

SHARE IT IN DESIGN REVIEW.

PUBLISH

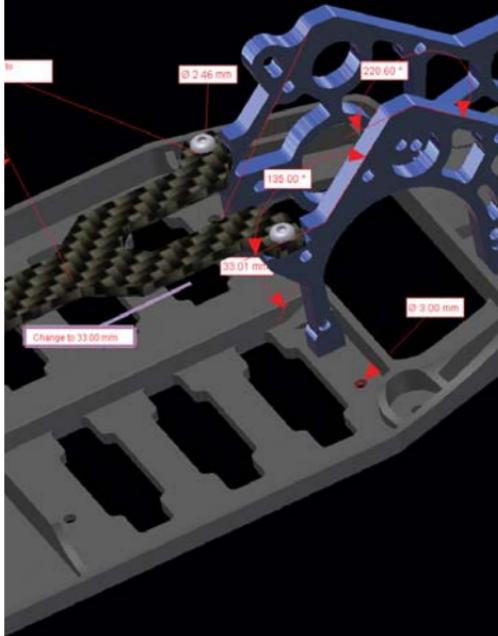
VIEW AND PRINT

REVIEW AND MARK UP

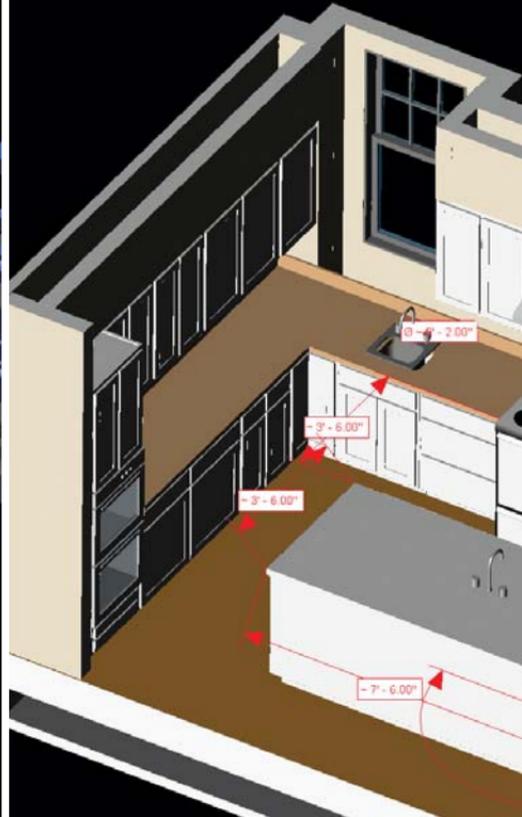
AUTODESK® DESIGN REVIEW
TIPS AND TRICKS

Autodesk®

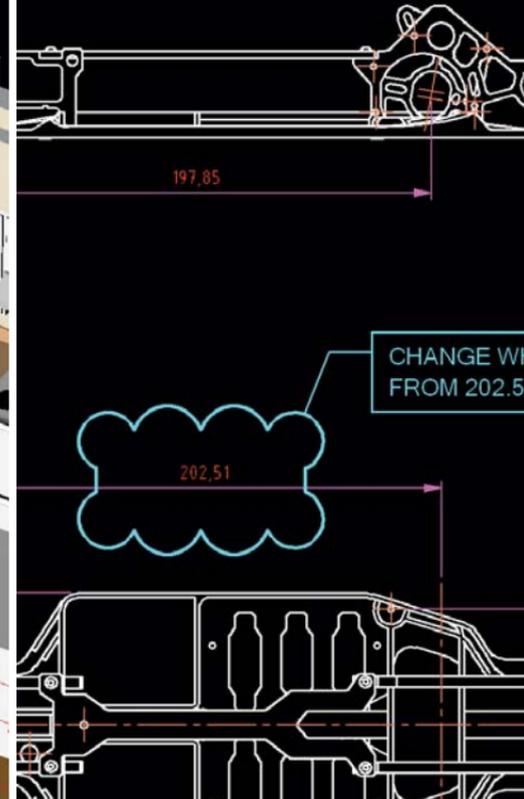
DESIGN IT IN INVENTOR.



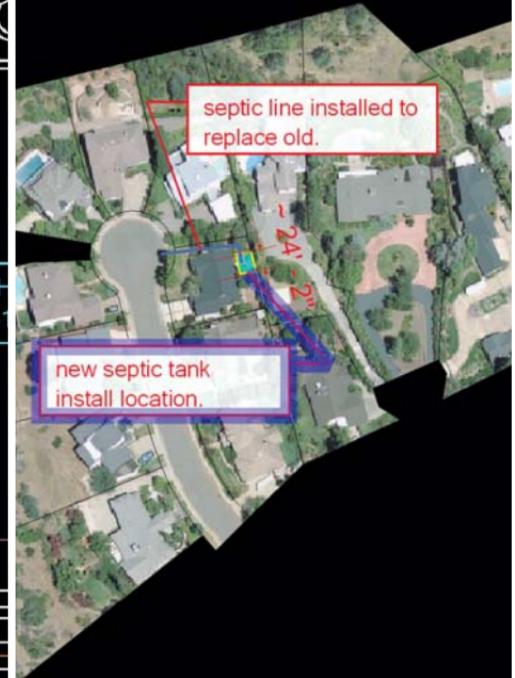
DESIGN IT IN REVIT.



DESIGN IT IN AUTOCAD.



DESIGN IT IN MAP 3D.



SHARE IT IN DESIGN REVIEW.

Integrated into every Autodesk design application, Autodesk® Design Review enables you and your teams to streamline the entire design review process. You can accelerate projects from start to finish with Autodesk® Design Review, the all-digital way to review, mark up, and track changes to 2D designs and 3D models without the original creation software.

This handy pocket guide of Design Review tips and tricks provides individual users and entire project or product teams with the information they need to get the most from the free* Design Review download.

To learn more, visit the community at www.autodesk.com/dwf.

PUBLISH

The ability to publish DWF™ files is built into every Autodesk® design application. It is also available free* when using third-party applications with the Autodesk® DWF™ Writer (www.autodesk.com/dwfwriter-download).

Learn more about how to publish DWF files from Autodesk design applications at www.autodesk.com/dwf-publishing.

Publish 3D Models from AutoCAD Design Applications

Create and publish 3D DWF files with the 3D DWF Publish command, available only if you have installed the 3D DWF publishing feature with AutoCAD® 2006 or later product versions.

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 Tools and Options, 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.

To learn more about publishing from Revit®-based products, Autodesk® Inventor™ software, or AutoCAD® Map 3D software, go to www.autodesk.com/dwf-publishing.

Increase the Precision of Drawing Measurements from AutoCAD

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. Leave the other DPI values (Gradient Resolution, Color and Gray-scale 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

http://autodesk.blogs.com/between_the_lines/2005/05/how_large_of_a_.html for imperial users

and at http://autodesk.blogs.com/between_the_lines/2005/06/autocad_dpi_to_.html for metric users.

Publish Block Attributes from AutoCAD

Enable team members to access AutoCAD 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.

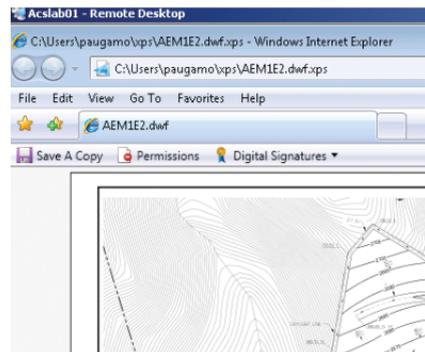
Note for Inventor Users: Look in the Inventor help files for more information about publishing component properties from Inventor views.

Note for Revit Users: The Revit help files can instruct you on how to publish component properties from Revit blocks.

Pass It On: Publish (DWF) and Email Directly from Windows Explorer

Easily email a DWF file when using Autodesk DWF Writer.

1. Start Microsoft® 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 Design Review application is automatically included for email recipients who don't have it.
4. Click Send.

Publish DWFx Files for No-Install Viewing and Printing

DWFx is a new version of the DWF format that enables sharing with Microsoft® Windows Vista™ users. To plot DWFx files, download the AutoCAD DWFx driver.

1. At www.autodesk.com/autocad click Services & Support>Data & Downloads>Utilities & Drivers.
2. Once the DWFx driver has been installed, from the File menu, choose Plot or Publish to publish your AutoCAD files.

Combine Project Information

1. In Design Review, open the existing DWF file or create a new one.
2. From Windows Explorer, drag one or more DWF files into the receiving DWF file's content area.

The sheets automatically combine into one DWF file.



Publish from Microsoft Office Documents

With Autodesk DWF Writer installed, you can publish DWF files from Microsoft® applications (PowerPoint®, Word, Excel®, Visio®, Outlook, and Internet Explorer®) and any computer-aided design (CAD) application, including SolidWorks®, Pro/ENGINEER®, and CATIA®, and share them as part of the project set.

1. From the Microsoft Add-Ins or the File menu, click the Publish DWF button, choose Print, and then select Autodesk DWF Writer from the list of available printers.
2. Specify a file name and location for the published DWF file.
3. Click Save and, from the File menu, choose Print.
4. For any non-Autodesk software use the free* Autodesk DWF Writer (available at www.autodesk.com/dwfwriter-download) to publish 2D and 3D models.

DWF Writer enables you to standardize on one file format, so you can exchange project information with extended teams.

VIEW AND PRINT

The free*, downloadable Autodesk Design Review enables anyone to view and print rich design data without purchasing CAD software. This means that everyone on the team can navigate sheet sets, access design information, and print whatever they need.

Download Design Review at www.autodesk.com/designreview-download.

Use Virtual Navigation Features

Use one of these 3D navigation wheels (Figure A):

- *View Object Wheel:* Use this wheel with Inventor models to view assemblies or individual parts.
- *Tour Building Wheel:* Use this wheel for a virtual building walk-through.
- *Full Navigation Wheel:* This wheel combines all of the wheel features. Use this wheel to examine 3D objects or conduct a virtual walk-through of an architectural model. (Figure B)



Figure A

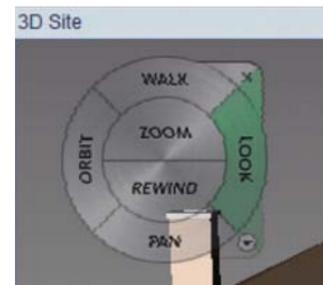


Figure B

Quickly Zoom and Pan

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

Note: You may need to change your mouse settings to enable panning in this manner.

3. Alternatively, you can use the SteeringWheels™ feature. 

Rotate 3D Models

1. Choose View, and then select Orbit to activate the Orbit tool or use the Turntable tool for building models.
2. Drag the 3D model in any direction to rotate the view.

Note: Orbit is also a function of the SteeringWheels feature.

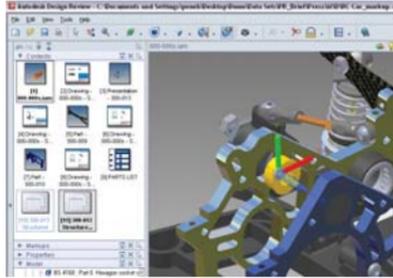


Figure C

Pull a 3D Model Apart

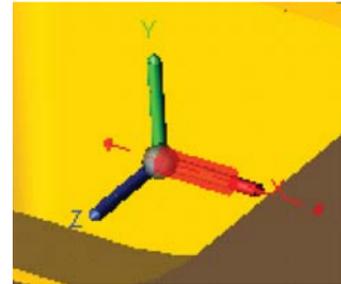
Autodesk Design Review users can navigate 3D models published from Autodesk applications or with the free* Autodesk DWF Writer for 3D (Figure C). Follow these steps to rotate and pull apart individual pieces of a model:

1. From the Tools menu, choose View>Move and Rotate. 
2. In the Model palette or on the canvas, 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 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. Drag the part section in any direction.

Move Parallel to the Screen

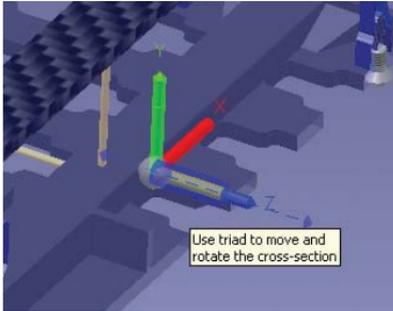
Click the origin, and drag the part in any direction. Or use the keyboard arrows to move left, right, up, or down.

Rotate

On the axis about which you want to rotate the part, click near the end of the axis. Drag the part about 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.

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. From the View menu, choose Cross Section>XY Section, YZ Section, or XZ Section.

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.

2. 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 you to move the section plane in a different way.

4. To undo sectioning, from the Edit menu, choose Undo.

Move Along an Axis

On the axis along which you want to move the section plane, 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 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. Drag the section plane in any direction.

Move Parallel to Screen

Click the origin. Drag the section plane in any direction. Or use the keyboard arrows to move left, right, up, or down.

Rotate

On the axis about which you want to rotate, click near the end of the axis. Drag the section plane around the axis.

Tip: If you press and hold the Shift key while using the keyboard arrows to rotate, the section plane rotates in 45 degree increments.

Access Design Intelligence

Publish detailed design information from Autodesk® Architectural Desktop 2004 and later versions, AutoCAD® 2006–based products, and Autodesk® Inventor™ software, for viewing in Autodesk® Design Review.

- *View and Sort Object Properties:* From the main menu, click View>Palettes>Properties and Object.
- *Access Object Properties:* In the Content Browser, select Palettes>Properties>Object from the drop-down menu.

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

- *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 is linked opens.

Use the ViewCube Feature

You can use the ViewCube™ feature while any of the Design Review tools are active.

When applying markups or cross sections to a 3D model, instead of selecting the Orbit tool to change the view, drag the ViewCube to change the model view.



View Without Installing Software

Try the free* Autodesk® Freewheel™ web service (*Figure D*) for viewing and sharing design data. To learn more, visit <http://freewheel.autodesk.com>.

Use Flexible Printing Options

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

Print to Spec

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

- Full Page or Current View
- Paper Size or Use DWF Paper Size
- Landscape or Portrait
- Fit to Page or Print to Scale
- Tile Across Multiple Pages



Figure D

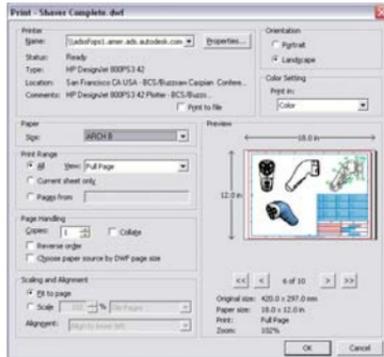


Figure E

Preview What You Print

1. From the File menu, choose Print to open the Print dialog box.
2. Choose the settings that affect your preview, such as paper size or landscape view. (*Figure E*)
3. Click Show Print Preview.

Print Instantly to HP Printers

1. Click the HP Instant Printing button.



Note: The button automatically appears if you choose the HP printer or have the HP printer as your default.

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

Manage Design Reviews in Autodesk Buzzsaw

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

1. Drag DWF files into the Buzzsaw project folder.
2. Notify the project team using the Buzzsaw notification system. Updates and versions are automatically tracked.
3. Automatically publish and visualize models in the Autodesk® Vault or Autodesk® Productstream® software applications.

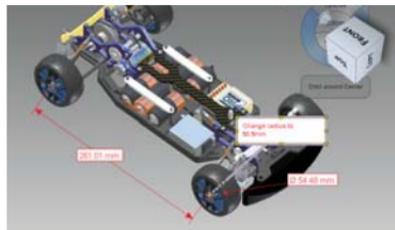
REVIEW, MEASURE, AND MARK UP

No more looking through faxes and emails to incorporate feedback by hand. With Autodesk Design Review software, you 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 you determine lengths, polylines, and areas.

- **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.



- **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.

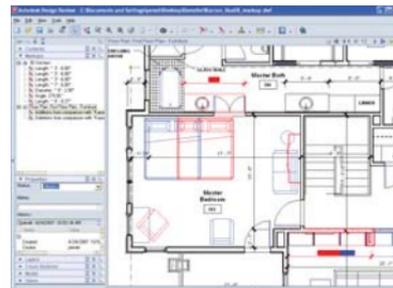
Compare Drawings

You can choose which 2D sheet to use in your comparison and control the color of the comparison markups.

1. Open the DWF file on which you want to perform the comparison.
2. From the Tools menu, choose Compare.
3. In the Compare dialog box, choose the second DWF file that you want to compare against.

Once you've selected the second DWF file, all of its sheets are shown.

4. Choose the sheet you want.
5. Perform the compare.



Work with Advanced Markups

Work with line weights, font styles, transparency, and more. (Figure F)

Use shape, text, freehand, stamp, and custom symbol tools in addition to markup tools.

Color Code Reviews

Use different markup colors to indicate different users.

- Select from the 48 predefined colors or one of your own.
- Change text color and line color on the main menu, and then click your chosen color.

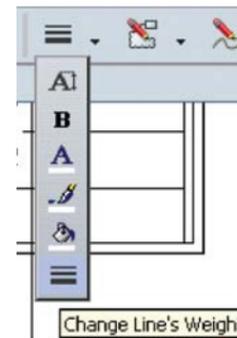
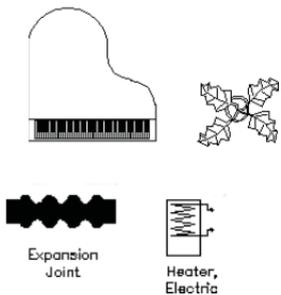


Figure F

Use Custom Symbols and Stamps

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



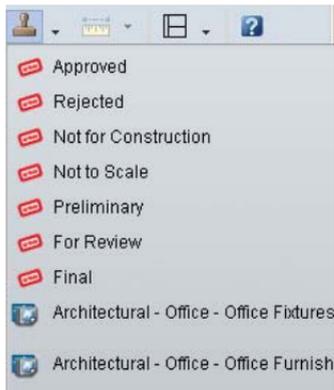
Create Custom Symbol Catalog

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.

1. From the toolbar, click the Stamps and Symbols button. 
2. Select Import DWF as Symbol Catalog.

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



Import Markups into Design Applications

Import DWF markup sets.

1. From the File menu, choose Import/Link>Link DWF Markup Set.
2. Select the DWF file with markups.
3. Change markup status, and add notes to respond to markups: right-click, and choose Element Properties.
4. After making updates in Revit, save and republish markups. From the File menu, choose Manage Links>DWF Markups tab. Click Save Markups.
5. To unlink, from the File menu, choose Manage Links>DWF Markups tab. Select Markup, and then click Unload.

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.

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.

1. Click the Snapshot button. 
2. Set up the subject of your screenshot.
3. Click the Capture button on the Snapshot window title bar. 

Use Drag-and-Drop

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

1. Use drag-and-drop or File>Open to view and mark up many different types of image files, such as JPEG or GIF files.
2. Drag a page or pages into an email or onto the desktop to create a new DWF file.

ADVANCED TIPS

Take advantage of these Design Review tips from the experts.

Install Across Your Company

Your IT department can install Autodesk Design Review across your company network. A silent installation of Design Review can be included as part of a company-wide automated script. For example, this capability is particularly useful when installing Design Review company-wide using SMS.

1. Open a command prompt and navigate to the directory containing *SetupDesignReview.exe*.
2. Type the following command:
start /WAIT SetupDesignReview.exe /s /v /qn
3. Press Enter. The installation completes without requiring any interaction from users.

Embed Autodesk Design Review in HTML Documents

Autodesk Design Review is available as an ActiveX® control that is embedded in Internet Explorer, providing a smooth installation of Design Review in web pages.

1. Embed DWF files directly in web pages by using the <object> element tag.
2. The following HTML sample demonstrates how to embed a DWF file in HTML documents. You can copy the sample HTML.

```
<object id = "viewer"  
classid = "clsid:A662DA7E-CCB7-4743-  
B71A-D817F6D575DF"CODEBASE="h  
ttp://www.autodesk.com/global/dw-  
fvviewer/installer/DwfViewerSetup.  
cab"  
border = "1"  
width = "640"  
height = "480">  
<param name = "Src" value="MyDWF.  
dwf">  
</object>
```

Note: Embedding Design Review as an ActiveX control requires Microsoft Internet Explorer 6 or later.

Save DWF Files That You View

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

1. Click the Save As button on the toolbar.
Note: The Save As options appear only when you are using Design Review 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.

*Free products are subject to the terms and conditions of the end-user license agreement that accompanies download of the software.

Autodesk, AutoCAD, Autodesk Inventor, AutoSnap, Buzzsaw, DWF, Freewheel, Inventor, Productstream, Revit, SteeringWheels, and ViewCube are registered trademarks or trademarks of Autodesk, Inc., in the USA and/or other countries. All other brand names, product names, or trademarks belong to their respective holders. Autodesk reserves the right to alter product offerings and specifications at any time without notice, and is not responsible for typographical or graphical errors that may appear in this document.

© 2007 Autodesk, Inc. All rights reserved.

Use APIs to Customize and Extend Functionality

Use the Autodesk Design Review API (application programming interface) documentation to integrate Design Review 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 Design Review behavior. To learn more, visit www.autodesk.com/dwf-developers.

LEARN AND GET MORE

Get free downloads

[www.autodesk.com/
designreview-download](http://www.autodesk.com/designreview-download)

www.autodesk.com/dwf-plugins

Visit the DWF Community

www.autodesk.com/dwf

Read the blog

dwf.blogs.com

Participate in the discussion group

[www.autodesk.com/
designreview-discussion](http://www.autodesk.com/designreview-discussion)

Find developer tools and information

www.autodesk.com/dwf-developers

www.autodesk.com/dwftoolkit

Try Autodesk Freewheel, Autodesk's free* design review web service

www.autodesk.com/freewheel

Autodesk®