DWF™
Tips & Tricks

Autodesk®
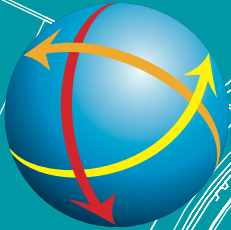
Sharing complex design information has never been easy. Since design files are large, sending sheet sets and 3D models to printers or sharing work with extended team members has taken a lot of time and effort, not to mention bandwidth. DWF™ technology changes all that. DWF-based designs are compact, secure, and easy-to-use. In fact, because sharing rich 2D and 3D design information is a snap with DWF, completely digital workflows become possible—streamlining the flow of information across the entire project team.

This handy pocket guide of DWF Tips and Tricks provides individual users and entire project or product teams with the information needed to get the most from DWF and applications like Autodesk Design Review. To learn more about DWF visit www.autodesk.com/dwf.

Publish

The ability to publish DWF files is built into every Autodesk® design application. It is also available free of charge when using third-party applications with the Autodesk® DWF™ Writer.

Learn more on how to publish DWF files from Autodesk products at www.autodesk.com/dwf-publishing.

Publish 3D DWF Formats

Use the 3D DWF PUBLISH command from AutoCAD (2006 or later), Revit or Inventor to publish 3D DWF formats:

1. On the command line, enter *3ddwfpublish.*

2. In the 3D DWF Publish dialog box, under DWF File Name, change the name and location of the DWF file to be saved, or use the [...] button to navigate to a new location for the 3D DWF file.

3. Under Objects to Publish, click one of the following:

   • *All Model Space Objects:* All model space objects are published to the 3D DWF file

   • *Selected Model Space Objects:* Create a selection set of model space objects, which are published to the 3D DWF file

4. If the drawing contains xrefs, the Group By xref Hierarchy option is selected by default. Clear the check box if you do not want to display the objects grouped by xref hierarchy in the published DWF file.

5. Under Group Individual Objects By, select one of the following options to group individual objects in the DWF file for viewing.

   • *Layer:* Group individual objects by layer

   • *Object Type:* Group individual objects by object type (for example, by block)

6. Click OK.

Increase the Precision of the DWF File

Specify the pixel resolution for vector and raster graphics when creating DWF files. The higher the resolution, the greater the precision but the larger the file size.

1. From the File menu, choose Plot to display the Plot dialog box.

2. Ensure that DWF 6 ePlot.pc3 is selected. Click Properties to display a tree control.

3. Select Graphics from the tree, and expand it. Select Custom Properties in the drop down menu, and then click the Custom Properties button.

4. Set Vector Resolution to the desired value. You can leave the other DPI values (Gradient Resolution, Color and Grayscale Resolution, and Black and White Resolution) as they are. Valid values from the pull-down menu are between 150 and 4800. Use the keyboard to enter a custom value, such as 30270.

A table of useful resolution values is available at dwf.blogs.com.

Add Object Properties from AutoCAD Blocks

Enable team members to access AutoCAD block properties in the DWF file by setting DWF publishing options.

1. From the File menu, choose Publish.

2. In the Publish dialog box, under Publish To, click DWF File, and then click Publish Options.

3. In the Publish Options dialog box, under DWF Data Options, Block Information, select Include from the drop-down list.*

4. Click OK.

5. In the Publish dialog box, either continue with publishing tasks or close the dialog box.

*By default, Block Information is set to *Don't Include.* If you change the setting to include block information, you can use the viewer to view or print block property and attribute information in the DWF file.

Pass It On: Publish DWF and Email From Windows Explorer

Easily email a DWF file when using Autodesk DWF Writer.

1. Start Windows® Explorer and open the folder containing the file to be published and emailed.

2. Right-click the file and choose Publish DWF and Email. The default email application opens a new email message with the published DWF file attached. The subject displays the name of the published DWF file.

3. Type email addresses in the To..., Cc..., and Bcc... fields and add a message, as necessary. A link to download the free Autodesk DWF Viewer is automatically included for email recipients who don't have it.

4. Click Send.
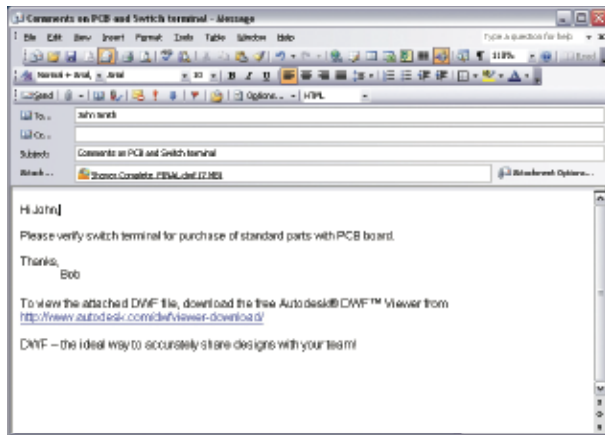
Publish from SolidWorks Pro/ENGINEER Wildfire, or CATIA

Install Autodesk DWF Writer 3 to publish 3D models and design data from SolidWorks® 2006, Pro/ENGINEER® Wildfire 2.0, or CATIA® V5 software.

1. From the file menu, select Publish DWF to automatically turn your 2D drawing or 3D model into DWF.

2. Learn about publishing from other applications, by visiting www.autodesk.com/dwf-publishing.

Publish from Microsoft Office Documents

With Autodesk DWF Writer installed, users can publish DWF files from Microsoft® applications (PowerPoint®, Word, Excel®, Visio®, Outlook, and Internet Explorer) and share them as part of the project set.

1. Click the Publish DWF button on the Microsoft application toolbar, or from the File menu, choose Print and then select Autodesk DWF Writer in the list of available printers.

2. Specify a file name and location for the published DWF file.

3. Click save or choose print.

View & Print

In the past, viewing rich design data required the purchase of a full license of CAD software. Now, the free, download-able Autodesk® DWF™ Viewer means that everyone on the team can navigate sheet sets, access design information, and print whatever they need.

Download the free Autodesk DWF Viewer at www.autodesk.com/dwfviewer-download.

Quickly Zoom and Pan

Use the mouse wheel button to zoom in and out.

To pan, press and hold the mouse wheel button and move the mouse.

Note: Your mouse settings may need to be changed to enable panning in this manner.

Rotate 3D DWF Files

1. Choose View and then select orbit to enable the Orbit tool.

2. Click the 3D model and drag in any direction to rotate the view.

3. Select Standard Views and navigate to the Front, Back, or see Shaded Edges.

Search and View Design Data

1. In Explorer, click Search to open the Search Explorer Bar.

2. Type search terms for the DWF file such as doors, bolts, and more.

3. Select the location to search and click Search Now.

4. Microsoft Windows Explorer search will list DWF files that contain the search term.

Viewing Assembly Instructions

When an animated DWF file with assembly instructions is opened in Autodesk DWF Viewer or Autodesk Design Review, the instructions are displayed for the current task or sequence in the left sub-pane below the Canvas Pane.

Important information: Although loading a DWF may populate the text or grid panes with data, the data panes will not be displayed automatically.

Use the Pane Layout drop-down to select which panes are displayed.

To hide or show the Text or Grid panes:

1. Click the Pane Layout drop down.

2. Choose from:

 • Show Canvas and Grid Panes

 • Hide Data Pane

 • Hide Canvas Pane

 • Show All Panes

DWF View and Design Review display the pane configuration you selected.

The left sub-pane displays text such as step-by-step instructions for an assembly.
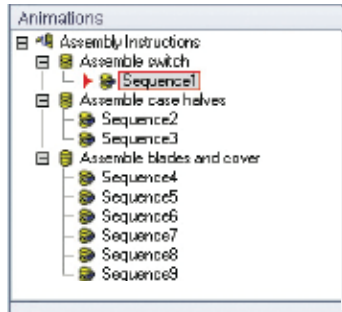
Pull Apart a 3D Model

Autodesk Design Review and DWF Viewer users can navigate 3D models published from Autodesk applications or with the free Autodesk DWF Writer. Follow these steps to rotate and pull apart individual pieces of a model:

1. From the Tools menu, choose Move>Rotate.

2. In the Model palette or view area, click the parts that you want to move or rotate.

3. To remove a part from the selection, press and hold the Ctrl key and click the part again (Ctrl+click). In the Model palette, use Shift+click to select consecutive parts by clicking the first and last parts in the series.

Move along an axis
On the axis along which you want to move the part, click that axis near the origin. Drag in either direction along the axis. Alternatively, press the Up Arrow key to move away from the origin or the Down Arrow to move toward the origin.

Move within a plane
Roll the cursor over a plane defined by two axes until a plane icon with arrows appears, and click. Drag the part in any direction.

Move parallel to the screen
Click the origin, and drag the part in any direction. Or use the keyboard arrows to move left, right, up, or down.

Rotate
On the axis around which you want to rotate the part, click near the end of the axis and drag the part around the axis. Or press the Down Arrow key to rotate

1 degree clockwise or the Up Arrow key to rotate 1 degree counterclockwise. To rotate the part in 45 degree increments, press and hold the Shift key while using the keyboard arrows.
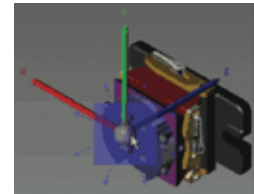
Begin Move

Result

Create 3D Cross Sections

Cut through a model with a section plane and manipulate the view in various ways by moving and rotating the section plane and flipping the view.

1. Open a model and from the Tools menu, choose Cross Section > XY Section, YZ Section, or XZ Section.

2. A transparent purple sheet (the section plane) and a tripod drop into the center of the model, cutting through the model to reveal a cross section. Move or rotate the section plane to reveal a different cross section each time.

3. The three legs, or axes, of the tripod meet at a central point called the origin. To change the cross section revealed, move or rotate the section plane by moving the cursor over the tripod. Hot spots appear, each enabling the user to move the section plane in a different way.

Move along an axis
On the axis along which you want to move the section plane, click the axis near the origin. Drag in either direction along the axis. Click the Up Arrow key to move away from the origin or the Down Arrow key to move toward the origin.

Move within a plane
Roll the cursor over a plane defined by two axes until a plane icon with arrows appears, and click. Drag the section plane in any direction.
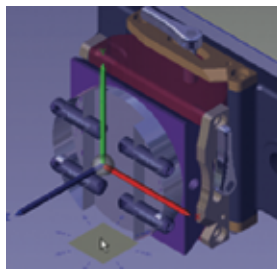
Move parallel to screen
Click the origin. Drag the section plane in any direction.

Rotate
On the axis around which you want to rotate, click near the end of the axis. Drag the section plane around the axis. If you press and hold the Shift key while using the keyboard arrows to rotate, the section plane rotates in 45 degree increments.
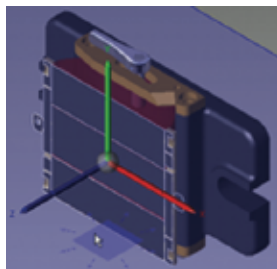
Before

After

Undoing Pulling Apart a 3D Model or a Sectioning

Autodesk Design Review and the DWF Viewer both feature sectioning and pull apart capabilities when working with 3D DWF files. Though these capabilities are easily accessible and very powerful, some users do not know how to undo them. After applying a section or pulling a piece of a model apart from its original location, users can restore the original view of the model using:

View->Go->Home

A shortcut for this capability is Ctrl+ G.

Access Design Intelligence

Publish detailed design information from Autodesk® Architectural Desktop 2004 and later versions, AutoCAD® 2007– based products, and Autodesk Inventor® software, for viewing in Autodesk Design Review or DWF Viewer.

1. *View and sort object properties:* Click the Properties window.

2. *Access block information:* In the Content Browser, select the Properties window, and then choose Object Properties from the drop-down menu.

Click the selector button, and then click the block to display the block data.

3. *Search for design data:* In Microsoft® Windows® Explorer, select Search, and enter your search string to find data within the DWF file such as doors, bolts, and more.

4. *Navigate sheets or views using hyperlinks*: From the main menu, choose View>Show>Hyperlinks (Ctrl+H) to display hyperlinks in blue. To follow a hyperlink, hold down the Ctrl key and click the hyperlink (Ctrl+click). The drawing, file, or web page to which it was linked opens.

Use Flexible Printing Options

Preview the job before sending it to the printer. Partnerships with printer manufacturers like HP and Océ help assure fast, high-quality output.

1. *Print to spec:* Customize the settings that affect output from standard to large format. Choose from among the following options:

• Full Page or the Current View

• Paper Size or select Use DWF Paper Size

• Landscape or Portrait

• Fit to Page or Print to Scale

• Tile across multiple pages
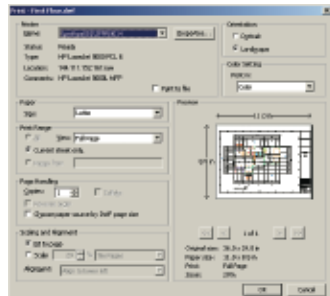
2. *Preview what you print:*

• From the File menu, choose Print to open the Print dialog box

• Choose the settings that affect your preview, like paper size or landscape view

• Click the Show Print Preview button
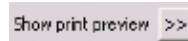
3. *Print instantly to HP printers:*

• Click the HP Instant Printing button

Note: The button automatically appears if you are connected to a supported HP® Designjet™ printer.

• The optimal print settings are chosen automatically based on the properties of the DWF file

Present in Microsoft Office Applications

Share the full design intent in Microsoft PowerPoint, Excel, or Word whether it's a client presentation, product documentation, or bill of materials.

1. Drag the file from Windows Explorer into the document.

2. Alternatively, from the Insert menu, choose Object and Autodesk DWF Viewer Control, then right-click and select Autodesk DWF Viewer Control Object Properties to embed an interactive DWF.

Post Files to Autodesk Buzzsaw

Autodesk Design Review and the DWF Viewer are fully integrated into the Autodesk® Buzzsaw® collaborative project management solution. Follow these steps to efficiently share your designs:

1. Drag DWF files into the project folder.

2. Notify the project team using the Buzzsaw notification system. Updates and versions are automatically tracked.
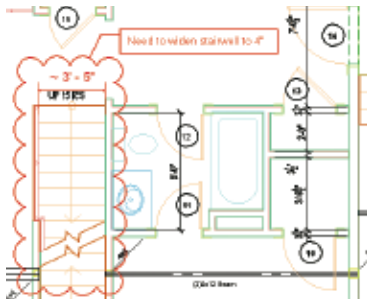
Review, Measure & Mark Up

No more looking through faxes and emails to incorporate feedback by hand. With Autodesk Design Review software, team members can review, measure, and mark up designs, and then round-trip redlines and changes back to the original design application. All changes are automatically tracked and kept in the context of the design.

Measure Accurately

The dimension tools with the AutoSnap™ feature help project team members determine lengths, polylines, and areas.

1. *Snap to endpoints:* Set the measure tools to snap to endpoints, midpoints, and lines for precision measurement of design elements in the DWF file. Click the Tools command, and turn on the Snap to Geometry feature.

2. *Zoom in for greater accuracy:* To achieve greater accuracy, zoom in to the section of the drawing to which you are applying the starting and ending points of the dimension.
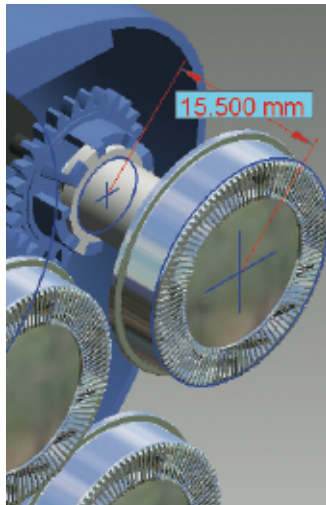
## Work with Advanced Redlines and Markups

Autodesk Design Review includes easy-to-use shapes, text, freehand, stamp, and custom symbol tools in addition to markup tools.
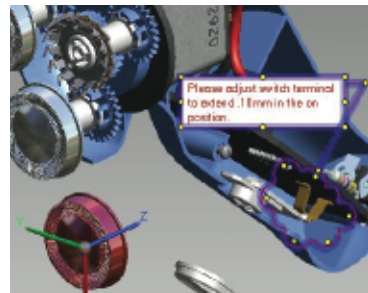
1. *Control markup shape:* Hold down the Shift key to constrain the range of movement when marking up drawings.

   • To start again, press the Esc key and try again

   • To delete a markup, use the Selection tool and press Delete

2. *Color code reviews:* Use different markup colors to indicate different users.

- Select from the 48 predefined colors or one of your own

- Change the Text Color and Line Color on the main menu, and then click your chosen color
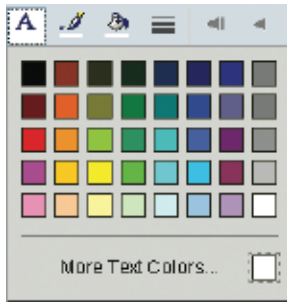
3. *Save a new markup view:* When you create a markup, the current view of the page is stored with that markup. To change and automatically store a new view, pan and zoom to the desired view, and then move the markup slightly or modify it in some way.

Use Custom Symbols and Stamps

Use symbols to annotate and mark up information in the office or in the field.

Expansion Joint

Heater, Electric
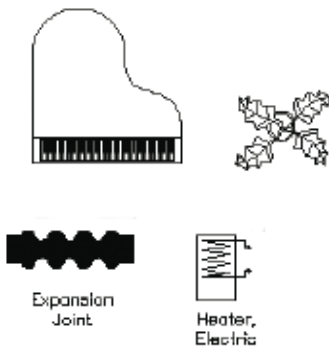
1. *Create custom symbol catalog:* Publish the 2D drawings, images, or text to a DWF file using the Autodesk DWF Writer. In Autodesk Design Review, import this file into the symbol catalog.

- From the toolbar, click the Stamps and Symbols button

- Select Import DWF as Symbol Catalog

- Browse for and select the DWF file that contains your symbols, and click Open or press Enter

2. *Create your own stamp:* Create custom annotations and stamps by double-clicking a stamp and typing to insert text, or highlight the text you want to change.
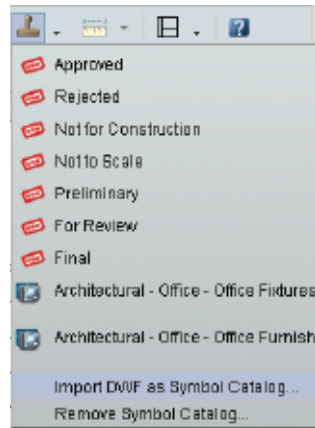
Manage Your Project Information in One Place

Work with multiple document types in one multisheet DWF sheet set, combining images, sketches, project timelines, specifications, bills of materials, and other project information.

1. *Capture information with Snapshot tool:* Add a snapshot to an existing DWF file, or create a new DWF file by adding one or more snapshots to a blank file.

- Click the Snapshot button

- Set up the subject of your screen shot

- Click the Capture button on the Snapshot window title bar

2. *Drag and drop:* Combine DWF files, raster images, and other project information into a single DWF file or send it out for review:

- Drag and drop, or use File>Open to view and mark up many different types of image files, such as JPEG or GIF files

- Drag a page or pages into an email or onto the desktop to create a new DWF file

Markup Bill of Materials

Using the Grid Snapshot tool in Autodesk Design Review, you can capture bill of materials on a separate sheet for markup purpose.

1. A bill of materials must be loaded in the Grid Data Pane below the canvas to enable capture.

2. On the Standard Toolbar, display the Callout Tool button drop-down list.

3. Click the Grid Snapshot Tool button.

4. A snapshot is of the bill of materials is added to the Contents palette.

5. Select the BOM snapshot in the Contents palette to add markup.

Capturing bill of materials

Advanced Tips

Take advantage of these advanced DWF tips from the experts.

Autodesk DWF Viewer Tips

1. Use the mouse wheel button to zoom in and out. To pan, hold the button down and move the mouse.

2. Select Options in the Content Browser to show thumbnails, list views, or bookmarks of the original DWF data.

3. When rotating 3D objects, keep the triad at least slightly oblique to the screen to move or rotate. You cannot move or rotate the axis that points directly toward you.

Install Across Your Company

Autodesk DWF Viewer can be installed silently via the following:

msiexec /i SetupDWFViewer.msi /qn

Your IT department can install the Autodesk DWF Viewer across your company. By installing the Autodesk DWF Viewer silently, the viewer can be included as part of a company-wide automated script. For example, this is particularly useful when installing Autodesk DWF Viewer company-wide using SMS.

Embed Autodesk DWF Viewer in HTML Documents

Autodesk DWF Viewer is available as an ActiveX® control that is embedded in Microsoft Internet Explorer, providing a smooth installation of the free Autodesk DWF Viewer in web pages.
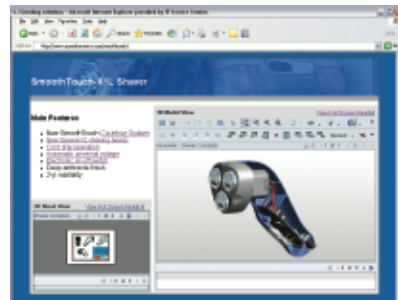
1. Embed DWF files directly in web pages by using the ‹object› element tag.

2. Access, copy and paste a sample HTML that demonstrates how to embed a DWF file in HTML: http://dwf.blogs.com/ beyond_the_paper/2006/05/ how_do_i_embed_.html

Save DWF Files That You View

Follow these steps to save a local copy of a DWF file published to a website:

1. Right-click the DWF file and choose Save As. Alternatively, click the Save As button on the toolbar. (Note: The Save As options appear only when you are using DWF Viewer in embedded mode—for example, in a web page.)

2. To save a local copy of the DWF file you are viewing, specify a file name.

Printing DWF files on Océ Devices

With its default settings, some Océ devices (e.g., TDS800, TDS600, or TDS400) cut off the leading or trailing edge of DWF plots. There is an option in the Océ Windows Raster Driver to override the "cutting method" on the Power Logic Controller. In the Printing Defaults dialog box, there is a "Delivery" tab. In the "Delivery" tab's "Cutting Method" section, there is a combo box that has 3 options:

1. *Synchro:* Trims to fit the plot size.

2. *Standard:* Trims to a standard paper size.

3. *Printer default:* Uses whatever the default on the controller is set to.

When plotting DWF files, you should use the "Standard" cutting method by changing the printer properties.

When printing DWF files on the Océ 9800 or Océ TDS800. some users found that when architects and engineers used pen 0 in their AutoCAD drawings, the published DWF files would print out too light on the 9800 and TDS800 devices

(especially on hatches and fills). Using "Poster Mode" on these files typically resolved the issue.

Use API to Customize and Extend Functionality

Use the Autodesk Design Review and DWF Viewer and application programming interface (API) documentation to integrate Design Review or DWF Viewer within websites or third-party applications. The documentation provides instruction on features such as navigation to a specific page or view, control over layer visibility, the ability to show and hide the toolbar and context menus, as well as control of the viewer behavior. Visit www.autodesk.com/dwf-developers to download the API documentation.

Learn and Get More

Visit the DWF Center
www.autodesk.com/dwf

Visit the DWF Blog
dwf.blogs.com

Participate in the discussion groups
www.autodesk.com/ designreview-discussion
www.autodesk.com/dwf-discussion

Get free downloads
www.autodesk.com/ dwfviewer-download
www.autodesk.com/designreview-trial
www.autodesk.com/dwfwriter

Find product information
www.autodesk.com/designreview
www.autodesk.com/dwfviewer
www.autodesk.com/dwf-publishing

Find developer tools and information
www.autodesk.com/dwf-developers
www.autodesk.com/dwftoolkit

Try our newest software
labs.autodesk.com
dwfit.com

**"Overall, DWF and Autodesk Design Review
are helping us improve productivity."**

— *Patrik Chartrand, CAD Administrator
Advanced Dynamics*

Autodesk®