

MSF125163-L

Give Your Fabrication Database a Health Checkup

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Learning Objectives

- Discover best practices for Fabrication database management
- Learn how to perform and audit a health checkup of your fabrication database
- Learn how to correct Fabrication database issues effectively and efficiently
- Learn how to modify scripts and use tools to perform your Fabrication database checkup

Description

You can use our default data set, or bring a copy of your own database for use in the lab—and you can leave with the real personalized data to use back at your office. Do you know what's in your fabrication database? Do you know what's missing? This lab will show you how to perform a health checkup on your fabrication database so you can make informed decisions about what you need to do. And now that you know what needs doing, how do you do it? How do you do it efficiently? This lab will also show you how to make those changes in an informed and effective manner. The fabrication database is very powerful, but also fragile and complicated. It's common to see mismanagement or even complete lack of management because of fear or effort involved in correcting issues. This lecture will arm you with the knowledge to take charge of your database instead of it managing you.

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.

Datasets

- **(Configs)**
 - MSI Installers for Autodesk 2018 Fabrication Configurations
- **(Revit Support)**
 - **WriteAllCIDs (Library).Cod**
 - Fabrication script to export the CID Number and path of all your content located in the ITEMS folder as configured in MAP.INI
 - **WriteAllCIDs.TXT**
 - Sample CSV export from COD Script which lists all your ITM's and their CID Numbers.
 - **Revit CID Support.Xls**
 - Used check if your Content is supported in Revit
 - Paste Export from COD Script into **CID Dump** tab if spreadsheet.
 - Use other tabs to list CID Support in the different Revit versions.
 - If CID # was manually changed in your ITM, results could be misleading.
- **(Software)**
 - Apache Open Office – Use as an Excel alternative. Freely available from...
<http://www.openoffice.org/>
 - Notepad++ - Nice Text Editor with Search/Replaced across multiple files/folders functionality. Freely available from...
<https://notepad-plus-plus.org/>
- **Reports**
 - Sample export data from Autodesk 2018 Imperial Configuration
- **Scripts \ DB \ Debug**
 - Fabrication COD Scripts that run against items in your drawing/job contents. Display in an alert box the properties of the Item selected.
 - Don't select large numbers of Items when running. The Alert box will be displayed once for each selected item.
 - How I use these script...When Writing my own COD Scripts, I sometimes don't know the format of data or values that Fabrication expects in a Script. Example: Does the Connector Value include the Group name or not? I simply run the Connector Debug script and it will show me the data associated with the ITM I've selected.
- **Scripts \ DB \ Job Items**
 - Scripts to export various properties from the ITM's in the drawing/job contents.
 - Export files get placed in the root of the ITEMS folder as configured in your MAP.INI file.
 - How I use these scripts...Sometimes I make changes to the database and existing drawings no longer align with what's in the database. Service name may be changed, material name, etc. I export out the properties I want to look at and can easily determine if I need to "fix" any of the items in the drawing to keep from creating {bracketed} entries.



- **Scripts \ DB \ Library Items**
 - Scripts to export various properties from the ITM's in the configuration ITEMS folder.
 - Export files get placed in the root of the ITEMS folder as configured in your MAP.INI file.
 - How I use these scripts... Sometimes as I takeoff/model items, bracketed items show up in my configuration and I don't know where they came from. This exports all the properties into a file and I can find which CID's they are tied to.

- **Scripts \ Batch**
 - These are the scripts we'll use in the class and back at your office to target cleaning up batches of content. Many are almost identical to the "Library Items" scripts above but I have them point to a specific "Batch" folder where I temporarily move content for cleanup and processing.
 - **0 - *.cod**
 - Scripts prefixed with a "0-" are "Batch" scripts. They can be edited to call the various COD Scripts...
 - Fab-Scrub*.cod
 - FabSet*.cod
 - Edit these scripts to call the other ones. You have to edit in 2 places.
 - Beginning of the file to tell it which other COD's to load
 - Midway through to call the functions defined in the other scripts.
 - **Fab-Scrub-*.cod**
 - These are the scripts I use for more "global" settings on large numbers of ITMs. There's not a lot of logic in there, they just blindly set the various properties to a particular value.
 - **FabSet*.cod**
 - These are the scripts where I might do more complex tasks. I edit them to include more advanced logic where I don't blindly push a setting, rather could set it based on other criteria.
 - **WriteAll*.cod**
 - These scripts can be run individually. They are not called in the "0 - *" batch scripts. They are almost identical to the "Library Scripts" COD's except I point them to a specific "batch" folder to use as a temporary processing location.
 - **WriteAll_Props (Library).cod** does the same thing as all the other "Write" scripts combined. If I want to dump all properties, I use this. Otherwise I use the other scripts to dump just the properties I'm looking for.

Use at Your Office

All scripts can and SHOULD be opened in Notepad. You'll likely need to edit any hard coded paths to match your location.

You'll also want to edit the scripts before scrubbing properties and setting values to make sure they are setting the properties the way you want for your particular batch of content you want to clean up. That should NOT be considered static script....they are constantly evolving as your needs change.

Without a lot of scripting knowledge, you should be able to look at them and get an idea on how to edit them.

Best Practices

- Backup all your database before making major changes.
- Make a “copy” of your fabrication database for “Development” purposes to protect your production environment.
- Don't use commas (,) in file/path/database names as it can confuse Excel when importing/exporting data.
- Don't use inch marks/double quotes (") in file/path/database names as it can confuse Excel when importing/exporting data.
- Make a “Blank” database to help QA/QC your work.
- Run the Export scripts on your database to find what your content is actually set to.
- Use the SYSSCRREPORT command in CADmep to export your Template data and see where your Service Templates are pulling data from.
- Remove unused or unneeded Service Templates and other database entries.
- Use Notepad++ to bulk edit the Product Lists or other global search/replace operations across multiple files.
- Use Open Office Calc as an Excel alternative to more quickly open TXT/CSV files without having things like fractions convert to dates.

Trouble Spots

- Materials, Connectors, and Seams can hind in DoubleWall settings even when DoubleWall is turned off.
- Some versions of Fabrication have trouble retaining settings for Skin Connectors and Skin Seams (DoubleWall) for ITM's in your library. If unlocked, they may revert back to and report as default settings. To resolve this, takeoff the item in CADmep and use the SAVETOFOLDER command to save it back to disk.
- Materials can hide in developments. If an ITM keeps bringing in a material even though editing the ITM shows it set properly, go to the ITM Properties and check the “Developments” tab and correct the material there. Each ITM needs to be done individually



as it cannot be scripted. Most common on Opus parts, Profiled Patterns or other CID's that have had developments edited.

- If ITM's have edits to the developments, avoid allowing Fabrication to “redevelop” them or the changes will be lost. Editing the ITM will also redevelop it however setting properties via COD Script typically will not.
- Some CID's return FALSE what queried with the COD script Function “CanDoubleWall” but do indeed hold Doublewall settings.

