## Autodesk® Fabrication: Under the Hood and Undocumented

Darren Young - Southland Industries

**FB2514** Many users can use Autodesk Fabrication products as well as set up and maintain their Autodesk Fabrication database. But do you know how to migrate from an old MAP (pre-Autodesk) installation to a new version? How do you migrate or load configurations from release to release? Can you deploy and manage your database across multiple locations? How do you tie in your new shop equipment to the database without bringing a consultant on-site? What is the difference between a profile and configuration? Can you keep spoolers from stepping on each other's toes? If you've ever wanted to understand more about how the database is structured and how it works, this is the perfect class for you.

#### **Learning Objectives**

At the end of this class, you will be able to:

- Determine the proper database structure for your needs
- Assess new shop equipment requirements and figure out how to get your database to interface with
  it
- Explain how all those files work together and what they all do
- Determine which settings outside the database are user versus system in scope

## **About the Speaker**

A Midwestern transplant now based in Southern California, veteran Autodesk University speaker Darren Young has held a variety of positions over the last 20 years, such as CAD/CAM engineer, CAD administrator, and CAD/CAM systems developer. Currently Darren is the Systems Integration Manager for Southland Industries, one of the largest mechanical engineering and construction companies in the United States. Darren manages the largest installation of Autodesk Fabrication licenses in the world. While Darren's true interest is the automation of manufacturing systems, his experience ranges from manufacturing to architecture, and this has led him to projects varying in scope from dress patterns to gas turbine piping. He founded a consulting and development business, has been technical editor and publication author. <a href="mailto:dyoung@southlandind.com">dyoung@southlandind.com</a>

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#### **Starting CADmep 101**

- 1. Type TAKEOFF at the AutoCAD command line
  - a. Not registered for all installed AutoCAD verticals Can be corrected.
- Include CADmep ARX file in...
  - a. AutoCAD Startup Suite Hard to deploy to users as Windows login specific
  - b. Acad.RX / Acad.Lsp Works only if in support path
  - c. AutoCAD shortcut Borrowed license of Acad & CADmep locks up on launch /ld "C:\Program Files\Autodesk\Fabrication 2014\CADmep\CADmep19\_1x64.arx"

#### **Object Enabler vs CADmep**

If you have CADmep installed, opening a drawing launches the program and consumes a license. If you have users that only occasionally need CADmep but always need the object enabler, specify the Object Enabler DBX in the AutoCAD shortcut to force it to load the Object Enabler. This prevents the application from loading.

```
"C:\Program Files\Autodesk\AutoCAD 2014\acad.exe" /ld "C:\Program
Files\Autodesk\Fabrication 2014\CADmep\DBX\cadmep19_1x64.dbx" /p
"AutoCAD" /product "MEP" /language "en-US"
```

When you need to run the application, you can unload the Object Enabler (Appload command) and then launch CADmep. Once CADmep is loaded, you can no longer unload it to go back to the Object Enabler.

You can make a custom tool button or Lisp routine to make this a little more efficient.

```
(arxunload "cadmep19_1x64.dbx)
```

#### **Windows Registry Editor 101**

HKEY\_CURRENT\_USER = User Specific Settings, Can be different for each user logged onto Windows.

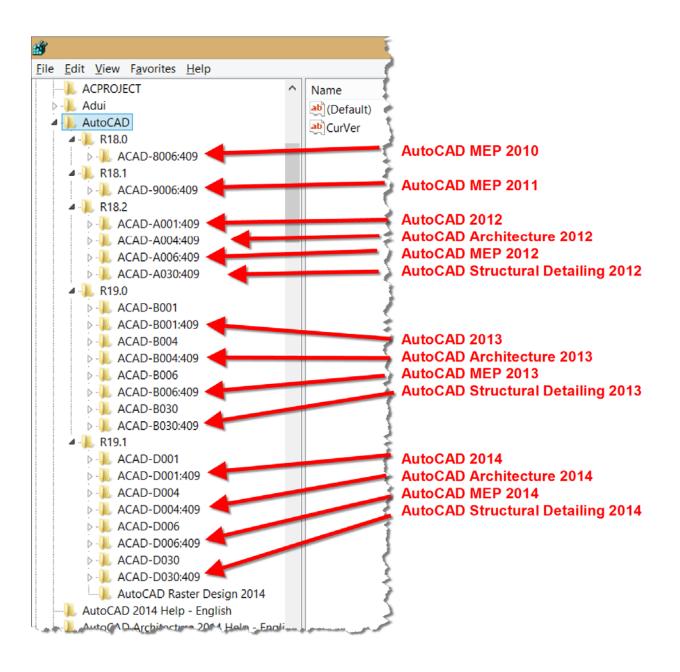
HKEY\_LOCAL\_MACHINE = Machine specific settings. Will apply to all users logged into system.

If same entry exists in both locations, HKEY\_CURRENT\_USER typically overrules HKEY\_LOCAL\_MACHINE



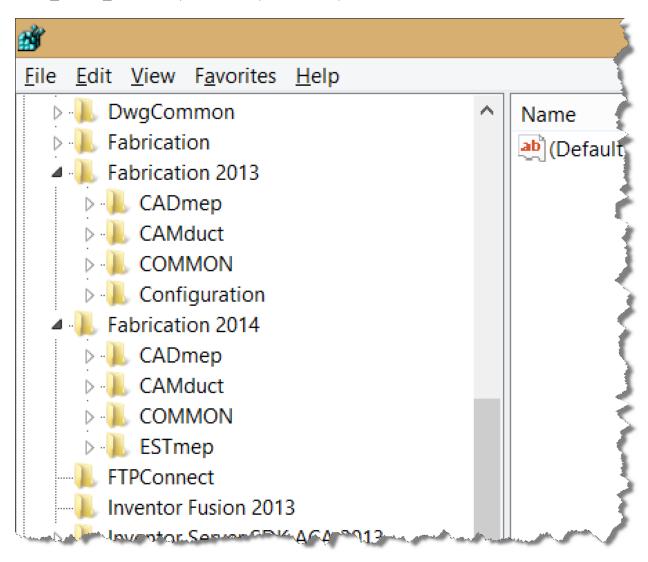
#### AutoCAD settings can be found here....

HKEY\_CURRENT\_USER\Software\Autodesk\AutoCAD
HKEY\_LOCAL\_MACHINE\SOFTWARE\Autodesk\AutoCAD



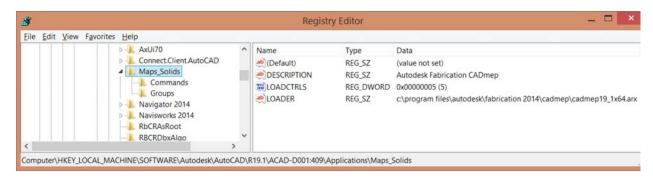
#### Autodesk Fabrication settings can be found here....

HKEY\_CURRENT\_USER\Software\Autodesk\Fabrication ????
HKEY\_LOCAL\_MACHINE\SOFTWARE\Autodesk\Fabrication ????



#### Make TAKEOFF work for All AutoCAD's

Use Windows Registry Editor to register command for All AutoCAD's installed, find where CADmep registered the TAKEOFF command by looking for "Maps\_Solids" under the "Applications" key of each AutoCAD version. Duplicate this entry in each AutoCAD version where it's missing. Do this in HKEY LOCAL MACHINE.



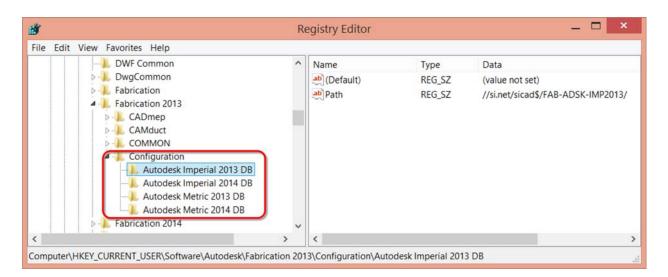
When opening a drawing w/CADmep objects before loading CADmep, demand loading can load CADmep automatically. Occasionally this can cause the wrong version of CADmep to load w/AutoCAD. If this happens, look for (and delete) the "Maps\_Solids" key under "Applications" of the AutoCAD version you are running but this time, look in HKEY\_CURRENT\_USER.

## **Database (Configuration) 101**

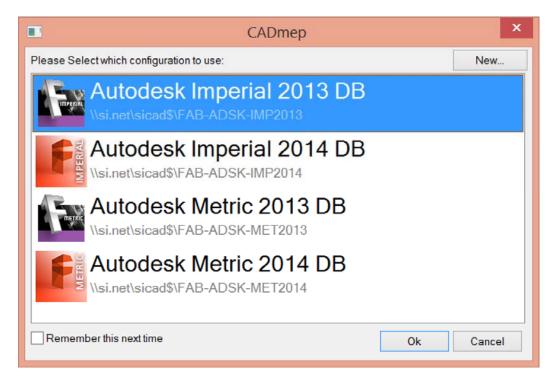
Database = Content Pack (don't mix content packs)

Multiple Configurations <u>can</u> point to the same Database. A Configuration is a pointer to a MAP.INI file...nothing more. A separate MAP.INI files could point to separate databases, or multiple MAP.INI files could point to the same database. More on this later.

Fabrication 2013 = All Configurations are specific to the user logged into Windows. They are stored in the *HKEY\_CURRENT\_USER\Software\Autodesk\Fabrication 2013\Configurations* registry key.



Notice the icon image for each configuration. Just a graphic that reads the "Config.Png" file located in the same folder as the MAP.INI file.

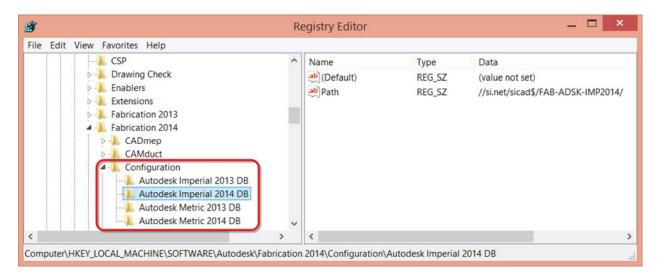


Fabrication 2014 = Configurations can be specific to the user logged into Windows which means they are stored in the registry key....

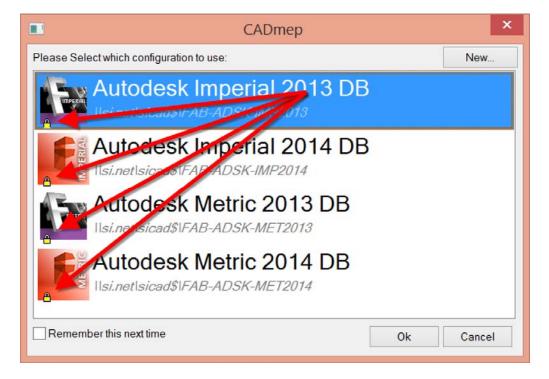
HKEY\_CURRENT\_USER\Software\Autodesk\Fabrication 2014\Configurations
...or they can also be machine specific and located in...

HKEY\_LOCAL\_MACHINE\Software\Autodesk\Fabrication 2014\Configurations

What adding a configuration using the user interface, they are user specific (HKEY\_CURRENT\_USER). To make them machine specific (HKEY\_LOCAL\_MACHINE) you;ll have to add them in the registry directly yourself.



Notice the icons this time. The "Lock" tells you they are machine specific. They can NOT be deleted by the user using the user interface.



### **DOS Directory Pathing 101**

Autodesk Fabrication products use a MAP.INI file to point to their database. These settings are located in the [PROGRAM PATHS] section. These paths can be specified by typing an "absolute" path. An absolute path point exactly to the location of the files. Here are a couple examples that might be found in a MAP.INI file....

```
[Program Paths]
Database=C:/Users/Public/Documents/Autodesk/Fabrication
2014/MyConfig/Database

[Program Paths]
Database=//myserver/myshare/Database
```

A better way to have the MAP.INI file point to its database files is using relative pathing. Relating pathing uses a partial path specified starting from the location of the MAP.INI file. Here are a couple examples that might be found in a MAP.INI file...

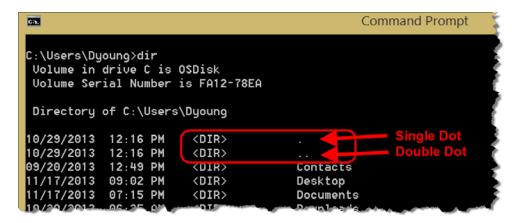
```
[Program Paths]
Database=./Database

[Program Paths]
Database=../../Database
```

There are 2 special folder designations used with relative pathing. A single dot "." And a double dot ".."

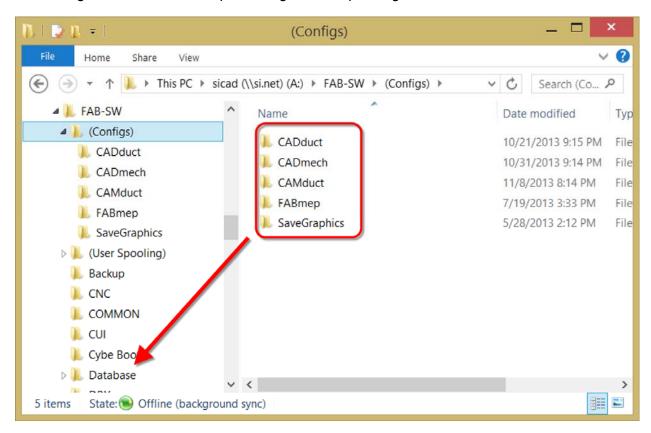
```
Single Dot "." = Current Directory
Double Dot ".." = Steps back one directory
```

This can be seen even from the old DOS directory listing...



Why is this helpful?

- 1: Relative pathing allows you to relocate the database without having to edit the MAP.INI settings again.
- 2: You might want to have multiple "configurations" pointing to the same database. Like this...



#### **Multiple Configurations -> One Database**

Most of the Autodesk Fabrication Product's database files are located in the Database folder. But not all of them. Some database files used by Autodesk Fabrication products are located in the same folder as the MAP.INI. Here's some examples....

CADINFO.MAP – Controls various CAD settings. Want Diameter symbol for Round Duct but not piping? Want Duct length measured in Inches and Piping Feet-Inches, this is how you do it. Add a multiplier to create a separate "Soft Metric" configuration.

PRINT96.INI, LABPRINT.PMD, NSTPRINT.PMD, TEMPPRINT.PMD – Control's printing. Use separate configurations to use different print settings in a network database.

FOLDERS.INI – Use different configurat5ions to limit the number of folders displayed in FOLDERS interface.

## Reports - Old (2012 / 2.41.157 Lok 21) vs New (>= 2013)

MAP.INI used to tell you where your reports in pre-Autodesk versions of the software. All reports would be in 1 location. This is no longer the case with 2013 & 2014. MAP.INI now tells you the "Root" folder where the reports can be found which is now separated by product.

#### <= 2012 / 2.41.157

```
[Program Paths]
Reports=../PM Shared/REPORTS
```

Reports are in the above folder.

#### >= 2013

```
[Program Paths]
Reports=../PM Shared/REPORTS
```

Reports are in the actually in....

```
../PM Shared/REPORTS/CADmep
../PM Shared/REPORTS/CAMduct
../PM Shared/REPORTS/ESTmep
../PM Shared/REPORTS/FABmep
```

The **BOLD** section is automatically used by Autodesk Fabrication. If you have 1 database that's used in <u>BOTH</u> AutoCAD 2012 or earlier <u>AND</u> 2013 or later, specify your MAP.INI files this way to use the <u>SAME</u> reports....

2012 and earlier, explicitly tell the MAP.INI where the reports are using the name that 2013 & 2014 automatically adds....

```
[Program Paths]
Reports=../PM Shared/REPORTS/CADmep
```

For 2013 & 2014 MAP.INI's leave off the product specific folder as the product will add that automatically...

```
[Program Paths]
Reports=../PM Shared/REPORTS
```

## Multiple AutoCAD versions - One Database

Did you know that you can use the following AutoCAD versions all together using the SAME database.....at the same time?

- AutoCAD 2007
- AutoCAD 2008

- AutoCAD 2009
- AutoCAD 2010
- AutoCAD 2011
- AutoCAD 2012
- AutoCAD 2013
- AutoCAD 2014

You MUST be using **Lok 21**, **Build 2.41.157 SP4** in the pre Autodesk software to make this work. There are some limitations.....

As newer versions added functionality, that functionality can NOT be accessed by older versions. As an example....

Lok 21, Build 2.41.157 SP4 added the ability to do linear pipe nesting reports. 2013 added the ability to compensate for the kerf of the cuts in the piping. Reports created in 2013 won't work in 2012. 2014 added more Machine support for linear pipe nesting. If you set this up in 2014, it won't work in 2013 and attempting to Admin these settings in 2013 can wipe out the settings in 2014.

Recommendations if you do this....

- 1) Admin your database ONLY in the latest version you are using in production.
- 2) Process all ductwork in CAMduct using the same or newer version as CADmep.

#### Reorganize Your Library - Quick And Painless (almost)

Ever want to reorganize your library ITMs? Rename them? Move them to new folders or rename folders? You'll need to update your service templates but what about all the existing drawings that now point to non-existent locations or ITMs? This breaks links to Catalog information and other issues when editing the ITM's.

This can easily be fixed w/Fabrication Scripting....except not everyone writes scripts and Scripts are not always easy.

Use the VIPS command (Validate ITM Paths) using a mapping file to quickly repath a drawing.

Mapping file is in the format "old path", "new path"....

```
---snip--- Fab Mapping.Txt---snip---

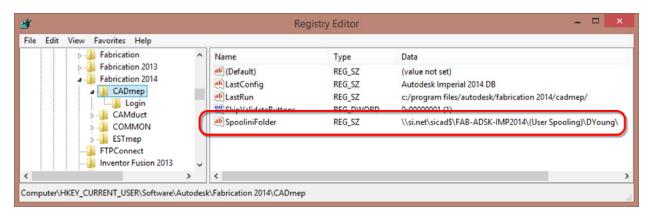
0:/Folder Old/File Old.Itm,N:/Folder New/File New.Itm
./HVAC/Duct/Rect/Straigth.itm,./HVAC/Duct/Rect/RECT-Straight(Generic).itm
---snip--- Fab Mapping.Txt---snip---
```

#### **User Specific Spooling**

By default, spooling settings get saved to the SPOOL.INI file. This file defaults to the location of the MAP.INI file. If you run a local MAP.INI file, there's not a problem. But a lot of companies

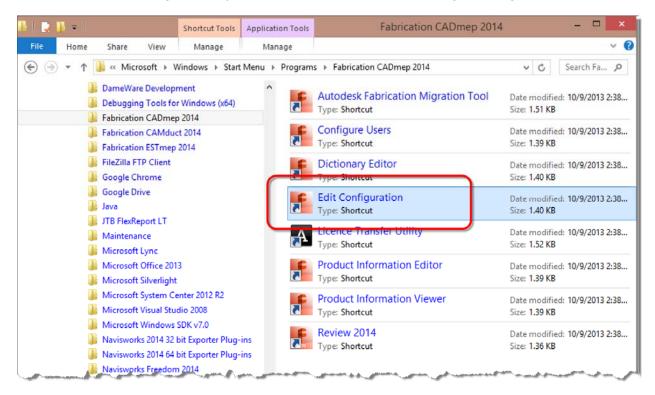
prefer a network based MAP.INI which means everyone shares the same SPOOL.INI. This can be problematic if multiple people are spooling at once. A simple registry edit can redirect a user to their own SPOOL.INI even with a network based setup.

Create a "**SpooliniFolder**" entry under the CADmep section of the registry for the current version of CADmep you want it to apply to. This is a "User" setting so this is under the HKEY\_CURRENT\_USER registry key. Make sure to include the ending backslash when specifying the path.



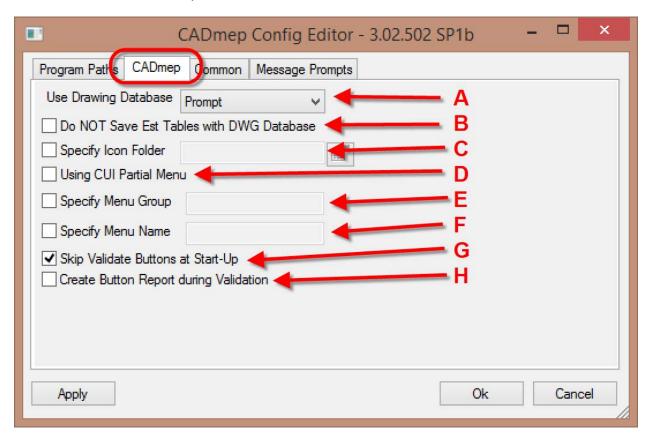
### **Edit Configuration**

The "Edit Configuration" shortcuts installed with Fabrication products are quite misleading. While it does modify your "Configuration" in the traditional sense of the word, not all settings are related to the "Database Configuration" you're asked to select when starting the program.



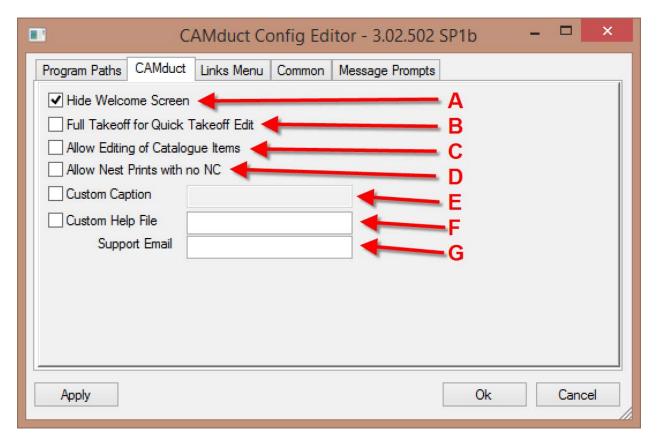
To further add to the confusion, while the "Edit Configuration" program is the same executable, it differs in function depending which installation folder its run from. That is to say, running "Edit Configuration" from the CADmep installation folder, provides different options than when it's run from the "ESTmep" install folder, which are also different from some of the options than when run in the CAMduct installation folder. Let's take a look…

#### When run from the CADmep installation...



	Location	Value Name	Туре	Setting(s)
Α	HKCU\Software\Autodesk\Fabrication 2014\CADmep	UseDwgDatabase	REG_SZ	Yes No Prompt
В	HKCU\Software\Autodesk\Fabrication 2014\CADmep	StoreEstDatabase	REG_SZ	FALSE TRUE
С	HKCU\Software\Autodesk\Fabrication 2014\CADmep\Toolbar	Icons	REG_SZ	<path></path>
D	HKCU\Software\Autodesk\Fabrication 2014\CADmep\Toolbar	SkipMenuLoad	REG_DWORD	0
E	HKCU\Software\Autodesk\Fabrication 2014\CADmep\Toolbar	MenuGroup	REG_SZ	<string></string>
F	HKCU\Software\Autodesk\Fabrication 2014\CADmep\Toolbar	Pop0	REG_SZ	<string></string>
G	HKCU\Software\Autodesk\Fabrication 2014\CADmep	SkipValidateButt ons	REG_DWORD	0
Н	HKCU\Software\Autodesk\Fabrication 2014\CADmep	ButtonLoadReport	REG_DWORD	0

#### When run from the CAMduct installation...

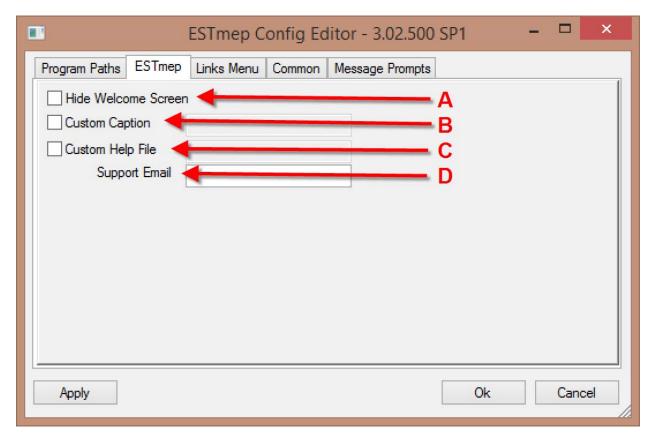


	Location	Value Name	Туре	Setting(s)
Α	HKCU\Software\Autodesk\Fabrication 2014\CAMduct	HideWelcomeScreen	REG_DWORD	0
В	[General] section of MAP.INI (not registry based)	QUICKFULLEDIT	N/A	YES NO
С	[General] section of MAP.INI (not registry based)	CANEDITCATS	N/A	YES NO
D	[General] section of MAP.INI (not registry based)	PRINTWITHNONC	N/A	YES NO
Е	HKCU\Software\Autodesk\Fabrication 2014\CAMduct	Caption	REG_SZ	<string></string>
F	HKCU\Software\Autodesk\Fabrication 2014\CAMduct	Help File	REG_SZ	<string></string>
G	[General] section of MAP.INI (not registry based)	SUPPORT	N/A	<email></email>

"Links Menu" tab when run under CAMduct installation is stored here....

 ${\tt HKEY\_CURRENT\_USER\backslash Software \backslash Autodesk\backslash Fabrication~2014\backslash CAMduct\backslash WebLinks}$ 



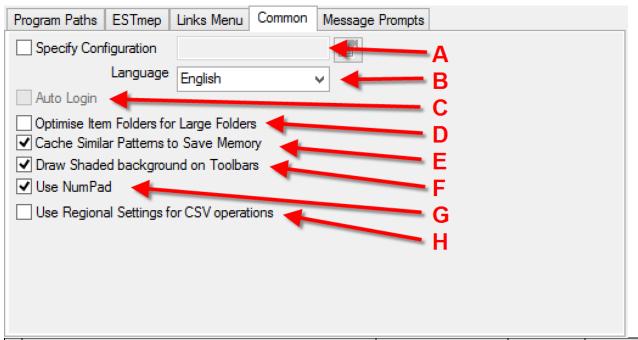


	Location	Value	Туре	Setting(s)
		Name		
Α	HKCU\Software\Autodesk\Fabrication 2014\CAMduct	HideWelcomeScreen	REG_DWORD	0
				1
В	HKCU\Software\Autodesk\Fabrication 2014\CAMduct	Caption	REG_SZ	<string></string>
C	HKCU\Software\Autodesk\Fabrication 2014\CAMduct	Help File	REG_SZ	<string></string>
D	[General] section of MAP.INI (not registry based)	SUPPORT	N/A	<email></email>

"Links Menu" when run under ESTmep installation is stored here....

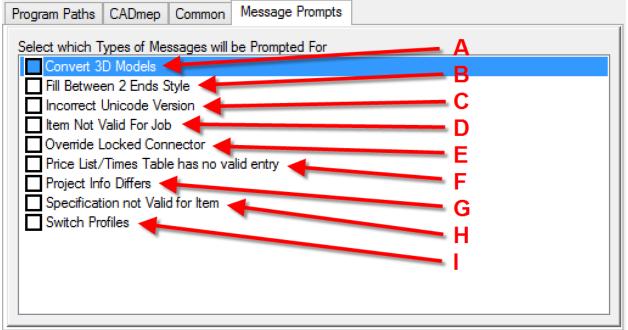
HKEY\_CURRENT\_USER\Software\Autodesk\Fabrication 2014\ESTmep\WebLinks

## (Not so) Common Settings...



	Location	Value Name	Туре	Setting(s)
Α	HKCU\Software\Autodesk\Fabrication 2014\CADmep HKCU\Software\Autodesk\Fabrication 2014\CAMduct HKCU\Software\Autodesk\Fabrication 2014\ESTmep	StartIn	REG_SZ	<path></path>
В	HKCU\Software\Autodesk\Fabrication 2014\CADmep HKCU\Software\Autodesk\Fabrication 2014\CAMduct HKCU\Software\Autodesk\Fabrication 2014\ESTmep	Language	REG_SZ	<string></string>
С	HKCU\Software\Autodesk\Fabrication 2014\CADmep\Login HKCU\Software\Autodesk\Fabrication 2014\CAMduct\Login HKCU\Software\Autodesk\Fabrication 2014\ESTmep\Login	Auto Login Last User	REG_SZ	<pre><username> <encrypted password=""></encrypted></username></pre>
D	HKCU\Software\Autodesk\Fabrication 2014\COMMON	VirtualItemFolders	REG_DWORD	0
E	HKCU\Software\Autodesk\Fabrication 2014\COMMON	CachePatterns	REG_DWORD	0
F	HKCU\Software\Autodesk\Fabrication 2014\COMMON	FancyToolbars	REG_DWORD	0
G	[General] section of MAP.INI (not registry based)	NUMPAD	N/A	ON OFF
Н	HKCU\Software\Autodesk\Fabrication 2014\COMMON	RegionalCSV	REG_DWORD	0

## Message Prompts (Common)...



	Location	Value Name	Туре	Setting
Α	HKCU\Software\Autodesk\Fabrication 2014\COMMON\PROMPTS	ConvertModels	REG_DWORD	0 1
В	HKCU\Software\Autodesk\Fabrication 2014\COMMON\PROMPTS	Fill2Ends	REG_DWORD	0
С	HKCU\Software\Autodesk\Fabrication 2014\COMMON\PROMPTS	WrongUnicode	REG_DWORD	0
D	HKCU\Software\Autodesk\Fabrication 2014\COMMON\PROMPTS	ItemInvalidForJob	REG_DWORD	0
E	HKCU\Software\Autodesk\Fabrication 2014\COMMON\PROMPTS	ConnectorLocks	REG_DWORD	0
F	HKCU\Software\Autodesk\Fabrication 2014\COMMON\PROMPTS	BadCostTables	REG_DWORD	0
G	HKCU\Software\Autodesk\Fabrication 2014\COMMON\PROMPTS	ProjectInfoDifferent	REG_DWORD	0
Н	HKCU\Software\Autodesk\Fabrication 2014\COMMON\PROMPTS	BadSpec	REG_DWORD	0
I	HKCU\Software\Autodesk\Fabrication 2014\COMMON\PROMPTS	SwitchProfiles	REG_DWORD	0

### Is My Database Setup Correctly? How Come My Reports Aren't Correct?

Things often don't come out s you'd expect. Especially when working with reports. But is it a Report issue? Or is your database not setup correctly? Use "Cost Breakdown" as a "Single Source of Truth". If it's not in here, there's not a chance it'll be in your report as it's likely a database issue. If it is in here, you're likely looking at as report problem.

```
_ 🗆 X
                                                                                                      Cost Breakdown
Item 1 (Square Bend) [x 1]
                                              = $15.78 per Qty
⊕ Material Costs
                                               = $15.58 per Qty
     ⊕ Material Cost
    ☐ Material Cost = $15.58 per Qty

☐ Part 1/4 = $4.52 per Qty (8.52387 (lb) Galvanized x 22)

☐ Part 2/4 = $4.52 per Qty (8.52387 (lb) Galvanized x 22)

☐ Part 3/4 = $1.03 per Qty (1.95278 (lb) Galvanized x 22)

☐ Part 4/4 = $5.51 per Qty (10.38878 (lb) Galvanized x 22)

☐ Ancillary Cost = $0.20 per Qty

☐ Sealant = $0.20 per Qty

☐ Sealant = $0.20 per Qty
Sealant: Class A x 10.000 (ft) = $0.20 per Qty

Sealant: Class A x 10.000 (ft) = $0.20 per Qty

Insulation Cost = $0.00 per Qty

Start Sealant: Class A x 10.000 (ft) = $0.20 per Qty

Fabrication Cost = $15.66 per Qty
           Fabrication Table Cost = $14.78 per Qty (90 Square Bend)

\botValue Set 1 = $14.78 per Qty (29.57 (mins) @ 30.00 $/(hrs))
     - Fabrication Table Cost
     ⊖ Ancillary Fabrication Cost = $0.87 per Qty

⊝ Vane Fabrication Cost = $0.37 per Qty
         □- Small DBL Vane = $0.37 per Qty (22.29 (mins) @ 1.00 $/(hrs))

□- Small DBL Vane = $0.37 per Qty (22.29 (mins) @ 1.00 $/(hrs))

□- Vane Vanes: DM TURNING VANE - 2in [ADSK_80000124] x 15.875 (ft) = 20.16125 (mins) per Qty

□- Vane Tracks: DM RAIL - 2in [ADSK_80000118] x 5.19852 (ft) = 2.13139 (mins) per Qty

□- Sealant Fabrication Cost = $0.50 per Qty (1.00 (mins) @ 30.00 $/(hrs))

□- Sealant: Class A x 10.000 (ft) = 1.000 (mins) per Qty

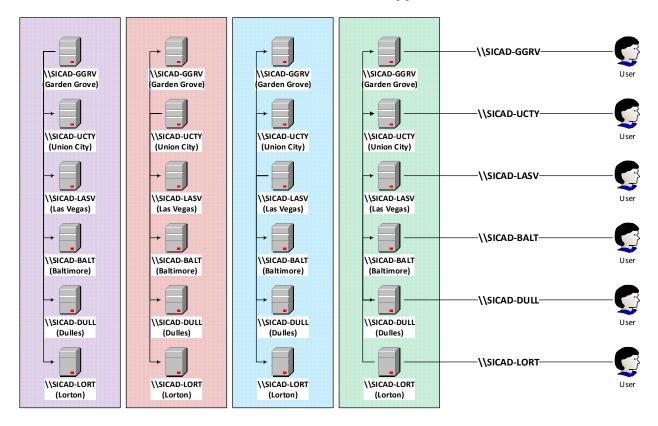
Total
        -Total
                                                                         = $15.66 per Qty
☐ Installation Cost = $8.79 per Qty
     ⊕ Installation Table Cost = $8.79 per Qty (90 Square Bend)

□ Value Set 1 = $8.79 per Qty (17.57 (mins) @ 30.00 $/(hrs))
         Ancillary Installation Cost = $0.00 per Qty
Total = $8.79 per Qty
       _Total
                                           = $40.22 per Qty
= $40.22 per Qty (@ 0% Total)
   -Total Unit Cost
    Gross Unit Cost
  Gross Item Extn = $40.22 Total
D
                                                                                                                                                                                                                              Close
```

### Multiple Sites or Disconnected Users? Robocopy to the Rescue

If you need to support multiple sites...and are a little savvy w/DOS batch files, Microsoft's Robocopy utility can easily copy your database from site to site or to the local machine. Make sure Administration of your database occurs ONLY at the source site. Keep sites names standardized for easier management of configurations.

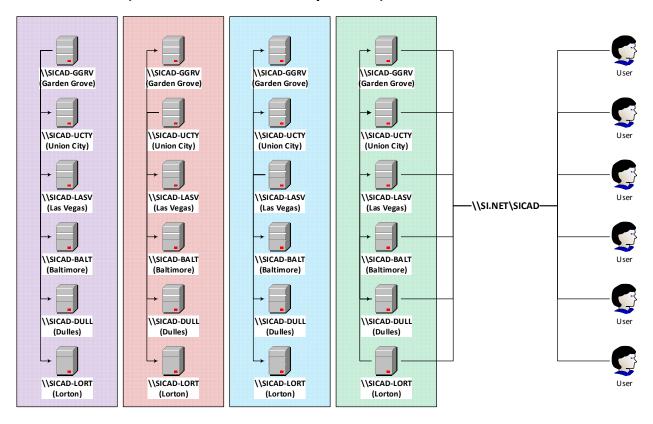
## Existing Fabrication Database Access Direct Server Access via \\sicad-xxxx



## More Advanced IT? DFS (Distributed File System) Simplifies Configs

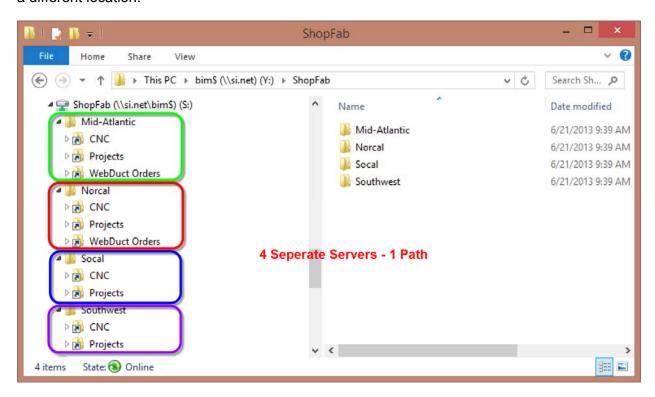
Distributed File System or DFS, is a Microsoft Technology that allows multiple sites to all use the SAME path yet point to different locations based on where you are. All users regardless of location all use the same "path" for their configuration but point to different servers based on which is close to their site.

# New Fabrication Database Access DFS (Distributed File System) via \\si.net\sicad



#### **DFS Part 2 - Single Path, Multiple Locations**

With DFS, you can also have a unified path that makes accessing several scattered network resources all accessible from a single path. Imagine, a single path, and each sub-folder points to a different location.



#### **Use Off-Line Files for Disconnected Users**

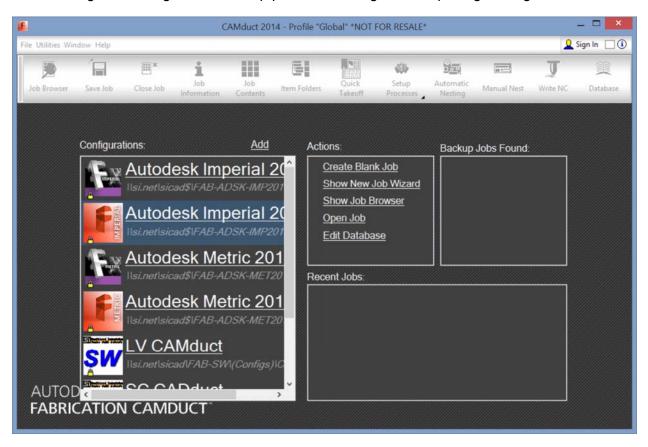
Windows has a feature called Off-Line files. This automatically caches data locally and automatically redirects you there when disconnected or on a slow connection. This again simplifies the number of configurations as the same database configuration are used if your connected to your network or not. Off-Line files should NOT be used for administration of your database. Force your folders into Off-Line more if your connected on a slow connection but Windows does not think it's slow enough to change for you.

#### Need More Off-Line Control? Use RoboCache.

If you are savvy with DOS batch files and want more control of off-line files, RoboCache (shareware from www.Manusoft.com) works just like RoboCopy but on your off-line file cache.

#### **Disable CAM/EST Welcome Screen**

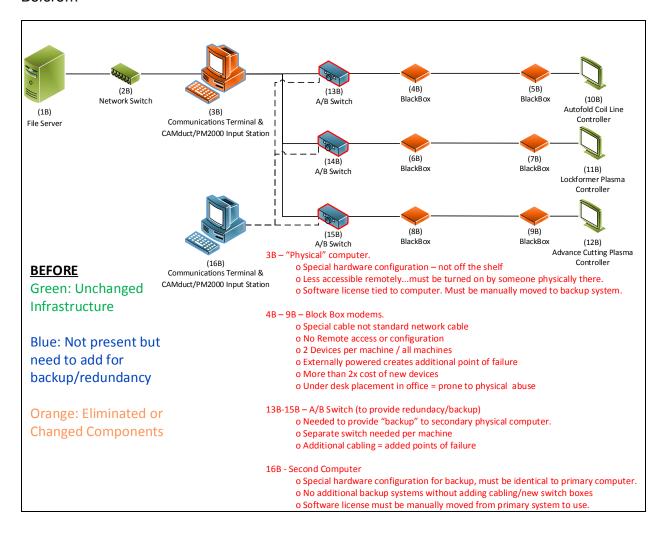
2014 introduced the "Welcome Screen" to CAMduct and ESTmep, Looks nice but each MAJ opened/closed also opens/reloads/closes your database configuration. Disable the welcome screen using Edit Configuration to keep performance high when opening/closing MAJ's.



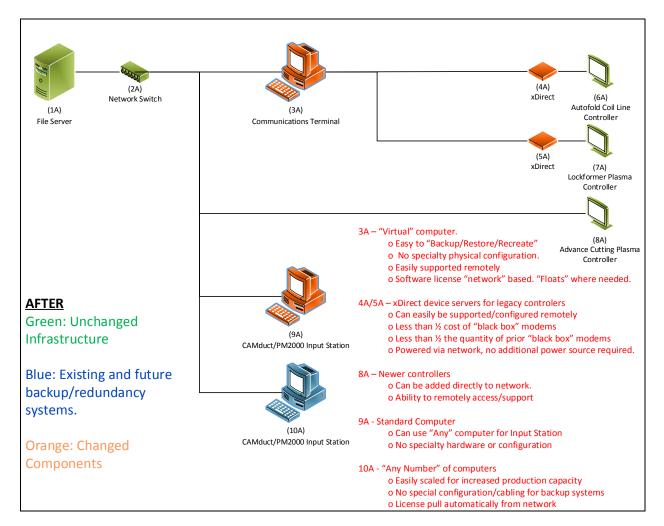
## **Convert Legacy Serial RS232 Communications to Ethernet**

RS232 Cabling is dedicated typically to a single piece of hardware. That hardware fails, and you're scrambling to get a new system with COM ports. Conversion of existing communications to Ethernet allows for easier remote support, redundancy in systems and is something many IT guys know a little more about. More importantly, it adds scalability, redundancy and removes points of failure in your setup.

#### Before...



#### After....



#### **Cloudy Communications**

Autodesk is trying to add "Cloud" to everything. As it starts down this road, you occasionally run into issues. Communications programs are 32-bit. This is incompatible w/Cloud based services on a 64-bit system. If you try to run newer version of communications programs you might get an error. Simple rename the "Cloud" folder on your installation to avoid the following error.

#### C:\Program Files\Autodesk\Fabrication 2014\CAMduct\Cloud.save



#### **Communications Settings**

Older Communications programs like D6.exe, use to keep their settings in the same folder as the EXT. Others like JUBILEE.exe used the Windows folder. These settings are now stored in the same location as the MAP.INI file for the configuration that's used. Multiple configurations can be used to separate these settings. If multiple machines use the same communications program, how do you default each instance to point to a different configuration? Batch Files.... Automation Utilities...multiple communications systems.....what other ideas do you have?

## Make CAM/EST System Identical

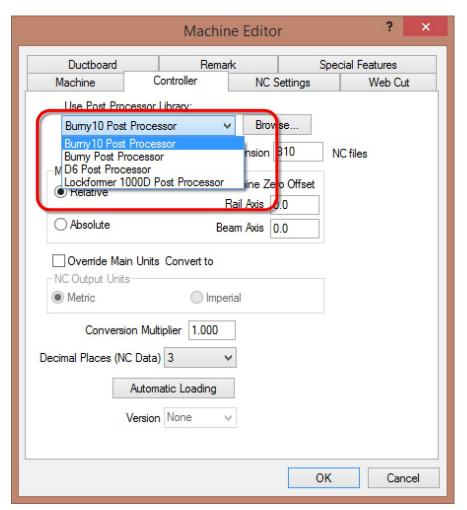
Some settings are considered "User" settings....like views. In CAM/EST, these settings include things like which columns are displayed in Quick Takeoff. One of many files that comtrol these settings is DETAIL.MAT that is located in this user specific folder....

C:\Users\<User Name>\AppData\Local\Autodesk\Fabrication 2014\CAMduct

To make other user's systems the same, or to copy an existing user's settings to a new computer, fine the files located in this folder and copy them to the corresponding location on the new computer or for the new user.

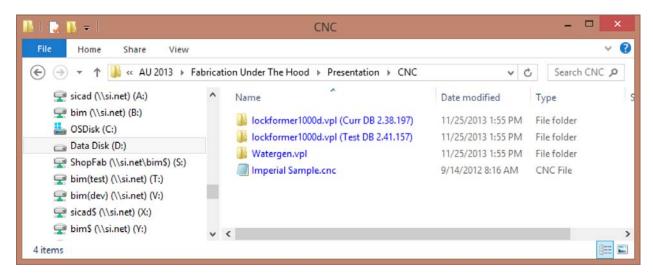
#### **Post Processor Pathing**

Because Lok 21 (2.41.157), Fabrication CAMduct 2013 and 2014 all can use the same database, you can run into pathing issues when selecting Post Processor (\*.VPL / \*.DPL) files using the default installed locations or in other locations on your network. Consider using a Utility like WinRar, or other installation utility to create a Self-Extracting Zip file that automatically extracts the Posts you use into the proper location. They are directly accessible from the dropdown list so version to version, CAMduct can find the proper files without paths being different as long as the Post's names doesn't change. This eliminates the need to copy them manually and allows you to just "Install" them similar to how you do with the software.



#### **New Machine? Which Post to Use?**

If you get a new machine, knowing which Post Processor to use isn't always the easiest or documented well. Look at what's available. Select those by name you think are close, and start making sample code to verify against a sample provided by your machine builder.



#### **Communications Hardware Vendors**

General Adaptors – <a href="http://www.amazon.com">http://www.frys.com</a>
Specialty Adaptors – <a href="http://www.l-com.com">http://www.frys.com</a>
Specialty Adaptors – <a href="http://www.l-com.com">http://www.blackbox.com</a>

## Hardware...



A = DB25M / DB25F Wiring Adaptor / Jumper Box

B = DB25M / DB25F Test Adaptor

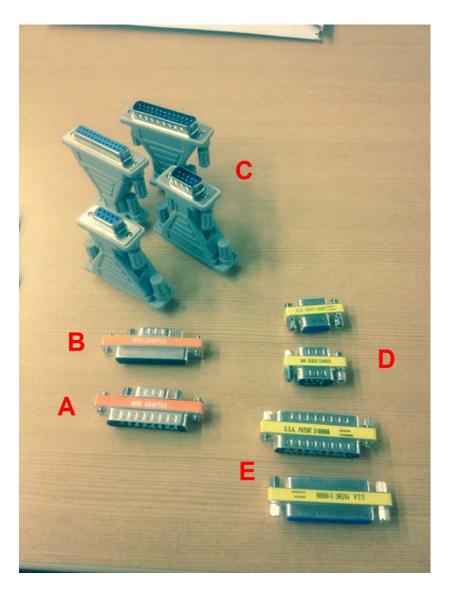
C = DB9M / DB9F Test Adaptor

D = DB9M / DB9F Reverse (NULL Modem) Adaptor - Slim

E = DB25M / DB25F Reverse (NULL Modem) Adaptor

F = DB25M & DB9F Loopback Plug

G = DB25 / DB9 Adaptor Shell & Components



A = DB25M / DB9M Adaptor - Slim

B = DB25F / DB9M Adaptor - Slim

C = DB25M / DB9M, DB25M / DB9F, DB25F / DB9M, DB25F / DB9F Adaptors

D = DB9M / DB9M, DB9F / DB9F Gender Changers

E = DB25M / DB25M, DB25F / DB25F Gender Changers