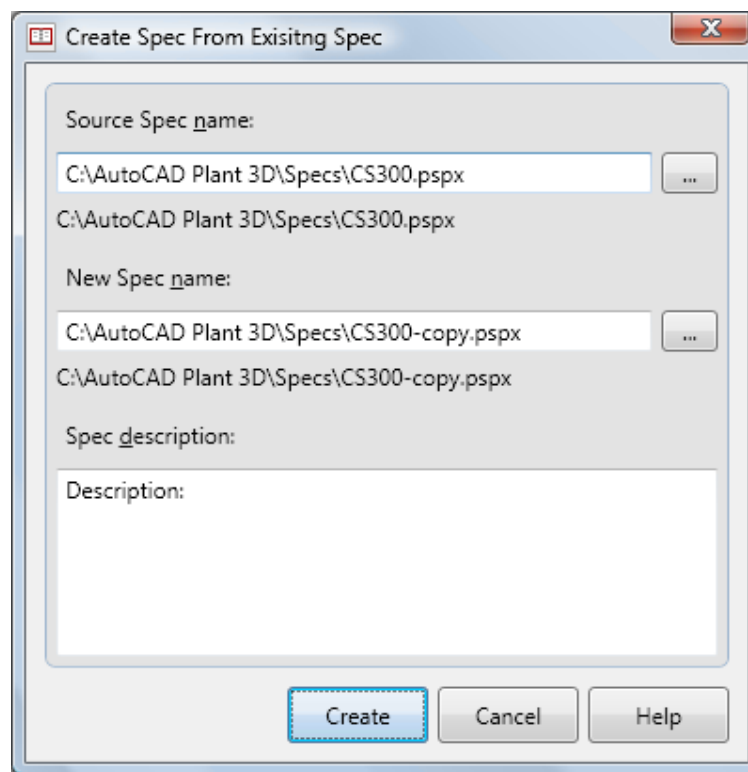
List of Options

Source Spec File Specifies the source (template) spec file.

New Spec File Specifies the new spec file name.

Spec Description Specifies the spec description.

Create Catalog From Existing Catalog Dialog Box

Quick Reference

Creates a catalog from an existing catalog file.
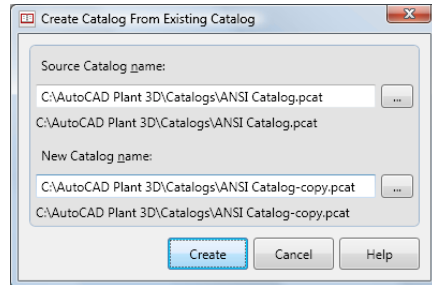
List of Options

Source Catalog File Specifies the source (template) catalog file.

New Catalog File Sets the new catalog file name.

Duplicate Part Family Dialog Box

Quick Reference

Duplicates a part family in a catalog.
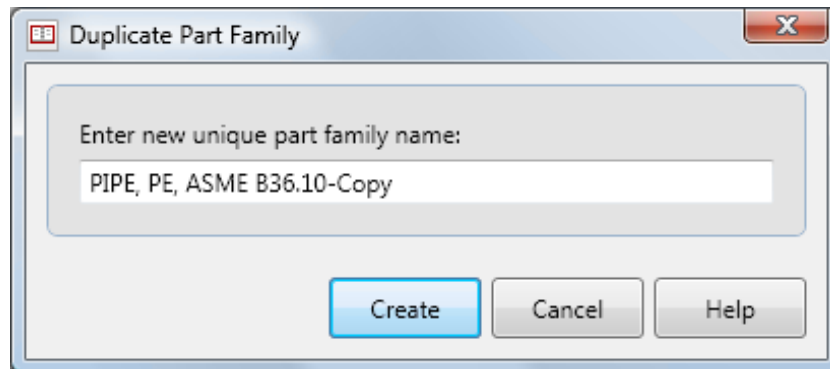
List of Options

Enter New Unique Part Family Name Specifies the name of the new part family.

Edit DIN Wall Thickness Mapping Table Dialog Box

Quick Reference

Edits the DIN wall thickness mapping table options.
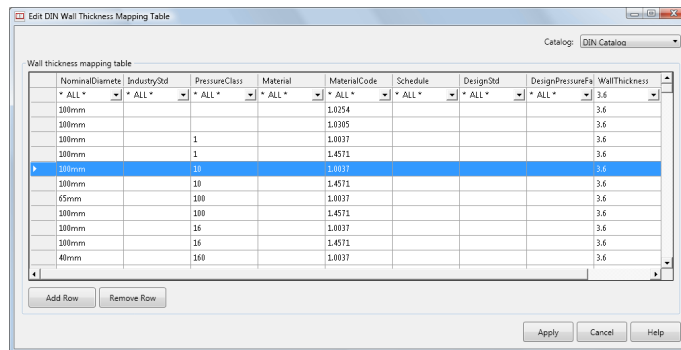
List of Options

Modifies the wall thickness mapping table values for DIN catalog parts. The property values you set in the table are matched to a wall thickness. You can use the map to assign a wall thickness to parts in a spec sheet.

Wall thickness mapping table Sets the property values that map to a wall thickness. You can select a cell in the table and enter a property value or a wall thickness. When the mapping table is used, the property values map to the wall thickness.

Catalog Sets the catalog name. The wall thickness mapping table is saved in the catalog file.

Add Row Creates a blank row at the bottom of the mapping table.

Remove Row Deletes the row selected in the mapping table. You can select a row by clicking in the left margin. You can press SHIFT, CTRL, or CTRL+A to select multiple rows.

Edit Parts Dialog Box

Part List Tab (Edit Parts Dialog Box)

Quick Reference

Edits parts within a selected parts family for inclusion in a spec sheet.
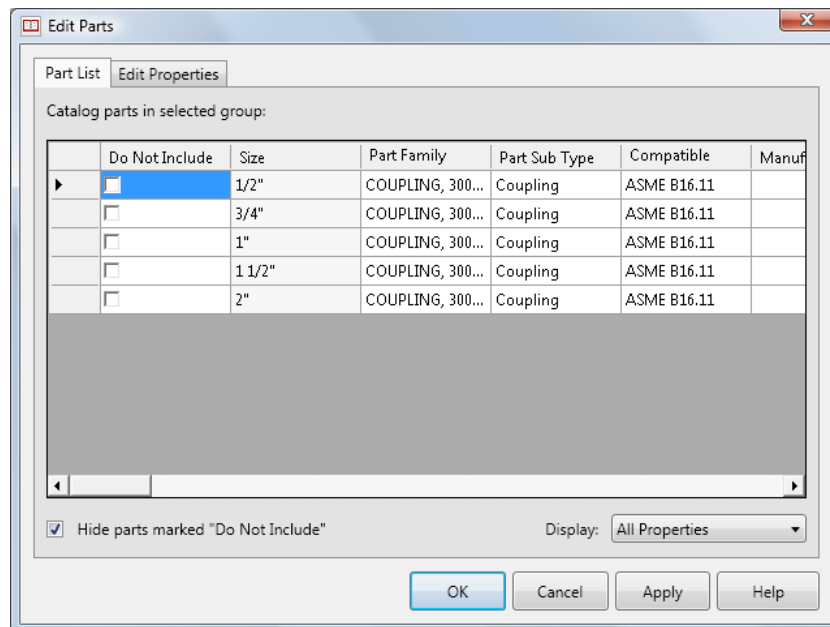
List of Options

Displays part family properties and parts, and sets up part use priority within a part family based on part sizes.

Do Not Include Removes a specific part size from the spec.

Hide Parts Marked Do Not Include Specifies whether read-only properties are displayed. When clear, all part sizes display.

Display Displays catalog properties, added properties, or both (All Properties).

Edit Properties Tab (Edit Parts Dialog Box)

Quick Reference

Adds and modifies property definitions for a selected part.
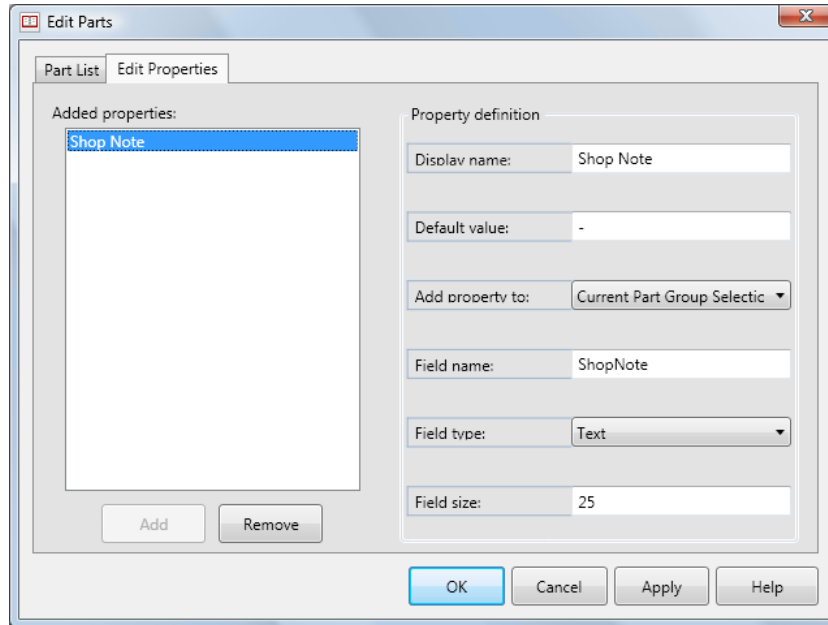
List of Options

Adds new properties and sets property definitions for the current selection or for all parts in a spec.

Added Properties Lists added (custom) properties.

Display Name Sets the property display name.

Default Value Sets the property default value.

Add Property to Adds the property to the selected parts, or to all parts.

Field Name Sets the field name.

Field Type Sets the property type. You can specify a text, numeric, or a check box type (True/False).

NOTE If you specify a Text type, a Field size is required. If you specify a Numeric type, specify a Default value. If you specify a check box, specify a Default value of either **True** or **False**.

**Field Size** Sets the size of a text type. You can specify a size that is from 1 through 255 characters.

Add Adds a property using the values specified in the Property Definition.

Remove Deletes a property in the list.

Edit Spec Description Dialog Box

Quick Reference

Edits the spec sheet description.
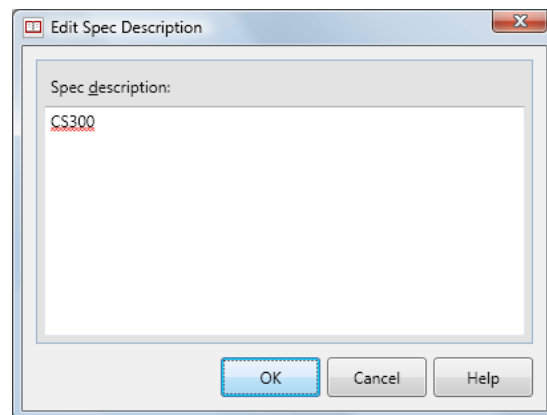
List of Options

Edits the main description in a spec sheet in a spec sheet.

Spec Description Blank text box for which to add a description. You can right-click to spell check.

Expand Group Dialog Box

Quick Reference

Displays all part sizes for a part group.

Part Family Long Desc	Part Sub Type	Compatible Standard	
PIPE, PE, ASME B36.10	Pipe	ASME B36.10	PIPE, 12" ND, PE, ASM
PIPE, PE, ASME B36.10	Pipe	ASME B36.10	PIPE, 14" ND, PE, ASM
PIPE, PE, ASME B36.10	Pipe	ASME B36.10	PIPE, 10" ND, PE, ASM
PIPE, PE, ASME B36.10	Pipe	ASME B36.10	PIPE, 6" ND, PE, ASM
PIPE, PE, ASME B36.10	Pipe	ASME B36.10	PIPE, 8" ND, PE, ASM
PIPE, PE, ASME B36.10	Pipe	ASME B36.10	PIPE, 22" ND, PE, ASM
PIPE, PE, ASME B36.10	Pipe	ASME B36.10	PIPE, 24" ND, PE, ASM
PIPE, PE, ASME B36.10	Pipe	ASME B36.10	PIPE, 20" ND, PE, ASM
PIPE, PE, ASME B36.10	Pipe	ASME B36.10	PIPE, 16" ND, PE, ASM

List of Options

Catalog Parts In Selected Group Displays all part sizes for a part group (part family) when browsing the catalog in the Spec Editor on page 29.

Modify Catalog Properties Dialog Box

Quick Reference

Adds and modifies property definitions in a catalog.
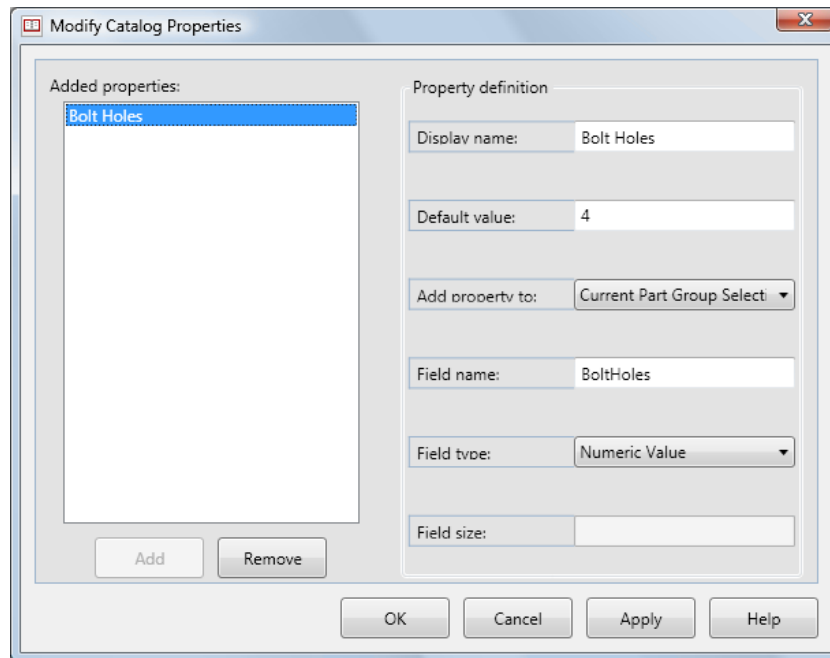
List of Options

Adds and provides property definitions for all parts or for a selected group of parts.

Added Properties Lists added (custom) properties.

Display Name Sets the property display name.

Default Value Sets the property default value.

Add Property to Adds the property to the selected parts, or to all parts.

Field Name Sets the field name.

Field Type Sets the property type. You can specify a text, numeric, or a check box type (True/False).

NOTE If you specify a Text type, a Field size is required. If you specify a Numeric type, specify a Default value. If you specify a check box, specify a Default value of either **True** or **False**.

Field Size Sets the size of a text type. You can specify a size that is from 1 through 255 characters.

Add Adds a property using the values specified in the Property Definition.

Remove Deletes a property in the list.

Part Use Priority Dialog Box

Quick Reference

Sets the order that parts are used based on part size.
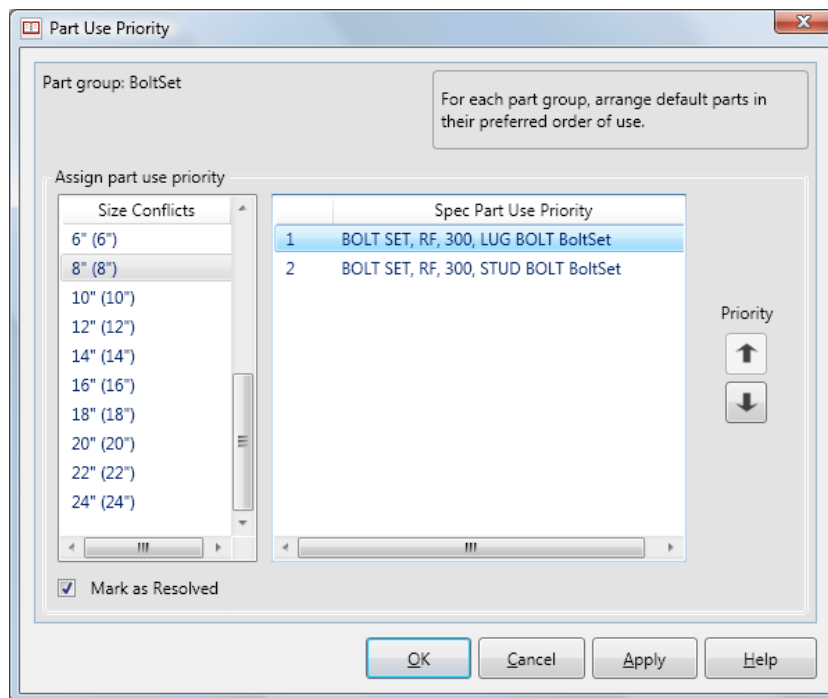
List of Options

Part Group Displays the part group selected in the spec sheet.

Assign Part Use Priority
Size Conflicts Specifies part sizes. You specify a part size before you can set Priority or Mark as Resolved. You can select more than one size conflict to mark as resolved.

Spec Part Use Priority Specifies the spec part to modify.

Priority Arrows Modifies part use priority. You must have a spec part specified to change priority.

Mark as Resolved Marks the size conflict as resolved. When all sizes are marked resolved, the spec sheet displays a green circle in the spec sheet.

Resolve Excel Import Changes Dialog Box

Quick Reference

Resolves changes made to imported Excel files.
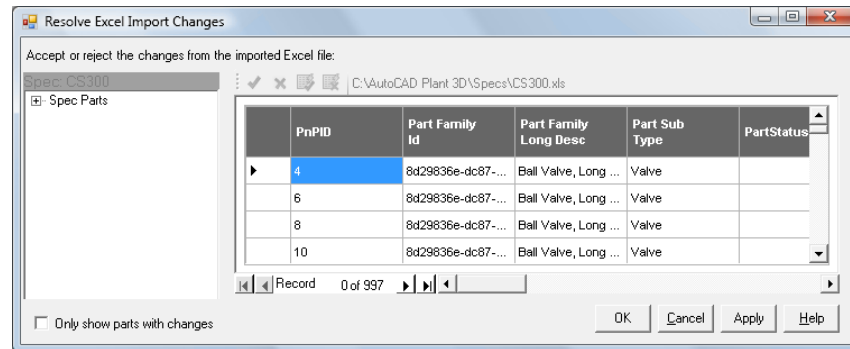
When you import Spec or Catalog parts, you can specify which changes to accept and which to reject. Importing data into the Specs and Catalogs editor is like importing data into the AutoCAD Plant 3D Data Manager. For more information, see Accept and Reject Edits.

Select Branch List Dialog Box

Quick Reference

Sets the preferred order of branch components used when routing and branching pipe in AutoCAD Plant 3D.
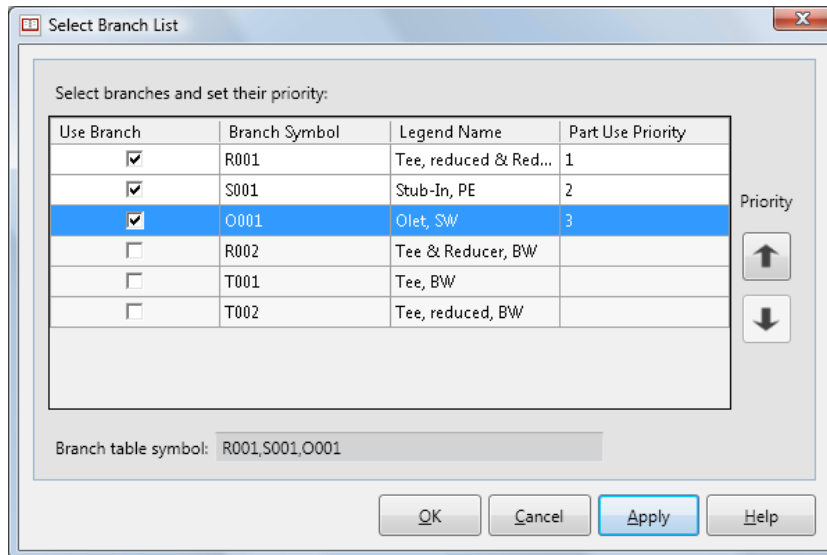
List of Options

Use Branch Specifies whether the branch type is included in the branch list.

Branch Symbol Displays the Branch Symbol for the branch type. You can add and remove branch symbols in the Branch Table Setup dialog box on page 37.

Part Use Priority Displays the priority for the branch type.

Priority Arrows Sets the priority for the branch type.

Select Branch Connection Dialog Box

Quick Reference

Sets a branch type when the existing branch type is not valid.
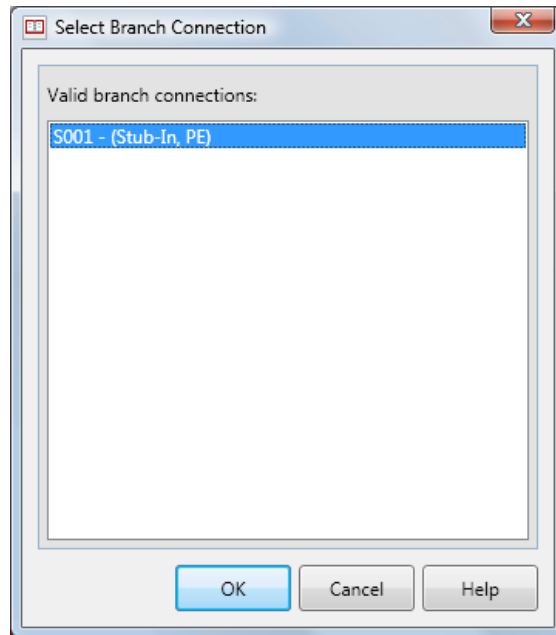
List of Options

Valid branch connections Sets a branch connection.

Spec Editor Layout and Settings Dialog Box

Quick Reference

Sets preferences for the Spec Editor workspace layout.
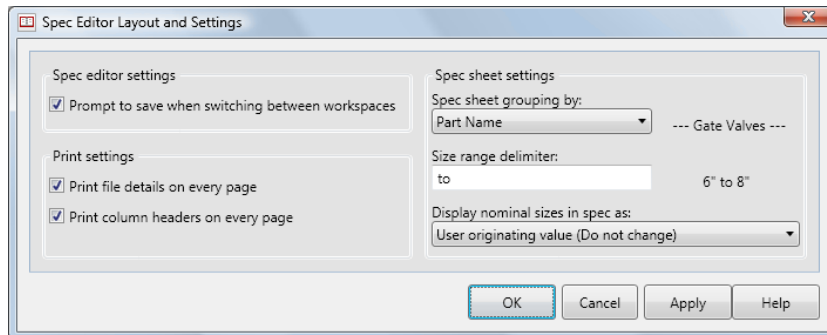
List of Options

The following options are available in this dialog box.

Prompt to save when switching between workspaces When selected, prompts you to save any files that have been modified when switching to a different workspace.

Print file details on every page When selected, details such as the spec description, file name, and file date are added to the top of each page. When clear, file details appear only on the first page.

Print column headers on every page When selected, the column name appears at the top of every page.

Spec sheet grouping by Groups items in the spec sheet by part category (for example: Fittings), part name, or both.

Size range delimiter Sets the word or character to use in a size range.

Display nominal sizes in spec as Displays units in the spec sheet in imperial units, metric units, or unconverted (native).

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