

AutoCAD® Architecture 2008

Feature Summary

This AutoCAD Architecture 2008 Feature Summary provides an overview of the new functionality in AutoCAD Architecture.

HIGH-LEVEL FEATURE SET –

Documentation

- Annotation scaling
- Spaces
 - Auto-Generate Spaces User Interface
 - Automatic Associative Spaces
 - Surface Opening Improvements
 - Area Calculation Standards
- MasterFormat 2004 Content

Graphical Editing

- Object Display User Interface
- Global Drawing Cut Plane Discoverability

Project Workflow

- Drawing Compare
- View-to-Sheet Synchronization
- Launch Project from APJ and Other Customer Requests
- IFC Import/Export

Visualization

- Photometric lighting
- Sun/Sky Systems
- Procedural Materials
- Material Editing Interface
- Global Content Out-of-the-box

Additional Improvements

- Startup Experience
- Structural Member Trim Plane
- Performance Enhancements
- ...and all of AutoCAD 2008!

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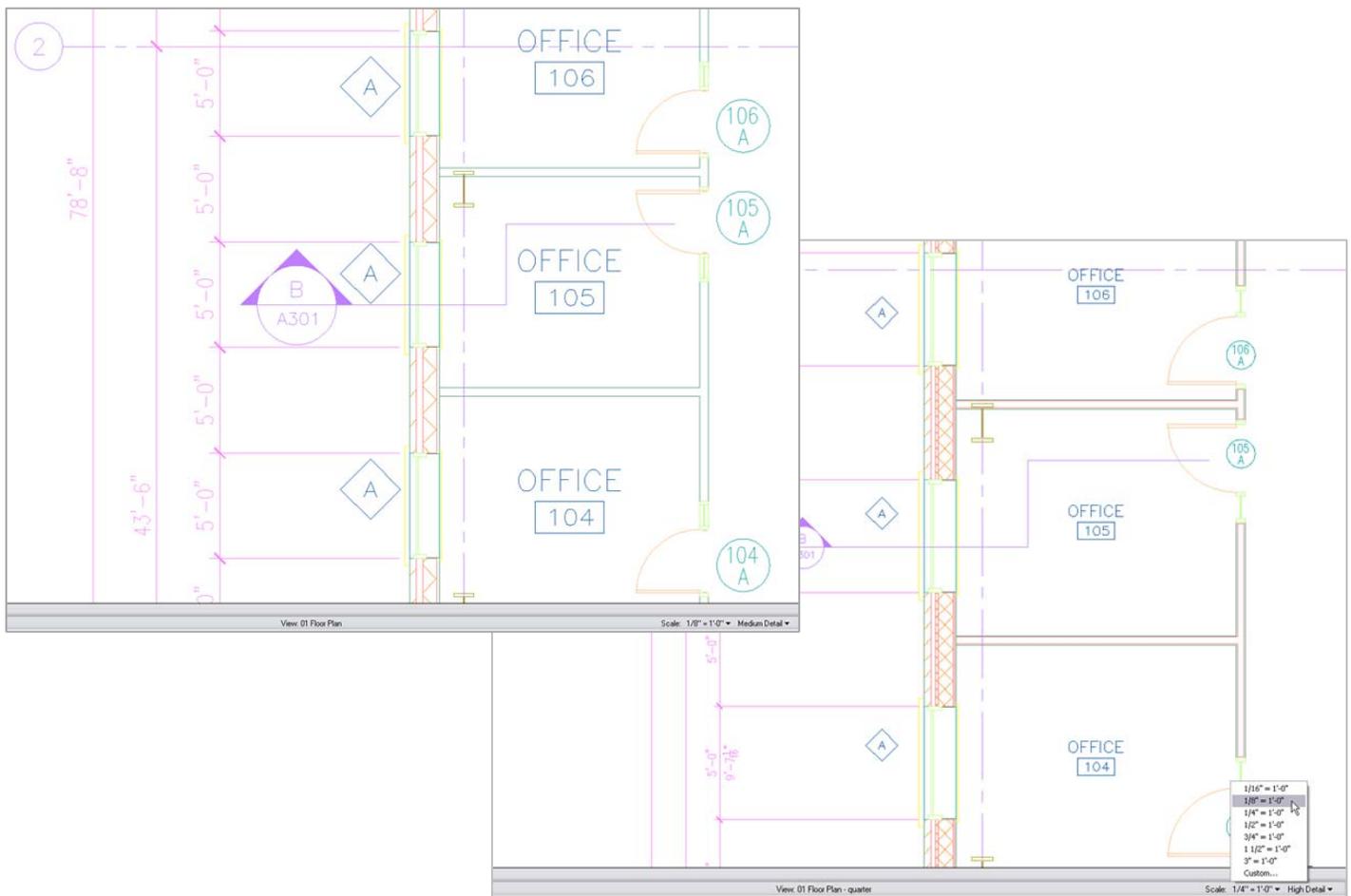
Documentation

Annotation Scaling

AutoCAD Architecture has long provided proper scaling of annotations during placement of annotations such as tags. Now these annotation objects will scale appropriately when the scale changes per viewport.

When you annotate drawings in model space, we automate the process of scaling annotations in various layout viewports and in model space. Objects that can be designated annotative include text, leaders, dimensions, field codes, hatches, blocks, Tags, Mview blocks, attribute definitions, and tables. You no longer need to use tedious and error-prone methods such as duplicating your annotation or blocks to display them at different scales in the same drawing.

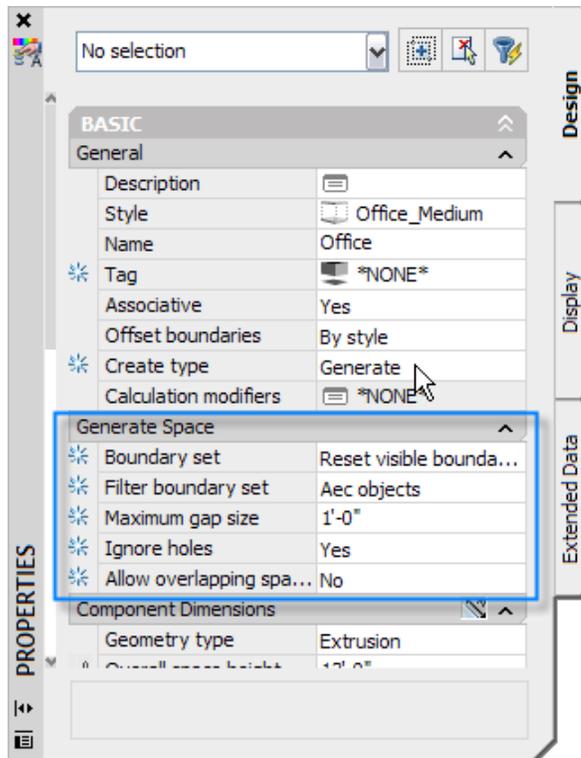
The below graphic shows the same annotation in two viewports at different scales within the same drawing.



Spaces

Auto-Generate Space User Interface

In this release the ability to generate spaces automatically from objects & linework has now been integrated into the Space Tool. No longer is it necessary to utilize the previously separate dialog box. This also provides the advantage of pre-specifying various options, such as style, to help streamline space creation.



Automatic Associative Spaces

AutoCAD Architecture 2007 provided the ability for spaces to be associative to the objects (walls, slabs, curtain walls, etc) which surround them, eliminating tedious steps of updating space objects when boundaries change through a right-click update option. In this release, updates happening automatically as you edit the bounding objects.

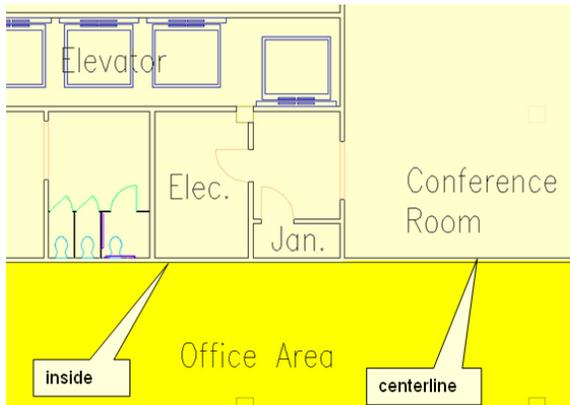
Surface Openings:

Openings on space surfaces can be important for calculations when the drawing is used in Autodesk Building Systems or other building applications. You can add openings to the surfaces of extruded 3D spaces and 3D freeform spaces. You can

manually add openings to non-associative spaces while openings in an associative space are automatically determined by the openings in the bounding objects.

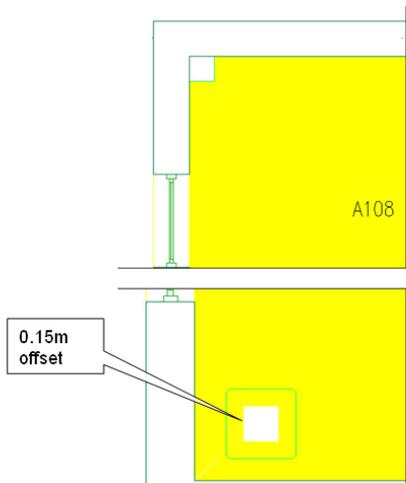
Area Calculation Standard

With the additional capabilities of volumetric & associative spaces in AutoCAD Architecture 2007, this release adds support for area calculation standards, such as BOMA (US), SIS and DIN 277(German). Built-in rules automatically offset the gross, usable and net boundaries during object creation and editing based on spatial adjacencies.



Example: BOMA Usable Area
Space Classification: Office Area

Adjacent Space	Boundary
FCA, MVP	Inside
Office, Store, BCA	Centerline



Example: SIS Standard Usable Area (BRA)

Columns in direct connection to a wall will be calculated as a part of the wall.

Free-standing columns will be calculated as an interior wall. The usable boundary will be offset 0.15m into the column.

The available rules are set for the drawing on the Options > AEC Object Settings tab.

Master Format 2004

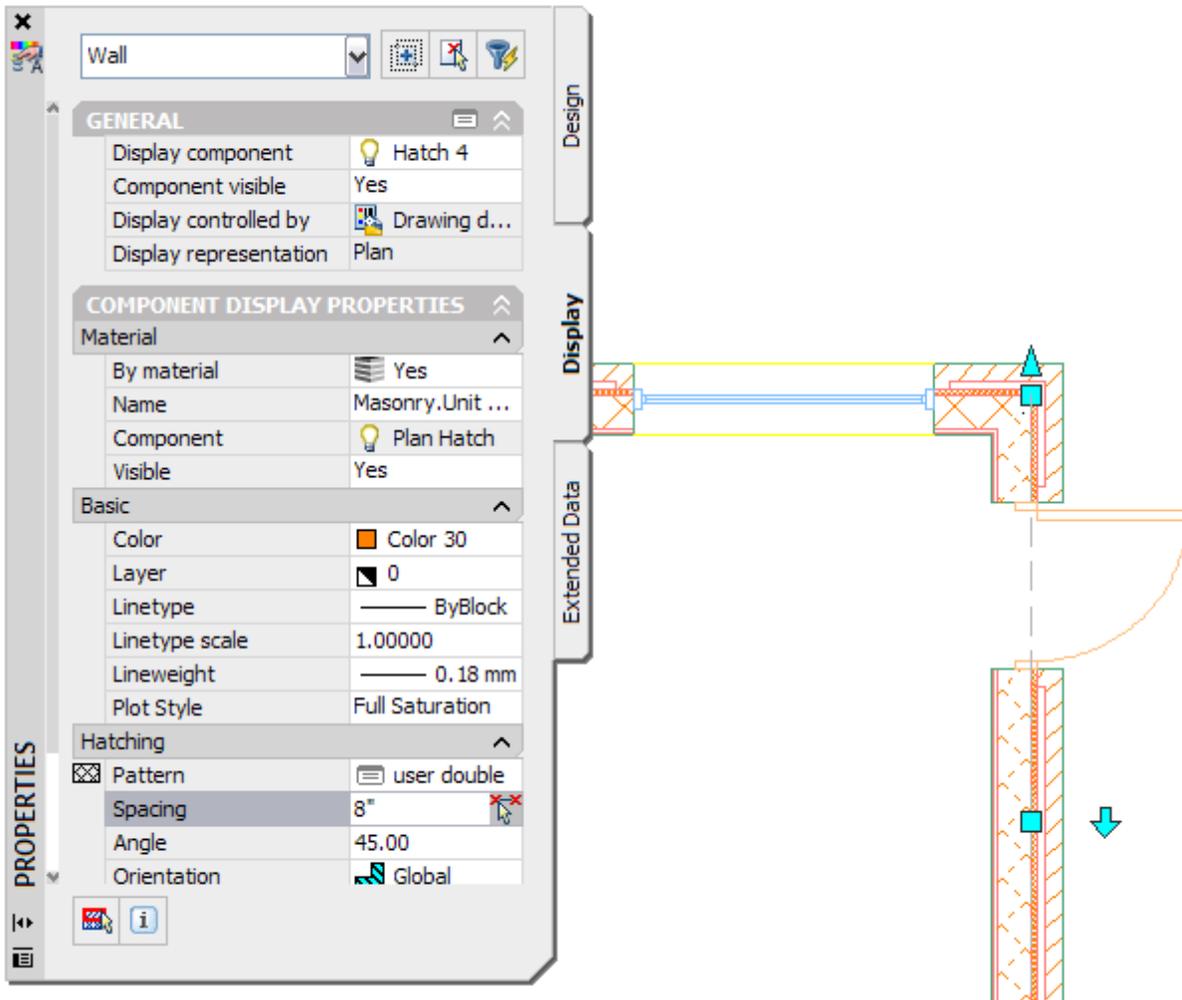
Many users are beginning to use the updated MasterFormat 2004 edition on their building design and construction projects. AutoCAD Architecture now provides content, detail components and keynote databases that are configured for The Construction Specifications Institute's MasterFormat 2004.

Graphical Editing

Display Modification

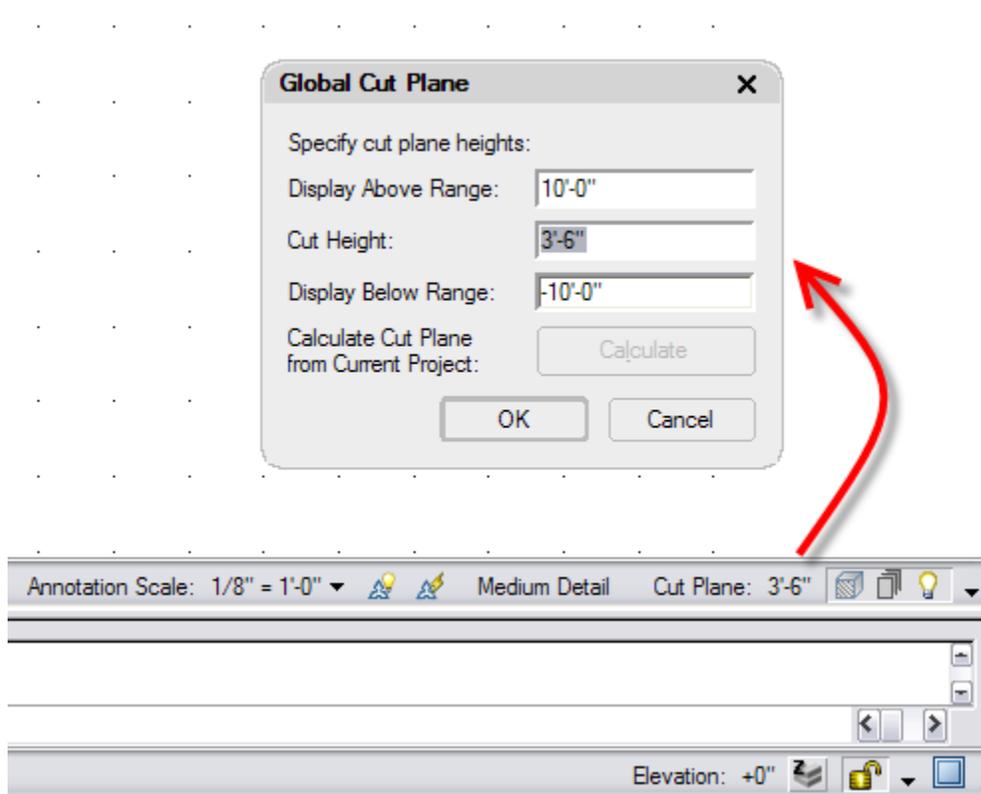
A long time frustration for customers was the complexity of the Display System and the multiple dialogs one had to traverse in order to change a display property. The new Display tab in the Properties Palette provides direct graphic feedback after modification of an object or its components, reducing the steps need to change graphic appearance, leverage a similar interaction with the basic AutoCAD objects, and reduces mystery and unexpected results of working with objects.

This major overhaul of the user interface is available for all objects in AutoCAD Architecture that are controlled by the display system.



Global Cut Plane Discoverability

Cut plane is a basic concept in architectural drafting; it determines what to display on the plan. In previous releases, changing the global cut plane entailed opening the Display Manager, picking the right display configuration, switching to the Cut Plane tab and then finally changing the setting. In This release, the current cut plane setting is displayed heads-up on the drawing window status bar. By simply clicking on the value, you can quickly change the height without having to open the Display Manager.



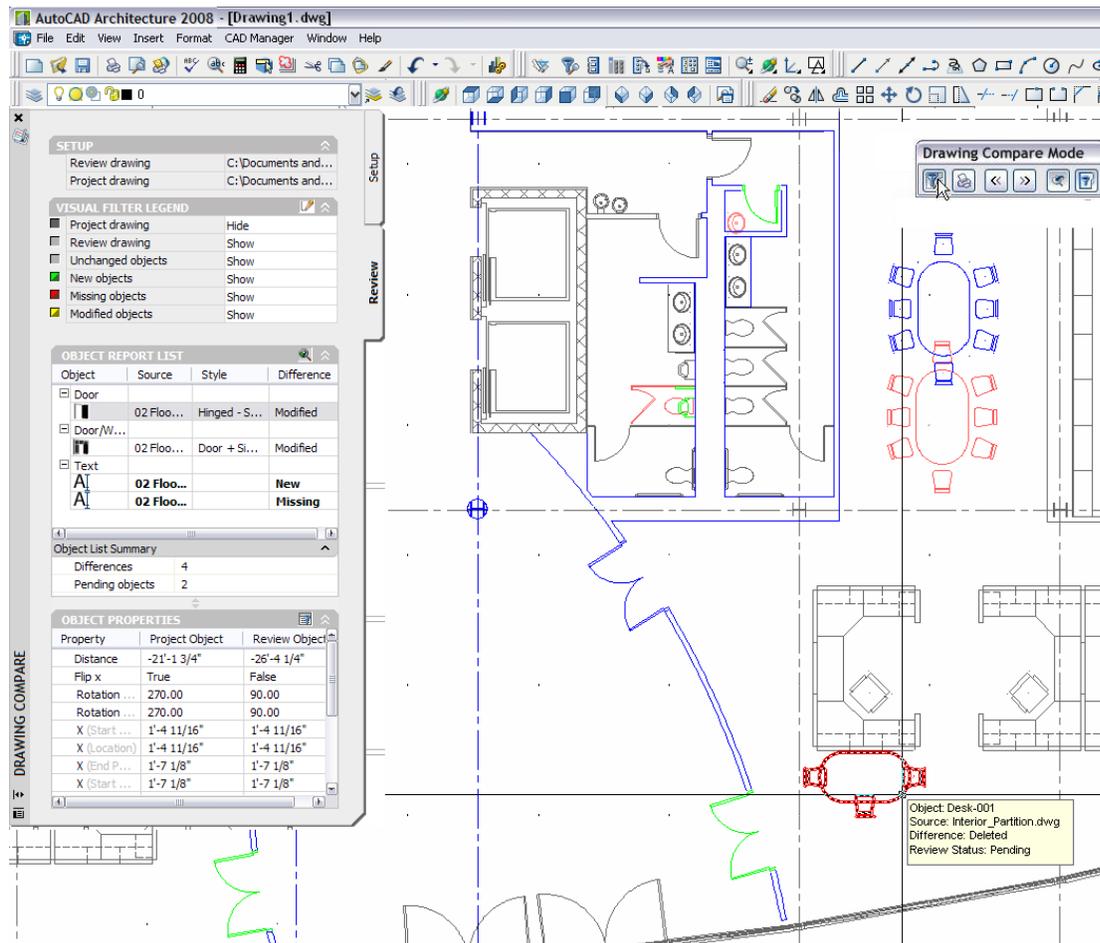
Project Workflow

Drawing Compare for Subscription Customers

The Drawing Compare feature will allow you to:

- Visually compare versions of drawings
- Compare by object properties
- Dwg-to-dwg or an entire Xref'd hierarchy
- Compares against AutoCAD® Architecture structural members exported from Autodesk® Revit Structure

This new feature is a reviewing tool and will not merge or update the drawings being compared.



Project Navigator Enhancements

Several user wish lists have been incorporated into the Project Navigator this release.

Views Control Sheets

One huge requests from users was the ability to have Views drive the display in Sheets, so that initial setup, but also changes to layer settings in a View drawing are automatically reflected in the Sheet they exist on. By selecting an option in the Project Setup dialog, changes in a View drawing's layer display carry over to its corresponding Sheet View layer display. The Sheet View layer states will resolve to and display the same as the layer states in the View drawing.

Layer States and Overrides

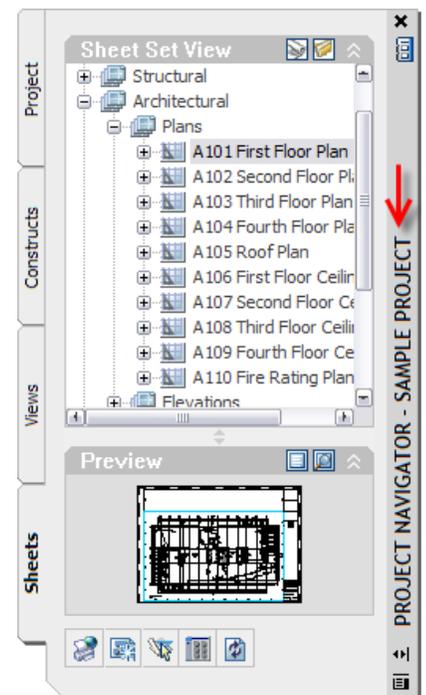
In This release, Layer Snapshots found only in AutoCAD Architecture, are now combined with Layer States from the AutoCAD platform, simplifying the overall toolset.

Additionally, you can move and hide columns in the Layer Properties Manager to control the information displayed in it. Several new columns provide information and control over additional layer properties and overrides that can be assigned to layout viewports. The Layer States Manager, which you can now access outside of the Layer Properties Manager, provides powerful features for managing and editing saved layer states.

You can also display objects differently in selected layout viewports while retaining their original layer properties in model space and in other layout viewports. With layer property overrides, you no longer need to use tedious and error-prone methods such as duplicating geometry on separate layers or making copies of xrefs. Instead, you can use the Layer Properties Manager to set overrides for color, linetype, lineweight, and plot style for each layout viewport.

Launch Project from APJ and Other Customer Requests

Among several of the small customer requests, you can now launch a Project Navigator project by double clicking on the .APJ file from within Windows Explorer or a shortcut created on your desktop. Another is to see the current project in the Project Navigator.

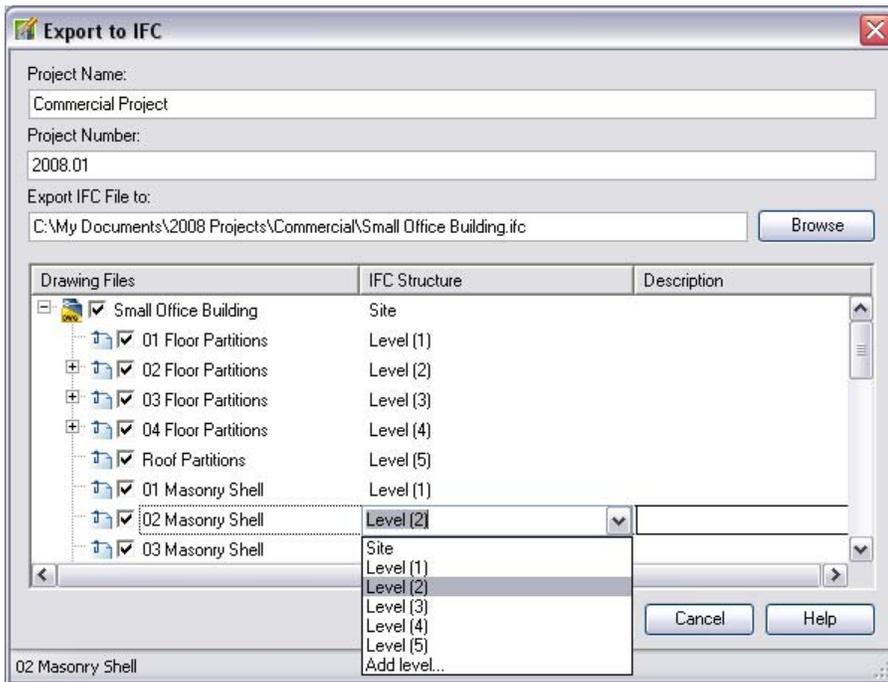


IFC Import/Export

AutoCAD Architecture is now IFC-certified for importing and exporting version 2x3 IFC files. IFC files from versions 2x2 and 2x can also be imported if the data is compatible with 2x3 and is consistent with implementation agreements as defined for the IFC 2x3 coordination view.

The Industry Foundation Classes (IFC) file format provides an interoperability solution between different software applications. It complies with established, international standards for importing and exporting building objects and their properties.

You can export the drawing using the IFC format to an IFC-certified application that does not use the DWG file format, and the drawing can be opened and worked on in the non-native application.



Likewise, you can import an IFC file, create a DWG file, and work on that drawing in AutoCAD Architecture.



Visualization

With AutoCAD® Architecture 2007, the Mental Ray rendering engine replaced the core rendering capabilities of AutoCAD, and therefore AutoCAD Architecture. With AutoCAD Architecture 2008, the work has continued on this core rendering environment with the goal of building the most needed capabilities used in VIZ Render into the main AutoCAD Architecture workspace. This now provides a single in-process rendering environment for creating highly photo-realistic renderings, based on real-world photometric indoor & outdoor lighting, procedural materials, more robust material editing, and inherent interoperability with AutoCAD and the AutoCAD family of products.

Photometric Lights and Luminaries

You can use photometric light sources to illuminate scenes for more physically correct rendered images. With photometric light sources, you can specify real-world values. For example, if you need to use fixtures with 75-watt light bulbs, you set the light source to 75 watts.

Procedural Maps and Advanced Lighting

With additional procedural maps and advanced lighting overrides for materials, you can achieve more realistic results than from texture maps alone. Advanced lighting overrides let you adjust lighting parameters such as light emission, reflectance, and color bleeding for greater realism.

Plug-in Support

As Viz Render had support for various content plug-ins, such as Archvision's RPC content and Bionatics, AutoCAD Architecture now supports these content plug-ins, in addition to Simes for luminaires. Visit the Content Browser Online Plugins catalog for more information.

Global Content Out-of-the-box

The new Installer now provides the ability to support Content Packs. Country-specific content packs of template, styles, multi-view blocks, tool palette workspaces and catalogs are now available when you install the product. In the international version, you'll find UK, D A CH, Swedish, Norwegian, Finnish, and Danish content. The below rendering was created with the content provided out-of-the-box with the Norwegian content.



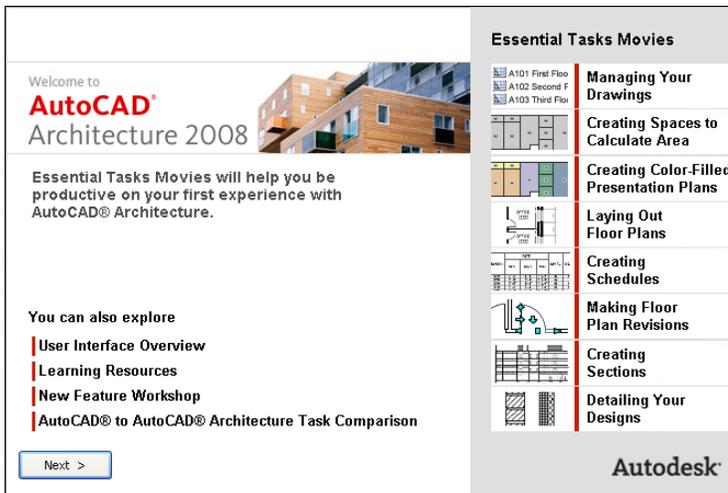
Additional Improvements

Structural Member Trim Plane During Edit

Another customer wish list to compliment the grip editing enhancements added in the 2006 release, this provides a member style setting to control the automatic updating of trim planes after grip editing members. This feature also provides an object level setting such that the individual members can override the member style automatically trim setting.

Startup Experience

This was designed to help new users to AutoCAD Architecture be productive within their first 3 hours experiencing the product, by focusing on learnability & discoverability of key concepts. Eight videos along with links to the Getting Started Guide, a User Interface Overview, the New Features Workshop and an AutoCAD to AutoCAD Architecture comparison chart.



Quality & Performance

You should also notice that this release of AutoCAD® Architecture is of very high quality, as focused attention was paid on improving performance across the product as well as continuing to address the Customer Error Reports we receive from users in the field.

And all of AutoCAD!

And of course all the enhancements that have gone into AutoCAD® 2008 are also available in AutoCAD® Architecture 2008



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