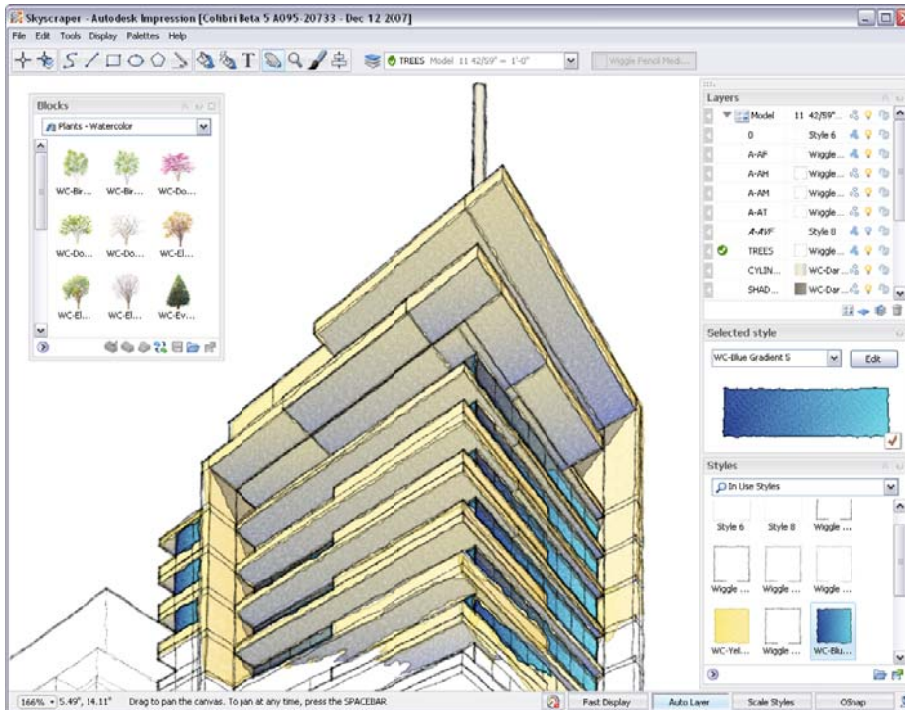


AUTODESK® IMPRESSION 2

# Feature Overview



Quickly create compelling, presentation-ready graphics with Autodesk® Impression software, the fast and easy way to make an impact on colleagues and clients. Add everything from pencil lines to watercolor washes to your DWG™ and DWF™ files using prebuilt styles, or create your own custom styles to convey your own unique look. And because Impression enables you to save styles, you can quickly update presentation graphics when designs change, as well as apply your signature style (or styles) to all the drawings that your office produces. Best of all, familiar tools and built-in learning resources make Impression simple to learn.

# Contents

- User Interface ..... 3**
  - The Jump Start Tour ..... 3
  - The Canvas, the Toolbox, and the Dashboard ..... 4
    - The Style Editor ..... 4
    - Navigating the Canvas ..... 5
  - Bringing Files into Autodesk Impression ..... 5
    - Opening Files ..... 5
    - DWG Import Wizard ..... 5
    - Import Files or Graphics ..... 6
    - Working with Layers ..... 7
- Working with Appearance Styles ..... 8**
  - Applying Appearance Styles ..... 9
    - Layer Styling ..... 9
    - Area Fill Styling ..... 10
    - Auto Layer ..... 11
    - Area Fill Anchors ..... 12
    - Match Properties ..... 13
  - Stylizing Multiple Illustrations with Style Mapping ..... 13
- Blocks ..... 14**
  - Adding Entourage Elements ..... 14
  - Block Editor ..... 15
  - Block Substitution ..... 15
- Editing Styles ..... 16**
- Updating Your CAD Geometry ..... 17**
- Performance Tuning ..... 17**
  - Layer Packing ..... 17
  - Performance Tuner ..... 18
- Sharing Impression Images ..... 18**
- More Resources ..... 19**
  - Impression Community ..... 19
  - Communication Center ..... 19

# User Interface

The intuitive Autodesk® Impression software user interface helps you get up and running quickly.

## The Jump Start Tour

The first time you open Autodesk Impression software, you see the Jump Start Tour interface at the bottom of your screen. The Jump Start Tour helps you understand the basic concepts of creating a rendered image in Impression through easy-to-follow, step-by-step exercises and informational videos.

Just follow five simple steps in each of the three sample files, and you are on your way to making a rendered illustration.

Once you finish and close the Jump Start Tour, the main canvas is fully expanded. For a more in-depth introduction to the application, see the Quick Start Guide, accessible from the Help menu.

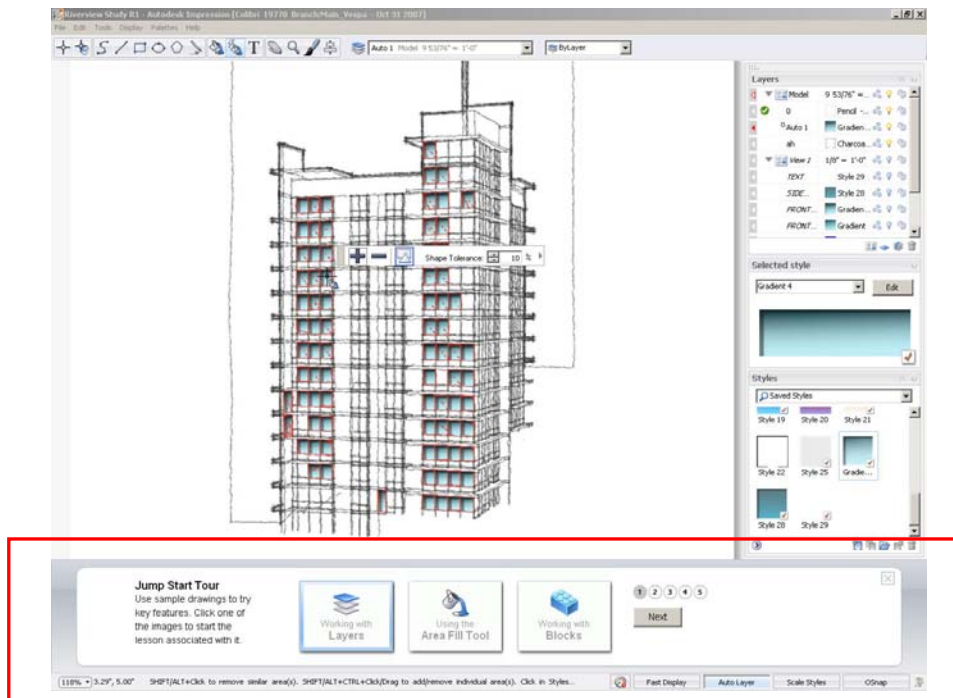


Figure 1. The Jump Start Tour

## The Canvas, the Toolbox, and the Dashboard

The primary components of the Impression user interface are the canvas, the toolbox, and the dashboard. The dashboard can be docked on the right or left side of the screen.

The canvas is the main drawing area where you stylize the image. This is where the geometry and text from the files you open or import are displayed.

The toolbox contains tools for selection, geometry and text creation, stylization, and navigation (such as Pan and Zoom).

The dashboard contains the most commonly used palettes, such as the Layers palette, the Style Editor, and the Styles palette.

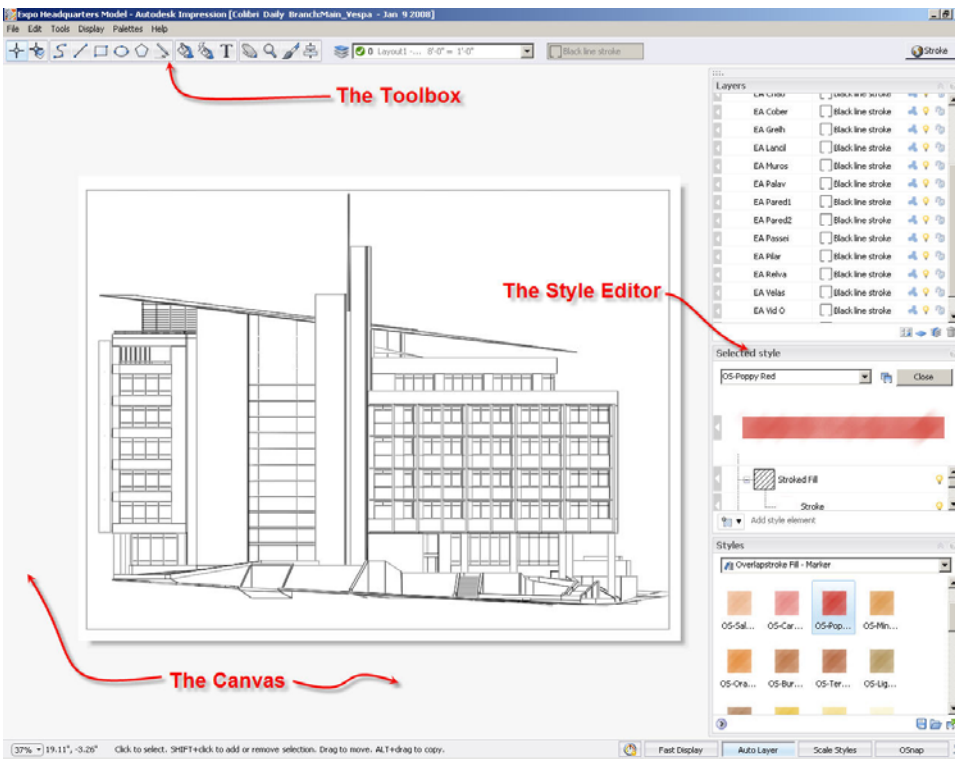


Figure 2. The Impression user interface

### The Style Editor

While working in Impression, you will often refer to the Style Editor. This palette displays context-sensitive information related to the styles of geometry, layer, or block that you are modifying. When you edit or modify a style in the Style Editor, the Style Editor label indicates what will be updated. In this example, the layer style will be updated.

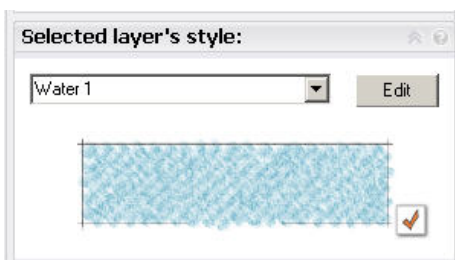


Figure 3. The Style Editor; click Edit to change elements of a style

## Navigating the Canvas

Panning and zooming in Impression is simple and intuitive, especially if you are accustomed to Autodesk products.

You can pan and zoom in various ways, including pressing the P and Z keys to activate the tools, clicking icons, and using right-click and pull-down menus. You can also roll the mouse scroll wheel to zoom and press the spacebar and drag to pan.

To temporarily turn off all open palettes, just press the Tab key. Press it again to restore your previous configuration.

## Bringing Files into Autodesk Impression

When working in Impression, you can open or import DWG and DWF files, as well as IRF files, the native file format for Impression. In Impression, each opened or imported view becomes a separate *sketch* that contains its own set of layers.

### Opening Files

When you open a DWG file, the DWG Import wizard enables you to choose specific settings for the file before it is opened on the canvas.

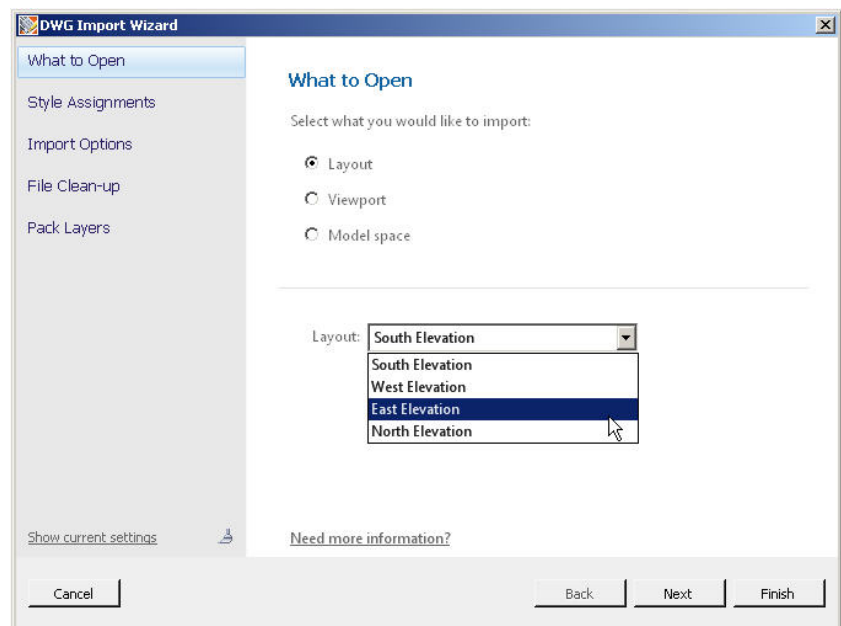
For example, you can select a default stroke for all imported geometry. (You can also specify a plot style table—or use a combination of assigned stroke and existing plot style.) The stroke stylization you choose is apparent as soon as the image appears on the canvas.

### DWG Import Wizard

Whether you are creating a plan, an elevation, or a perspective view of a 3D model, the options in the DWG Import wizard are the same.

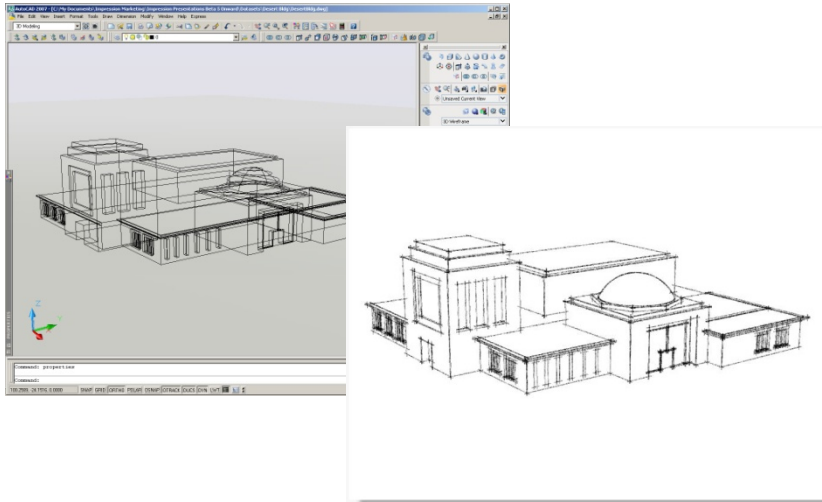
By default, layout views (paper space views) retain their native page size and scale. However, for model space views, the geometry is scaled to fit the default canvas size. You can specify a new canvas size and orientation as you open the drawing in Impression.

Groups of DWG objects on the same layer can be packed into one object with the DWG Import wizard. This capability provides a performance gain that makes editing complex drawings easier. Packed layers can be unpacked at any time.



**Figure 4.**  
The DWG Import wizard

Although Impression converts all drawings to 2D, you can open and render 3D drawings. For example, to render a perspective view, first save a layout with the viewpoint you want, perhaps a view through a camera. You don't need to worry about hiding lines; Impression does that for you. In the DWG Import wizard, in the Import Options panel, click the 3D Import Options button to see other 3D import options.



**Figure 5. Creating a perspective view in AutoCAD**

### **Import Files or Graphics**

You can import other CAD or graphics files into a blank canvas or an existing illustration. A variety of file types can be imported into Impression, including IRF, DWF, DWG, BMP, JPEG, GIF, PCX, PNG, PSD, TGA, and TIFF.

Raster images imported into Impression are placed on the current layer. When you import a vector file, such as a DWF or DWG file, into an existing Impression drawing, the layers from each view are organized within new sketches. The sketch and its imported layers appear at the top of the Layers palette.

**Note:** Importing a file is different from opening a file. The Import operation is similar to inserting an external file into a drawing in AutoCAD® software.

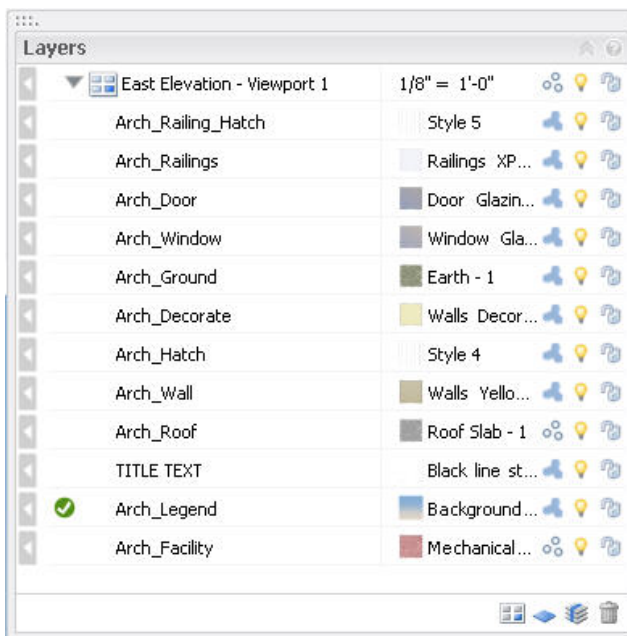
# Working with Layers

The Impression Layers palette provides a powerful way to work with your design illustrations. Each Impression layer has an assigned appearance style that affects how geometry on that layer is stylized.

The Layers palette enables you to

- Assign a style to all the objects on the layer.
- Control the visibility of individual layers or layer groups by turning them on or off or by setting their opacity.
- Lock layers to keep them from being modified.
- Set the drawing order of layers simply by dragging them up or down in the layer list. For example, for an elevation, you can control which objects are in the background or the foreground. Objects on layers that are on the top of the stack appear in front of or on top of objects on other layers.
- Pack or unpack objects on a layer.
- Create layer groupings that can be treated as a set.
- Manage sketches that are created from imported CAD files. (Sketches control the scale of the layers and their objects.)

Create separate sketches in order to view the same set of layers with different styles, for fast, iterative studies. (This is similar to the Current Viewport Layer functionality in AutoCAD.)



**Figure 6. The Layers palette, an element of the dashboard**

# Working with Appearance Styles

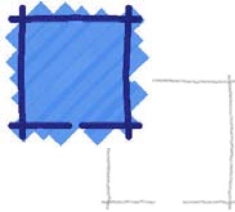
Impression styles are graphic treatments that are applied to linework or used to fill areas of your drawings. They are the fundamental method used to turn your CAD linework into rendered illustrations.

A style is usually a composite of media, fills, and effects, but it can be as simple as a pencil stroke or solid color.

Some style elements include the following:

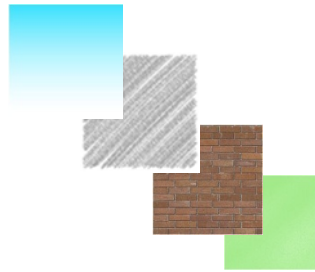
## Media

- Marker
- Pencil



## Fills

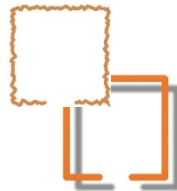
- Gradient
- Stroked
- Texture
- Uniform



## Effects

Fills and media can be modified using effects:

- Roughen
- Drop shadow



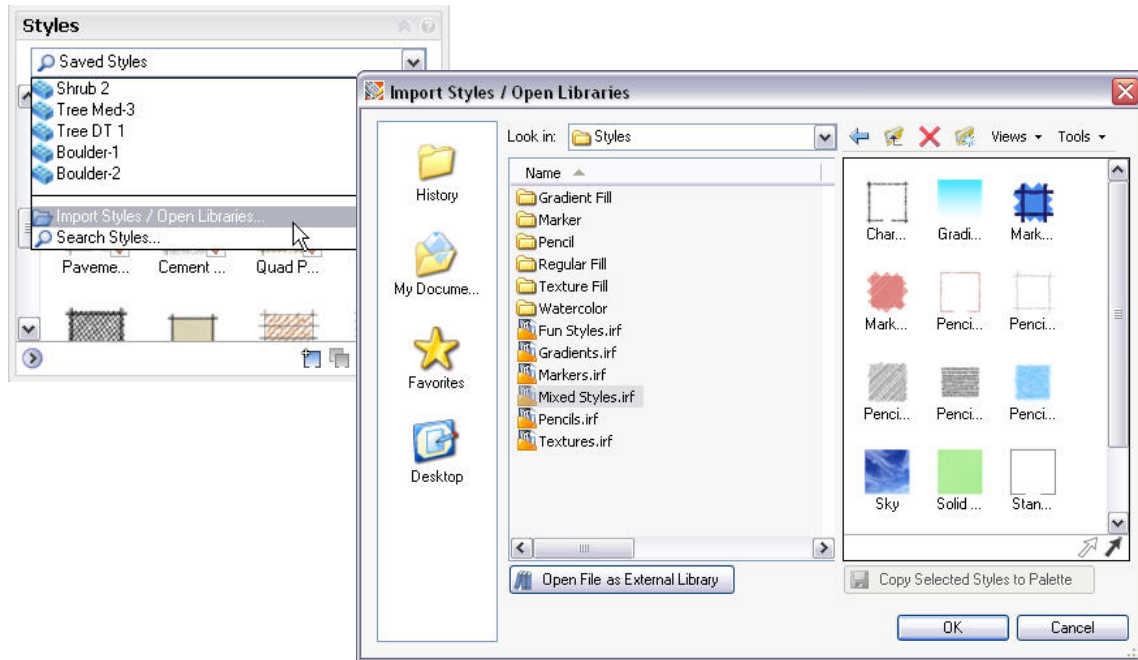
## Paper

Different types of paper also enable you to customize the look of a fill style:

- Standard
- Pastel
- Coarse
- Fine



Libraries of prebuilt styles are included with Impression, ready to be directly applied to your drawing. You can browse through different external libraries of styles and import the entire library for use, or select and import individual styles from within an external library.



**Figure 7. The Import Styles and Open Libraries dialog box**

Of course you can always edit and change these prebuilt styles to create your own custom styles. There are many ways to customize a set of styles that you can export as a library to be reused in other illustrations.

## Applying Appearance Styles

You can apply styles to a CAD drawing in Impression in several ways. Depending on the source file and how the layers are organized, you may want to assign styles by layer, by object, to a closed area, or by using a combination of techniques.

### Layer Styling

By default, all linework comes into Impression with the stroke style that you choose in the DWG Import wizard. The default is the Black Line Stroke style, but you can choose a number of other strokes, such as Gray Pencil or Dashed Line.

Using layer styling, you can quickly apply a style to all of the objects on a layer in your drawing. For example, in a site plan, you may want to have all of the paving represented by a uniform style. By using layer styling you can quickly apply a uniform paving style to all of the paving in your drawing that is on the same layer.

### Line Style Overrides

You can also apply styles to individual geometry by dragging a style swatch directly from the Styles palette onto an object. This becomes a style override, since the style for that geometry now differs from the other geometry on that layer.

**Note:** If you change the style of a layer later, the geometry with the override will not change to the new style.

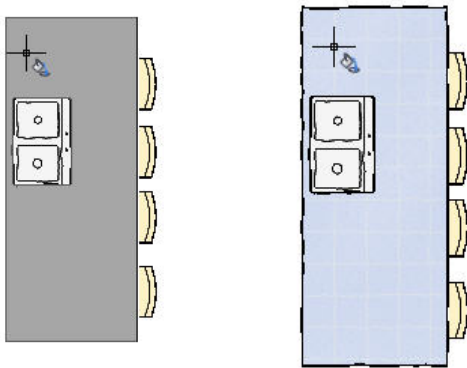
To apply an appearance style to the geometry on a specific layer, simply drag the thumbnail swatch of the style from the Styles palette onto the desired layer row in the Layers palette.

**Area Fill Styling**

Geometry is the basis for all CAD files, and hatch patterns are often used to fill enclosed areas with colors and textures. Using styles that contain standard or composite fills, you can stylize large or small areas of your drawing using a method called Area Fill, which is similar to the way hatches are applied in AutoCAD software.

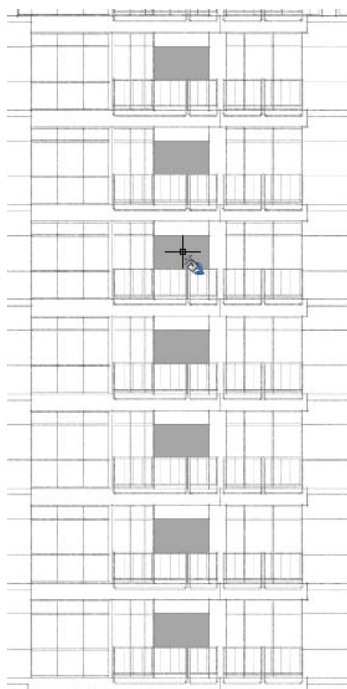
**Note:** Autodesk Impression reads the hatches in DWG files and imports them as styles in Impression.

The Area Fill tool floods a closed area with the style that is assigned to the current layer.



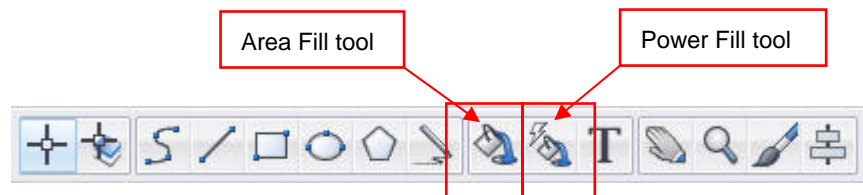
**Figure 8. The Area Fill tool is used in this example to fill in the counter**

A fill can be contained by any intersecting lines that enclose an area, even if they are separate objects on different layers. When you insert an area fill, you create a separate area fill object.



You can also fill areas by clicking a single point or by drawing a line or window to indicate areas to be filled.

The Power Fill tool is great for filling multiple areas that have the same shape. When activated, the Power Fill tool finds all eligible areas that have the same shape and fills them with a single click.



**Figure 9. Placing fills with the Power Fill tool**

**Auto Layer**

Auto Layer functionality gives you a way to manage a rendering that may have started with a single layer requiring many area fills. By turning on the Auto Layer feature, you can automatically create a separate layer for each area fill style, which makes future updates of those styles more efficient.

This feature gives you the ability to manage things like the drawing order and the visibility of styles using the Layers palette. When Auto Layer is turned on (by selecting the Auto Layer toggle at the bottom of the screen), a new layer is created for every new style that is used with the Area Fill or Power Fill tool. Auto Layer is active by default. To apply an area fill, follow these general steps:

1. In the Layers palette, create or designate a layer to contain the area fill and make it current, or turn on the Auto Layer button. (Current layers are identified by a green check mark before the layer name.)

If Auto Layer is off, make sure the fill style you want to use is assigned to the current layer.

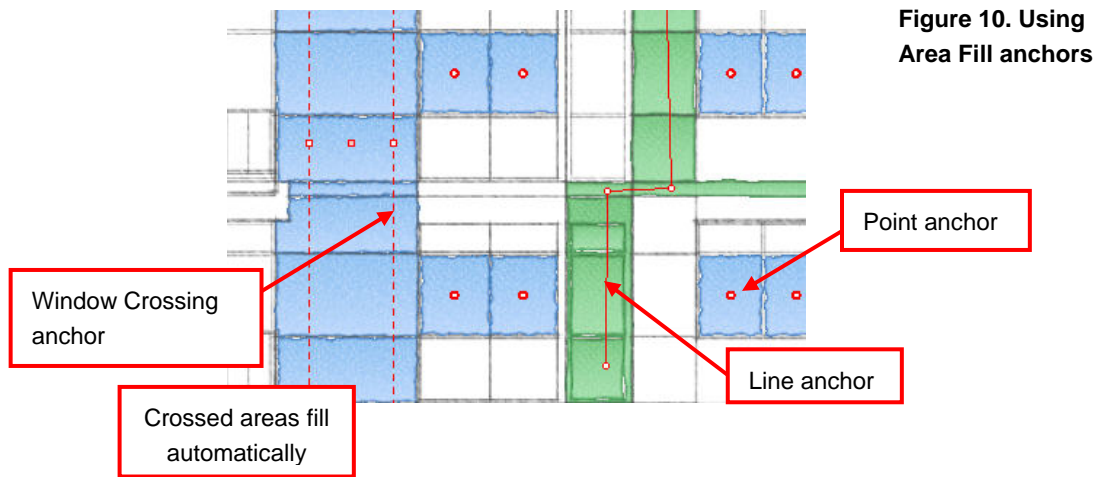
2. Click the Area Fill tool to activate it. If Auto Layer is on, select the style you want to fill the areas with. Then move the eye dropper cursor over the areas you want to fill. Areas that are eligible for filling turn gray. Click inside the area to fill it.

Using the Area Fill tool enables you to manage, edit, and update your filled areas quickly and efficiently.

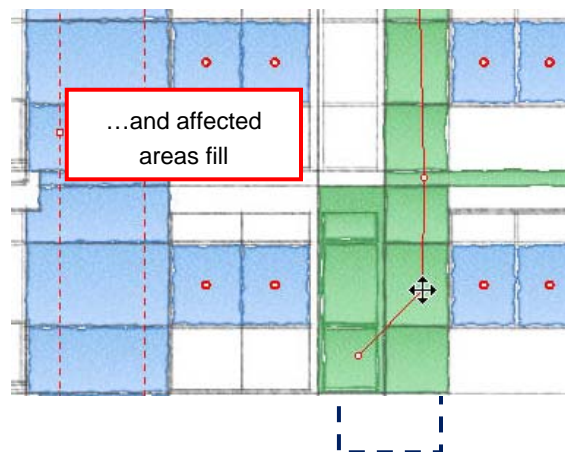
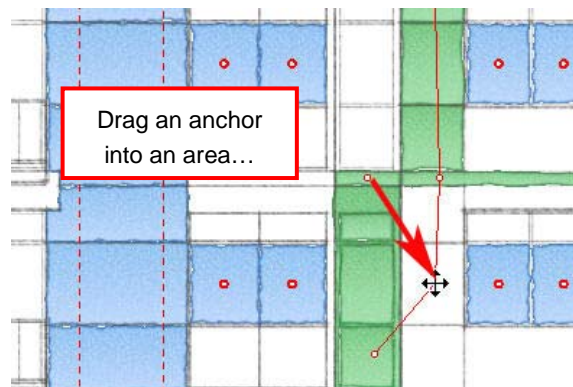
**Area Fill Anchors**

Area Fill anchors enable you to quickly change or edit filled areas. Suppose you have filled a group of areas in the rendering, but after a CAD geometry update, you find that the filled area has moved. Simply dragging a fill anchor to the new geometry automatically fills in the new areas.

Depending on the method used for creating area fills, the anchors are displayed differently.



**Figure 10. Using Area Fill anchors**



## Match Properties

The Match Properties tool enables you to copy style, layer, and text properties from one object in the canvas to another. It works with object types such as text, strokes, and areas.

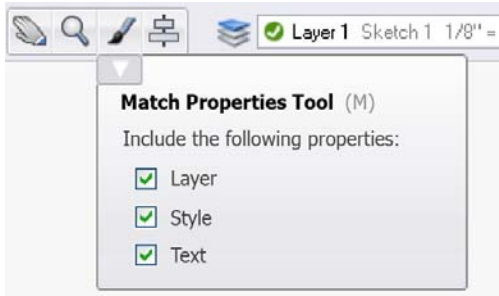


Figure 11. Match Properties tool

## Stylizing Multiple Illustrations with Style Mapping

Want to quickly create several related illustrations that all have the same look and feel? With Impression, you can quickly render a design by importing a style map from another Autodesk Impression drawing. You then have two drawings with exactly the same look and feel.

Let's say that you create an illustration of a building elevation. It is likely that you will want the other building elevations for that project or similar projects to have that same look. Once you have stylized one of the elevations, you can use style mapping to apply the style map from the first elevation to the second elevation—and automatically create another rendered presentation image. For this to work, the two elevation DWG files must have the same layer names. This is a powerful way to quickly stylize several different drawings that have identical layer structures.

**Note:** To take advantage of style mapping, your original drawing should have a minimum of style overrides.

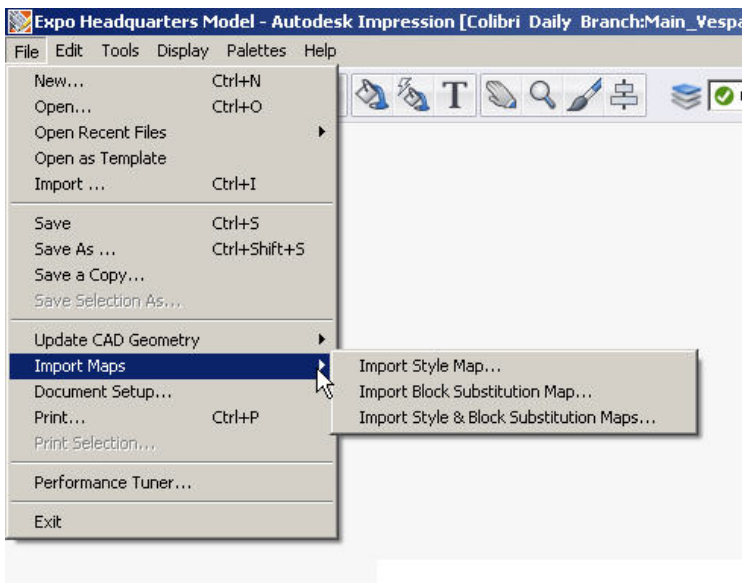


Figure 12. Import Style map

# Blocks

Blocks are commonly used elements in CAD files. Blocks can save time and help standardize drawings by minimizing the need to redraw standard components over and over again. CAD blocks can vary in complexity and application.

## Adding Entourage Elements

Entourage elements are blocks that represent cars, people, or trees and shrubs. The Impression block libraries are organized in external file folders sorted by theme. For example, if a landscape plan needs some trees, from the Blocks palette you can navigate to a library of tree blocks and import the entire library, or you can import individual blocks from another Impression file.

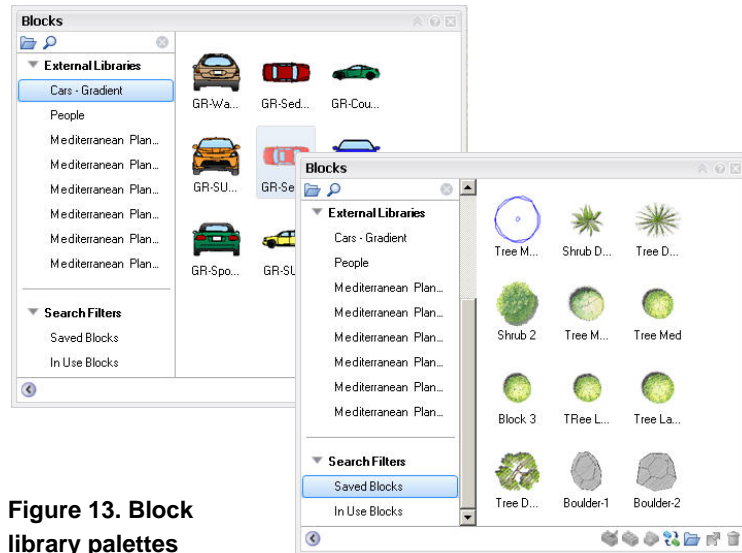


Figure 13. Block library palettes

Add entourage elements simply by dragging a block from the Blocks palette onto the canvas. When you drag a block into your illustration, the Block Properties Summary palette displays useful, editable information about the scale, real-world size, and printed size of the block that you are inserting.

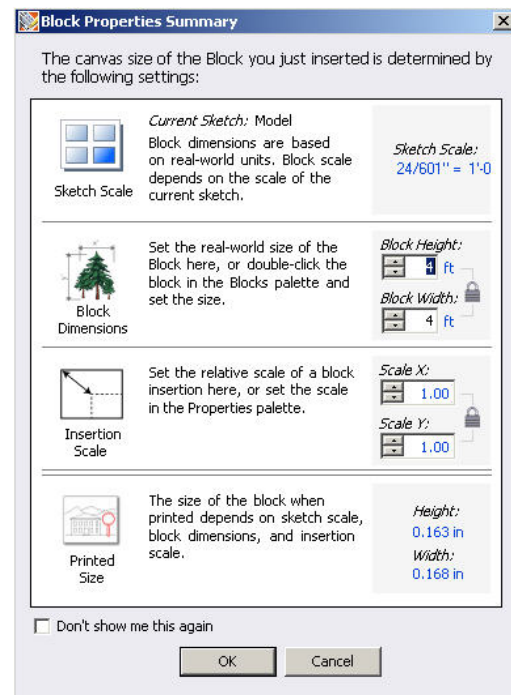


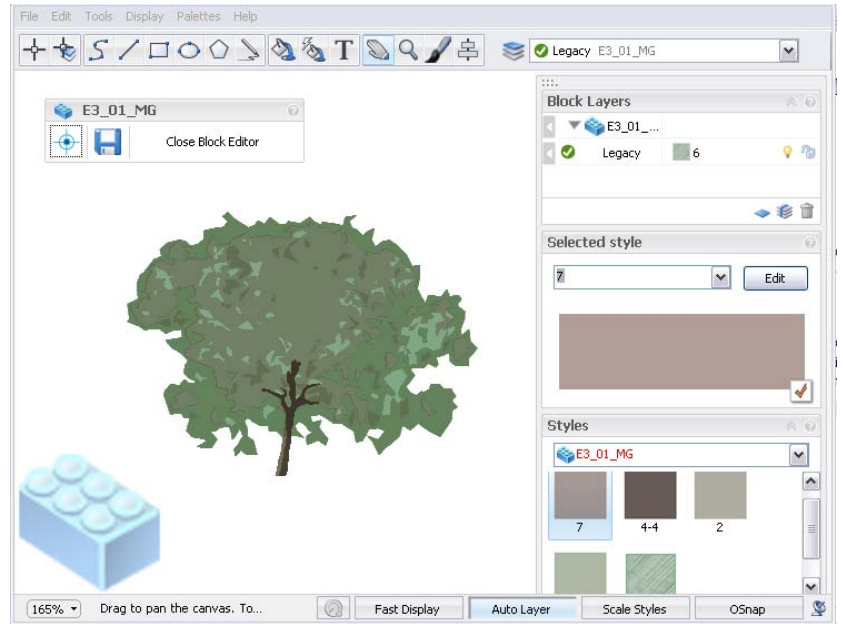
Figure 14. Block Properties Summary palette

## Block Editor

The Block Editor provides a streamlined, comprehensive way to edit blocks. When you have a block selected, right-click, and select Edit Block to open the dedicated block editing environment that mirrors the regular Impression workspace.

The Block Editor enables you to toggle the visibility of the block insertion point and save edits made to the block. A block-shaped watermark in the lower left corner of the Block Editor viewport reminds you that you are in the Block Editing environment.

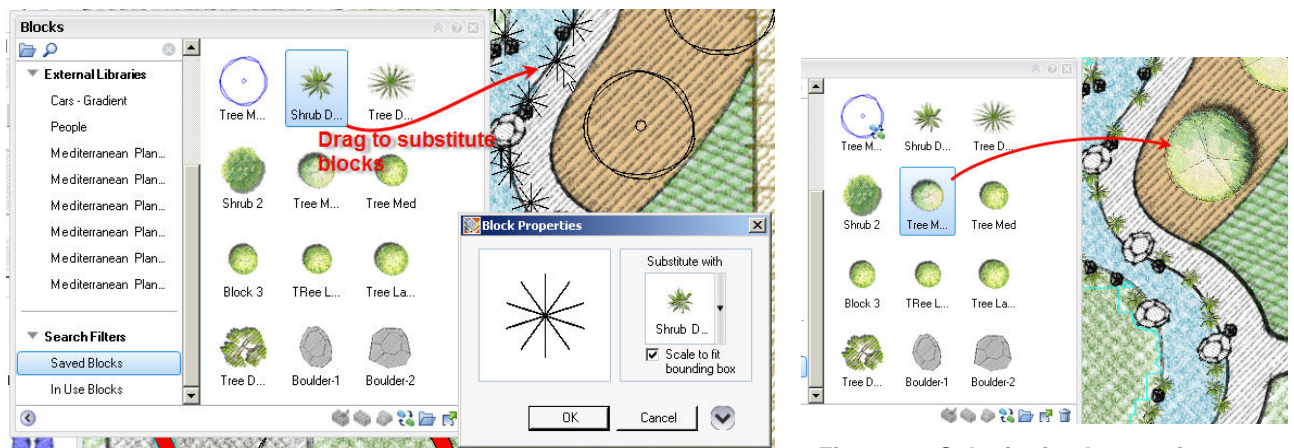
Each block has unique layers and styles that can only be accessed while in Block Editing mode; however, they are still accessed through the familiar Layer and Styles palettes.



**Figure 15. Editing a block in the Block Editor**

## Block Substitution

Impression takes full advantage of DWG blocks. With Impression you can quickly replace DWG block references with stylized blocks created in Impression. Simply drag a stylized block from the Blocks palette onto any block on the canvas and all of the blocks with the same name are updated. This is known as *block substitution*.



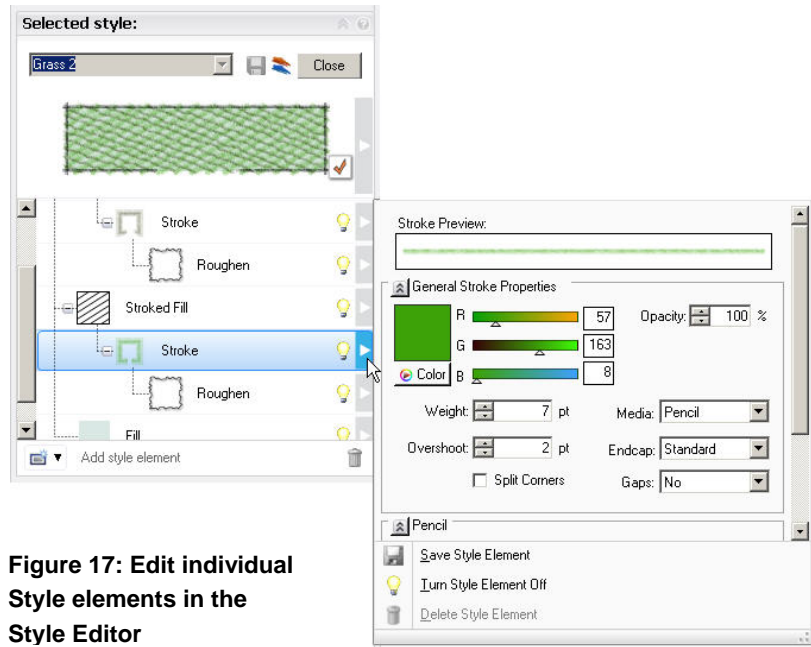
**Figure 16. Substituting Impression blocks for DWG blocks**

A history of substitutions in the drawing can be edited, and the original blocks can be restored. This Block Substitution map can also be used with other files that use the same block names, in the same way that you import style maps.

# Editing Styles

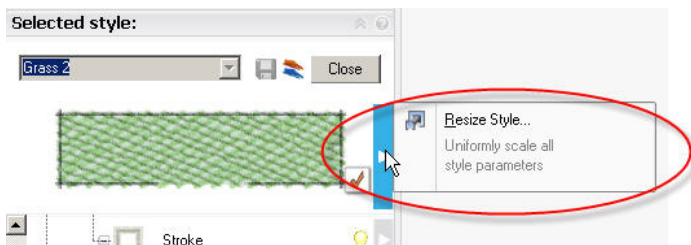
While numerous styles are provided with Impression, there are an almost infinite number of graphic styles and methods used to create nonphotorealistic renderings and illustrations. You may want to create styles that meet your specific technique of rendering or even create a custom “signature style” for a specific project or your firm as a whole.

You edit styles in the Style Editor. Elements of an appearance style are stacked in the style tree. Each element has its own opacity setting, so you can accentuate certain aspects of the style. Numerous controls modify color, hardness, end fade, and other settings. Keep in mind that there is no wrong way to make a style, so you can build unique style libraries for use on other projects.



**Figure 17: Edit individual Style elements in the Style Editor**

To simultaneously scale all the settings in a specific style, click the Resize Style flyout next to the style preview swatch.



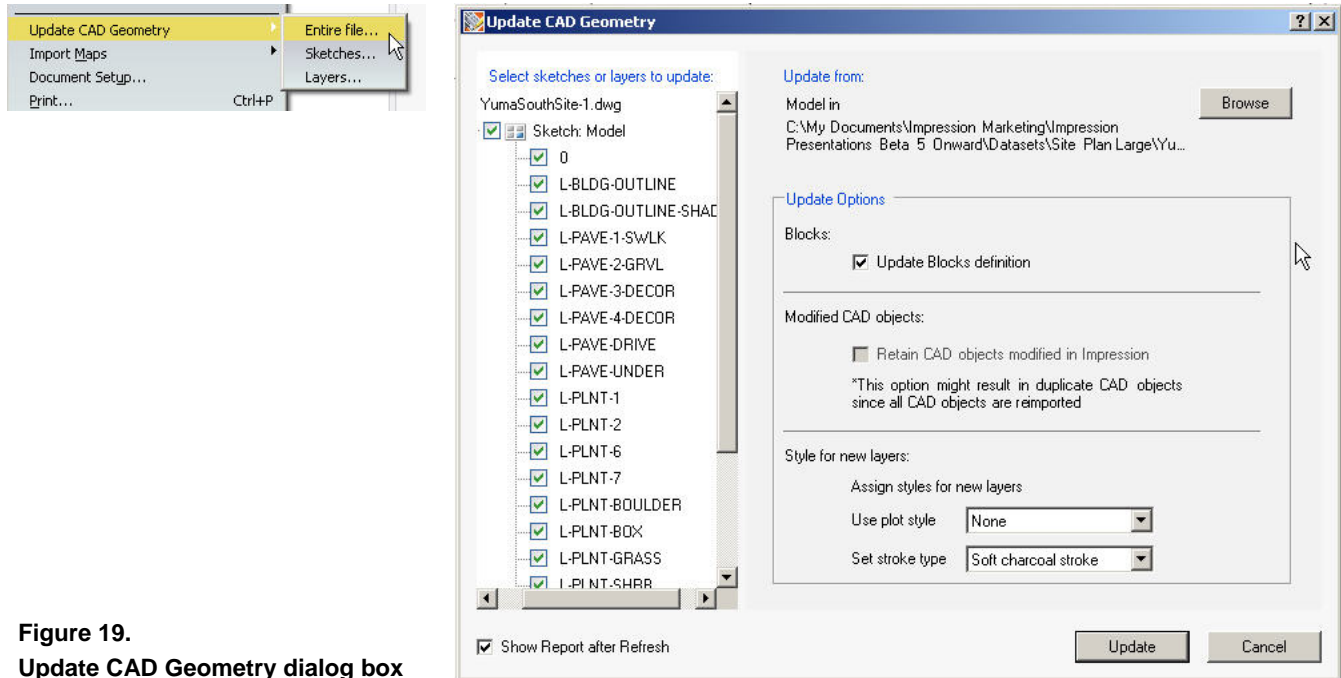
**Figure 18. Easily resize styles to match desired scale**



# Updating Your CAD Geometry

If your CAD data changes in the original DWG file after you have stylized it in Impression, you can easily bring the updated geometry into Impression.

As you are working on your illustration in Impression, chances are that you or someone else is still editing the original CAD file. When you are ready to update your illustration with the modified CAD geometry, choose Update CAD Geometry on the File menu. You can update the entire drawing, only a sketch, or individual layers.



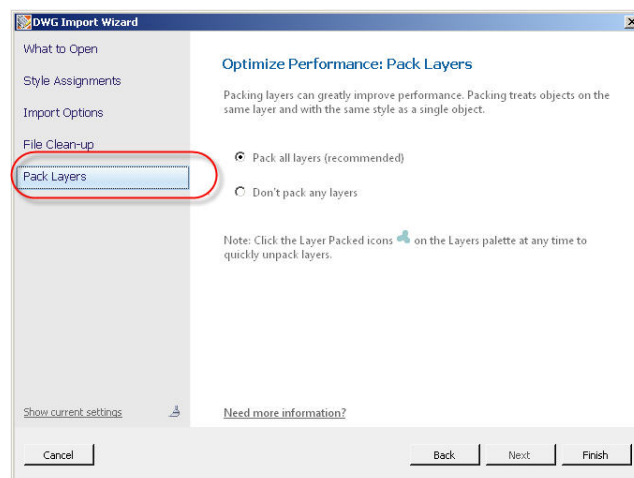
**Figure 19.**  
Update CAD Geometry dialog box

## Performance Tuning

Impression renders linework with sophisticated effects. As a result, there are certain things to consider when working with large or complex DWG files in order to extend system performance.

### Layer Packing

When opening a DWG file, the last panel of the DWG Import wizard enables you to pack certain objects on a layer into a single object. (To be packed, they must have the same style and a sequential draw order.) This not only enhances performance but can also make managing styled layers easier. A layer can be unpacked and repacked at any time on the Layers palette or Performance Tuner.



**Figure 20.**  
DWG Import wizard

### Performance Tuner

It is important to set up a drawing so that it will perform efficiently before you open it. However, you might also make changes while working in Impression that could degrade performance as your rendering progresses. The Performance Tuner monitors your drawing and identifies instances when you can take action to improve performance.

At these times, the Performance Meter urges you to open the Drawing Performance Tuner, where you can

- Get a more informed understanding of what factors may be contributing to slow performance
- Take action to tune performance of the open drawing
- Learn what affects performance so you can manage those factors more successfully



**Figure 21.**  
**Performance Meter**

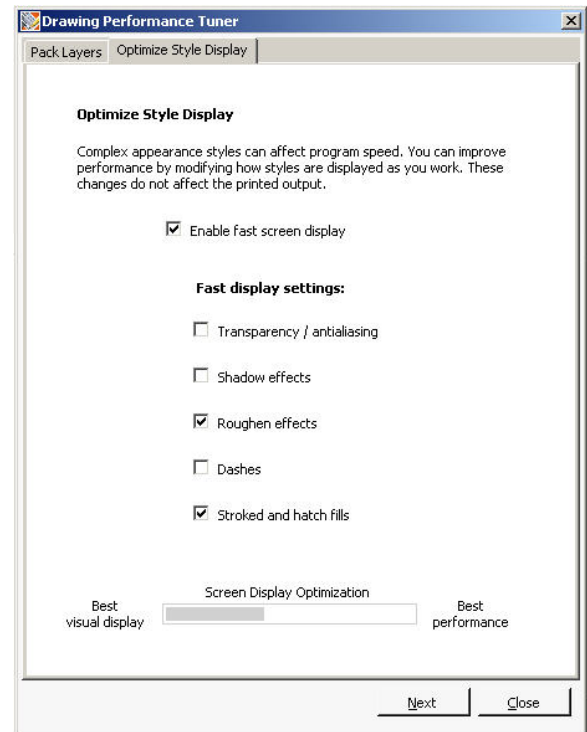
The Drawing Performance Tuner features two tabs: one for tuning the packed/unpacked state of the layers and one for setting Fast Display mode, which hides certain elements such as stroked fills or shadows as you work. Together, the settings established in the two tabs of this dialog box determine the color of the Performance Meter button. The Performance Meter is updated as each setting changes, so you immediately see the total effect of changes as they are made.

#### Pack Layers

- Indicates the relationship between total objects and performance
- Indicates the importance of managing packing and unpacking while demonstrating its benefits
- Provides a quick way to restore a packed state

#### Optimize Style Display

- Indicates the cost of style complexity
- Indicates the performance costs of using styles with certain characteristics
- Hides visual elements as you work (Fast Mode) to preserve performance (does not affect final output)



**Figure 22. Drawing Performance Tuner**

## Sharing Impression Images

Impression documents are saved in the IRF file format. Impression files include drawing information from the original CAD drawing, plus the Impression stylizations, layers, objects, blocks, and so on.

Impression illustrations can be saved as DWF files, viewable with Autodesk® Design Review and Autodesk® DWF™ Viewer application. They can also be saved into a several file formats popular in the desktop publishing world, including PSD, the native Adobe® Photoshop® format; EPS, the standard for embedding graphics in page layout applications; PDF, for electronic document sharing; and a variety of popular image file formats such as PNG, JPEG, and BMP.

Impression illustrations can be printed on all page sizes supported by standard plotters up to E size sheets, with resolutions up to 300 dpi.

## More Resources

The following resources provide more information about Autodesk Impression software.

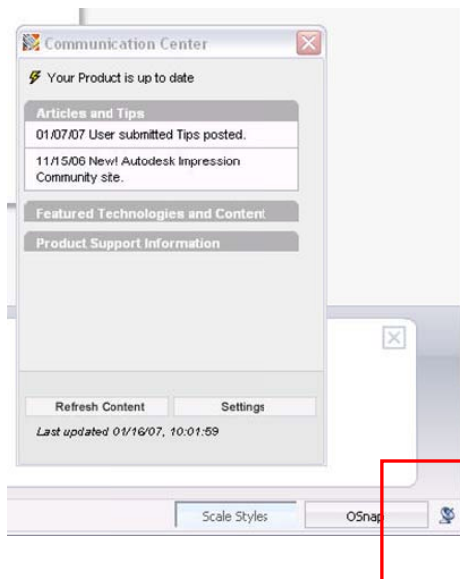
### Impression Community

The Impression Community website is located at <http://impression.autodesk.com>. By becoming a member of the Autodesk Impression Community, you can stay current with all the latest resources available. Benefits of membership include access to

- Content sharing
- Member discussions
- Blogs and webcasts
- Tips submitted by other Impression users

### Communication Center

Stay informed about everything from software updates to new tutorials by tuning in to the Communication Center.



To set up the Communication Center in Impression, use the Welcome wizard to select your country or region, the frequency you prefer for updates, and the information channels you want displayed.

To open the Communication Center, click the Communication Center icon in the tray on the right side of the status bar.

**Figure 23.**  
**The Communication Center**

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