Modifying Your Own Custom Content Center - *Paul Doubet*

Many users have struggled with using Content Center parts in their Inventor models. This article will explain how to modify your Custom Content Center Library to better meet your unique company requirements for the BOM data that is used to create Parts Lists in your idw or dwg files.

Making changes to the BOM data can be a time consuming and error prone task when done manually through the BOM editor after a model is completed. By creating your own Custom Content Center Library you can customize the data available in the Inventor iProperties and control the formatting of those iProperties in your BOM data.

Inventor 2009 introduced the ability to format a parameter for export which opened up many options previously not available. If you are not using Content Center or are still using a version older than Inventor 2009 you really should upgrade. The ability to format parameters for export and use them in an iProperty formula and your BOM data is worth the upgrade cost and effort.

Using your own Stock Numbers, Descriptions, and Part Numbers

The data that is supplied with the Content Center parts is stored in a Family Table. The user must first create a read/write Content Center Library and add the desired Families to the Library before the data in the Family Tables can be modified to use your own stock numbers, descriptions, and part numbers. After the read/write Library is created edit your project file to include the new Library. Open the Content Center Editor to add a copy of the Families to be edited to the new Library using the 'Copy To' or 'Save Copy As' options shown in Figure 1 and Figure 2.
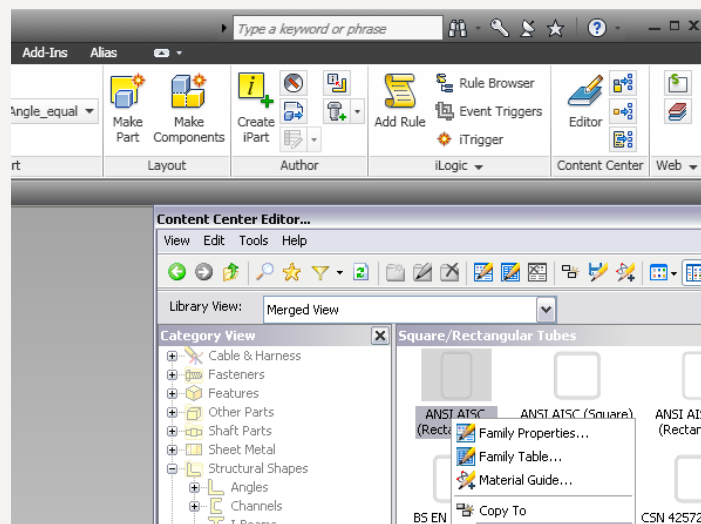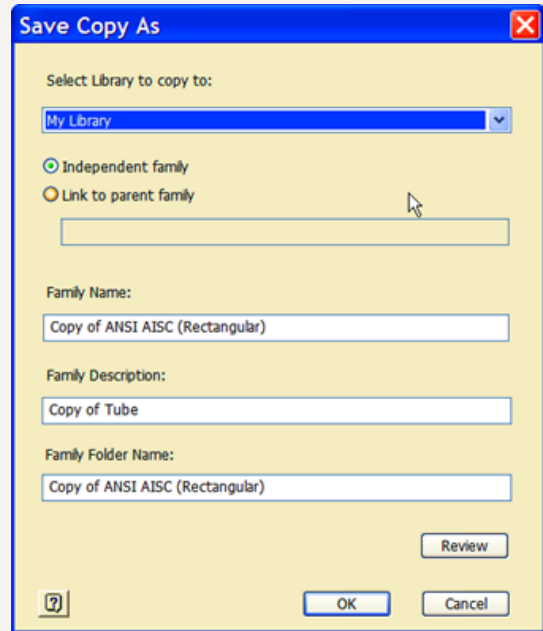

Figure 2 - Save Copy As Dialog

At this point don't be concerned about the information shown in the Family Name, Family Description, and Family Folder Name entries; this can be changed after the new family is added to your Library.

Next, modify your new Family Properties by highlighting the new Family icon and right click, then select the 'Family Properties' option. In this dialog box you can change the Family Name, Family Description, and Family Folder Name entries to suit your company needs.

I like to change the Thumbnail image using the tab shown on this dialog box after I render a new image by opening a file from this Family using the 'Open from Content Center' option.
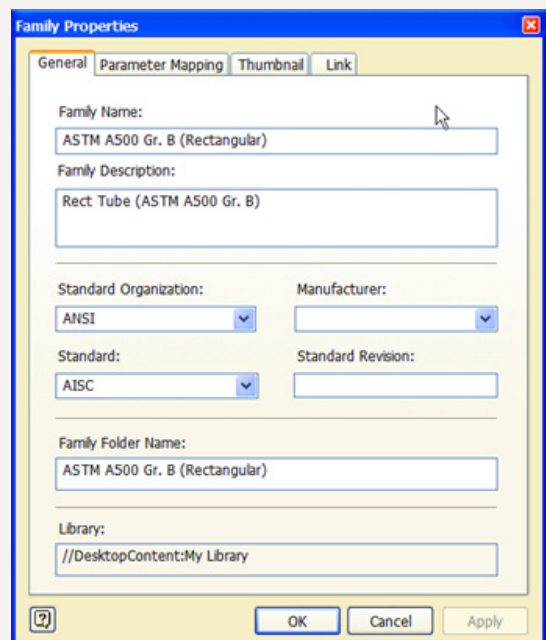

Figure 1 - Right-Click Menu Options

Figure 3 - Edit Family Properties Dialog

I recommend that you determine what your column definition needs are before you start editing the Family Table. Write down what you want your stock number, description, and part number to look like. In this article we will use the following example:

Stock Number: Rect Tube 3 x 2 x 0.25 Wall
Description: Rectangular Tube
Part Number: Rect Tube 3 x 2 x 0.25 Wall x 12
File Name: Rect Tube 3 x 2 x 0.25 Wall x 12

Next, we will modify the data to use the desired wording and parameters for each column in the Family Table. Modify the Family Table by highlighting the desired icon and right click (Figure 1), then select the 'Family Table' option. In the Family Table, I like to hide any columns I don't need to edit. You can do this by holding the mouse pointer over the column heading and right click, then select 'Hide' to hide any columns you don't need to edit.
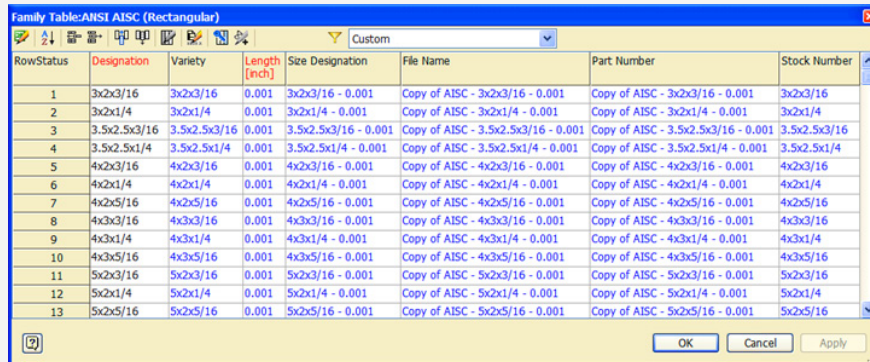

Figure 4 - Edit Family Table Dialog Box

The first column to edit will be the Stock Number, right click the column heading and select the 'Column Properties' option. In the Column Properties dialog box the Expression Column entry refers to a parameter defined as G_D and the Map to Inventor Property entry shows this parameter is mapped to the Project.Stock Number.

The G_D parameter is the text contained in the '*Designation*' column which is a Key Column. Key Columns have the column heading in red to indicate the columns that you want to appear in your dialog box when you place an item from this Family using 'Place From Content Center' and in Frame Generator, etc. Edit the Expression Column by deleting the existing {G_D} entry and type the following text: "Rect Tube ". Next, left click on the '...' button at the end of the Expression Column entry. This will display a list of parameters that are available in this Family Table as shown in Figure 5.
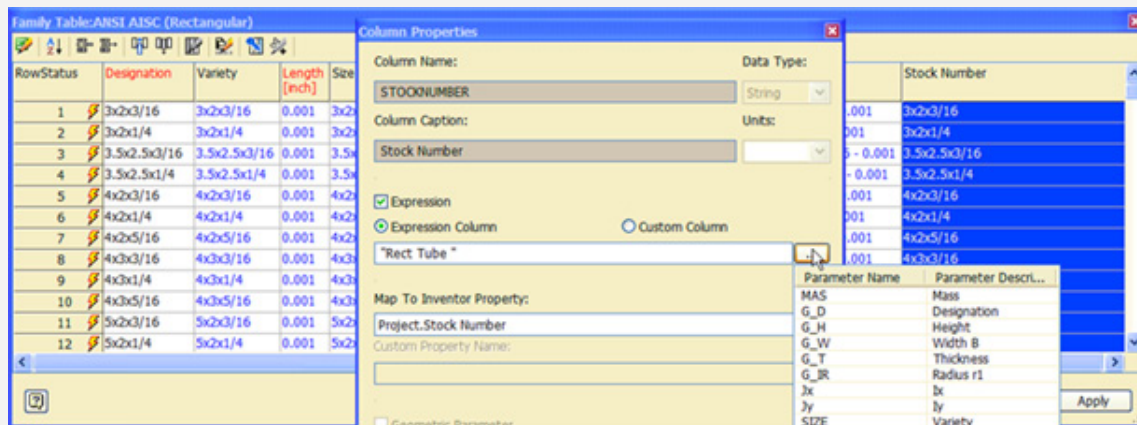

Figure 5 - Column Properties Edit Dialog Box

Now, we need to double click on the G_H parameter to insert it into the Expression Column entry. Next type the following text: " x ". Select the parameter button again and double click the G_W parameter then type " x " and add the G_T parameter and type " Wall". Click the OK button to exit this dialog box. This completes the edits to the Stock Number column and you can see the new text shown in the Family Table dialog box. For clarification take another look at the Stock Number column properties by right clicking the column heading again and selecting the Column Properties option. Now you see the text and parameters you typed in have been modified to show the "&" before and after the parameter names as shown in Figure 6.
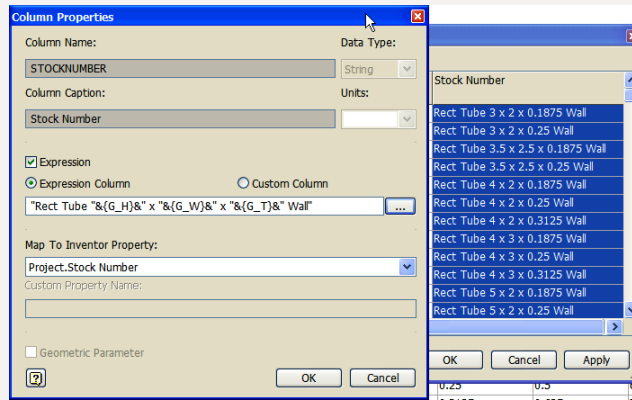
Figure 6 - Stock Number Expression after Edits

Next we will edit the Part Number column using the same basic steps used for the Stock Number column:
- Right click the Part Number column heading and select 'Column Properties'
- Delete the existing entries
- Select the '...' button and insert the parameter Stock Number
- Type " x " and then insert the parameter B_L
- Click OK to finish editing the column

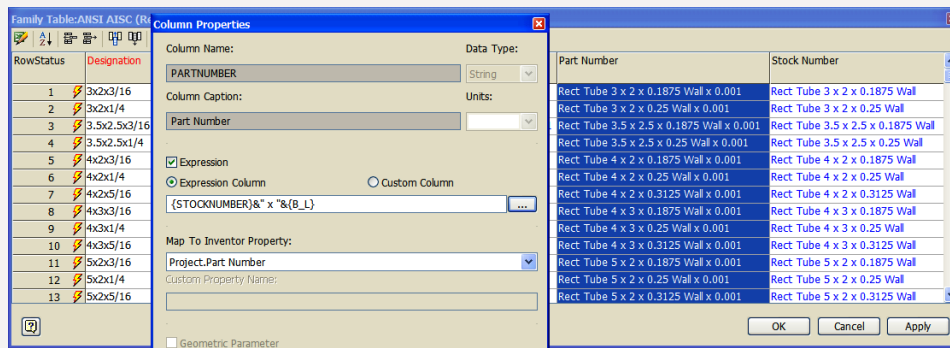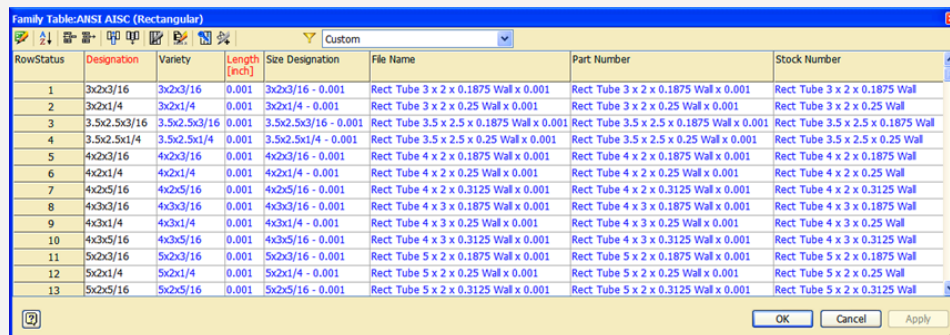Your Family Table should look like the one below:

Figure 7 - Part Number after Edits

Now we will edit the File Name column using the same basic steps used for the Stock Number column:
- *Right click the File Name column heading and select 'Column Properties'*
- *Delete the existing entries*
- *Select the '...' button and insert the parameter Part Number*
- *Click OK to finish editing the column*

Your Family Table should look like the one in Figure 8.

The last item to change is the Description for this Family which by default is the Family Description shown in Figure 3, 'Rectangular Tube'. This column can be added to the Family Table and then mapped to an Inventor Property. Use the following steps to change the Description to a different value:

- Left click on the 'Add Column' button near the top left as shown in Figure 10
- Fill in the Column Name and Column Caption by typing 'Description' in both places (Fig. 9)
- Check the box next to 'Expression' and add the parameter Stock Number (Fig. 9)
- Click the down arrow button on the 'Map to Inventor Property' and select 'Project.Description' (Fig. 9)
- Click OK to close the first dialog box and click OK again to close the Family Table dialog box.
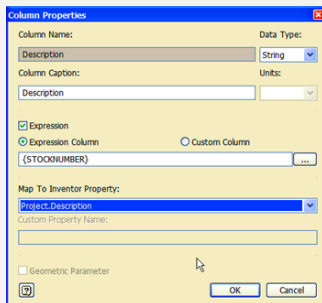

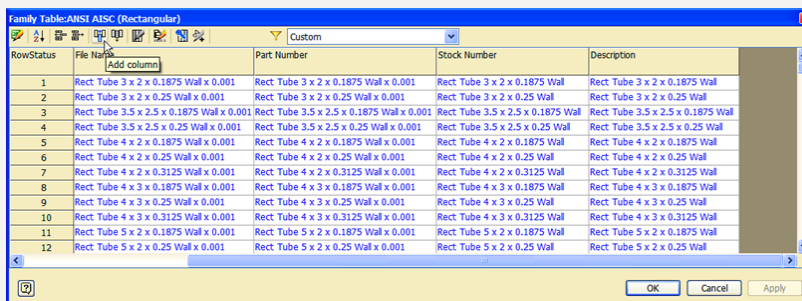Figure 9: Column Properties for Description Column.

Figure 10: Family Table with Description column added and mapped to the Stock Number parameter

The last step is to close the Content Center Editor and test the changes made to the Family Properties and Family Table. Use the 'Open from Content Center' option to create a new part from this Family and review the iProperties of the new ipt file. The new part is shown in Figure 11 with the iProperties for Stock Number, Description, Part Number, and File Name using the text and parameters previously described.
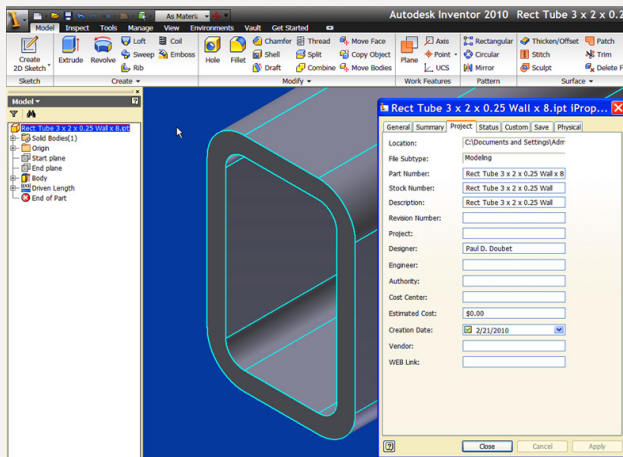

Figure 11: Finished Part with changes to iProperties

The examples shown here are intended to lead you through the steps required to make the changes you need to fulfill your own company requirements. I have intentionally shown how to change the most commonly used iProperties in the ipt file. The same changes can be made to the other Content Center Families including hardware and standard purchased parts that normally reside in a read only Library location which limits editing of those parts. If you have published your own iParts to Content Center the steps outlined above can be used to modify iProperties of those Families after they have been published. Please stay tuned for next month's follow up article on using a Custom Content Center with Frame Generator.

Paul Doubet has been using Autodesk products since 1989 and Inventor since R1. He has over 35 years experience in the fabrication & manufacturing field. Paul has worked as an independent contractor since September of 1992 performing product design & development and providing CAD/CAM training and consulting services. He is the co-inventor on two patents for the Whalen Outdoor Firepit, which is a very well known consumer product. Paul has performed design projects for Caterpillar, John Deere, Case-IH, Yetter Manufacturing, Whalen Manufacturing, and numerous other companies in the Midwest and several companies in Colorado.
Paul can be reached by email at: pauldoubet@sbcglobal.net.