



IM124378: Airing Dirty Laundry Cleaning and Loading Your Data to Vault

Mark Allen Flayler

Senior Solutions Consultant – IMAGINiT Technologies

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Mark Allen Flayler – mflayler@rand.com

- Senior Solutions Consultant with IMAGINiT Technologies
- Based in Toledo, OH
- Autodesk User since 1999
- Relevant Class Experience
 - Worked on loading 1.5 million files into a Vault Professional environment
 - Different Divisions
 - Different types of files
 - Average 3-4 large data loading projects a quarter for different clients

Learning Objectives

- Develop best practices for loading data into Autodesk Vault.
- Learn how to break down an Autoloader scan into consumable data.
- Learn how to apply Task Scheduler to automate tasks in the migration and loading of data.
- Learn how to resolve file relationship errors during and after the data-loading process.



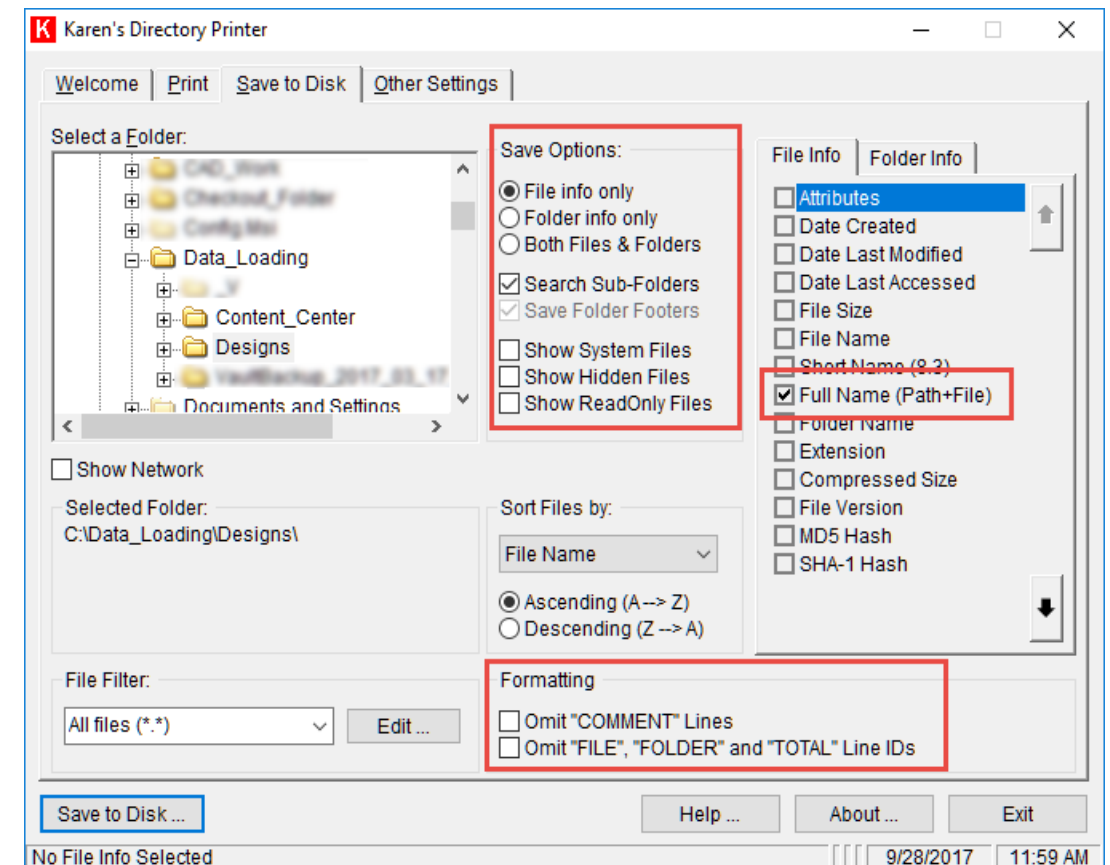
Introduction

- Data loading roadblocks and detours
- 2 Types of companies that do data loading
 - As we need it
 - We need it all! ← This is us here
- MALP (Migration and Autoloader Process)
 - Excel
 - Autodesk Vault Autoloader
 - Autodesk Inventor and AutoCAD mass loaders



Preparing the Data for Vault











- Localize it!
 - Sever Network Drives
 - Bring Standard Content Files together
- Move and Capture Directory Contents
 - Put Scan data in a Vault folder structure
 - Windows Command Prompt
 - GUI Directory Printers
 - Tip: Delete the garbage



Preparing the Data for Vault

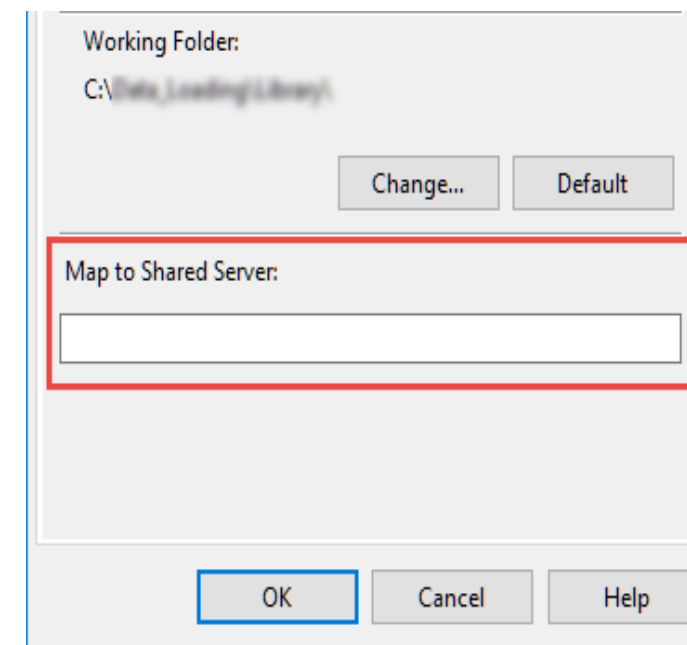
- Separating AutoCAD and Inventor Files

- JTB World – DWG Columns
- Easy if you only use IDWs
- Use a batch move to separate

 Acme Brass Block E...	1/18/2017 12:15 PM	DWG File	12,883 KB	ACME (C) Acme...	AutoCAD 2016
 AutoCAD 3D Solid...	9/20/2016 12:57 PM	DWG File	60 KB	Inventor 2017 lib...	Inventor 2017
 HB-0002701.dwg	8/24/2016 1:28 PM	DWG File	183 KB	DWG Merge (C)...	Inventor 2017
 HB-0002701.dwg	8/24/2016 1:23 PM	DWG File	714 KB	Dimensions (C) A...	Inventor 2017
 Sample.dwg	8/24/2016 1:02 PM	DWG File	32 KB	DWG Merge (C)...	AutoCAD 2017
 HB-0002701.dwg	8/24/2016 12:56 PM	DWG File	714 KB	Dimensions (C) A...	Inventor 2017
 Revised Garden.dwg	5/26/2016 10:23 AM	DWG File	751 KB	Revised Garden Br...	Inventor 2017
 Revised Garden 2012...	5/26/2016 10:23 AM	DWG File	739 KB	Dimensions (C) A...	Inventor 2017
 Operator Station.dwg	4/1/2016 6:47 PM	DWG File	134 KB	Inventor 2017 lib...	AutoCAD electrical2008
 001-21000-FRAME ...	12/11/2015 11:36 ...	DWG File	2,576 KB	Transport for Train...	Inventor 2016

- Seeding the Vault

- Content Center Files
- Library and Standard Content
- Common X-Refs Library



Demonstration



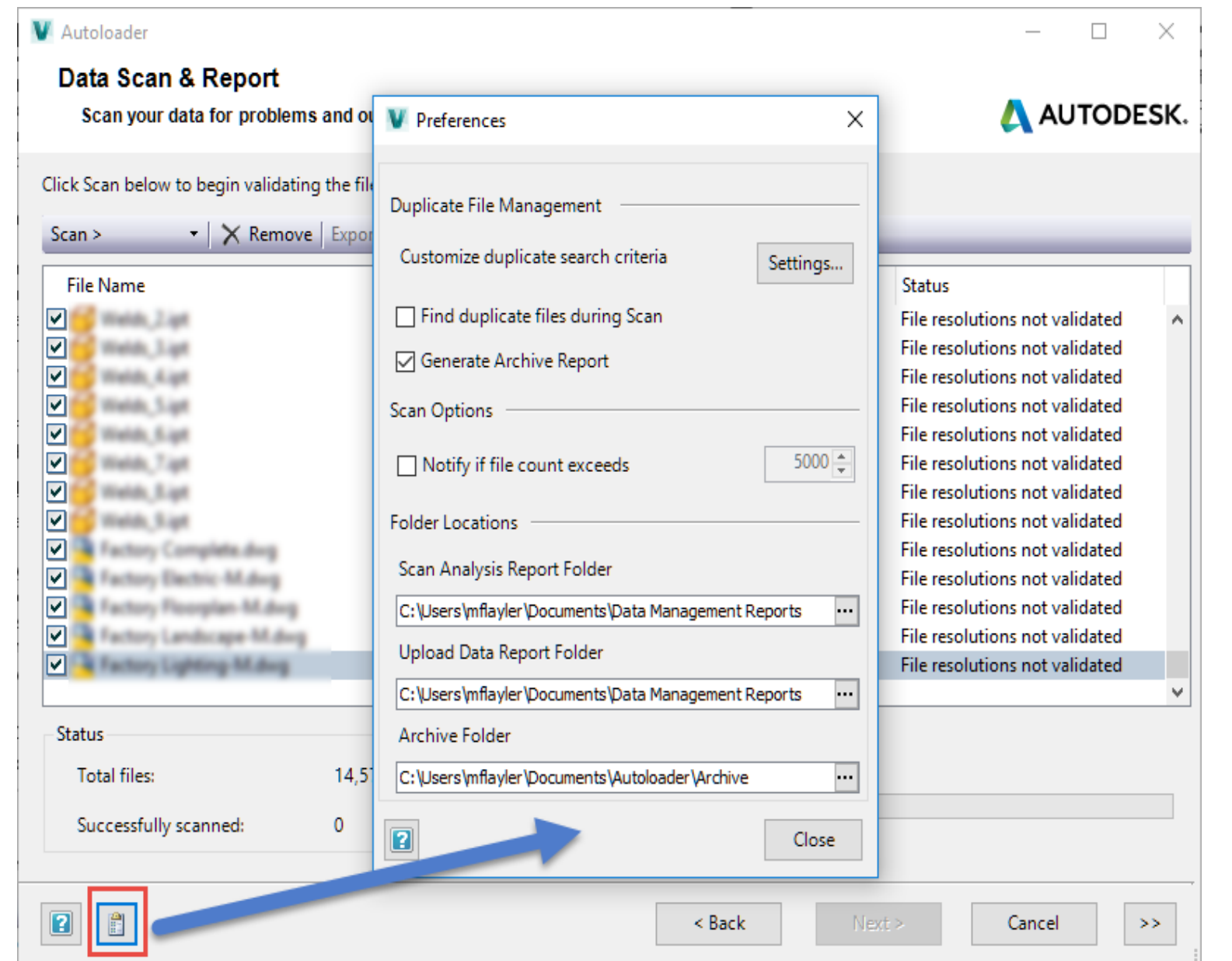
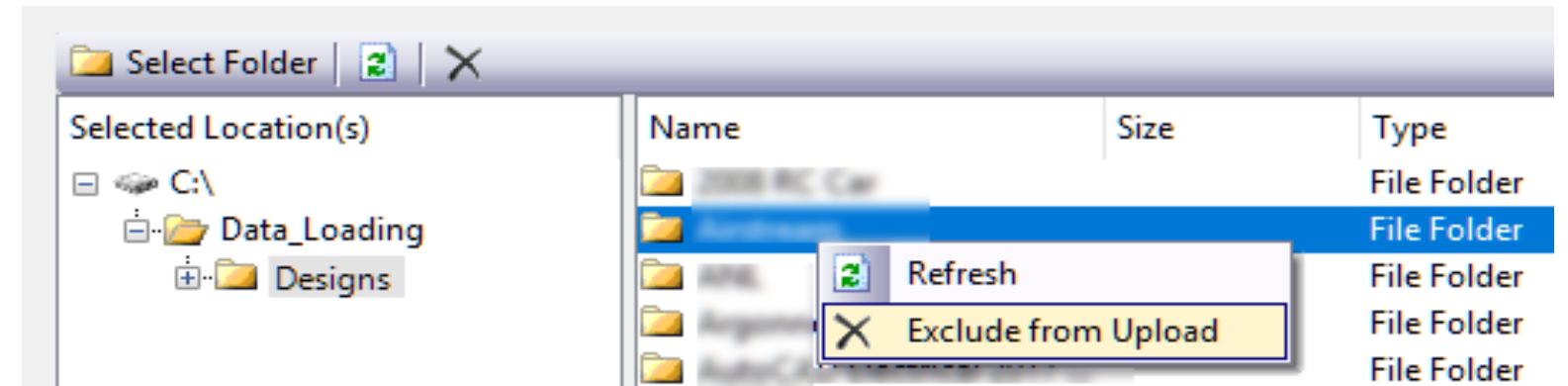
Autoloader Scanning

- Autoloader
 - Shortcomings for large datasets
 - Things need to be perfect and 100% clean to load
 - Vague error reporting
 - Great for a mass report – this is what we will use it for
 - Set an initial project files (your Vault Master project would work)



Autoloader Scanning

- Exclude folders you know you don't want to scan right away
- Don't worry about duplicate detections
- Pay attention to where the reports go with the Application Preferences
- Scan and get some coffee...or lunch...or a vacation day.
- Typically if your system is good you can expect 50,000 files in 4 hours.



Autoloader Scanning

- Export the Report when finished
- Delete erroneous rows
- New column between A and B
- Use this formula
 - =if(A3="",B2,A3)
 - Autofill that guy all the way
- Lastly, take your new column B and copy and then past as values so no formulas copy as we work

Scan > | X Remove | Export | Filter: All File Types (*.*)

	A	B	C	D
1		File Name	Source Folder / Last Known	Status
2	1	123458-Default.ipn	C:\Data>Loading\Designs\Airstream\123458	Issue(s) in children
3		SCREW-PH PHIL #8 X 0.50".IPT	S:\Shawn Jones\Testing Environment\Content Center Files	File can't be found(missing)
4		SCREW-PH PHIL #8 X 1.25".IPT	S:\Shawn Jones\Testing Environment\Content Center Files	File can't be found(missing)
5		Handle Assy (382253-01).iam	S:\Shawn Jones\Testing Environment\Test Library Parts\Handle	File can't be found(missing)
6		Hinge Assy (381607).iam	S:\Shawn Jones\Testing Environment\Test Library Parts\Hinges	File can't be found(missing)
7		Knob Assy (382252).iam	S:\Shawn Jones\Testing Environment\Test Library Parts\Knob	File can't be found(missing)
8		Latch Assy 3lbs (381228-01).iam	S:\Shawn Jones\Testing Environment\Test Library Parts\Latches	File can't be found(missing)
9	2	123458-Install Handle Assy (112233).ipn	C:\Data>Loading\Designs\Airstream\123458	Issue(s) in children
10		SCREW-PH PHIL #8 X 0.50".IPT	S:\Shawn Jones\Testing Environment\Content Center Files	File can't be found(missing)
11		SCREW-PH PHIL #8 X 1.25".IPT	S:\Shawn Jones\Testing Environment\Content Center Files	File can't be found(missing)
12		Handle Assy (382253-01).iam	S:\Shawn Jones\Testing Environment\Test Library Parts\Handle	File can't be found(missing)
13		Handle Assy (381607).iam	S:\Shawn Jones\Testing Environment\Test Library Parts\Hinges	File can't be found(missing)
14	127	127 932-06-02.iam	C:\Data>Loading\Designs\Airstream\123458	Issue(s) in children
15		127 932-06-02_SHRINKWRAP.ipt	S:\Shawn Jones\Testing Environment\Content Center Files	File can't be found(missing)
16	128	128 932-06.iam	C:\Data>Loading\Designs\Airstream\123458	Issue(s) in children
17		128 932-06-02_SHRINKWRAP.ipt	S:\Shawn Jones\Testing Environment\Content Center Files	File can't be found(missing)
18	129	129 16370-C7.dwg	C:\Data>Loading\Designs\Airstream\123458	Issue(s) in children
19	130	130 16371-C7.dwg	C:\Data>Loading\Designs\Airstream\123458	Issue(s) in children
20	131	131 SCREW-PH PHIL #8 X 0.50".IPT	S:\Shawn Jones\Testing Environment\Content Center Files	File can't be found(missing)
21	132	132 SCREW-PH PHIL #8 X 1.25".IPT	S:\Shawn Jones\Testing Environment\Content Center Files	File can't be found(missing)
22	133	133 Handle Assy (382253-01).iam	S:\Shawn Jones\Testing Environment\Test Library Parts\Handle	File can't be found(missing)

Context Menu: Cut, Copy, Paste Options (Paste, Paste and Link, Paste and Format, Paste and Values, Paste and All, Paste and Merge), Paste Special..., Insert Copied Cells, Delete

Demonstration



Breaking Down the Autoloader Scan into a MALP

- Time to make sense of this!
- Complete Directory Listing
- Copy in Autoloader Scan Export
- Break it down into multiple tabs to digest the information effectively.
 - Parents with Issues
 - Different Than Expected
 - Missing Files
 - Unsupported Data



Breaking Down the Autoloader Scan into a MALP

- Course Provided Excel Template – MALP Results.xlt
- Complete Directory Listing
- ORG Tab – This is the Autoloader Scan Export
- Parents with Issues – my kids tell me this alot
 - We need to separate this one a bit
 - Begin with another copy of the ORG tab data
 - Autofill the Lookup Index
 - Filter and Remove Data to other Tabs

Filename	Ext	Index	Duplicate Check
B260_Final.iam	.iam	1	FALSE
B260_Sub.iam	.iam	1	FALSE
B260_Sub-OP45.iam	.iam	1	FALSE
B70RH-FINAL.iam	.iam	1	FALSE
B70RH-FINAL.idw	.idw	1	FALSE
B70RH-FINAL.ipn	.ipn	1	FALSE
B70RH-SUB.iam	.iam	1	FALSE

D
Error
Issue(s) in children
Unsupported data - version older than R10 (Inventor) or R14 (AutoCAD)
Unsupported data - version older than R10 (Inventor) or R14 (AutoCAD)
File can't be found(missing)
File can't be found(missing)
File can't be found(missing)
File can't be found(missing)
File can't be found(missing)
Issue(s) in children
Unsupported data - version older than R10 (Inventor) or R14 (AutoCAD)

Demonstration



Breaking Down the Autoloader Scan into a MALP

- Different Than Expected
 - Same name, different File ID
 - iLogic Code to check the File ID

'code to check for File ID

```
oDocDisplayName = ThisDoc.Document.DisplayName
```

```
oDocName = ThisDoc.FileName(True)
```

```
oDocFullName = ThisDoc.Document.FullFileName
```

```
oDocInternalName = ThisDoc.Document.InternalName
```

```
oMessage = "Display/Browser Name: " & oDocDisplayName & vbLf & _
```

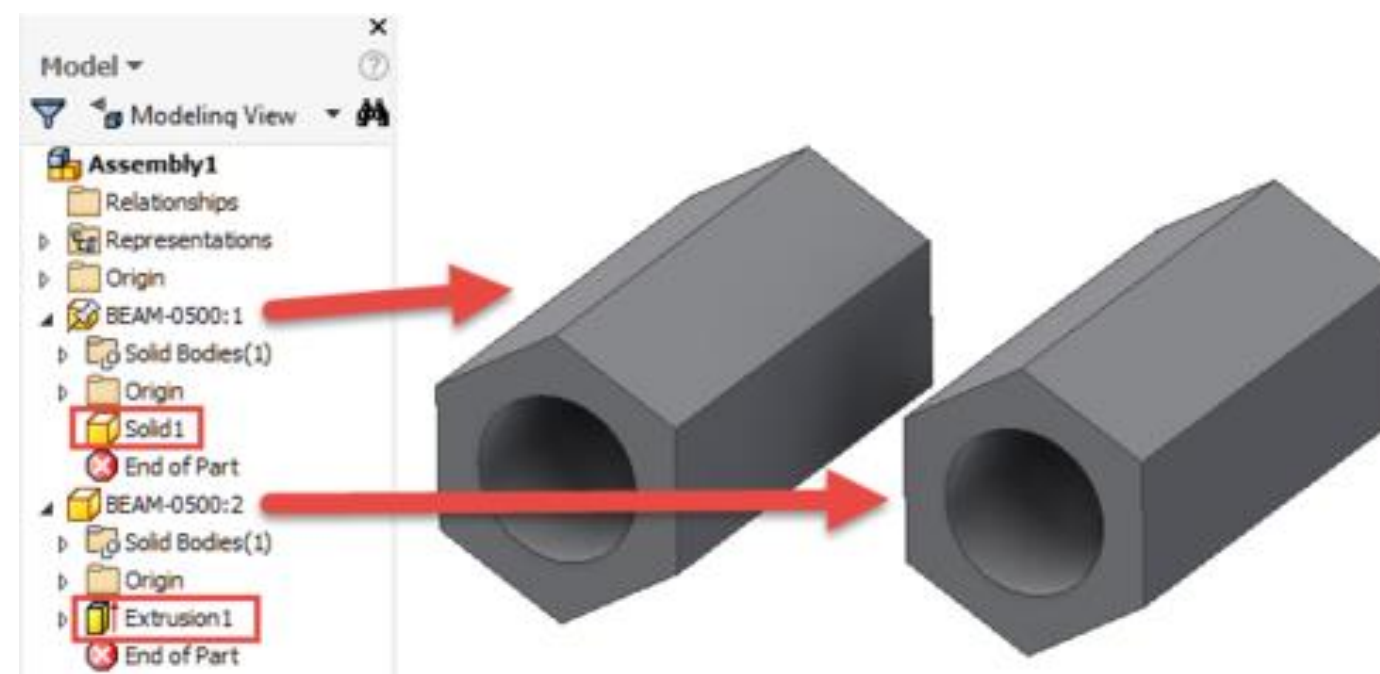
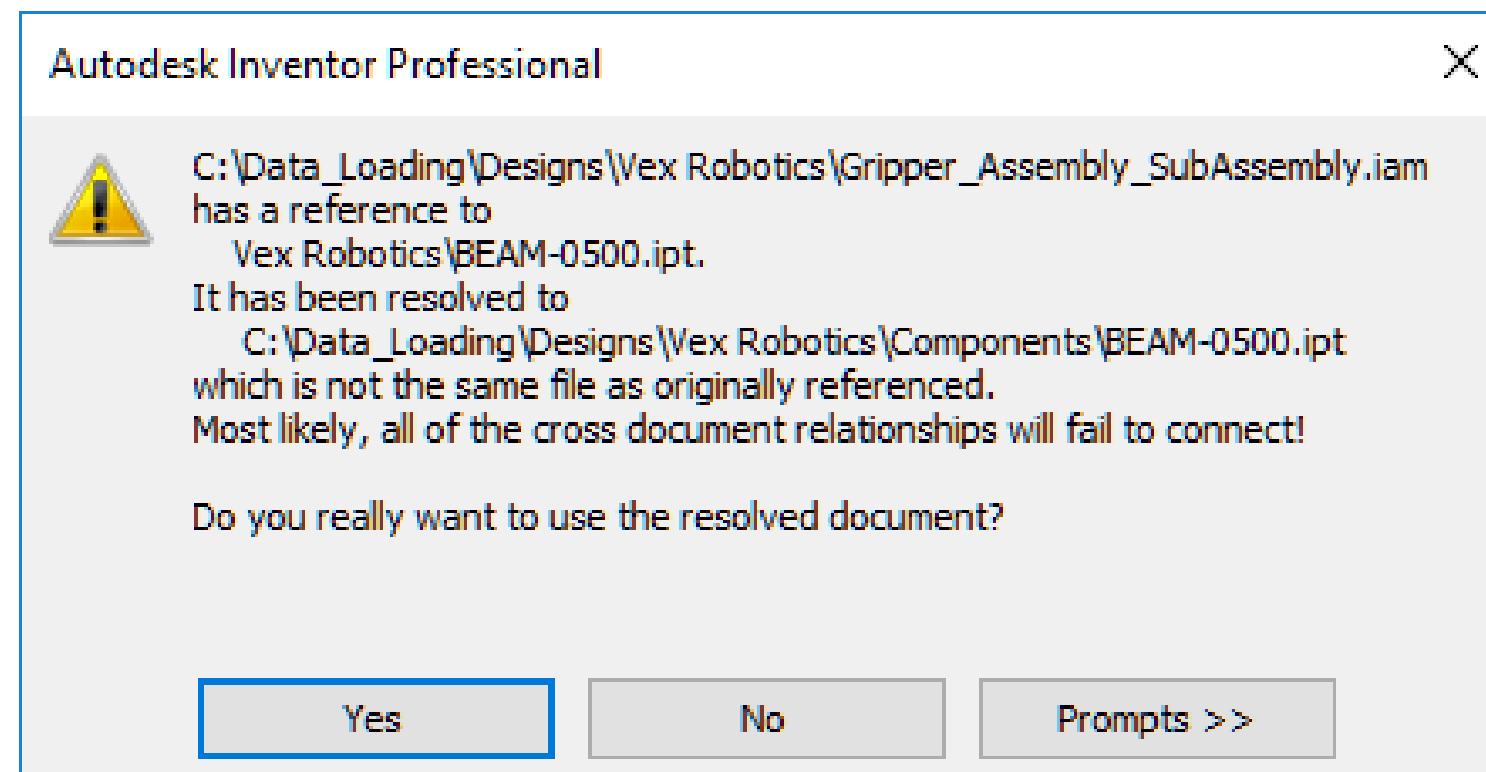
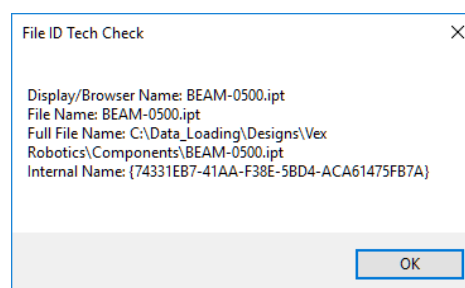
```
"File Name: " & oDocName & vbLf & _
```

```
"Full File Name: " & oDocFullName & vbLf & _
```

```
"Internal Name: " & oDocInternalName & vbLf & _
```

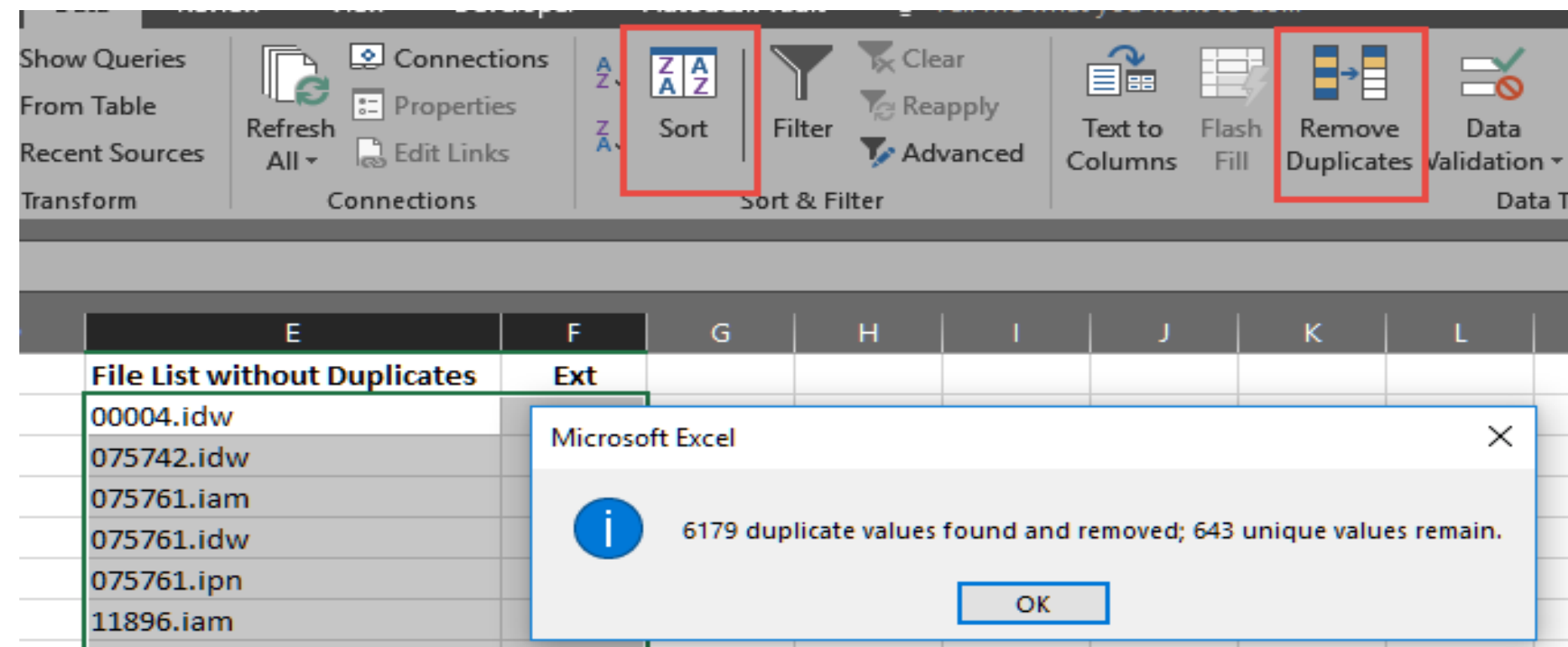
```
" "
```

```
MessageBox.Show(oMessage, "File ID Tech Check")
```



Breaking Down the Autoloader Scan into a MALP

- Different Than Expected
 - Autofill C2 from the Copied Data to find the Index parent
 - Copy C2 to E2 as values
 - In cell F2 autofill for extension
 - Sort Cells by filename
 - Remove Duplicates

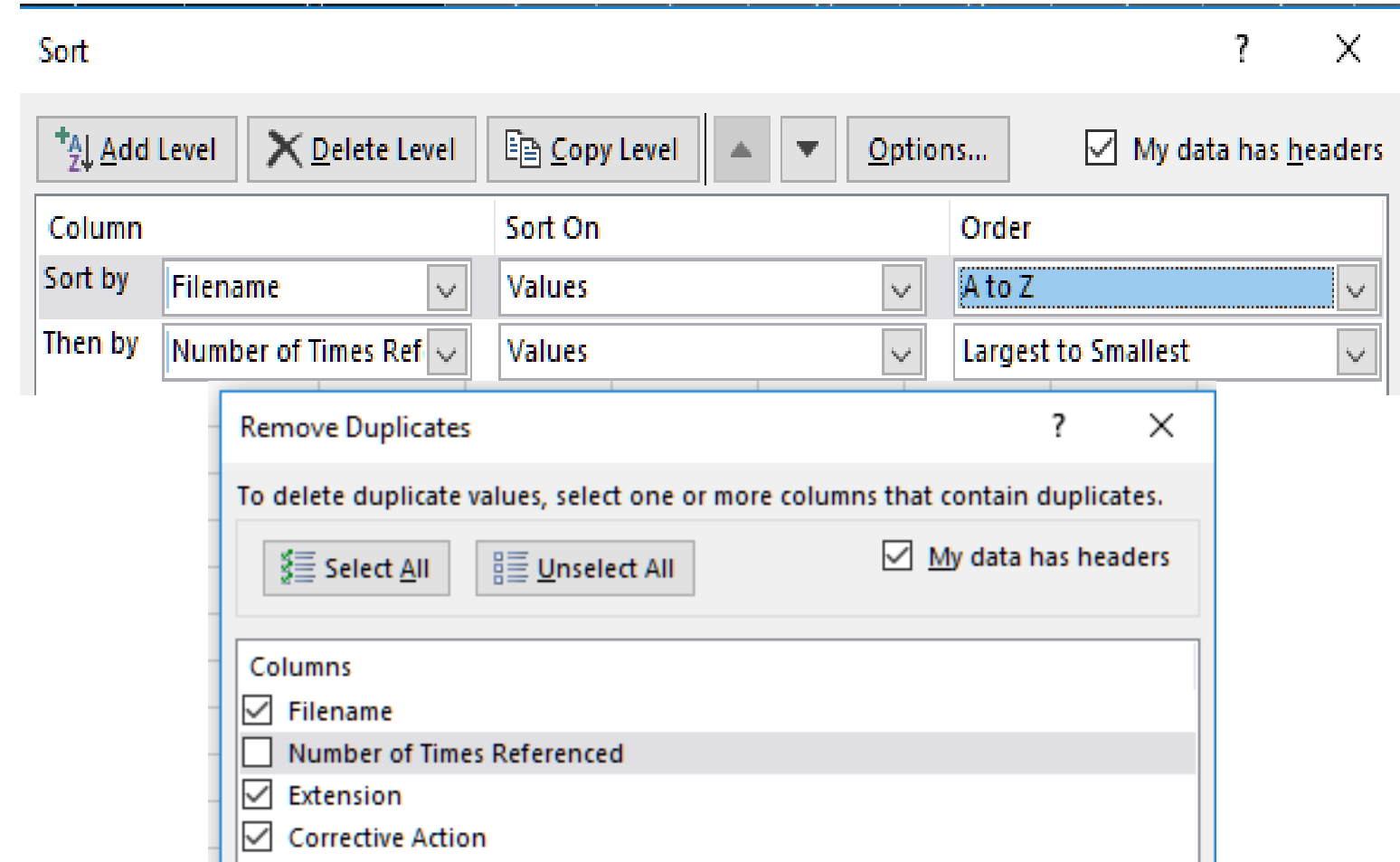


Demonstration



Missing File Paths and Missing Files

- Missing File Paths Sort by Filename
 - Copy Column B to Missing Files Tab
 - Resort by Last Known Path
- Missing Files Tab
 - Add this formula to cell B2
 - =if(A2=A1,B1+1,1)
 - Autofill
 - Sort and Copy as Values
 - Remove Duplicates



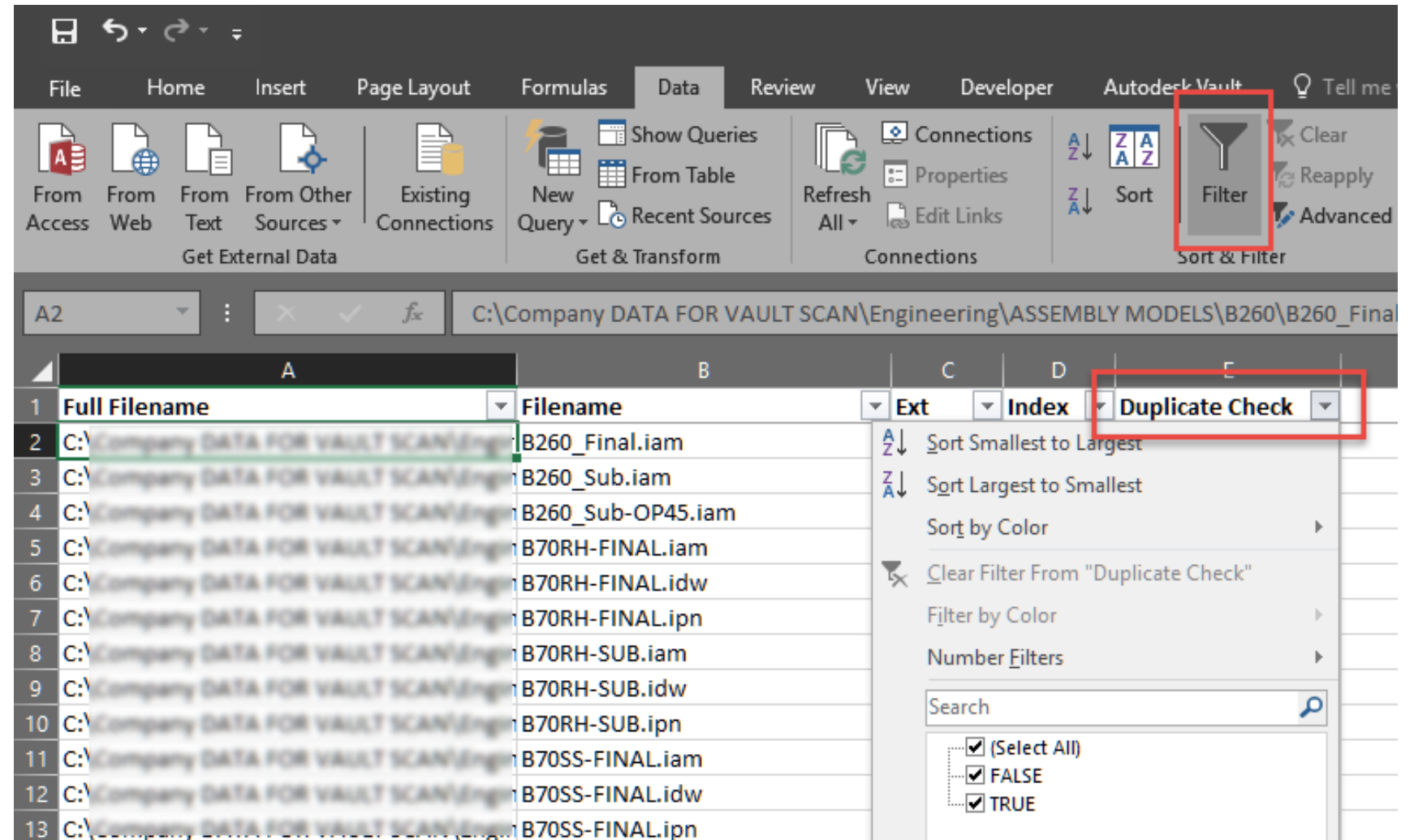
3277	89	T330_Final.iam	C:\Com	21	COVER SCREW.ipt	39	
3278	89	11736.iam	Z:\LIBR	22	SE#8.ipt	20	ing)
3279	89	160263.ipt	Z:\LIBR	23	ME3307-1004.ipt	19	ing)
3280	89	ME3307-1004.ipt	R:\Engi	24	12451.ipt	18	ing)

Demonstration



Unsupported Data and Duplicates Found

- Unsupported Data
 - Files too Old
 - Internal Error in Scan (corrupt)
- Duplicates Found
 - Better hope this list is small
 - We will discuss resolution later



Demonstration



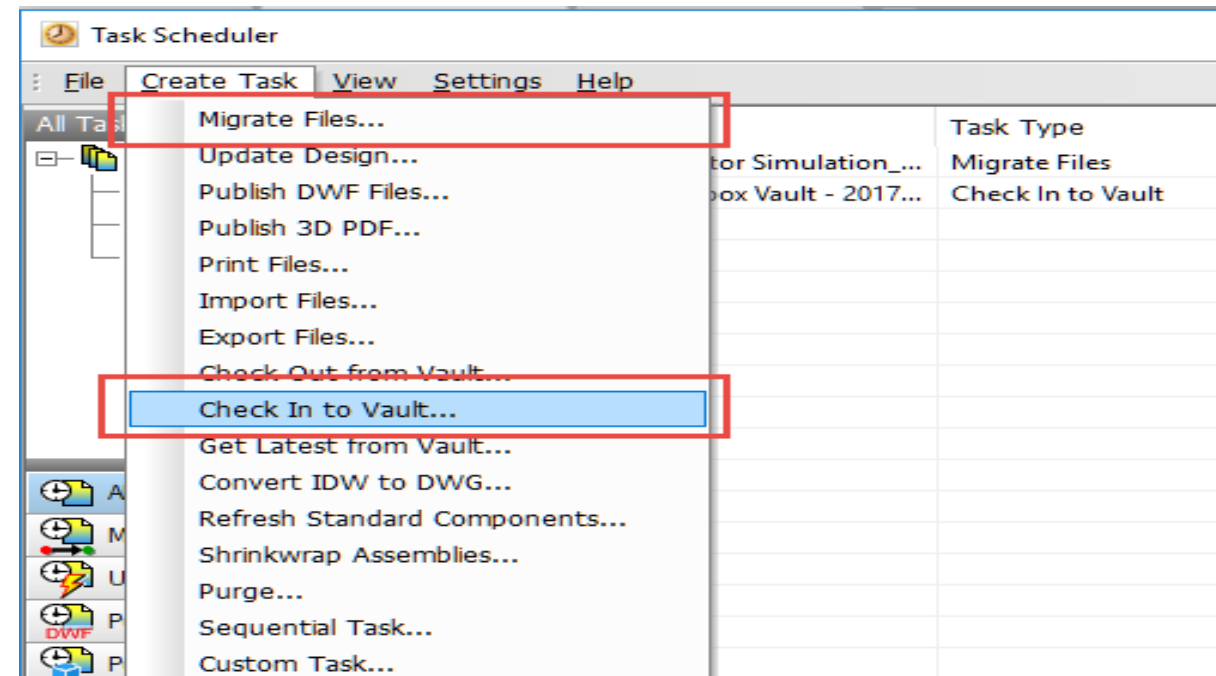
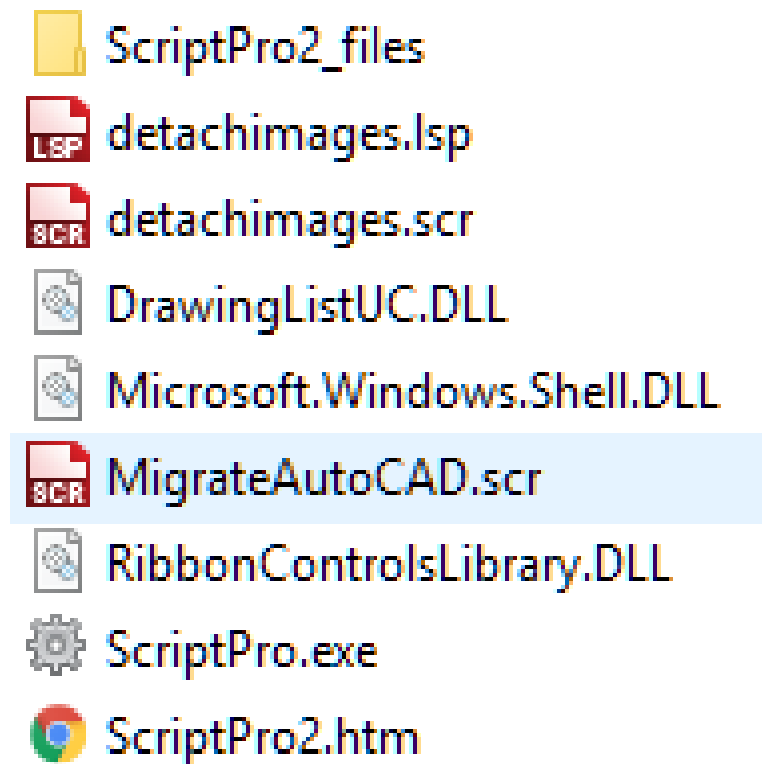
Corrective Action and Migration

- Start with Missing Files
 - Images, Spreadsheets, FEA resultant files, missing X-refs
 - Blog Post links in the handout for additional help and information on these types of errors
- Different Than Expected
 - Put on your favorite record and get clicking
- Duplicate Resolution
 - Name only or name and geometry



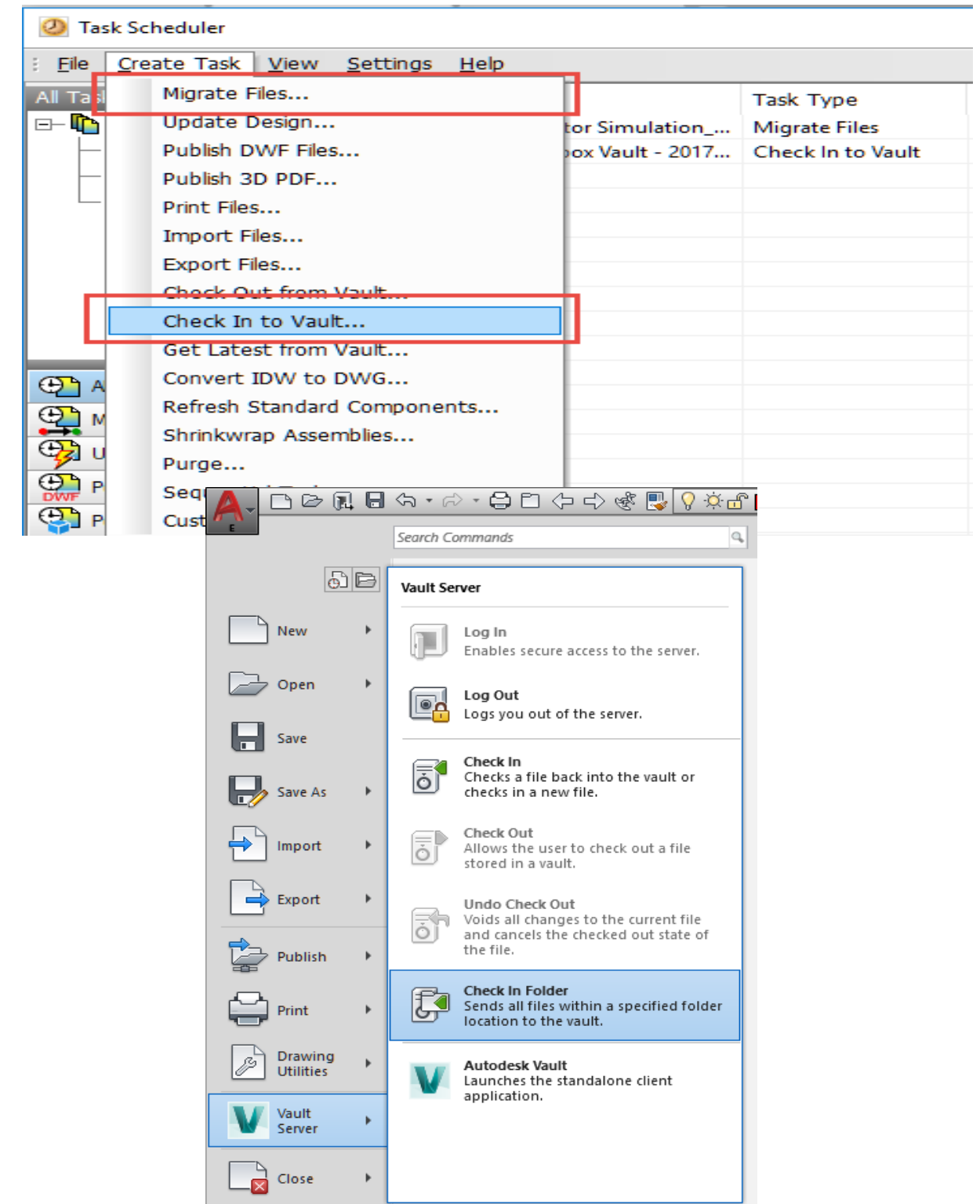
Corrective Action and Migration

- Migration
 - Script Pro 2.0 or AutoCAD Electrical Project Wide tools
 - Inventor – use Task Scheduler
 - Make a backup of the initial database log if you do this a lot and run a replace batch on it before starting



Mass Loading Files to Autodesk Vault

- Task Scheduler
 - Depending on amount of files, stage the loading by IPTs, then IAMS, IPNS, and lastly drawing files (over 200k files)
- AutoCAD Check in Folder
 - Great when ACAD data is separated
 - It will scan and load EVERYTHING but broken files
- Consider turning off DWF generation especially if you need to master your data



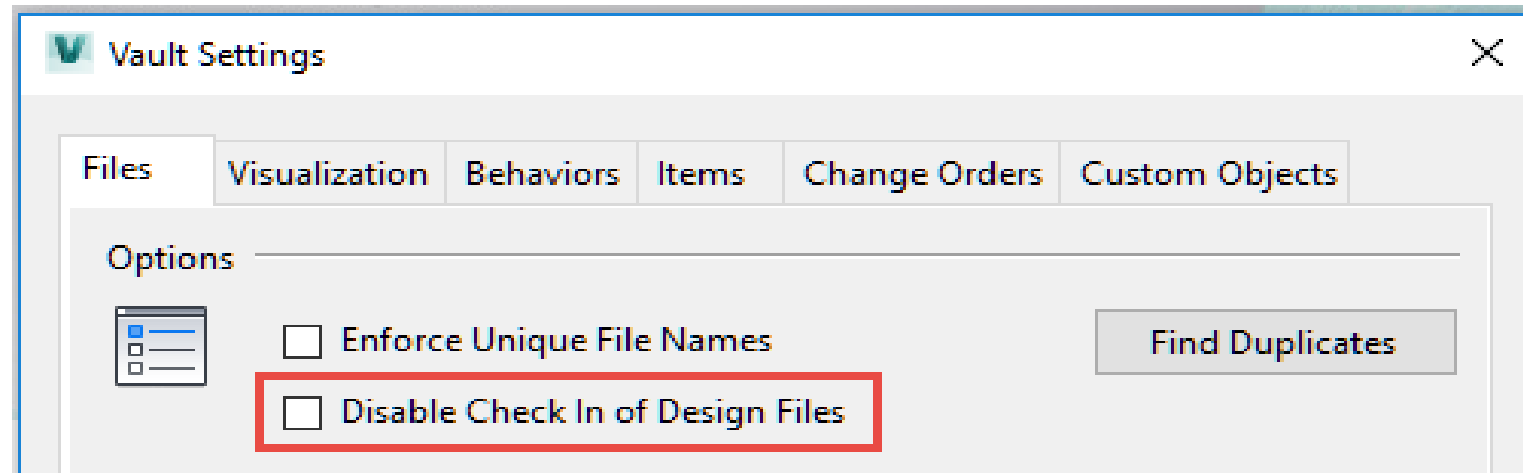
Resolving File Relationship Errors after Loading

- Locating Unloaded Files
 - Attribute Column
 - Delete Drawings that are RA
 - Load drawings first and resolve them
- Manual Corrective Action
 - Different Than Expected
 - Break Links
- Duplicate Files in Vault – Vault Rename and Replace
- Uncommon Issues



What about the Remainder?

- Manually Add the files with a force check in
 - This is quick and easy and makes them searchable
 - Add a definable folder or Vault UDP for them



- Leave out of Vault and fix given time
 - Cant search them
 - Risk of duplicate creation or wrong file



Conclusion

- Every Data Loading project is uniquely challenging
- Every Implementation timeline needs to address data
- The MALP report gives you a roadmap



I STARTED THE DAY WITH
LOTS OF PROBLEMS.
|
BUT NOW, AFTER HOURS
AND HOURS OF WORK,
|
I HAVE LOTS OF PROBLEMS
IN A *SPREADSHEET*.





Make anything.