

UGS CONNECTION



AMERICAS 2008

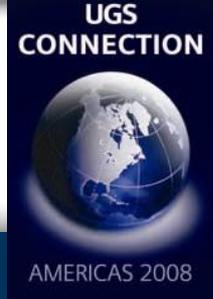


Siemens PLM Software

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Solid Edge Links and Tools
used to Manage Them

2008



Solid Edge Links

- ▶ Kurt W Vaillancourt, ME, CAD/CAM App Sprt
- ▶ Stanford Linear Accelerator Center, Menlo Park, CA
- ▶ Email vaillanc@slac.stanford.edu
- ▶ Phone 650-926-3821
- ▶ SLAC Virtual Visitor Site <http://www2.slac.stanford.edu/vvc>
- ▶ 150 Seats SE V19, Insight File Mgmt, 4 FTE Support Staff
- ▶ Beam Lines (large magnets, vacuum systems, diagnostics and stands) - Massive assemblies and drawings, mostly simple prismatic parts in Adjustable Assemblies, large numbers of std fasteners and vendor parts.



Solid Edge Links

Standard Links

- ▶ Assembly to Part, Assembly to Assembly, Part to Part (Insert Part Copy or Divide Part), Draft to Assembly, Draft to Part, Draft to Draft

Advanced Links

- ▶ Inter-part links

Special Links

- ▶ Binder
- ▶ Family of Parts
- ▶ Alternate Assemblies
 - ▶ Family of Assemblies
 - ▶ Alternate Position Assemblies

Plus one very useful Drawing Update Time Saver tip



Standard Links

Standard Links

- ▶ Assembly to Assembly
- ▶ Assembly to Part
- ▶ Part to Part (Insert Part Copy)
- ▶ Draft to Assembly
- ▶ Draft to Part
- ▶ *Part implies Part, Sheetmetal, and Weldment



Standard Links

View and modify links with Revision Manager

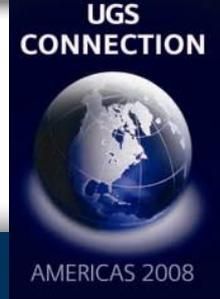
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Set Path
Increment Name
Set Action to Copy
Set Action to Revise
Set Action to Rename
Set Action to Replace
Clear Action
File Properties
Show Parents
Add to Packaged Collaboration File

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Standard Links



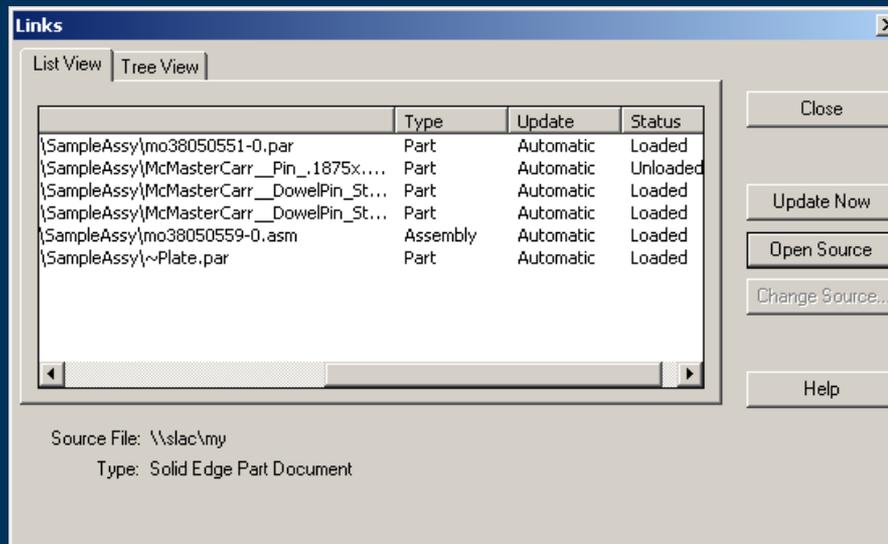
Revision Manager Tips:

- ▶ Use Tools/Preview to Preview the selected item. The preview is a small raster image of the last Save
- ▶ Search for Broken Links upon starting Revision Manager.
- ▶ When selecting multiple entries(Shift+select;Ctrl+select) use the small boxes to the left the filename for selection. Use the top box for Select All.
- ▶ When attempting to Set Path make sure broken links are set to No Action or the Set Path button will remain unselectable.
- ▶ Use extreme care when modifying filenames.
- ▶ There is no Undo button in the Revision Manager environment so always choose a Copy action over a Rename action if possible.



Standard Links

- ▶ You can also use Assembly mode or Draft mode Edit|Links menu to review and maintain links
- ▶ 'Replace' is preferred over 'Change Source'



- ▶ 'Change Source' can be useful for copied Draft/Model pairs in Draft mode



Standard Links

Linkmgmt.txt File

- ▶ You can use a text editor, such as Notepad, to edit the file. Review the following sample LinkMgmt.txt file.
- ▶ CONTAINER
RELATIVE
ABSOLUTE
BEGIN SEARCH PATH
C:\My Documents
\\machine123\My Documents
END SEARCH PATH
- ▶ The keywords, Container, Relative and Absolute, in the LinkMgmt.txt file indicate the method and order in which links are resolved. Container looks for the files in the same folder as the container document. Relative looks for the files relative to the container document at the time of placement or save. Absolute looks for the exact path for the files at the time of placement or save. You may want to reorder or remove the keywords from the LinkMgmt.txt file to improve the performance of resolving the links.

Standard Links



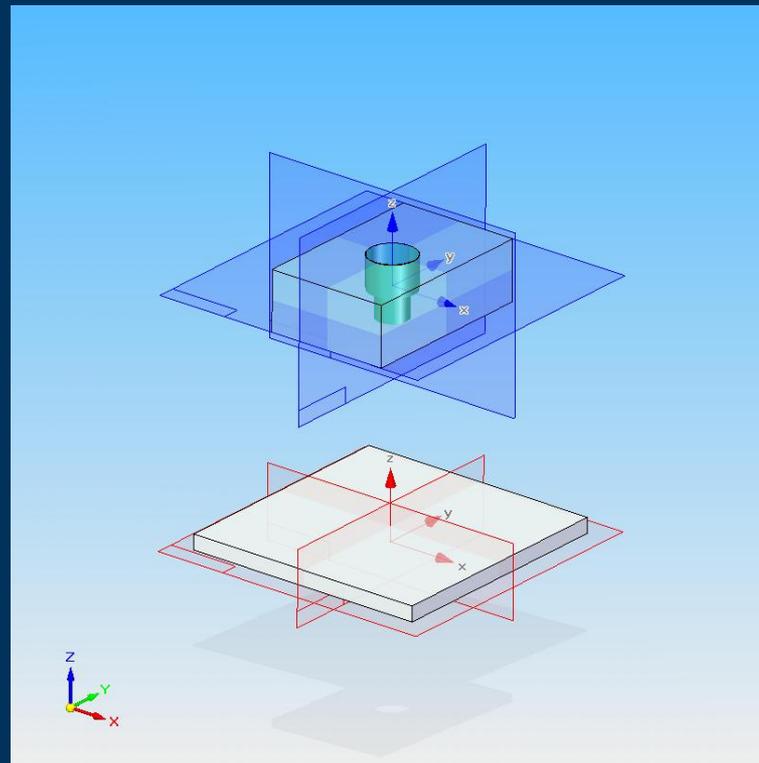
Linkmgmt.txt tips:

- ▶ Don't forget to enable Linkmgmt.txt on the Tools|Options|File Locations tab
- ▶ After a file set has been opened and Saved with a modified Linkmgmt.txt file the links will be modified to point to the new location by default
- ▶ Don't forget to disable Linkmgmt.txt on the Tools|Options|File Locations tab after you have corrected the linkage problem



Advanced Links

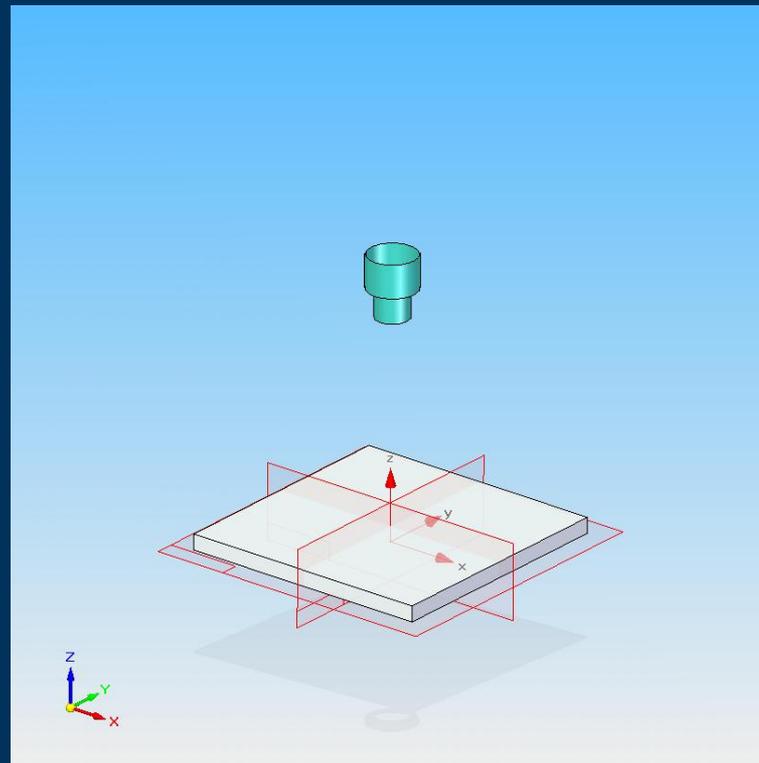
Inter-part links are links that allow inter-related part body/face/features relative to their offset in the assembly file.





Advanced Links

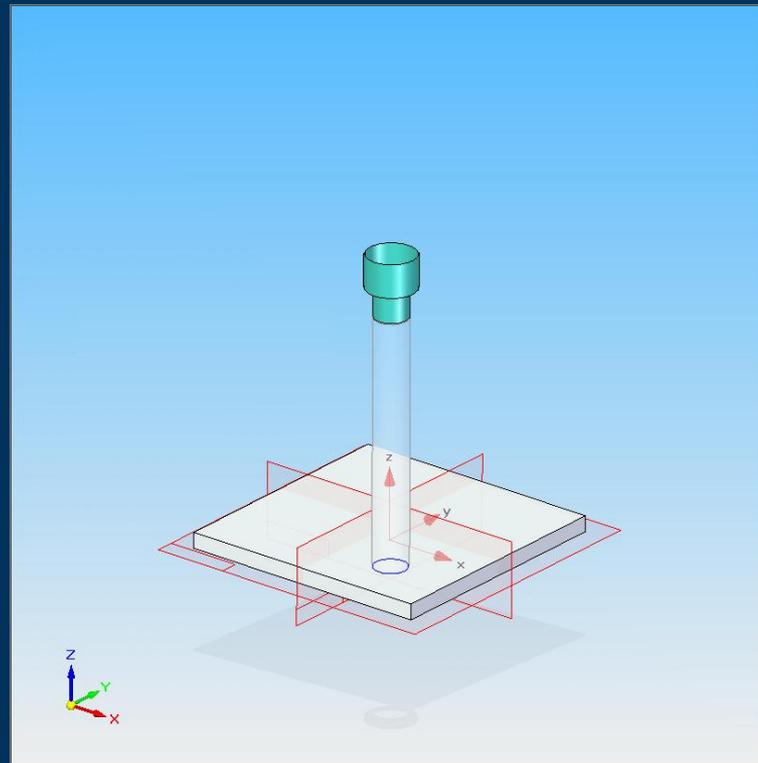
Inter-part links are links that allow inter-related part body/face/features relative to their offset in the assembly file.





Advanced Links

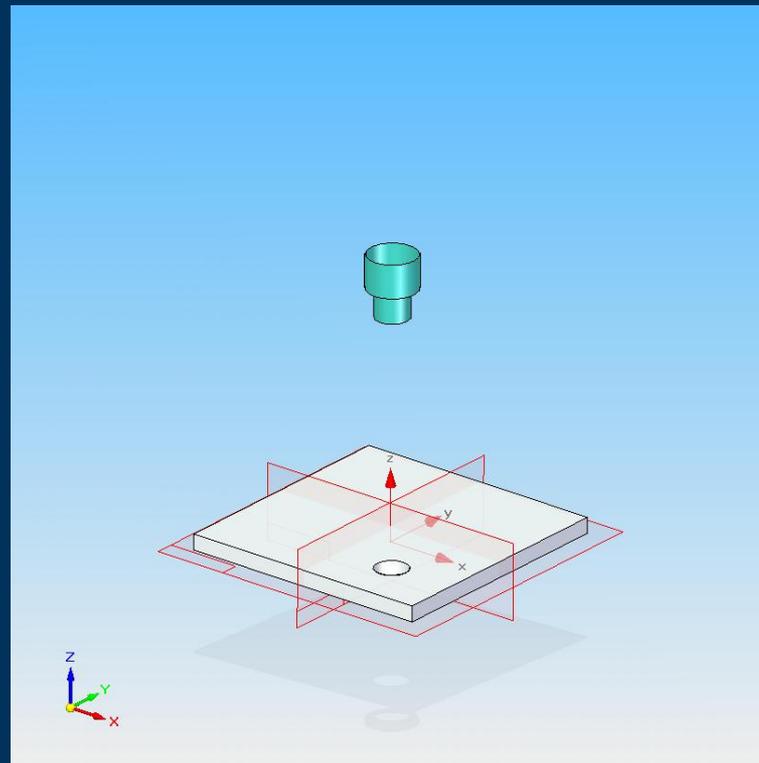
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Advanced Links

Inter-part links are links that allow inter-related part body/face/features relative to their offset in the assembly file.



Advanced Links



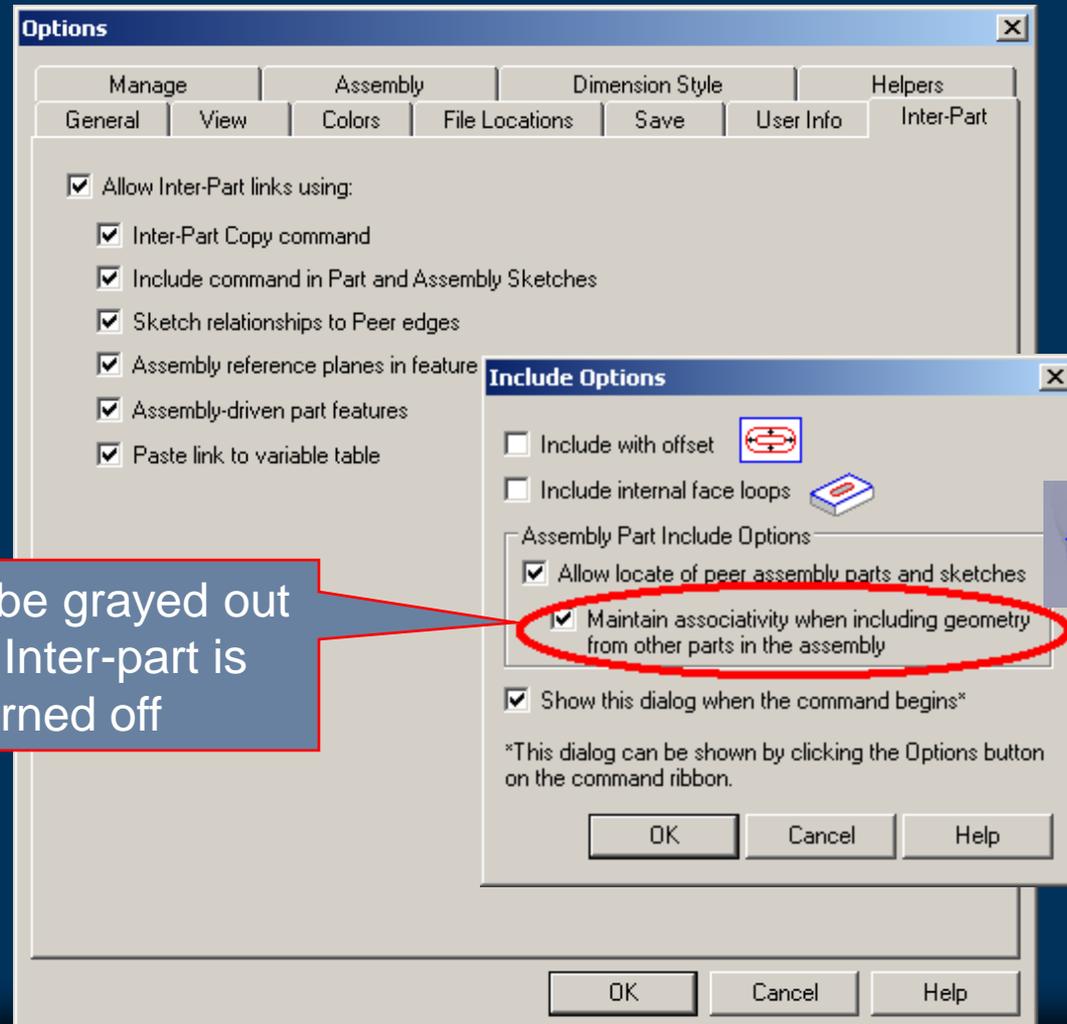
**One mean
model!!!**





Advanced Links

Inter-Part menu for enabling or disabling Inter-part links

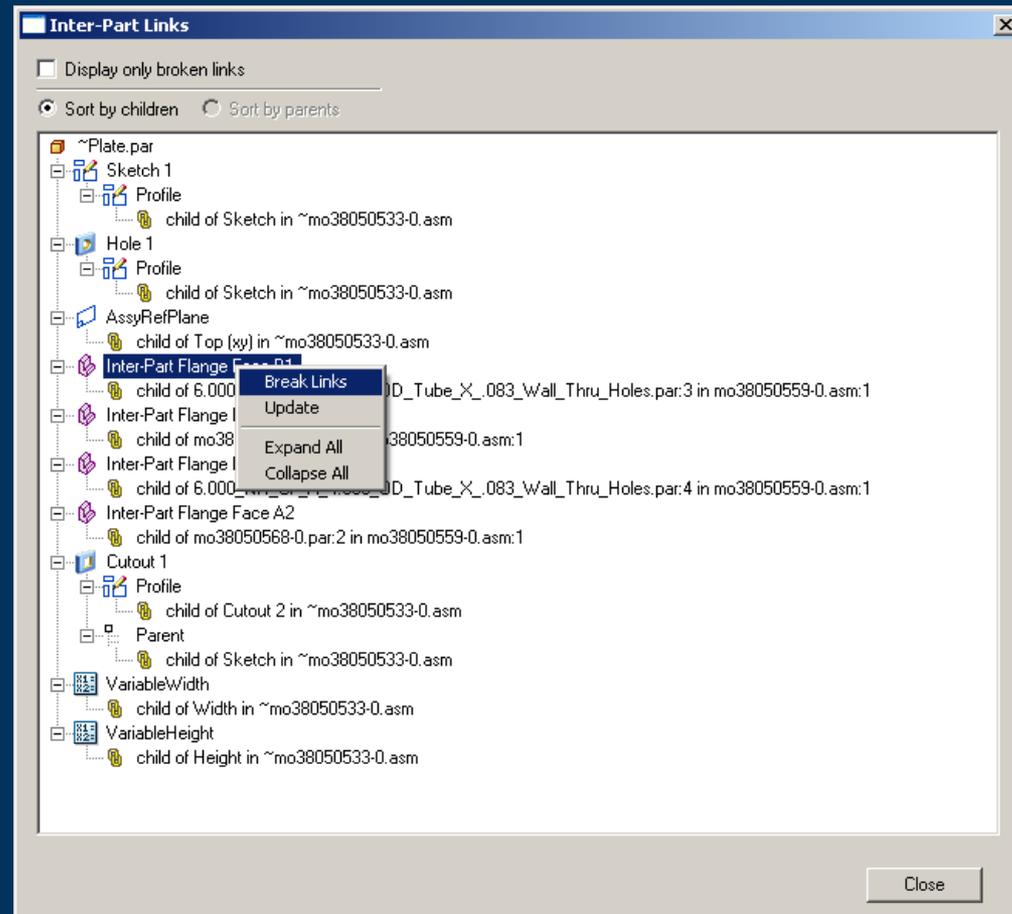


Should be grayed out
when Inter-part is
turned off

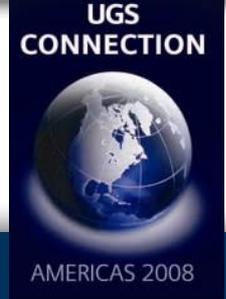


Solid Edge Links

Inter-Part Links are Managed with Inter-Part Links
Manager tool



Advanced Links



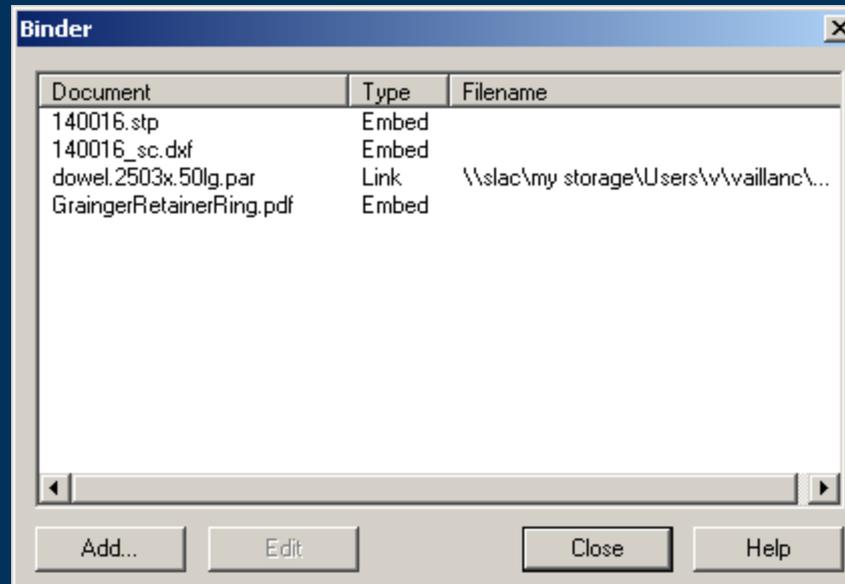
Inter-Part tips:

- ▶ All Inter-Part links can be viewed with Inter-Part Manager
- ▶ Inter-Part links can be viewed from the assembly or the part file
- ▶ Document the relevance of links in the Feature name or in File|File Properties|Summary|Comments
- ▶ When having trouble with links Open the related part files, Recompute the base feature Save, Open the assembly and Update All Links. Note: This may cause drawing view updates on related draft files.



Special Links

Binder allows users to embed non-Solid Edge documents or link Solid Edge documents to the Solid Edge document.



Warning: Your SE document file size will increase by the size of your embedded document



Special Links

Family of Parts

EdgeBar

Members

ThickPlate

Suppressed features:

- ExtrudedCutout_1
- Hole_1
- Inter-Part Flange Face A1
- Inter-Part Flange Face A2
- Inter-Part Flange Face B1
- Inter-Part Flange Face B2

Variables:

Name	Value
ExtrudedProtrusion_1_FiniteDepth	1.000 in

Apply

Family of Parts

Master	ThinPlate	ThickPlate
Description		
Path	\\slac\m...	\\slac\my storage\user
Status	?	?
Features		
ExtrudedProtrusion_1		
Hole_1	Suppress	Suppress
ExtrudedCutout_1	Suppress	Suppress
Constructions		
Inter-Part Flang...		Suppress
Variables		
PhysicalProperties_...		
PhysicalProperties_...		
VariableWidth = @'...		
VariableHeight = @'...		
ExtrudedProtrusion...	0.100 in	1.000 in
Hole_1_Diameter = ...		
V752 = 1.192 in		

OK Cancel Help



Special Links

Family of Parts

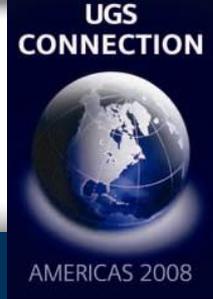
- ▶ Like Insert Part Copy of Parent with modifications to
 - ▶ Feature suppression
 - ▶ Variable value modification

Tips:

Use the “Edit Table” form to view all family members at once to compare status and value of members.

Open the parent into Revision Manager then use Tools|PropertyManager to review and modify Properties for all family members

Special Links



Alternate Assemblies

- ▶ Alternate Position Assemblies
 - ▶ Assembly variations where ALL parts are identical, but some part positions change during the physical operation of the assembly

- ▶ Family of Assemblies
 - ▶ Assembly variations where MOST parts are identical, but some parts and subassemblies are different between the individual assemblies

Special Links



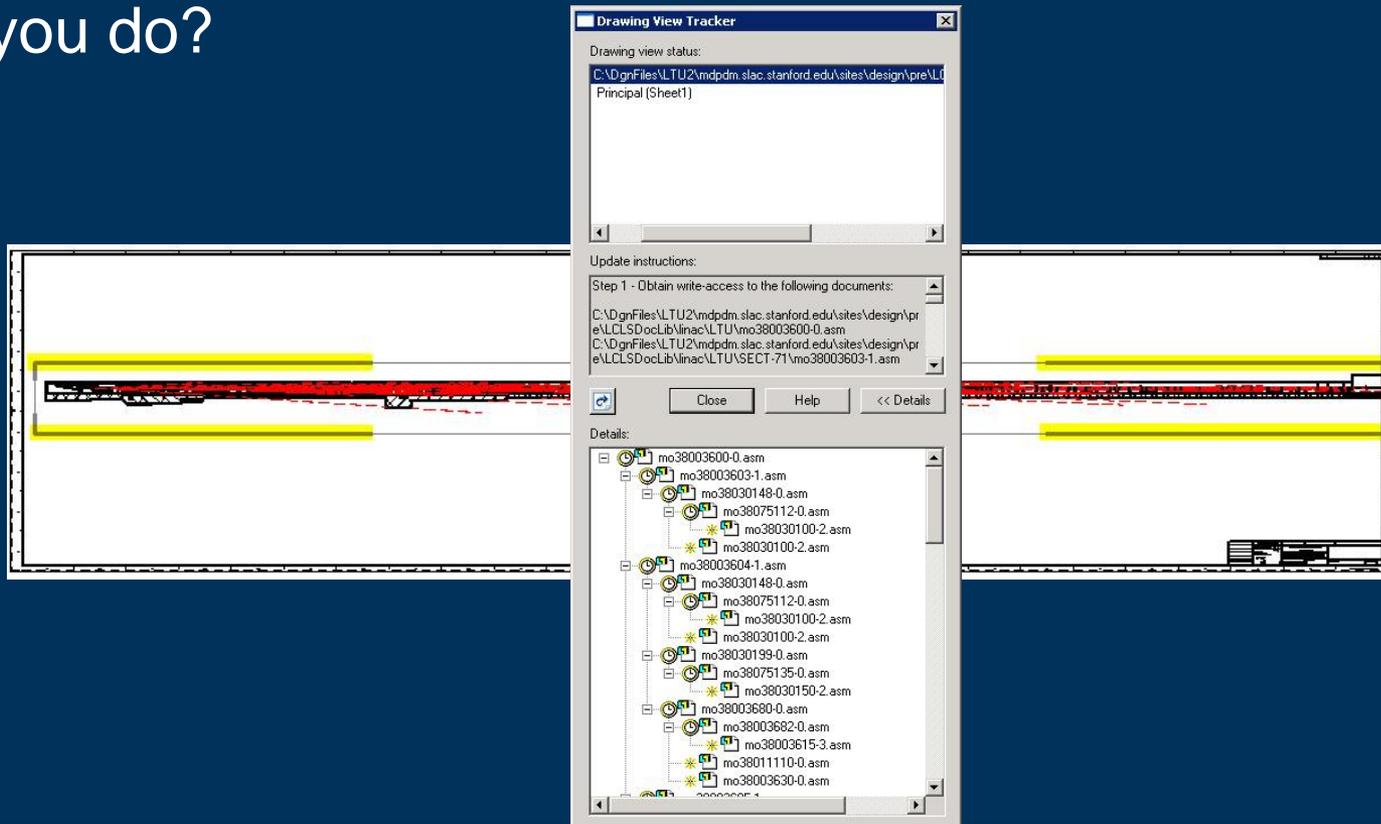
Alternate Assemblies Tips:

- ▶ The Alternate Assemblies action is non-reversible therefore it's good practice to Save As before creating an Alternate Assembly
- ▶ Try to use Adjustable Assemblies instead of Alternate Positions Assemblies
- ▶ Review the Help article "Alternate assemblies impact on Solid Edge functionality" to review if your choice of Alternate Assemblies will work with all required downstream associativity.



Update View Time Saver Tip

You need to update a drawing view for a meeting but Drawing View Tracker indicates that many, many intermediate assemblies are out-of-date. What do you do?





Update View Time Saver Tip

- ▶ Open the Draft document then double click on the drawing view to open the Assembly document. The heavy gray corners around the drawing view will disappear then you can proceed with a normal Drawing View update. Once the Drawing View Update is complete you will have a 100% Updated Drawing View. If you Save, Close and Open the Draft document the heavy gray corners will return. Therefore to fix the issue you should Open and Save all intermediate assemblies when time permits. This is usually caused by Opening and modifying Part files instead of Editing the

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Thanks for attending!!!

Any questions?

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