

CS129155 (Repeat)

## Fabrication: 60 Tips in 60 Minutes

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### Learning Objectives

- Learn practical tips for Fabrication CADmep
- Learn practical tips for Fabrication ESTmep
- Learn practical tips for Fabrication CAMduct
- Learn practical tips for fabrication database management

### Description

In 60 minutes, you'll learn 60 all-new tips and tricks for Fabrication CADmep software, Fabrication ESTmep software, and Fabrication CAMduct software. No frills or long lectures—just a few product veterans in a tag-team-style, rapid-fire demonstration. This session will be fast paced, so we'll have no time for questions, but we'll gladly follow up with all attendees after Autodesk University to address any questions.

### Speaker(s)

**Darren Young** is based in Washington state and has been a veteran Autodesk University speaker for well over a decade. His unique ability to leverage multiple every day technologies in interesting ways to solve implicated and laborious tasks has been valued by users around the world. Down to earth and approachable, he's always willing to help his peers anytime of the year even outside of Autodesk University. Darren's background includes a wide variety of disciplines such as Construction, Engineering, Manufacturing, LEAN, Information Technology, Computer Programming, Author and Technical Editor. His lectures and labs are not just a training opportunity for others but a venue which connects him personally with users helping him learn as well.

**Jubel Beren** is the Building Information Modeling (BIM) Technologies Manager at ProCraft Mechanical Inc., in Broomfield, Colorado. His duties include, but are not limited to, managing the Autodesk, Inc., Fabrication software products. He maintains the Fabrication database for CamDuct, CadDuct, and Remote Entry, as well as trains his team on all 3 products. He has been using AutoDesk Fabrication software for almost 20 years now, and he has trained others on the software worldwide.

**Greg Murphy** is currently working at Murphy Company located in St. Louis, MO. Murphy Co. is a Design Build Mechanical Contractor that performs piping, plumbing and sheet metal. He has over 35yrs of experience in the Mechanical Contracting Industry with extensive experience in estimating and detailing for Mechanical Piping, Process Piping, Plumbing and Sheet Metal. Greg has trained Autodesk Fabrication ESTmep as well as other software packages and he has trained others on the software worldwide. He attended Louisburg Junior College in Louisburg, NC for computer science and also attended Wake Technical Community College in Raleigh, NC for mechanical engineering technology.

## Tip #1 (Darren)

CID 2884 (Bullhead Tee) had a bug in Build 2018.0.0. Dimension “I” when set to 90 Degrees would produce dimension errors. Builds 2017.2.2 and 2018.1.1 do not have this issue.

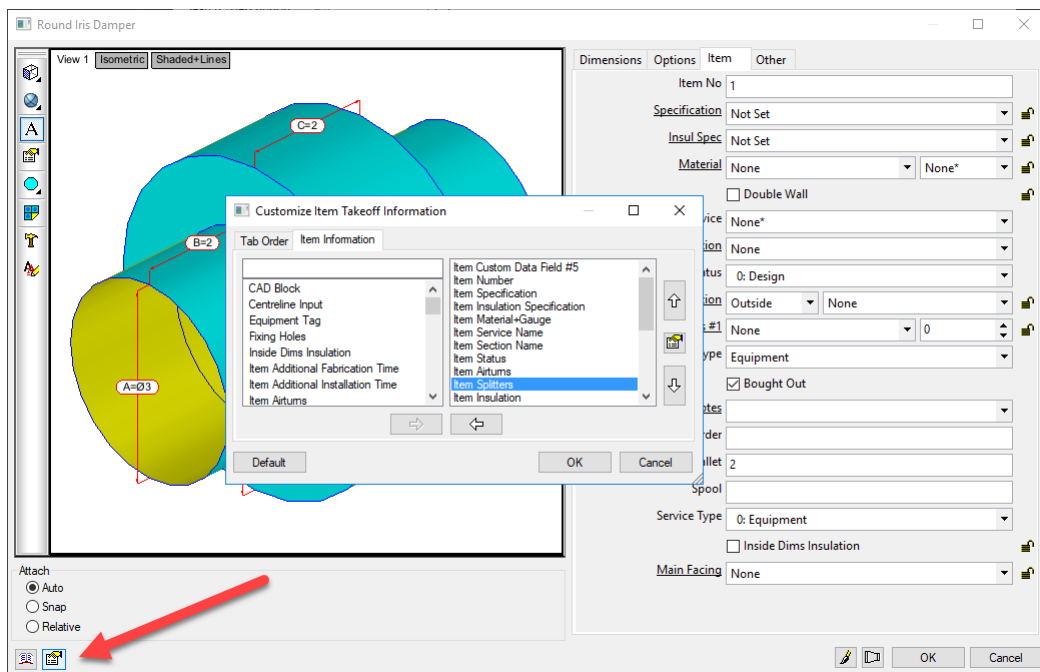
To work around the issue, you can change the angle to “90.0000001”. The point of this tip isn’t to focus on this one CID #. Rather, notice how a little creative testing worked around the issue.

When new releases or service packs come out, when you run into errors that crop up like this, quite often it’s possible to work around them with a little trial and error.

For this tip, don’t focus on the CID, ITM or the version, rather notice how the issue was resolved. A lot of bugs that creep into the software can be resolved using a little clever poking around and trial and error.

## Tip #2 (Jubel)

You can customize the information that’s displayed in the ITEM tab of the ITEM editor. This information applies to all ITM’s that have not had their Takeoff Information customized individually.



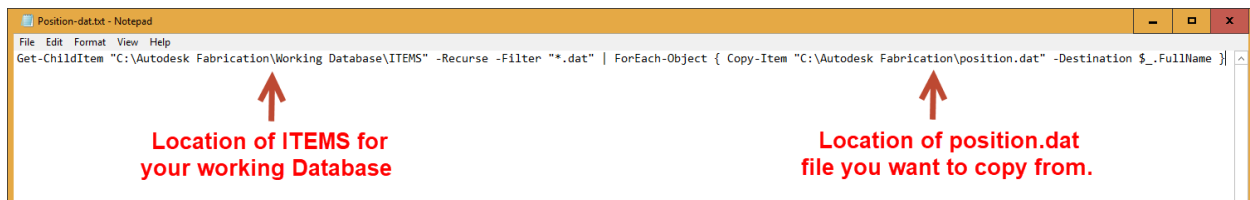
Screencast - <http://autode.sk/2yiGoNE>

### Tip #3 (Greg)

(Courtesy of Davis Ronson @ Applied Software)

Ever browse the ITM's folder from Windows? Notice the POSITION.DAT file? This holds all the view settings of the folder in the Folders palette (Large Icons vs Small Icons, sort order, etc.). You can set one folder as you like and copy the POSITION.DAT file from that folder to the others to make them all the same.

The new part to this Tip (*Tip #40 in this class @ AU 2015 shows how to do the same thing with a Batch File.*) is if you use the Windows PowerShell is then you can copy position.dat you want to all the sub folders at the same time.



<https://www.youtube.com/watch?v=AYfgzwgtEds>

### Tip #4 (Darren)

Use Apache Open Office Suite's "Calc" (their version of Excel) to open multiple TXT and CSV files quickly. You can set the import settings one (as opposed to each file like Excel) and just keep clicking OK to open them. This makes it easier to open CSV's without fractions or other codes getting converted to dates or other data types automatically by Excel.

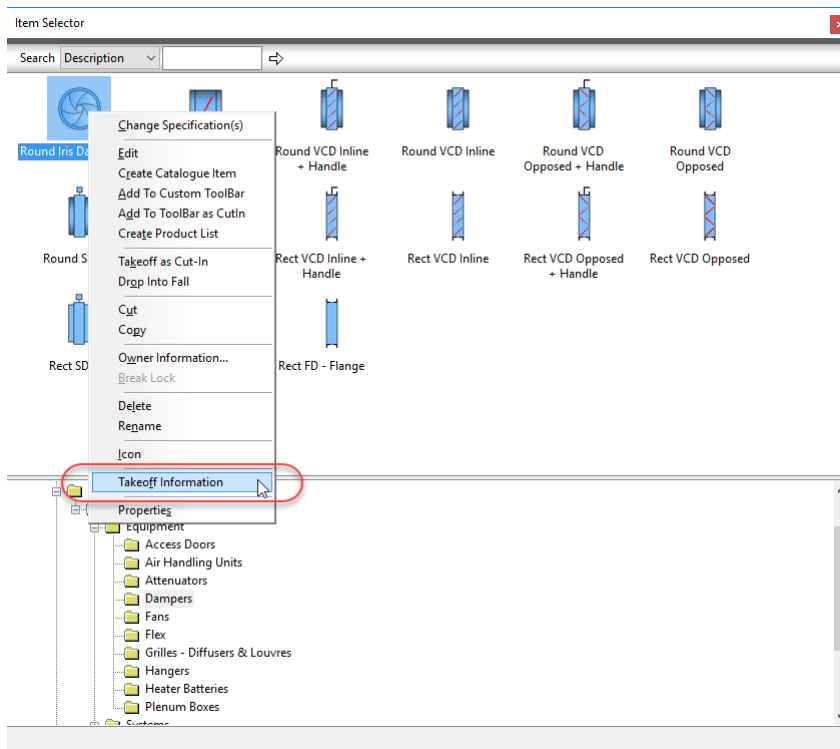
ScreenCast (Microsoft Excel) - <http://autode.sk/2ysrkAi>

ScreenCast (OpenOffice Calc) - <http://autode.sk/2yyiZXi>

PS: OpenOffice is free. Get it from <http://www.openoffice.org/>

### Tip #5 (*Jubel*)

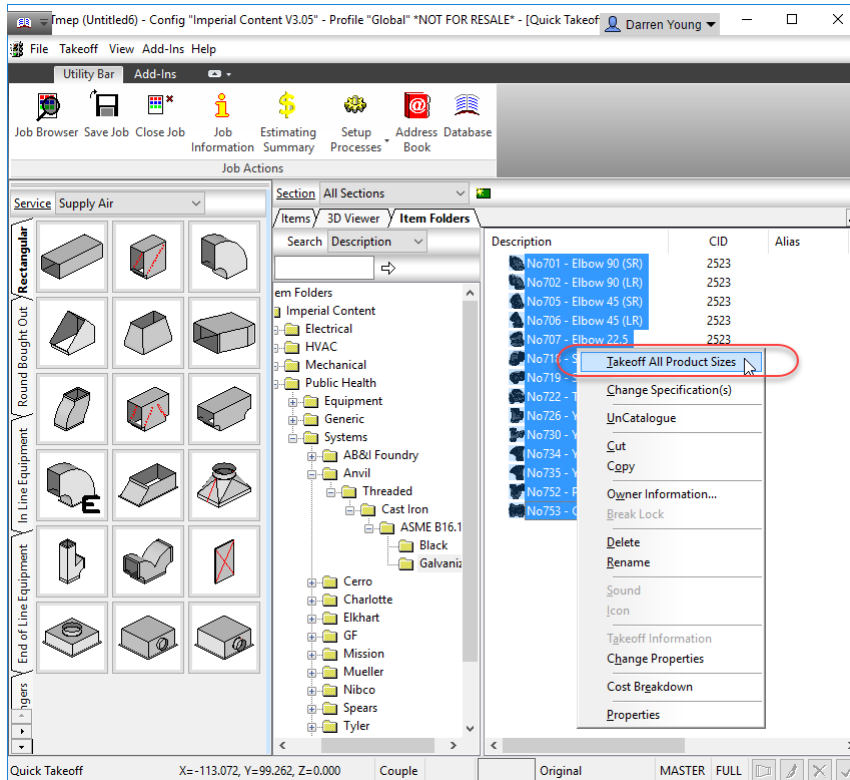
If making an ITM from another ITM, make sure you check/verify the Takeoff Information of the new ITM. This can't be scripted and unless you look, you could be carrying over incorrect takeoff information or custom data on your new ITM that you didn't anticipate. Unless needed, do not enable custom takeoff information on a CID.



Screencast - <http://autode.sk/2AIBCzn>

## Tip #6 (Greg) ESTmep/CAMduct

Ever need to test newly created ITM's. Takeoff ALL products for an ITM or multiple ITM's with-in a folder. Hold Shift and Ctrl down at the same time and Right Click. Select Takeoff All Product Sizes.



Screencast - <http://autode.sk/2ykgSHX>

## Tip #7 (Darren)

Working with Product List data in ITM content, often the product list is sorted by name. This may not be sorted based on real sizes and you get 1 x 1 x 1 fittings listed before ½ x ½ x ½. To resolve this, sort by the Dimensions in the product list to order the names based in a size hierarchy.

Screencast - <http://autode.sk/2ysrF62>

**Tip #8 (Jubel)**

This is the 3<sup>rd</sup> year doing the “Fabrication: 60 Tips in 60 Minutes” session. While some past tips may no longer be relevant, most still apply. You can access the prior 120 Tips here...

2014 Session:

<http://au.autodesk.com/au-online/classes-on-demand/class-catalog/classes/year-2014/fabrication-cadmep/fb6192#chapter=0>

2015 Session:

<http://au.autodesk.com/au-online/classes-on-demand/class-catalog/classes/year-2015/fabrication-cadmep/aec10927#chapter=0>

**Tip #9 (Greg)**

When editing a service template, you can copy ITM's from Other Service Templates however only one button at a time. If you Switch to the other Service Template, you can copy tabs from another Service Template then switch back to the Template you want to add them to and paste.

Screencast - <http://autode.sk/2m6mdRb>

**Tip #10 (Darren)**

Use Notepad++ to quickly search/replace multiple TXT/CSV files in multiple folders to standardize your ITM's Product List names.

Screencast - <http://autode.sk/2zkciJv>

PS: Notepad++ is also free. Get it here.. <https://notepad-plus-plus.org/>

**Tip #11 (Jubel)**

In CADmep, you can change the Folders view from Horizontal to Vertical.

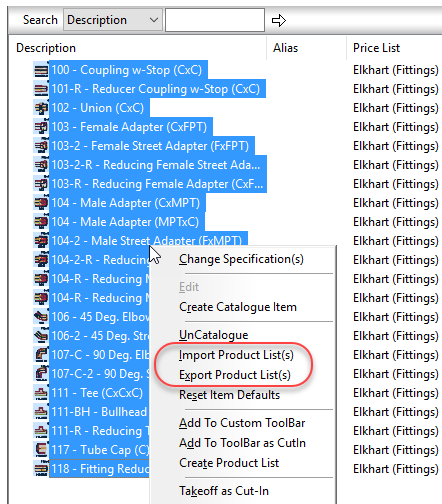
Screencast - <http://autode.sk/2hVOuFU>

**Tip #12 (Greg)**

When converting from Revit and you have created a RIF file. Keep the Valves in the Design Line export and on the Ignore tab set the Valves to No don't ignore. By doing this you can then use the Node Edit within Designline and Assign Valve Button Codes at one time or for each Valve type. This will fill valves with the one you've now assigned.

### Tip #13 (Darren)

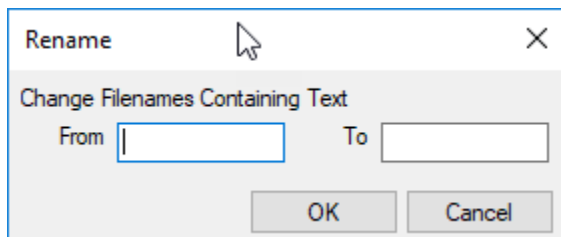
When in the Folders view, use Ctrl-Shift-Right-Click to Import/Export Product list data in bulk. This then makes the other product list data tips much more useful.



Screencast - <http://autode.sk/2xPkbW8>

### Tip #14 (Jubel)

You can Search/Replace Text Strings in ITM's using the FOLDERS Window by using the RENAME function when multiple Items are selected....



Screencast - <http://autode.sk/2Au7C5n>

### Tip #15 (Greg)

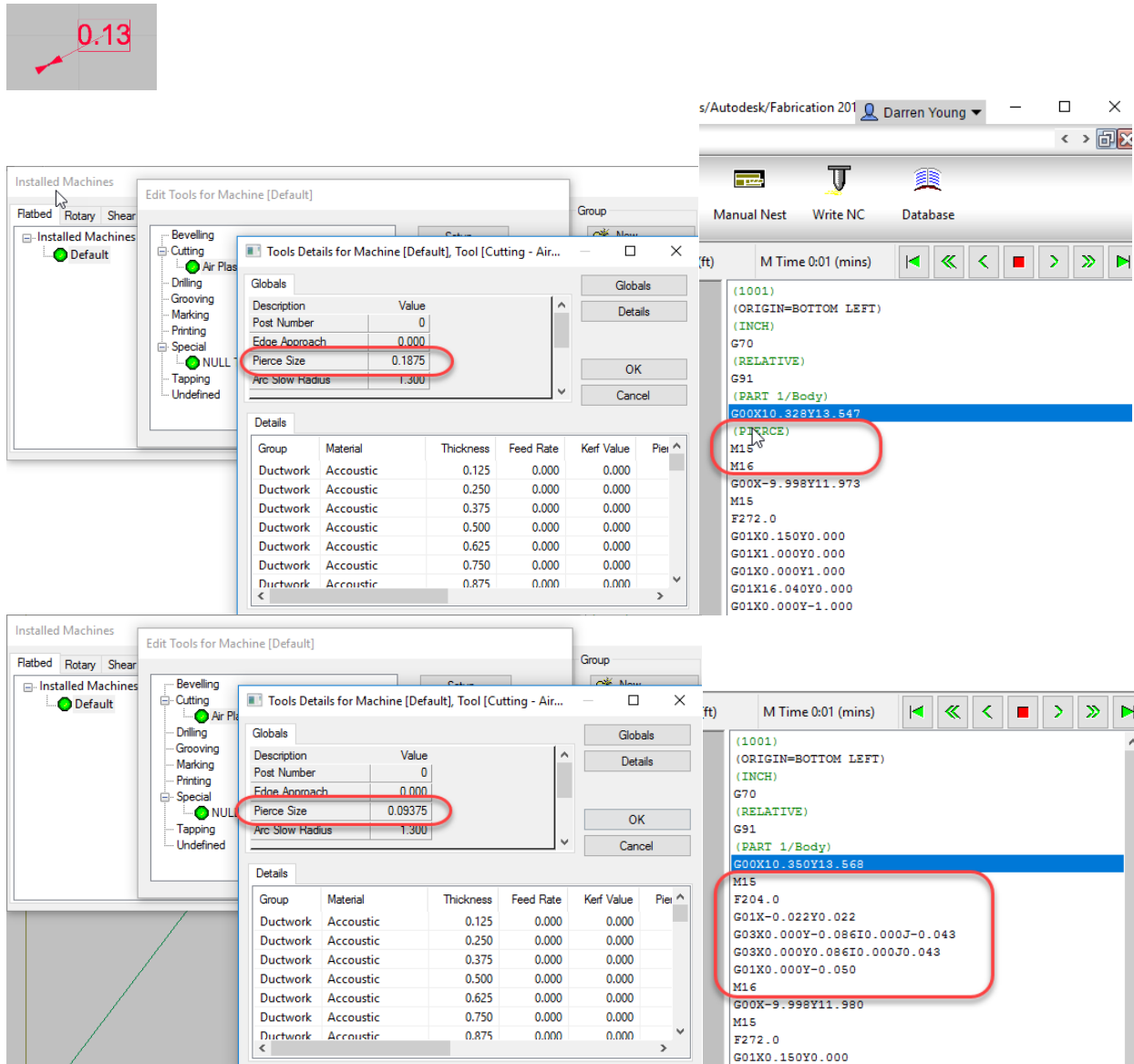
If your shop uses Vulcan (now called Trimble FabShop) instead CAMduct, you can export CADmep items for use in Vulcan/FabShop. Use the free Trimble Plugin located here....

[http://mepsolutions.trimble.com/CADmep-Integration-Download-File\\_LP-CADmep-Download.html](http://mepsolutions.trimble.com/CADmep-Integration-Download-File_LP-CADmep-Download.html)

Screencast - <http://autode.sk/2m8j7fs>

## Tip #16 (Darren)

When setting up Tools in a CAMduct machine, Pierce Size is often misunderstood. This is NOT the size of the pierce hole you wish to cut. Instead, this defines the maximum size a hole can be and still create a pierce. Any hole larger than this value is no longer pierced, it's cut as a hole.



The screenshot shows the CAMduct software interface. On the left, the 'Installed Machines' panel is visible. The 'Edit Tools for Machine [Default]' dialog is open, showing the 'Tools Details for Machine [Default]' tab. The 'Pierce Size' field is highlighted with a red circle, showing a value of 0.1875. The 'Details' table lists various tools, including 'Ductwork' and 'Accoustic'. On the right, the code editor shows a list of tools, with 'M16' highlighted. A red circle highlights the 'Pierce Size' field in the dialog and the 'M16' tool in the code editor.

Screencast - <http://autode.sk/2yAj28z>

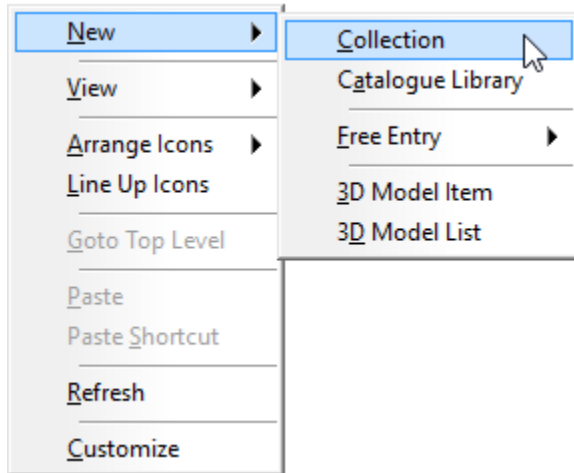
## Tip #17 (Jubel)

Implement naming standards throughout your database. Connectors, Services, ITM's, etc. Nothing should be in your database without having put some thought into naming standards.



## Tip #18 (Greg)

Select Collection. It will create a category called collection. This will allow you to combine multiple items together like an assembly.



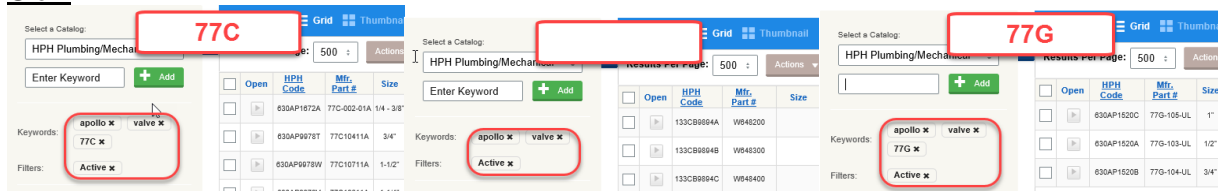
Screencast - <http://autode.sk/2ArK6Ff>

## Tip #19 (Darren)

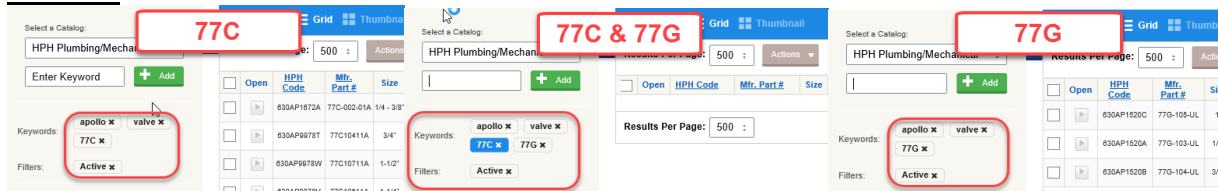
When searching in Cinx and returning large lists of results, clearing and adding new searches can be slow. Every time you remove a search term the results get longer and need to repopulate before you can add the new search term.

To speed up this process, you can add your new search term first before removing the old. This makes the list smaller, likely even non-existent which returns the results very quickly. You can then remove the original search term to get to the results you want.

*Slow...*



*Faster...*



Screencast - <http://autode.sk/2goHBvC>

## Tip #20 (Jubel)

Use WILDCARDS for help selecting/finding things in your database. They can be used many places including MAPFILTER, Reports, etc.

\* = Matches globally across multiple characters (e.g. “\*Floor”)

? = Matches a single character (e.g. “Floor 2?”)

## Tip #21 (Greg) - CADmep

Use the “Group By” function in ESTmep/CAMduct/FabViewer to organize your Takeoff data.

Item No	Name	Size	Qty	Material	Area	Insulation	Material	Notes
Cast Iron x ASME B16.12   1-1/2"								
33	No701 - Elbow ...	1-1/2"	1	Cast Iron x ASM...	0.000	Off		
37	No702 - Elbow ...	1-1/2"	1	Cast Iron x ASM...	0.000	Off		
39	No705 - Elbow ...	1-1/2"	1	Cast Iron x ASM...	0.000	Off		
43	No706 - Elbow ...	1-1/2"	1	Cast Iron x ASM...	0.000	Off		
44	No707 - Elbow ...	1-1/2"	1	Cast Iron x ASM...	0.000	Off		
46	No718 - Street ...	1-1/2"	1	Cast Iron x ASM...	0.150	Off		
48	No719 - Street ...	1-1/2"	1	Cast Iron x ASM...	0.102	Off		
50	No722 - Tee	1-1/2"	1	Cast Iron x ASM...	0.000	Off		
52	No726 - Y-Bran...	1-1/2"	1	Cast Iron x ASM...	0.000	Off		
57	No734 - Y-Bran...	1-1/2"	1	Cast Iron x ASM...	0.000	Off		
62	No752 - P-Trap	1-1/2"	1	Cast Iron x ASM...	0.000	Off		
64	No753 - Coupli...	1-1/2"	1	Cast Iron x ASM...	0.000	Off		
Cast Iron x ASME B16.12   2"								
34	No701 - Elbow ...	2"	1	Cast Iron x ASM...	0.000	Off		
38	No702 - Elbow ...	2"	1	Cast Iron x ASM...	0.000	Off		
40	No705 - Elbow ...	2"	1	Cast Iron x ASM...	0.000	Off		
45	No707 - Elbow ...	2"	1	Cast Iron x ASM...	0.000	Off		
47	No718 - Street ...	2"	1	Cast Iron x ASM...	0.208	Off		
49	No719 - Street ...	2"	1	Cast Iron x ASM...	0.159	Off		
51	No722 - Tee	2"	1	Cast Iron x ASM...	0.000	Off		
53	No726 - Y-Bran...	2"	1	Cast Iron x ASM...	0.000	Off		
56	No730 - Y-Bran...	2"	1	Cast Iron x ASM...	0.000	Off		
58	No734 - Y-Bran...	2"	1	Cast Iron x ASM...	0.000	Off		
Cast Iron x ASME B16.12   2"x2"x1-1/2"								
61	No735 - Y-Bran...	2"x2"x1-1/2"	1	Cast Iron x ASM...	0.000	Off		
Cast Iron x ASME B16.12   3"								
35	No701 - Elbow ...	3"	1	Cast Iron x ASM...	0.000	Off		
41	No705 - Elbow ...	3"	1	Cast Iron x ASM...	0.000	Off		
54	No726 - Y-Bran...	3"	1	Cast Iron x ASM...	0.000	Off		

Screencast - <http://autode.sk/2yiw9J1>

## Tip #22 (Darren)

When using Cinx, it's sometimes difficult to know which abbreviations they used in the description to be able to get a list of just the model you're looking for but all the sizes.

If you can find a very specific model/size, search for just that exact model number, Harrison code, UPC code, etc. This will typically return only 1 entry. This is typically enough to start to understand the nomenclature they used for the descriptions. You can then start adding those search terms and when you get most of them, removing that specific model from the search will typically return all sizes of the product you're looking for.

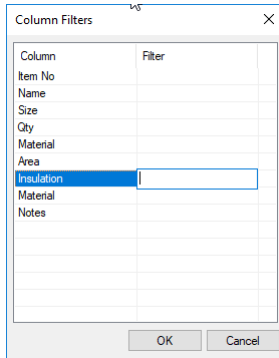
Example: **61LF** – Returns a lot of different products.

**61LF10301PR** – Returns just 1 entry. Now you know the search terms.

Screencast - <http://autode.sk/2znBsXZ>

### Tip #23 (Jubel)

Use the “Filter” function in ESTmep/CAMduct/FabViewer to filter Takeoff further. The Filter dialog will default on the property for the column that was used when you right-clicked to get to the Filter dialog.



Screencast - <http://autode.sk/2m65cXm>

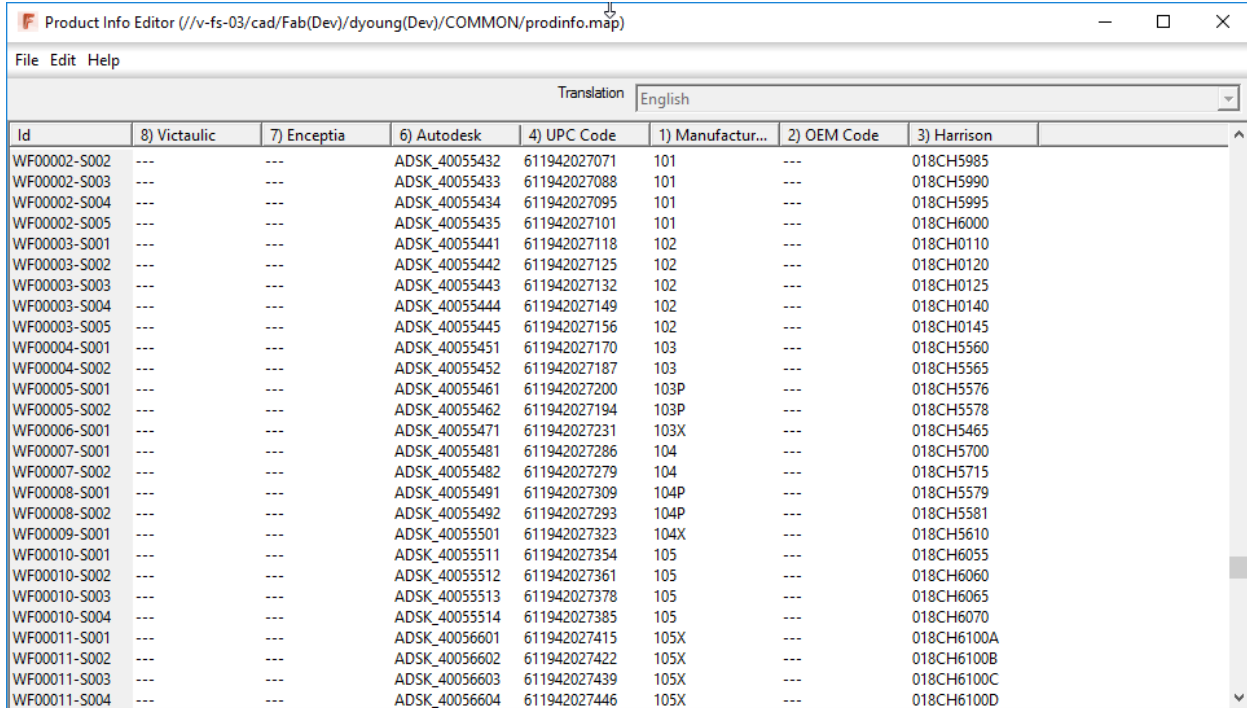
### Tip #24 (Greg)

Use the Show/Hide Filters functionality to give you a visual status on what filters are applied. They allow you to pick values based on the data in your Takeoff as opposed to typing in the filter value in the dialog.

Screencast - <http://autode.sk/2yJkS90>

### Tip #25 (Darren)

When filling out tables like ProdInfo, consider adding dashes to fields that are intentionally left blank. This will help you later when you see blank items in your database as you will know they are holes you forgot to address.



Id	8) Victaulic	7) Enceptia	6) Autodesk	4) UPC Code	1) Manufactur...	2) OEM Code	3) Harrison
WF00002-S002	---	---	ADSK_40055432	611942027071	101	---	018CH5985
WF00002-S003	---	---	ADSK_40055433	611942027088	101	---	018CH5990
WF00002-S004	---	---	ADSK_40055434	611942027095	101	---	018CH5995
WF00002-S005	---	---	ADSK_40055435	611942027101	101	---	018CH6000
WF00003-S001	---	---	ADSK_40055441	611942027118	102	---	018CH0110
WF00003-S002	---	---	ADSK_40055442	611942027125	102	---	018CH0120
WF00003-S003	---	---	ADSK_40055443	611942027132	102	---	018CH0125
WF00003-S004	---	---	ADSK_40055444	611942027149	102	---	018CH0140
WF00003-S005	---	---	ADSK_40055445	611942027156	102	---	018CH0145
WF00004-S001	---	---	ADSK_40055451	611942027170	103	---	018CH5560
WF00004-S002	---	---	ADSK_40055452	611942027187	103	---	018CH5565
WF00005-S001	---	---	ADSK_40055461	611942027200	103P	---	018CH5576
WF00005-S002	---	---	ADSK_40055462	611942027194	103P	---	018CH5578
WF00006-S001	---	---	ADSK_40055471	611942027231	103X	---	018CH5465
WF00007-S001	---	---	ADSK_40055481	611942027286	104	---	018CH5700
WF00007-S002	---	---	ADSK_40055482	611942027279	104	---	018CH5715
WF00008-S001	---	---	ADSK_40055491	611942027309	104P	---	018CH5579
WF00008-S002	---	---	ADSK_40055492	611942027293	104P	---	018CH5581
WF00009-S001	---	---	ADSK_40055501	611942027323	104X	---	018CH5610
WF00010-S001	---	---	ADSK_40055511	611942027354	105	---	018CH6055
WF00010-S002	---	---	ADSK_40055512	611942027361	105	---	018CH6060
WF00010-S003	---	---	ADSK_40055513	611942027378	105	---	018CH6065
WF00010-S004	---	---	ADSK_40055514	611942027385	105	---	018CH6070
WF00011-S001	---	---	ADSK_40056601	611942027415	105X	---	018CH6100A
WF00011-S002	---	---	ADSK_40056602	611942027422	105X	---	018CH6100B
WF00011-S003	---	---	ADSK_40056603	611942027439	105X	---	018CH6100C
WF00011-S004	---	---	ADSK_40056604	611942027446	105X	---	018CH6100D

### Tip #26 (Jubel)

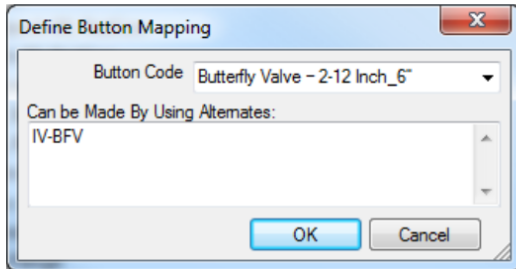
Use the “Select Filter” function in ESTmep/CAMduct/FabViewer to Filter your takeoff to a shorter list. Filters are applied on a Column by Column basis however, the “Clear Filter” function clears all column filters at once...e.g. “Showall”. Note that Wildcard characters are not supported for these filters.

Screencast - <http://autode.sk/2m8WVSO>

### Tip #27 (Greg)

When converting Valves from Revit they won’t convert automatically. If you run a Pipe Accessories Schedule from Revit First to get Revit Names, then you can add the Names to the Button Mapping and assign the Button Codes and then they will fill. Example Below:

- g. In the Button Code field, type in the Revit family name and type of the Revit part that you want to create the mapping for, using an underscore character between the family name and the type, as shown below.



This example uses the Revit Family name of **Butterfly Valve – 2-12 Inch** and a type of **6"**.

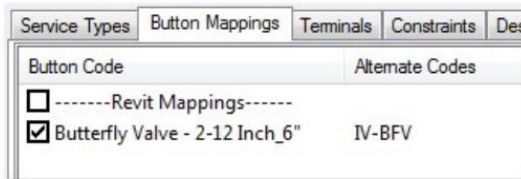
**Note:** Make sure to use an underscore character as a separator between the Revit Family name and type. Also, you may need to resize the Define Button Mapping dialog to enter longer text strings.

- h. In the Can be Made By Using Alternates field, type in the Fabrication Button Code for the corresponding part in the Autodesk Fabrication products.

As noted in Step 2 above, the Button Code for this Butterfly Valve example is **IV-BFV**.

- i. Click OK on the Define Button Mapping dialog.

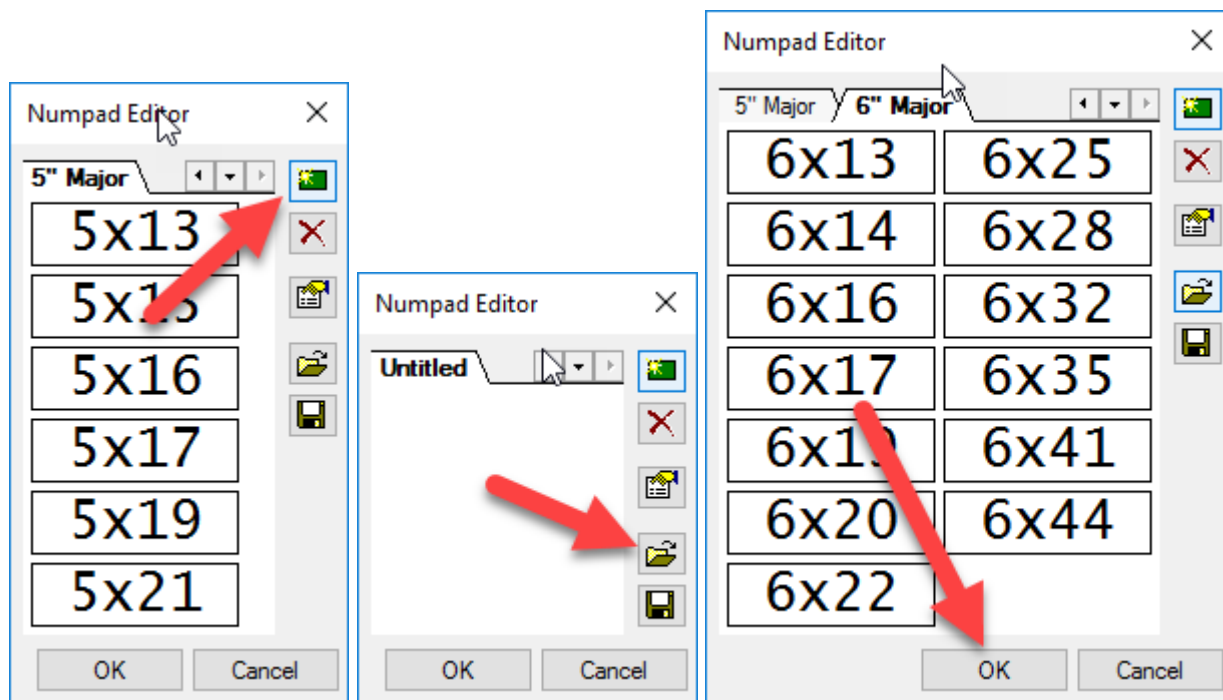
Now the Button Mappings tab entries should look similar to this:



### Tip #28 (Darren)

Fabrication Products have a numerical pad feature that can be customized to speed entry of input. NUMPAD. NUMPAD can have multiple layout tabs that allow you to quickly switch between them. Type EDITNUMPAD from the command line in AutoCAD or ESTmep/CAMduct's Console Window (Press CTRL-SHIFT-C to open the console window) to edit the Numpad layout or create new ones.

When you save from the NumPad Editor, you save the layout of the current tab to a KPL file (Key Pad Layout) so make sure you save each tab separately. Numpad's current layouts are saved in an NPL (Numpad Layout) file. By default, these files are in the same folder as MAP.INI. To share your entire Numpad, you can give someone your NPL file. Or you can give them a KPL which will allow them to "load" a layout to an existing tab of theirs.

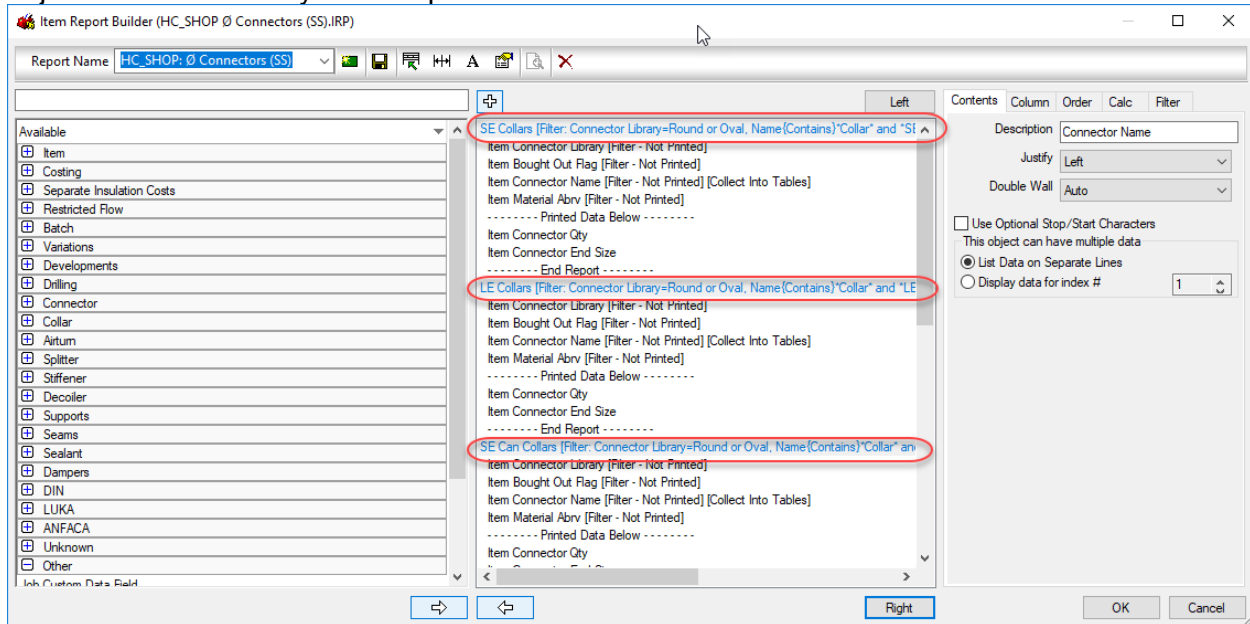


Screencast (Using Numpad for Oval size entry) – <http://autode.sk/2yZlISX>

Screencast (Creating/Loading Numpad Layouts) - <http://autode.sk/2xXYpja>

## Tip #29 (Jubel)

Rename Report Tables with Helpful information as to how that particular table works. This will save a lot of time when you work on reports, so you don't have to go through each of the report objects to see how they are setup.



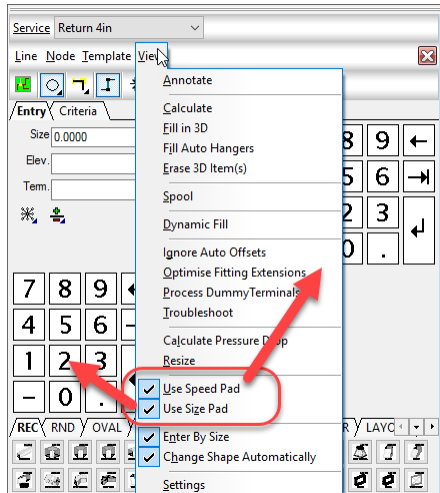
## Tip #30 (Greg)

A lot of Fabrication reference information is located on XtraCAD.Com. Here's you can find a variety of information that may be handy...

- Fabrication Build and Version History:  
<http://www.xtracad.com/forum/index.php/page,Build.html>
- CADmep LISP Function, CADmep Commands and Fab Viewer Commands History:  
<http://www.xtracad.com/forum/index.php/page,History.html>
- CID/Pattern List Version History and Revit Support:  
<http://www.xtracad.com/forum/index.php/page,CIDs1.html>
- Fabrication Report File Documentation:  
<http://www.xtracad.com/forum/index.php/page,Reports.html>
- CAMduct Post Processor History:  
<http://www.xtracad.com/forum/index.php/page,Processors.html>

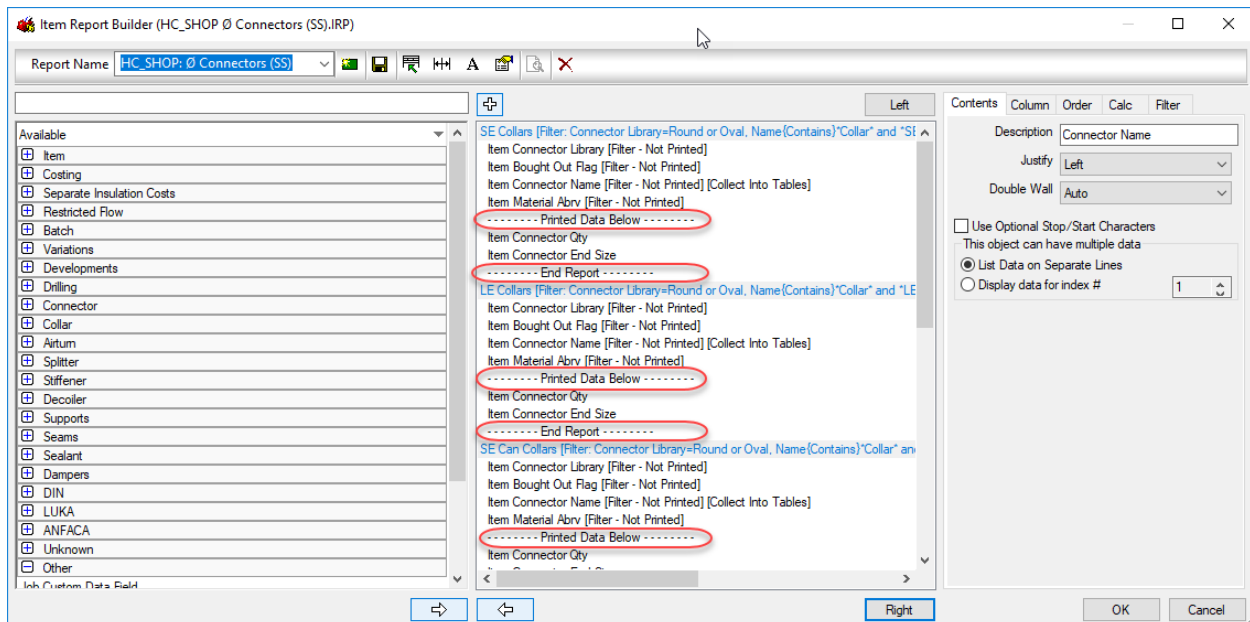
### Tip #31 (Darren)

If you save a Numpad layout to the file names “SPEEDPAD.KPL” and/or “SIZEPAD.KPL”, DesignLine can incorporate them into its palette. You may need to Exit and restart Fabrication for the changes to take effect.



### Tip #32 (Jubel)

Use Blank Objects as another way to organize your reports. It will make going into your reports later much easier. In this example, they are used to separate where Print Objects are merely used for filtering vs reporting the data.





### Tip #33 (Greg)

ChSpec – Use Change Spec to apply a new Insulation Spec to a run of piping or system instead of just Turning Insulation on or off.

### Tip #34 (Darren)

Using CADBlocks in ITM's is a great way to enhance the visual display of more complicated components when existing patterns don't display with the required detail or allow for a somewhat accurate representation. Note however, that these items don't display well or at all in ESTmep/CAMduct or Revit. Avoid their use if interoperability in these programs is needed.

### Tip #35 (Jubel)

When trying to clean up your duct configuration, some items continue to bring in Materials, Connectors and/or Seams you are trying to get rid of or that you'd previously renamed or moved. This can create the dreaded {bracketed} items showing back up.

Many ITM's can store Doublewall Materials/Seams/Connectors even when the Doublewall flag is NOT set. Try toggling on Doublewall and verify that there are no Materials/Seams/Connectors set for Doublewall. This is something you should also look for when copying/editing ITM's as you can inadvertently duplicate these issues.

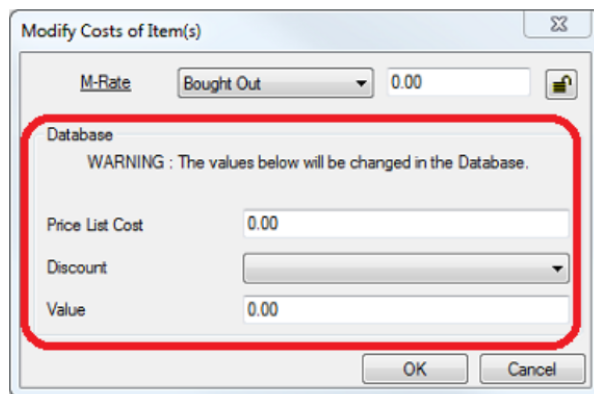
Screencast - <http://autode.sk/2m6PACX>

### Tip #36 (Greg)

The Modify Costs of Item(s) dialog displays. Using this dialog, you can modify the following cost settings on the selected item in the drawing:

- edit the M-Rate table by clicking the M-Rate drop-down list
- edit the M-Rate value by typing a value into the value cell
- lock or unlock the M-Rate table and value setting by clicking the lock icon.

**Note:** Modifying these item cost settings at the top of this dialog (above the Database section of the dialog) modifies the selected instance of the item in the drawing (drawn item). **It does not modify the settings in the database.** To edit the settings in the database, you must edit the settings in the Database section of this dialog, as described in the next step.



### Tip #37 (Darren)

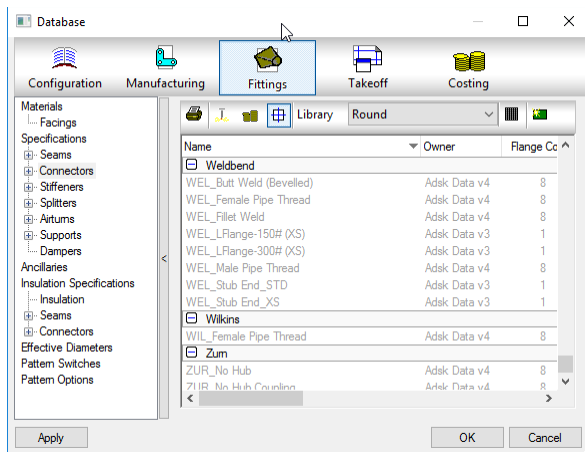
Ever get tired of all your connector groups being expanded when opening the connectors? Instead of closing them all, you can edit (or delete) the file DBCONFIG.INI which is located here...

C:\Users\<username>\AppData\Local\Autodesk\Fabrication <year>\CADmep

C:\Users\<username>\AppData\Local\Autodesk\Fabrication <year>\ESTmep

C:\Users\<username>\AppData\Local\Autodesk\Fabrication <year>\CAMduct

This files can be opened in Notepad and edited or just plain deleted to default all connector groups to be closed. Th file tells Fabrication which Connector groups are “Active” or opened.



Screencast – <http://autode.sk/2iurPmZ>

### Tip #38 (Jubel)

Use can Copy/Paste report tables within the same report or even between reports. This makes setting up multiple similar tables or reports a lot easier.

Screencast - <http://autode.sk/2yk44RP>

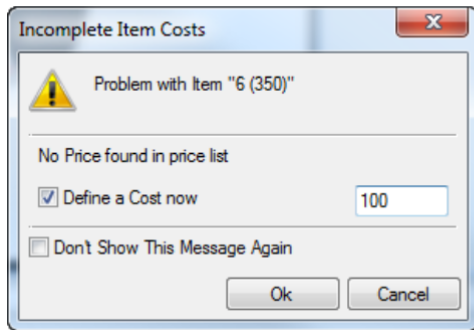
## Tip #39 (Greg)

### Price on Application

[← SH/](#)

When using ESTmep, some items might need to be flagged for Price on Application (POA). For example, some large sizes of pipework items that are made of materials that experience price fluctuation, such as steel and copper, sometimes cannot be estimated with accurate price information. Therefore, item cost information is not defined.

When using Quick Takeoff for entering items for the quotation, the following notification dialog can sometimes display.



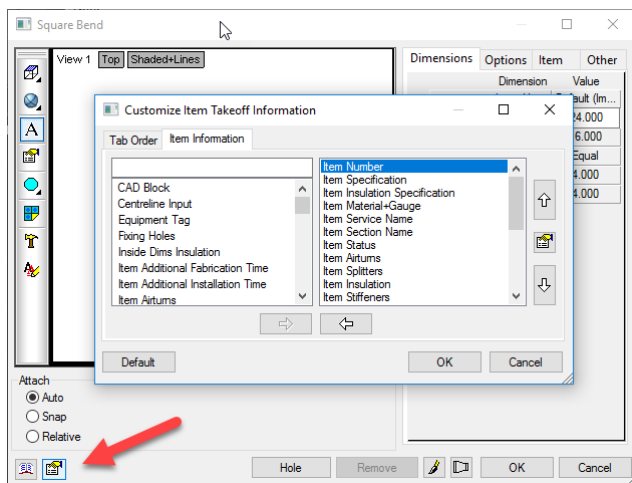
## Tip #40 (Darren)

If you customize your Fabrication Database's Takeoff information from the default, this information only applies to the user who made those changes. If you want it to apply for other users, you need to copy the file from your system and copy it to theirs. The file you're looking for is CADTAKOFF.MAP and you can find it here...

C:\Users\<username>\AppData\Local\Autodesk\Fabrication <year>\CADmep

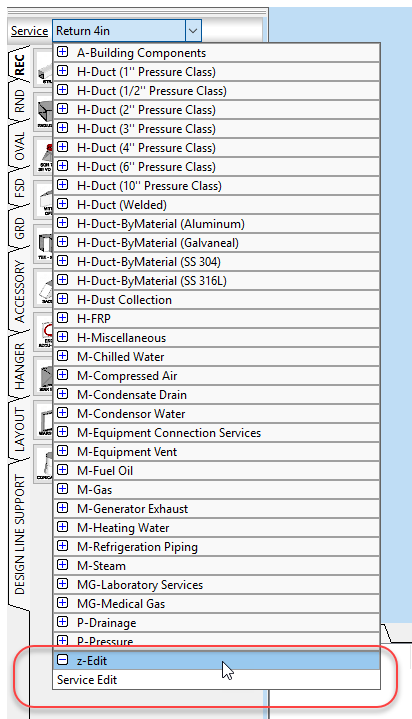
C:\Users\<username>\AppData\Local\Autodesk\Fabrication <year>\ESTmep

C:\Users\<username>\AppData\Local\Autodesk\Fabrication <year>\CAMduct



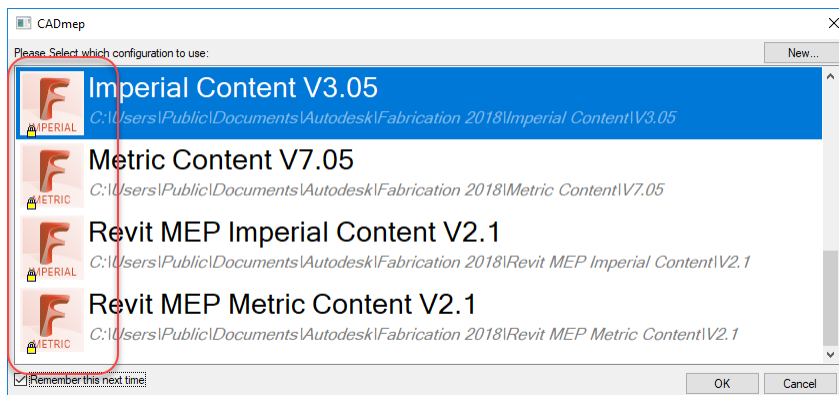
## Tip #41 (Jubel)

Editing Service Templates can sometimes be tricky. If you've ever ended to change the template used by a service, you know what I mean. An easy way to keep from accidentally changing the template a service uses, it to create a special bogus service used specifically for editing templates. This removes the risk of editing Services you don't want to change.



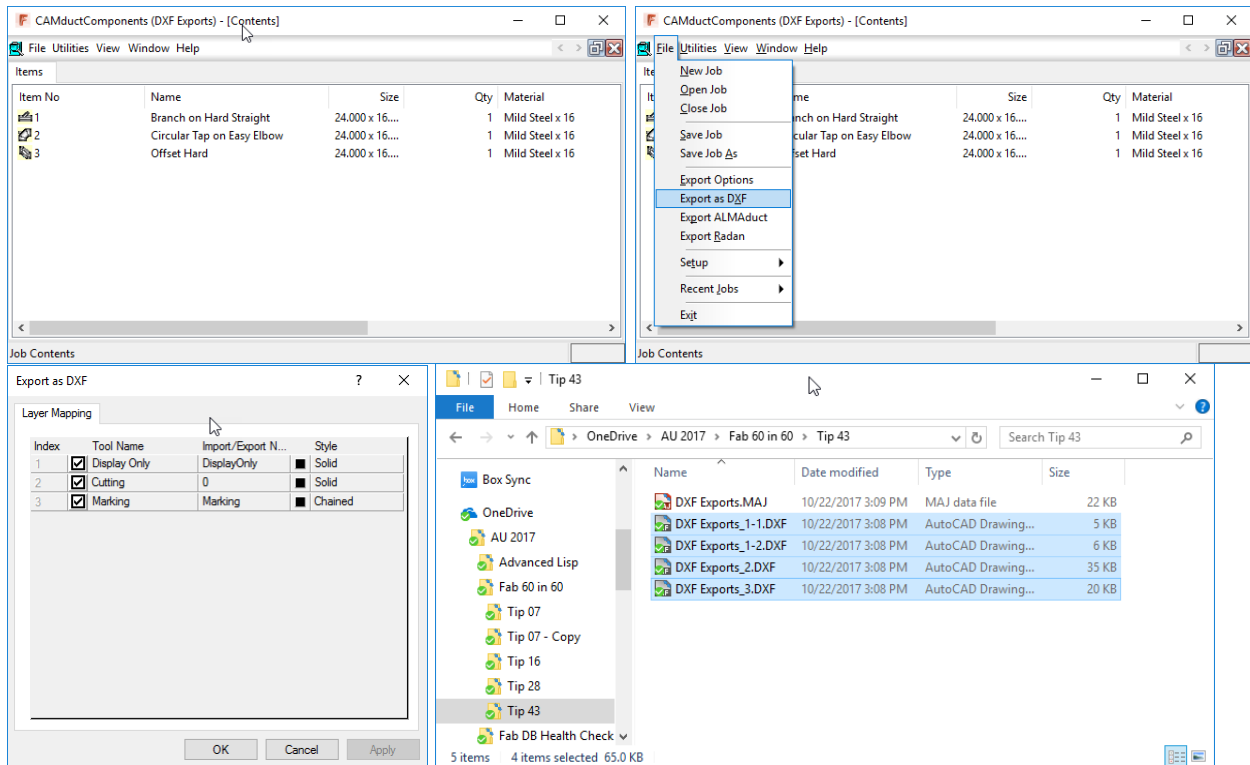
## Tip #42 (Greg)

Want to customize the image used for your company's configuration? Look for the "CONFIG.PNG" file located in the same folder as your MAP.INI. Make the image whatever you want and size it to 64x64 pixels.



### Tip #43 (Darren)

If you need DXF files for your developments, the CAMduct Components application is the quickest way to accomplish this. You can open an existing MAJ or make a new one with Item Folders and quickly export those all as DXF files.



Screencast - <http://autode.sk/2xXPkqL>

### Tip #44 (Jubel)

Tired of all the tabs and fields used in the Job Info form? You can create a custom form with just the fields you need, organized how you like them.

Screencast - <http://autode.sk/2yISqnN>

### Tip #45 (Greg)

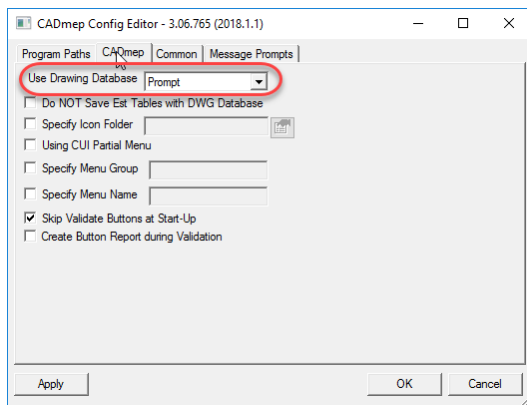
Costing Tip – Have you ever wanted to just report hours and not TIME. Try using \$1 for your Labor Rates and report Rate instead of Time and you will get Hours. Use excel to add your Crew Rates and Labor values. You're probably doing that anyway!!

### Tip #46 (Darren)

Sometimes you have a need to open an old drawing that used a database completely different than the one you're using now. You can save that database back to disk using the `SAVEDATABASETODISK` command.

A few recommendations....

- Use the `EDIT CONFIGURATION` and set to `PROMPT` before loading CADmep. This will prompt you if you want to use the database archived in the drawing.
- Do this from a `COPY` of your database or a `BLANK` database so you don't mess up your production database.



ScreenCast - <http://autode.sk/2yHh6v6>

### Tip #47 (Jubel)

If you use a Custom Job Info form and it only shows up for you, look for the `*.CJL` file located in the same folder where your `MAP.INI`. Copy this file to the `MAP.INI` folders being used by other users for them to have access to it. It's then easy to have different forms for Estimators, Detailers and Shop CAM people.

### Tip #48 (Greg)

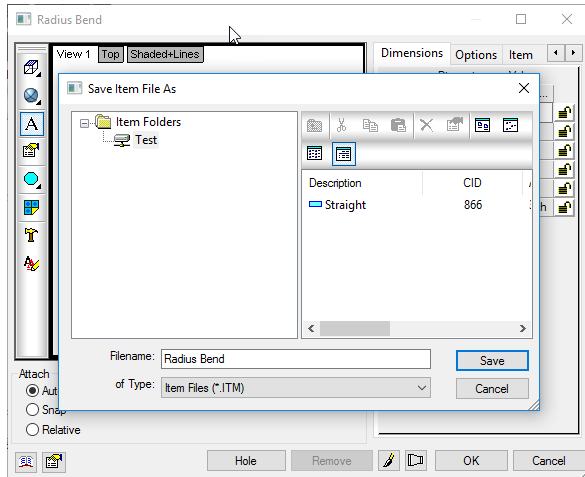
If you are using PROCORE you may notice that Text printed from CADmep show a box around your Text. If you change an AutoCAD Variable, it will no longer do then when PDF files are uploaded to PROCORE.

AutoCAD users should turn off the "text as comments" feature before publishing a PDF for use in Procore. Exporting your drawings as a PDF with this feature enabled may impact Procore Drawings tool OCR.

At the command line in AutoCAD. Enter `"EPDFSHX"` and change the value to zero (0).

### Tip #49 (Darren)

While the “SaveDatabaseToDisk” command writes an archived database back to disk, it does NOT write the ITM’s back. To do this, you can use the SAVETODISK command.



ScreenCast – <http://autode.sk/2yHoCGm>

### Tip #50 (Jubel)

You can assign certain material sizes to machines in CAMduct. If there’s a certain material gauge/size that always defaults to a specific machine, this is the place to set it.

ScreenCast - <http://autode.sk/2m6H0Ef>

### Tip #51 (Greg)

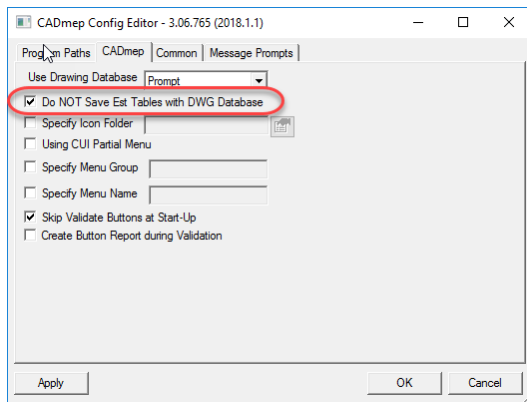
If you’ve ever wanted to change your CADmep Text to regular AutoCAD text then try to use the “EXPLODETEXT” command to convert it in Model Space or “EXPLODETESTPS” command to explode it into AutoCAD text in PaperSpace.

### Tip #52 (Darren)

Use the EDIT CONFIGURATION utility to tell CADmep NOT to store Estimating tables in the DWG file. This setting is specific to ONLY the user who’s logged into the computer. If you log into another computer or a different user logs into the computer, this setting will revert to the default of caching the EST tables in the DWG file.

Note: If you are using Revit w/Fabrication parts, this setting does not affect Revit. Revit will not save the COST data in the MAJ’s it creates. Even if you import a MAJ with EST data stored in it into Revit, if you export it out as an MAJ and open it back in AutoCAD the COST data does not come though.

Why? MAJ’s don’t store cost data so exporting to/importing from Revit doesn’t have access. A DWG file is more like an ESJ (Archive Estimate) which does store the cost data.



### Tip #53 (Jubel)

If you are a long-time customer and have an older Fabrication database/configuration, your materials may need a few tweaks. Several releases ago, Autodesk added the ability to flag a material as “Pipework” (as opposed to “For Machines”). This allows you to set a single material (e.g. “Carbon Steel”) and then use the dropdown typically used for Sheetmetal gauges for the schedule/spec. (e.g. “Sch 40”, “Sch 80”, etc.) Review your materials and streamline them. This can also help with Fabrication performance.

Screencast - <http://autode.sk/2AmuwKY>

### Tip #54 (Greg)

Another item you may be missing in your Fabrication Database/Configuration is Piping ID (Inside Diameters). This was added a couple releases ago to support Fabrication part functionality in Revit. Review your piping materials and verify if ID's have been added.

Screencast - <http://autode.sk/2AuWDZe>

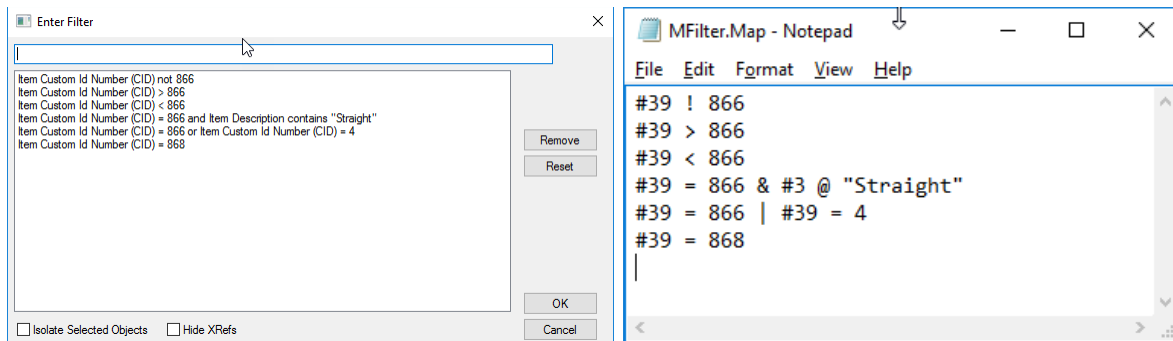


### Tip #55 (Darren)

If you want to use the (MAPFILTER) function from AutoLISP, the filter syntax can be a little tricky. Use the MAPFILER command and build your filter there, then look at the MFILTER.MAP file using Notepad to see the codes and syntax to use.

You can find the MFILTER.MAP file here...

C:\Users\<username>\AppData\Local\Autodesk\Fabrication <year>\CADmep  
C:\Users\<username>\AppData\Local\Autodesk\Fabrication <year>\ESTmep  
C:\Users\<username>\AppData\Local\Autodesk\Fabrication <year>\CAMduct



### Tip #56 (Jubel)

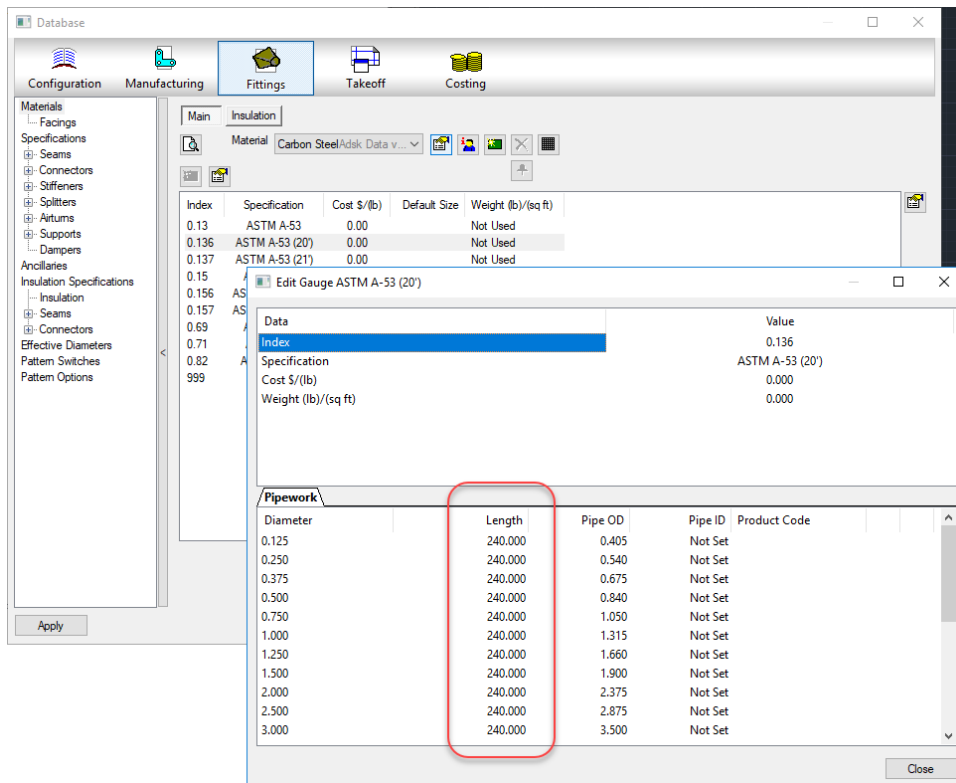
Use Effective Diameters to allow users to enter nominal sizes yet have oval duct drawn with the real dimensions. Connector Dependent effective diameters then map the connectors/oval size to the proper table to calculate the true stretch out for the duct. Note: to work properly you should enter Major/Minor sizes as well as reversing the Major/Minor in the table.

Effective Diameters can also be used for control Round duct if it's needed.

ScreenCast - <http://autode.sk/2AIHoRF>

## Tip #57 (Greg)

When setting up Piping Materials, you may notice the “Length” column. You can enter a Length but this will NOT control the length that pipe is drawn in the software. This column is used exclusively with Linear Nesting reports to the report knows the stock length of the material you want to nest to.



**Tip #58 (Darren)**

Another area where you can have materials you've deleted/renamed/moved keep coming back is in the Developments. Each ITM has a material associated with it, but many ITM's also have Materials applied to the developments. It's possible to have a mismatch between Item materials and Development materials. Look in the ITM properties to verify the settings.

A few things to note:

- This issue tends to be more specific to Flat Pattern, Profiled and/or Opus parts.
- This issue also tends to be related to CID's with Developments that have been edited.
- If the Development materials dropdown is greyed out, change the Catalog option and set it ON. This will enable the development materials dropdown.
- If you have an ITM where the developments have been edited, you will lose those edits if you click Yes on the "redevelop" prompt if it is displayed.
- Using the ITM Properties instead of the ITM Editor to change properties sometimes allows you to make changes without forcing a redevelopment of the pattern.
- COD Scripts for properties can also change ITM properties without forcing a redevelopment.
- Unfortunately, there is no COD scripting access to Development materials

Screencast - <http://autode.sk/2Am0F5g>

**Tip #59 (Jubel)**

Autodesk Fabrication Wishlist items should be posted to the Fabrication Ideas station...

<https://forums.autodesk.com/t5/fabrication-ideas/idb-p/1220>

Revit Fabrication Parts Wishlist Items should be posted to the Revit Ideas Station...

<https://forums.autodesk.com/t5/revit-ideas/idb-p/302>

Review and vote on Items you agree with to increase the changes they get added into the products. Because the Revit Ideas station gets a lot of non-fabrication items added, you may want to search on the term Fabrication to quickly find Fabrication part related wishes.

**Tip #60 (Greg)**

When looking for some objects use the Fab Viewer. Use the Takeoff list to sort and find objects then Right Click and select "GoToItems".

Screencast - <http://autode.sk/2yIEuKm>