



# Solid Edge Weldments

Art Patrick  
Solid Edge Planning



- ▶ Weldment Assembly Overview
- ▶ Demonstration
- ▶ Futures

▶ Questions

# Now in Assembly!



# Assembly Weldment Overview



- ▶ Added all Weldment Features to Assembly
- ▶ Assembly Modeling workflow (No need for pwd file)
- ▶ New Groove Bead feature command
- ▶ Thread Feature in Assembly
- ▶ Weldment Parts Lists and Reports Options
- ▶ Associative Save selected model
- ▶ Addresses over 100 ERs and PRs



# Weldment Assembly Features



- ▶ Protrusion\*
- ▶ Revolved Protrusion\*
- ▶ Swept Protrusion\*
- ▶ Thread
- ▶ Chamfer
- ▶ Fillet Weld\*
- ▶ Groove Weld\*
- ▶ Label Weld
- ▶ Stitch Weld

\*Supports Mirror, Pattern and Pattern Along Curve  
(Using the Fast Pattern option)



# New Assembly Commands



- ▶ Weldment Assembly
- ▶ Save Selected Model...

The screenshot displays the Solid Edge software interface. In the foreground, the 'Weldment Assembly' dialog box is open, featuring the following options:

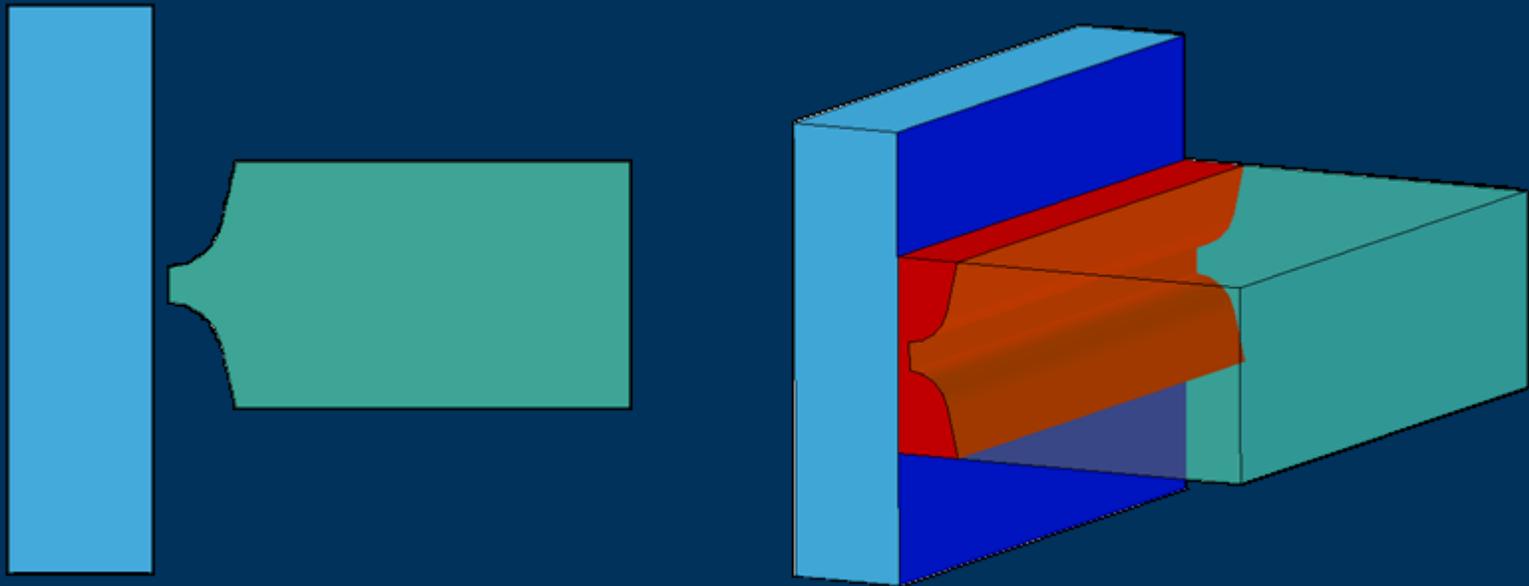
- Mark this assembly as a weldment
- OK
- Cancel
- Help
- Bead material: [Empty text box]
- Bead density: 0.000 lbm/in<sup>3</sup>
- Bead style: Weld Bead (dropdown menu)
- Construction style: Construction Default (dropdown menu)

In the background, the 'File' menu is open, showing various options. The 'Save Selected Model...' option is circled in red. Other visible menu items include 'New...', 'Open...', 'Close', 'Close All', 'Save', 'Save As...', 'Save As Image...', 'Save All', 'Save Selected Model...', 'Load', 'Check In', 'Undo Check Out', 'Revisions...', 'Create Assembly', 'Create Drawing', 'Add-Ins', and 'Macros'.



# Groove Bead (New for V18)

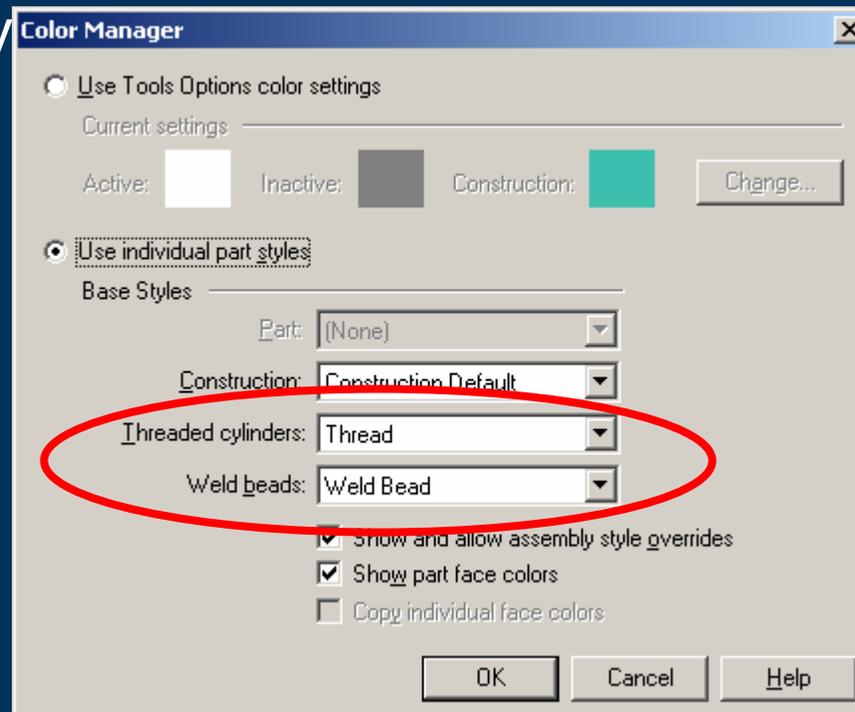
- ▶ New Feature
- ▶ Available
- ▶ Design





# Supporting Functionality

- ▶ Bead display using Assembly Configurations
- ▶ Tools/Color Manager Enhancements
- ▶ Assembly

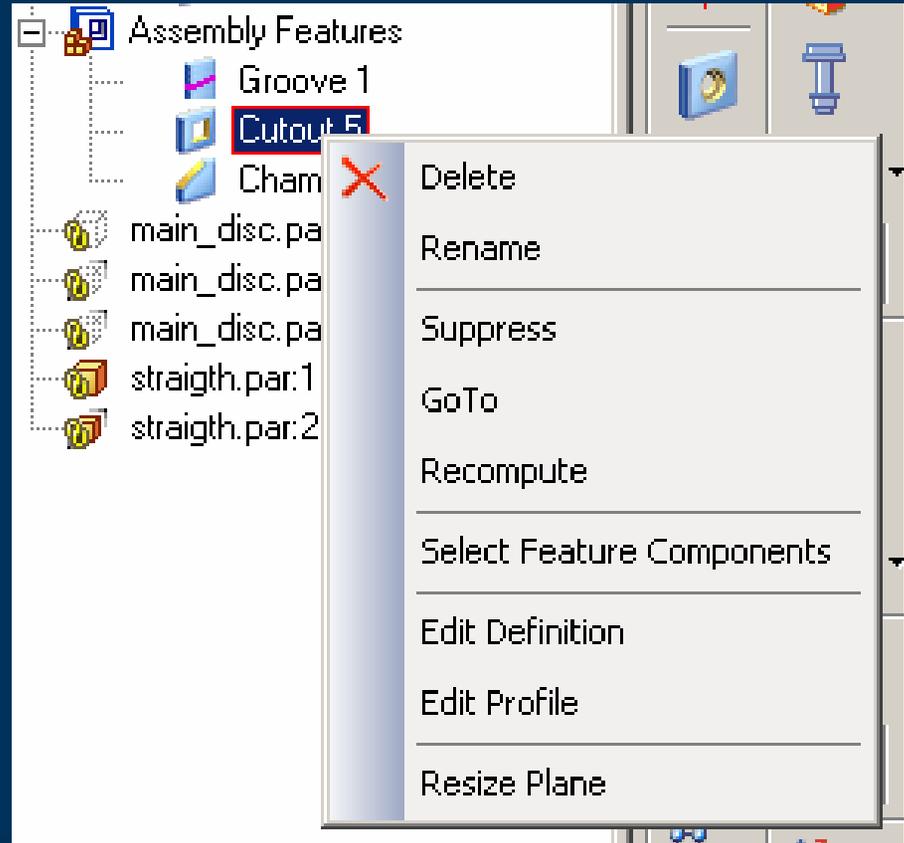




# Supporting Functionality (Cont'd)



- ▶ Bead Physical Properties
- ▶ New Weldment.asm templates
- ▶ Assembly Feature Shortcut menu





# Draft Changes

- ▶ Drawing View Properties
- ▶ Parts List
- ▶ Turning off Assemblies displayed. (Like

The image shows two overlapping dialog boxes from a CAD application. The background dialog is 'High Quality View Properties - Pictorial View - [L950\_test01.asm]'. It has tabs for 'General', 'Display', 'Text and Color', 'Annotation', 'Model Options', 'View Shading', and 'Advanced'. The 'Selected Part(s) Display' section is active, showing options like 'Show' (checked), 'Derive "Display as Reference" from Assembly', 'Display as Reference', 'Section', 'Cut hardware', 'Show fill style' (Normal), 'Derive from part' (checked), and 'Visible edge style' (Visible).

The foreground dialog is 'List Properties'. It has tabs for 'General', 'Size/Placement', 'Columns', 'Component Types', 'Sorting', 'List Control', and 'Balloon'. The 'List Control' tab is selected. It features a tree view of the assembly structure with 'L950\_test01.asm' selected. The 'Global' section has three radio buttons: 'Top-level list (top-level and expanded components)', 'Atomic List (all parts)' (which is selected and circled in red), and 'Expand weldment subassemblies'. Below this are 'Selected item' options (Include/Exclude), 'Sub-assemblies' options (Include assembly as single item/Include assembly components), and checkboxes for 'Include only ballooned parts', 'Exclude hidden parts', and 'Exclude reference parts' (checked). Buttons for 'Restore Defaults', 'OK', 'Cancel', and 'Help' are at the bottom.



- ▶ Use multiple assembly files if you need to document each process.

AsWelded.asm and AsMachined.asm

**OR**

- ▶ Control the display in draft if you do not add preparation in assembly.

**OR**

- ▶ Use Family of Assemblies



# Demonstration





- ▶ Improve Fillet Weld
- ▶ More bead features
- ▶ Improve Weldment process definitions/drawings
- ▶ Weld Tables in Draft (Length, Mass etc.)



# Questions?