

Inventor 2010 Subscription Bonus Pack

Autodesk has just released a new Bonus Pack for Inventor 2010 that increases the functionality of the software for clients that are on valid current Product Subscription. These tools are aimed at solving some of the wishes users have for additional functionality that does not require a complete revision in the software like a Service Pack or a yearly release would dictate. One of the primary benefits of these Bonus Packs is that these tools are sure to be included in the next release of Inventor, whereas commonly the user add-ins may or may not work with the next version of the software.

Enhancements in the 2010 Subscription Bonus Pack were made primarily to the Drawing Manager, FEA Environment, and Interoperability aspects of the software. In addition, the inclusion of new Fabrication options is also made available with this 2010 Bonus Pack. The purpose of this document is to introduce you to the enhancements, where to find them and how to reap the most benefit from them.

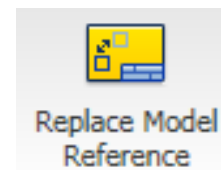
Who, What, and Where?

The Inventor Subscription Bonus Pack can be found in the Subscription Portal (subscription.autodesk.com). This is the portal where your company goes to find their contact log-in information for support, product updates, and news. A company usually only has one contact which is defined by who you set up with your reseller. The bonus pack is available in both 32 and 64 bit versions.

Drawing Manager

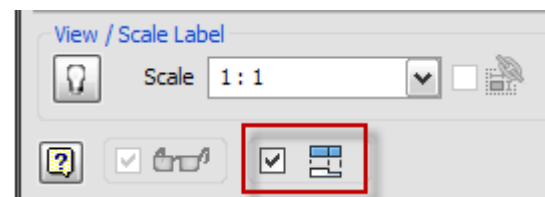
Replace Model Reference: (Manage Tab ,Modify Panel)

This enhancement creates the ability to quickly replace a Model Reference for a View without otherwise having to trick Inventor into it. Previously this type of functionality was only available in Design Assistant or Autodesk Vault for Copy Design. To use, simply enable the command and choose a new similar (IPT for IPT, IAM for IAM) reference. Now when you create Design A and Drawing A and wish to quickly create a same as but different Design and Drawing B, you can simply copy, rename the files and in the new Drawing replace the reference.



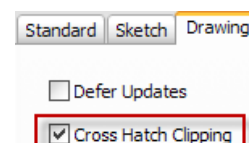
Quick Multiple View Creation: (Base View Command)

This enhancement will seem like a small change, but it is very handy. When a Base View is defined normally, the Projected View command has to be started to create more views. Typically this is done normally; however this method allows less mouse clicks and a more streamlined placement of your designs. It can also now be toggled on and off in the Base View command when a design is chosen.



Clip Hatching around Text: (Document Settings)

Text clipping is now available on the Drawing tab of a drawing's Document Settings. To adjust the clipping on a hatch, simply adjust the size of the text box object in the pattern.

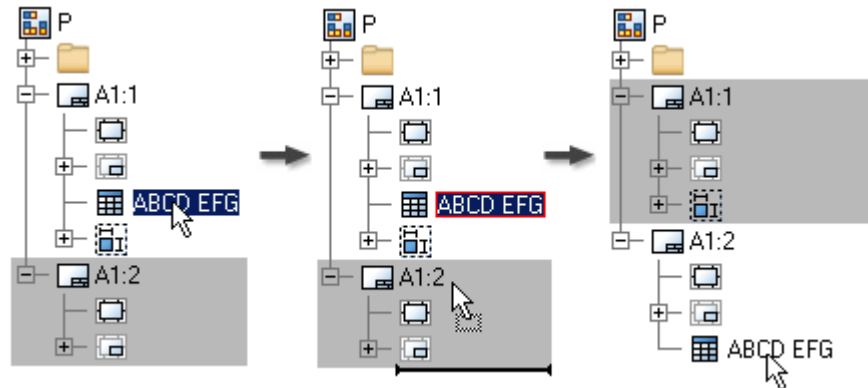


Select All Inventor Dimensions: (Selection Filter)

The option to Select All dimensions in a drawing that is generated by Inventor is now selectable. This comes in conjunction with the Select All AutoCAD dimensions that was created in the last release.

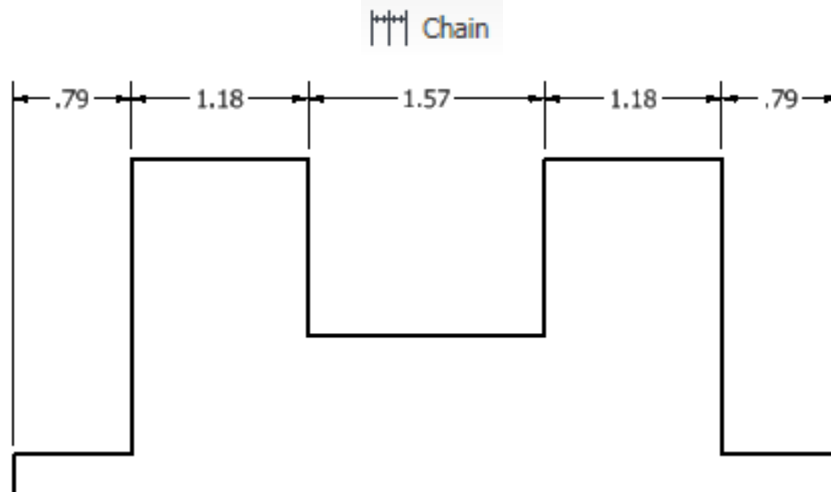
Copy, Paste, and Move General Tables: (General Interface)

Functionality is now available to copy, paste, and move a table from one sheet to another. Types of tables available are generic tables with no source, MS Excel tables, Bend tables, and iPart and iAssembly tables. External links will be maintained during this process as well.



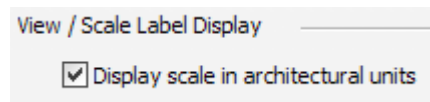
Chain Dimensioning: (Annotate Tab, Dimension Panel)

The ability to create chain dimensions has been available in the SDK for a couple of releases now. With the Advantage Pack, it has now become fully incorporated as due to an increase in the number of industries that utilize this method. Of special note, a big focus of this installation was driven by the Building and Fabrication industries.



Architectural Drawing View Scales: (Application Options)

Architectural scales can now be used for drawing view creations. Again, this enhancement appeals more to the Fabrication and Building industry but is sometimes required for Mechanical designers as well. For the subscription bonus release, the scales are hard coded and no new scales can be typed in and as such are only available with what is in the drop down.



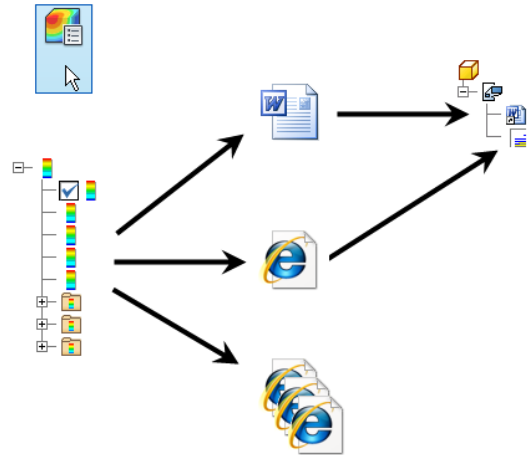
Stress Analysis

Enhanced Report Options: (Report Tab)

Use the RTF and MHTML formats to report your results in a single file. You can also choose to link your model to the report files using OLE linking. After generating a report, you can edit the file contents to customize the presentation of the results.

To define your report format:

1. On the ribbon, click Stress Analysis tab Report panel.
2. Click the Format tab on the Report dialog box.
3. Select the appropriate Report Format. Choose from:
 - o Web Page - multiple files (*.html) (Default)
 - o Web Page - single file (*.mhtml)
 - o Rich Text Format (*.rtf)



Label Manipulation: (General Interface)

Initial Label Placement Distance settings can be found in the Stress Analysis Settings box; note that the setting is a percentage of the diagonal of the boundary box. Users can also now drag labels through multi-selection or individual selection of the simulation labels.

Component Selection Exclusion: (General Interface)

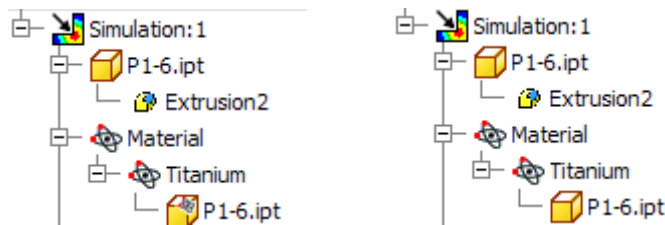
Graphics selection exclusion of features can be accomplished by switching to Feature Priority, and right clicking on Features in the graphics window to remove features from the simulation. This enhancement helps to improve meshing and analytical results depending on the model. For assemblies, part features cannot be selected.

Loads, Constraints, and Manual Contact Creation: (Browser)

Right clicking on the respective node in the browser allows creation of respective loads, contacts, and constraints. This method can be a faster way to create simulations rather than using the Ribbon.

Material Assignments: (Material Tab and Browser)

Material assignments have a visual override function available in the browser. The image below on the left shows an override on the part under the material node; the image below on the right, indicates the file had an original material specified. From this node, the overrides can be cleared or the material can be propagated to the part level.



Material assignments can also be assigned and changed very quickly with Shift and Ctrl selection in the Assign Material dialog box. Previously this was done on a row by row basis and was very tedious.

Remove Mesh Failures: (Browser)

When a Mesh failure occurs, the browser can be expanded to exclude the failing components from the resultant Mesh.

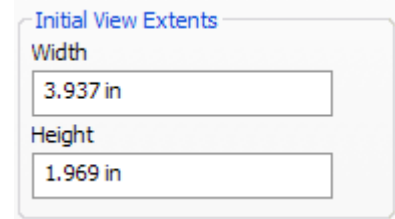
Warning Nodes: (Browser)

Icons for failures of child components now appear at the parent level if a problem occurs in the simulation.

General & Fabrication

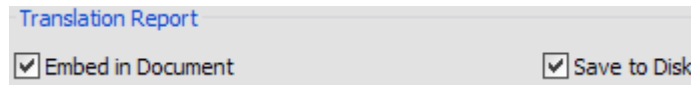
Initial View Extents: (Document Settings of Parts and Assemblies)

Users can now specify in Parts and Assemblies what their initial view extents are when they start a new file. This setting is predominately to be used on template files. The benefit being that if you create a 20 ft piece for each file, the user does not have to zoom out at the beginning of their design which is better suited to start sketching and modeling.



Translation Report Options: (Opening Options)

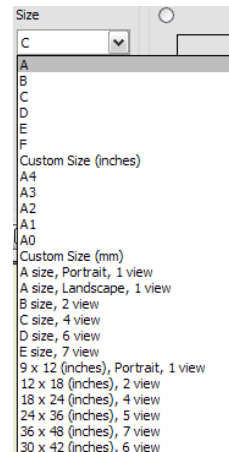
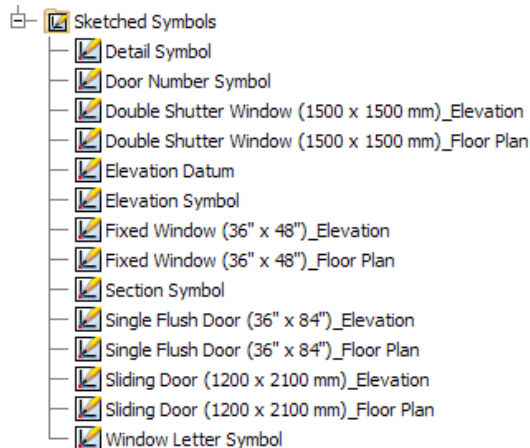
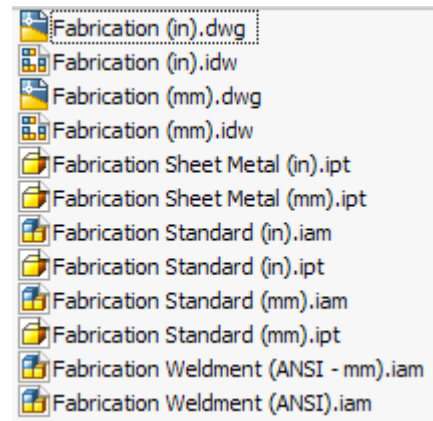
There is now a new option to embed translation reports in parts, assemblies or to save them to an external location.



Fabrication Templates: (General Enhancement)

In addition to a new template tab titled Fabrication, there are 12 new templates included in the Advantage Pack. These files contain settings for architectural designs and large extents. Some of the settings affected for these templates include:

- NSEW setting for the View Cube
- Additional colors in the styles library such as Laminate Flooring, Gypsum, Masonry, Concrete, Fiber board, and others
- Architectural sheet sizes in the Edit Sheet dialog in drawings
- Active standard is set to Fabrication for drawing styles
- Architecturally sketched symbols in idw templates and blocks in dwg templates. Items such as Detail Symbols, Elevation Symbols, Section Symbols, Window Letter Symbols, and Elevation Datums.



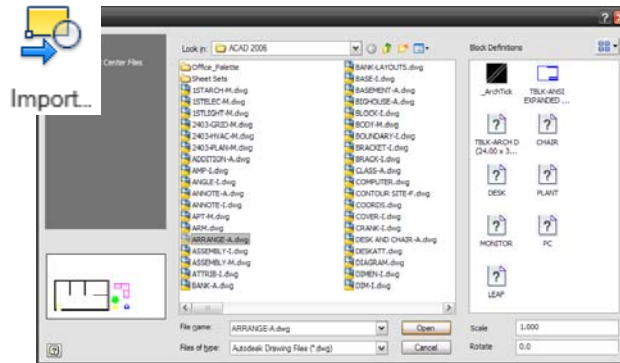
Fabrication Settings: (Application Options)

Importable options are available for Fabrication related design. These can be imported in the Application Options dialog box. Some settings include Color scheme set to Presentation to more closely match Autodesk Revit's interface, zoom wheel reversal, architectural units, and disabling of sketch display options.

Blocks and Sketched Symbols

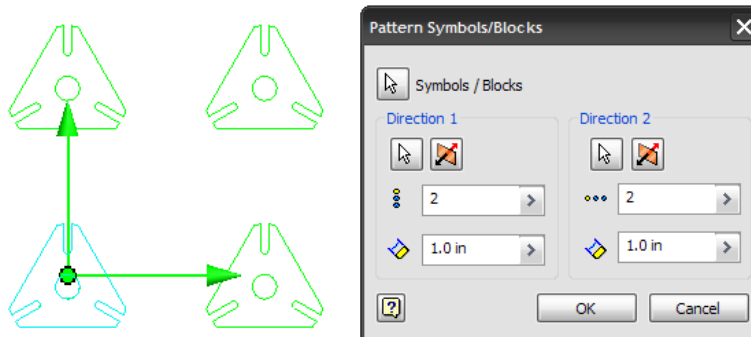
Import Blocks into DWG Inventor Files: (General Interface)

The user ability to place AutoCAD blocks in Inventor has been available since release 2008, but the process of opening the drawing in AutoCAD first and copy and pasting can sometimes take time. The Advantage Bonus Pack introduces a new approach to this by using a dialog interface. The dialog allows browsing similar to AutoCAD Design Center - find blocks in the file system, view a preview image, and adjust rotation and scale before placement.



Pattern Symbols and Blocks: (General Interface)

AutoCAD Blocks and Inventor Symbols can be patterned by right clicking on the item and selecting Pattern Symbols/Blocks. The copies that are created are non associative to the original.



Rotate/Scale/Move blocks dynamically: (General Interface)

AutoCAD blocks can now be scaled and rotated dynamically once placed. The blue grip below adjusts rotation and the yellow grips adjust scale. The values can be returned to normal by right clicking on the block and editing the AutoCAD block.

