

Lynn Allen's
Top 10
Tips for
AutoCAD® 2005



autodesk®

User Interface

1

Toolbar Enhancements

New Style toolbar

This toolbar displays a drop-down list of existing Dimension, Text, and Table styles for quick changes. (**Tip:** Keep this toolbar on your screen for easy access!)

1. Right-click on any tool.
2. Select Styles from the shortcut menu of toolbars.



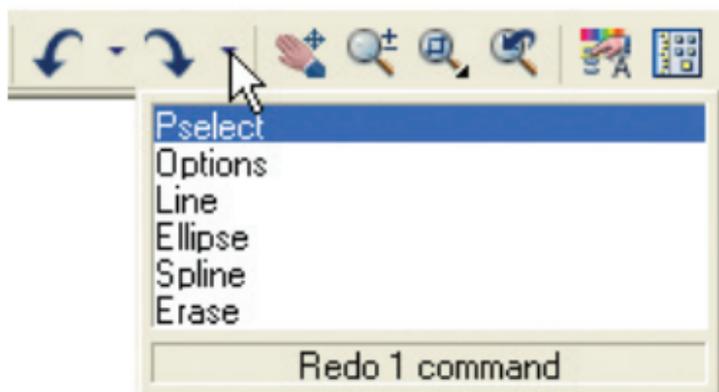
New Layers and Properties toolbars

The Object Properties toolbar is now split into two toolbars—one for layer tools, one for properties tools.

The Layers drop-down list is much wider, accommodating longer layer names (great for xrefs).

No more undoing too far

The new **Multiple Redo** can be found next to Undo on the Standard toolbar. Hit the attached arrows to drop down a list of previously undone items to redo for extra clarity.



Start new drawings faster

Selecting the New tool from the Standard toolbar now executes a speedy command called **QNEW** that starts a new drawing, no questions asked!

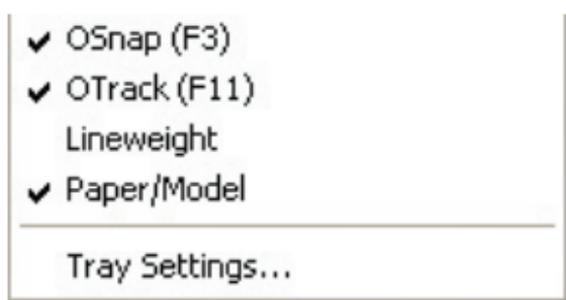
1. Set your default template file in the Options dialog box, Files tab.
2. Select the New tool. This will automatically use the default template file to start a new drawing.

If you want to use a different template file, key in the **NEW** command or change the default template file.

Setting Up the User Interface

Customize the status bar

1. Right-click on the status bar.
2. Toggle on/off those settings you'd like to display.



Transparent Command Line

- Make your floating command line transparent by right-clicking on the command line and selecting **Transparency**.

Clear the screen of all toolbars and palettes

- Ctrl+0.

Help as you go

Use the new Info Palette to access Quick Help tips. Here you'll find easy-to-understand, step-by-step information that walks you through the new functionality of AutoCAD 2005.



- Ctrl+5 to access the Info Palette (also available from the Help pull-down menu).
- The Info Palette automatically provides information for each command you access.
- Search for specific information from the command list.
- You can lock the Info Palette to keep it from changing while you follow a specific procedure.

UI Time-Savers

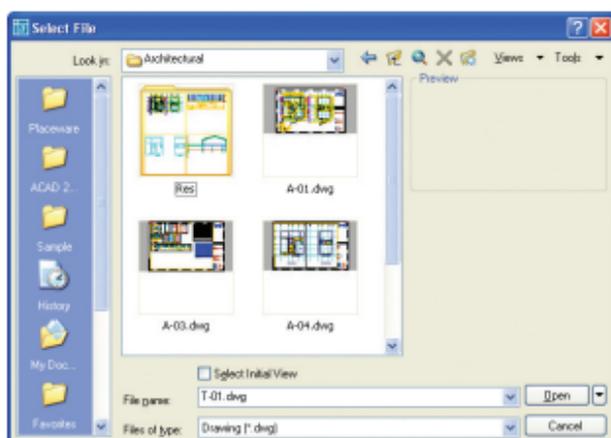
Quick Switch between drawings

When multiple drawings are open, each drawing will display as an icon on the Windows taskbar. To switch drawings, simply select the drawing icon (be sure TASKBAR is set to 1).

Quick Switch between layouts

Use Ctrl+Page Up and Ctrl+Page Down to navigate through your layouts.

The Open dialog box can now display thumbnails, making it a snap to find your drawing files quickly. You can also add your most frequently used directories to the Places list on the left for quick access; just right-click on any folder.

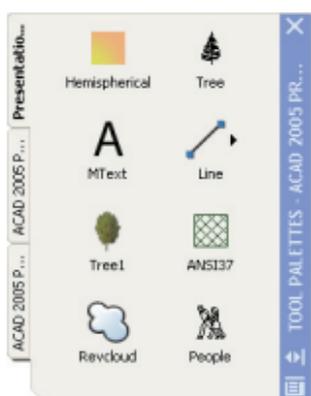


Palettes

2

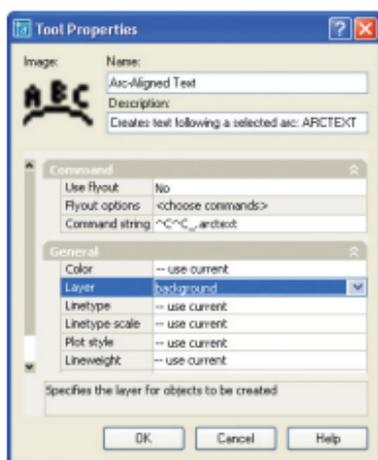
Tool Palettes

Tool palettes can be customized to contain your most frequently used blocks, hatch patterns, images, solid and gradient fills, macros (including LISP and ARX routines), and command tools. These become even more powerful when you assign specific properties such as layer, scale factor, rotation angle, etc. to each tool.



Customizing the Tool palette using DesignCenter

1. Display Tool palette by pressing Ctrl+3 or by selecting from the Tools menu.
2. Open DesignCenter™ and drag blocks, xrefs, images, and hatch patterns one by one to the Tool palette. Or right-click on any drawing name in DesignCenter to create a new tab that contains all the content within the drawing.
3. Right-click on the block tool and select **Properties** from the shortcut menu to set up the various parameters.



Creating Tools from existing objects

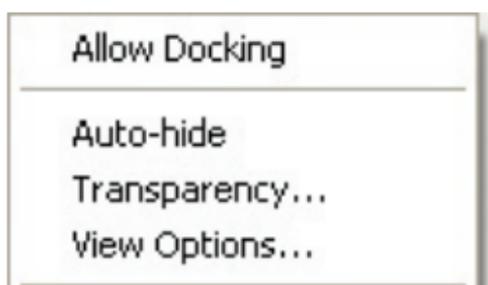
1. Select the object.
2. Drag and drop the object onto the palette (the tool will land where the black line is displayed).
3. The command, properties, and style (where applicable) are now accessible from the palette (great for dimensions, text, etc).

Creating a command tool (including macros)

1. Right-click on the Tool palette title bar and select **Customize**.
2. Drag and drop the desired command from the Command tab to the Tool palette.
3. You can also drag and drop buttons from existing toolbars (great if you have highly customized toolbars).

Additional Tool palette features

1. Right-click on any tool and select **Properties** from the shortcut menu to set up the various parameters for each tool.
2. Control the transparency of the Tool palette by right-clicking on the palette (not on a tool) and selecting **Transparency** from the shortcut menu.



3. Control the display and size of the icons by selecting **View Options** from the shortcut menu.
4. Save your tool palettes to disk as an XTP file for others to import using the **CUSTOMIZE** command. You can also organize your tool palettes into specific groups for faster access.
5. When inserting a block, you can now change the scale and rotation angle from a shortcut menu or set the properties to always prompt you.

Note: You can disable the ability to customize the toolbars and tool palettes by setting **TBCUSTOMIZE** to 0.

DesignCenter and Properties Palettes

- A nifty new DesignCenter tab has been added, called DesignCenter Online. This tab provides access to thousands of existing library symbols (assuming you have an Internet connection). Why reinvent the wheel?
- Block attributes are now displayed for easy editing in the Properties palette.
- The Pickadd Button in the Properties palette has been moved, to help you avoid accidentally selecting it when exiting.

Auto-hide your palettes for more design room

- Turn on Auto-Hide to automatically roll up tool palettes, Info, DesignCenter, and the Properties window when not in use. This saves valuable screen real estate.



- Use the same procedure to pin them open for extended access.

Sheet Sets

3

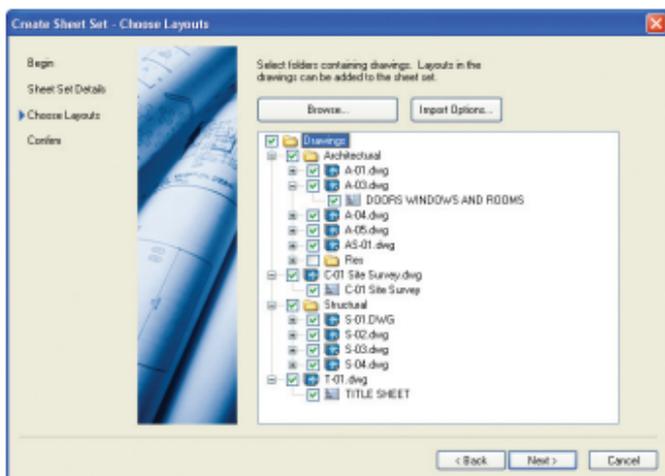
Sheet sets have been added to AutoCAD 2005 to help you better organize your drawing files. You can combine the sheets in any order, even group them into subsets. Sheet sets make it easy to publish, archive, and eTransmit your project files.

Sheet Set Basics

- Each drawing sheet points to one layout.
- You can create several sheets from a drawing with multiple layouts.
- It's easy to add, remove, and renumber each sheet.
- Though the drawing files may come from many different locations, the Sheet Set Manager will keep track of them all for you.
- Multiple users can access and edit a sheet set at the same time, but only one user can edit the same sheet.
- Each drawing can belong to only one sheet set.

Creating a Sheet Set

1. Open a drawing file.
2. Access the Sheet Set Manager (SSM) from the Tools menu or by pressing Ctrl+4.
3. Select **New Sheet Set** from the Files menu or from the Sheet Set Manager drop-down list.
4. This will take you to the Create Sheet Set wizard.



Create Sheet Set wizard

Use the Create Sheet Set wizard to set up the parameters for your new sheet set. Here you will

- Choose to use an existing sheet set as an example, or define your own from existing drawings.
- Choose the name and location for your new sheet set (extension of *.dst*).
- Assign any specific properties such as template file, callout block, client name, and so on.

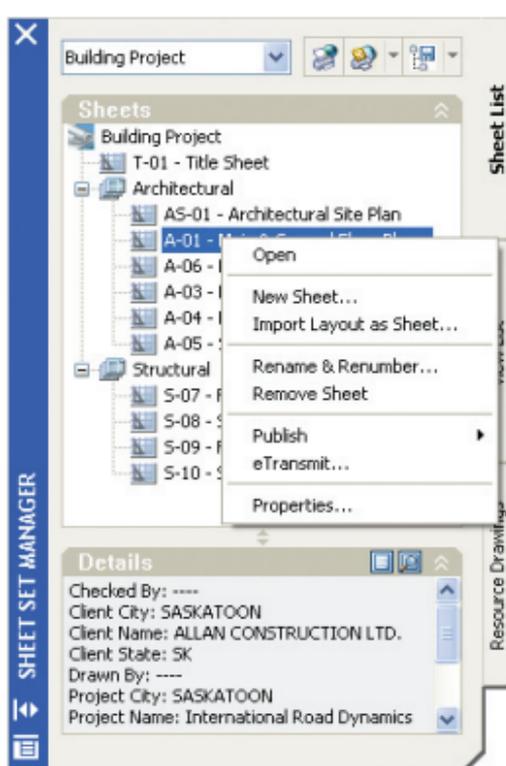
Adding Sheets

Adding new sheets from existing layouts

1. Right-click on any sheet and select **Import Layout as Sheet**.
2. Select the drawing name and the layout(s) you'd like to import.

Adding new sheets from scratch

1. Right-click on the sheet set title or any sheet and select **New Sheet**.
2. Provide a sheet number and title.
3. Select the desired template file (if prompted).
4. The new sheet is added to the set and a new drawing file has been created.
5. You can proceed to design as usual in your new drawing sheet.



Importing existing model space views into sheets (Sheet Views)

Even if you don't use paper space layouts, you can take advantage of sheet sets. It's easy to place your model space drawings and views into an existing sheet.

1. Go to the **Resource Drawing** tab in the Sheet Set Manager.
2. Select **Add New Location** and add your drawing directory (or directories).
3. All drawings and any existing named drawing views will display.
4. Right-click on the drawing file, or view and select **Place on sheet** (or drag and drop).
5. Drag the view into place, then right-click to select a specific scale.
6. The view is added and the drawing is now xref'd into the sheet.

Note: You can assign specific properties to any sheet by selecting **Properties** from the shortcut menu.

Sheet Sets

3

Sheet Views

Use the **Sheet Views** tab to

- Rename and renumber your sheet views.
- Add a view label or callout block to a sheet.
- Group the sheet views into categories and assign different callout blocks to each view category.



Tip: As you go forward with your drawings and sheet sets, you might find it useful to restrict each drawing file to one layout—since only one person can edit a drawing at a given time.

Organizing Sheets

You can reorder, rename, and remove any of your existing sheets from the sheet set shortcut menu.

You can also create subsets of sheets for further organization purposes.

Note: Removing a sheet does NOT delete the DWG file.

Creating a Sheet Index

AutoCAD 2005 will now automatically create a sheet table. You can quickly go to any sheet listed in the table by clicking the hyperlinked sheet name.

1. Right-click the title sheet and select **Insert Sheet List Table**.
2. Indicate a table style.
3. Place the sheet list table in the drawing.

Updating the Sheet List Index

Right-click on the table and select **Update Sheet List Table** from the shortcut menu.

Sheet Index	
Sheet Number	Sheet Title
T-01	Title Sheet
AS-01	Architectural Site Plan
A-01	Main & Second Floor Plans
A-06	Exterior Elevations
A-03	Doors & Windows
A-04	Reflected Ceiling Plans
A-05	Sections and Details
S-07	Foundation Plan
S-08	Structural Sections and Details
S-09	Floor Framing Plan & Sections
S-10	Structural Sections

Tables

4

No more drawing grids by hand! AutoCAD 2005 has added a new intelligent TABLE object that will eliminate tedium and save you time.

Creating Tables

Just as you do with dimensions and text, you first set up your table style in the Table Style dialog box.

1. Select **Tablestyle** from the **Format** menu.
2. Select **New** to create a new table style.
3. Set up your table style to reflect your needs, such as table direction, text height, alignment, border properties, and so on.

Now you're ready to create your table

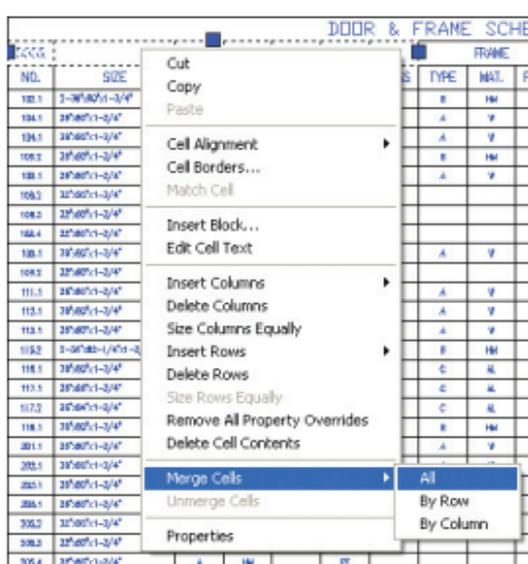
1. Select **Table** from the **Draw** menu.
2. Select your table style.
3. Indicate the number of rows and columns.
4. Input specific column width and row height, or let AutoCAD determine it by the table size.

Populating tables

In-place editing makes it easy to fill in the cells.

- The Tab and arrow keys move across cells.
- Double-click a table cell to enter text using the MTEXT editor.
- You can also insert fields and symbols from the shortcut menu.
- Clicking in a table cell permits you to insert a block from the shortcut menu.
- Clicking also allows you to merge cells, add and delete rows, and so forth.

You can use grips to modify the table location, column width, and row height.



Accessing Tables from Excel

1. Copy Excel table data to the clipboard.
2. Select **Paste Special** from the **Edit** menu.
3. Select **AutoCAD Entities**.
4. Place the table in your drawing.

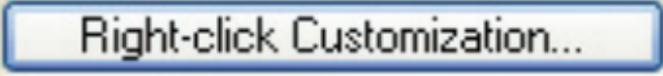
Step Savers

5

Right-Click Enter

AutoCAD 2000 introduced the right-click shortcut menus for quick access to many valuable options. Many users turned these menus off because they preferred using their right mouse button as an Enter key. Now with AutoCAD 2005 you can have the best of both worlds!

1. **OPTIONS** command.
2. User Preferences tab.
3. Right-click Customization option—turn on “time-sensitive right-click.”

A screenshot of the 'Right-click Customization' dialog box in AutoCAD. The title bar is blue with a small icon on the left. The main area has a light beige background. There is a checked checkbox for 'Turn on time-sensitive right-click:'. Below it, the text reads 'Quick click for ENTER' and 'Longer click to display Shortcut Menu'. At the bottom, there is a field for 'Longer click duration:' with the value '250' and the unit 'milliseconds'.

4. Here you can set your input device so that a fast right-click functions like hitting Enter. Holding down the button will display a shortcut menu.



New Object Snap!

The new object snap “**Mid between 2 points**” eliminates the need to create construction lines. Access it from the right-click OSNAP menu or by keying in **M2P**.

New Zoom option

The new Zoom **Object** option allows you to quickly zoom to a selected object.

Editing Step Savers

The **Copy** command now defaults to Multiple copies (hoorah!).

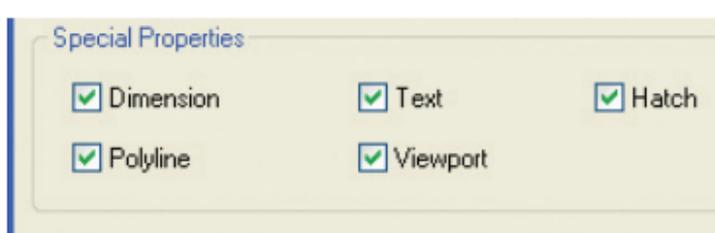
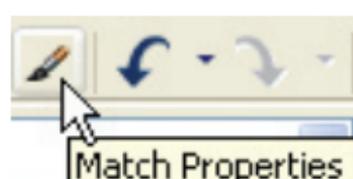
DDEDIT now works on both text and attributes (so you don’t even have to know which is which).

Fillet and **Chamfer** have a new Multiple option to repeat.

Remove an extra step in PEDIT (Polyline Editing)

- Setting the new system variable **PEDITACCEPT** to 1 will eliminate the needless question “Object selected is not a polyline, do you want to turn it into one?”

MATCHPROP now supports additional settings for polylines and viewports. This makes it possible to match such features as polyline widths and viewport scale factors.



QSELECT has a new drop-down list for block names, giving you easy access.

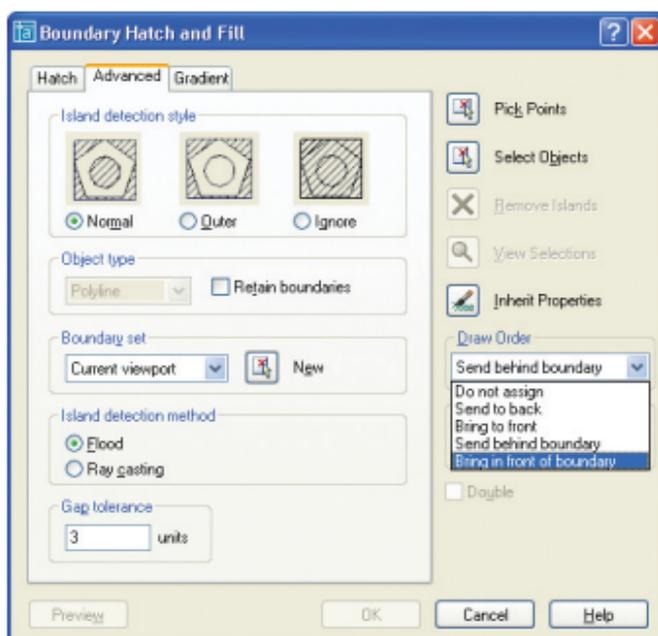
Hatch Step Savers

New DRAWORDER Setting in BHATCH

The new updated Boundary Hatch command has an option to control the draw order of the hatch object. By default, the hatch pattern will be drawn behind the boundary, making it much easier to select the boundary for editing purposes.

Hatch an area even if there's a gap!

The new Gap tolerance option in the Boundary Hatch command allows you to instruct AutoCAD to hatch an area, even if it's not completely closed. Simply specify a suitable gap tolerance value for your drawing. Think of all the steps this will save!



Draworder Step Savers

- No more regenerating your drawing to see the results of the **DRAWORDER** command.
- If you create a new object based on an existing one, the **DRAWORDER** properties are also inherited (including copy, fillet, explode, etc.).
- **DRAWORDER** now has a better memory! It will remember the display order every time you leave the drawing and return (super important with xrefs).

Express Tools

6

Now nearly 100 Express Tools come with AutoCAD. After loading them from the CD, you should find the Express Tools menu and toolbars displaying in the drawing editor. If not, enter **EXPRESSMENU** on the command line.

Layer Tools

Layer Walk (LAYWALK)

LAYWALK stairsteps through your layers, displaying the objects on each layer individually.

Layer Delete (LAYDEL)

Ever have that one layer that just won't purge no matter what you do? **LAYDEL** is happy to delete any layer for you (except layer 0 and defpoints), no matter what objects are on it—even if that layer is referenced in a block!

Layer Merge (LAYMERGE)

Use to combine two layers into one. Great for combining xref'd layers with your current ones.

Layer Isolate (LAYISO)

Use to quickly turn off all the layers except for the selected layer. Use Layer Previous (**LAYERP**) to turn them all back on.



Paper Space Tools

Change Space (CHSPACE)

Use to push objects from one space to another (paper space to model space or vice versa) while maintaining the objects' appearance.

Align Space (ALIGNSPACE)

Use to line up objects within a viewport (model space) with objects outside a viewport (paper space). This modifies the viewport scale factor as needed—very useful if a misplaced zoom or pan occurs.

Edit Tools

Flatten

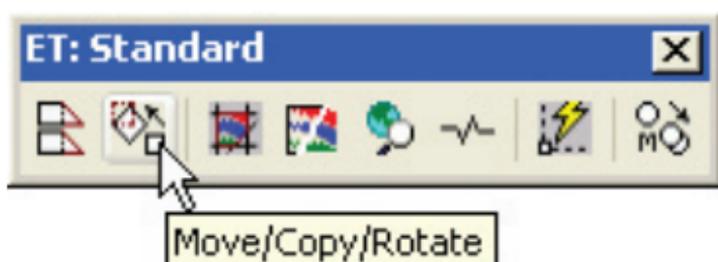
Use to convert 3D geometry to 2D geometry.

Overkill

Use to delete duplicate objects and to combine line and arc segments that overlap. Also use to remove excess vertices in polylines.

Move Copy Rotate (MOCORO)

This Express Tool is a combination of three frequently used editing commands, for maximum productivity.



Burst

Exploding a block with attributes converts the text back to the attribute definitions. This tool retains the actual text assigned to the block.

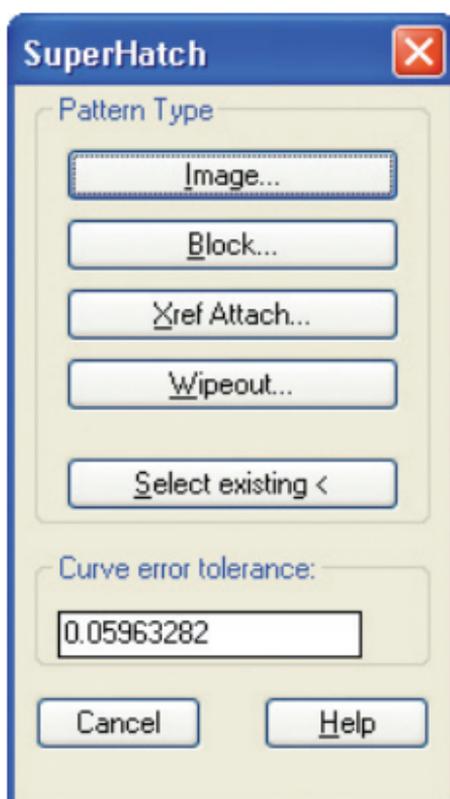
Reset Dim Text Value (DIMREASSOC)

Takes dimension text that has been overridden or modified and changes it back to its actual value. After you select the desired dimensions, those not displaying their true value will be highlighted.

Other Favorites

Super Hatch

Making your own hatch patterns from scratch can be a bear. **SUPERHATCH** works like the **HATCH** command, but it allows you to use an image, block, xref, or **WIPEOUT** object as a hatch pattern. Now you can draw your own hatch pattern, save it to a block, and then use **SUPERHATCH**.



Real Time UCS (RTUCS)

If you are using AutoCAD for 3D, be sure to take advantage of this great Express Tool that dynamically displays the UCS as you change it.

EDIT TIME (new to AutoCAD 2005)

Want to keep track of your actual drawing time (and billable hours)? **EDITTIME** to the rescue!

Export and Import Attribute Information

ATTOUT and **ATTIN** allow you to send bidirectional attribute information out or back in to the drawing.

Annotation Tricks

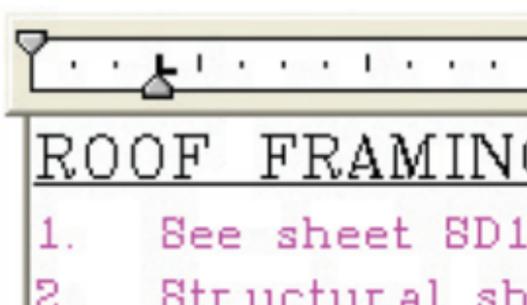
7

MTEXT

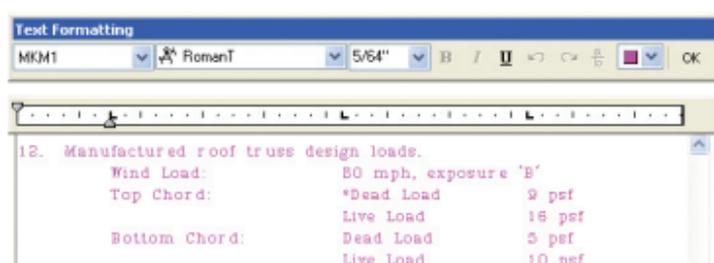
True WYSIWYG...what you see is what you get!

The new updated **MTEXT** editor gives you the look and feel of in-place text creation and editing. No more guessing games—it's clear what your final text output will look like.

- Tabs and indents have been added. Simply click on the ruler bar to set your desired tab settings.



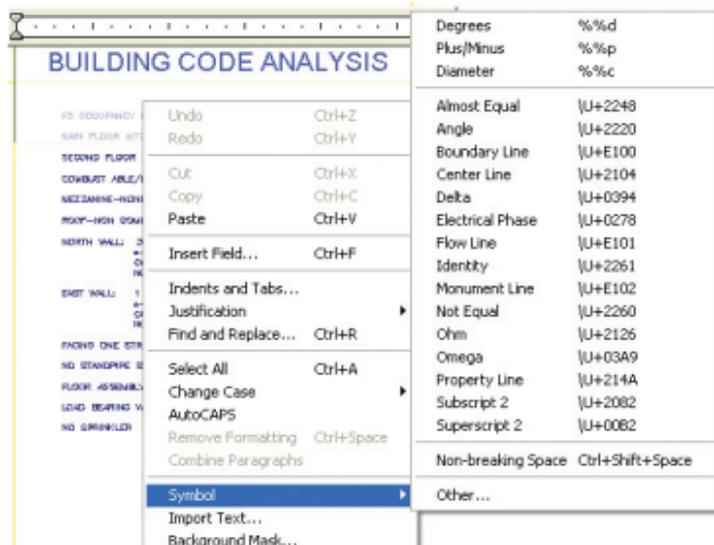
- Control paragraph width by sliding the end of the ruler bar.
- You can see through the MTEXT editor to the drawing so it's very clear where the text is landing.
- Word documents with formatting come in seamlessly. Just copy the document to the clipboard and paste into the MTEXT editor.
- Need to change your text to uppercase? Highlight the desired text (or use Ctrl+A to select everything), right-click, and select Change Case>Upper from the shortcut menu.



Symbols

Now you can easily add 15 popular symbols (such as angle and centerline) to your MTEXT.

1. Right-click in the MTEXT editor.
2. Select **Symbol**.
3. Select the symbol you wish to insert.



Display Controls

Text Background Mask

The new background mask option makes it easy to see your text when it

sits on top of other objects.

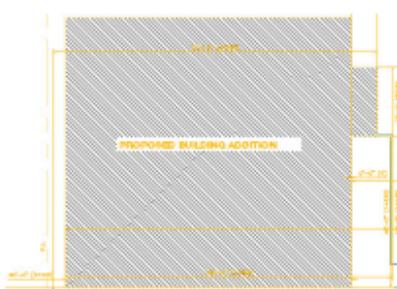
1. Right-click in the MTEXT editor.
2. Select **Background Mask**.
3. Choose the opaque fill color (may use background) and the width around the text to cover.

Note: You may also use **Properties** to add a background mask to MTEXT objects.

Dimension Text Background Mask

Place a background mask on your dimension text in the DIMSTYLE command.

1. Text Tab.
2. Set the Fill Color.



New Draworder controls for Text and Dimensions

The new **TEXTTOFRONT** system variable allows you to bring all your text or dimensions to the front of all the other objects.

OLE Objects

Many improvements have been made to object linking and embedding. A few of them are

- New Insertion point option for OLE objects
- Now Inserts on the current UCS
- More predictable scaling (based on drawing scale)
- **MSOLESCALE** system variable for additional scale factor control
- Select and edit OLE objects using standard AutoCAD commands (including grips) and Properties
- New OLE Plot Quality options in the **OPTIONS** command (Plot and Publish tab)

Express Tool Text Tricks

Text to MTEXT

Now that the **MTEXT** command is so powerful and easy to use, why not convert those old individual text strings to paragraph text with the **TEXT to MTEXT (TXT2MTXT)** Express Tool? Then it's a breeze to add or remove words while keeping a consistent paragraph width.

Remote Text

Imagine text that acted like an xref. That's exactly how **Remote Text (RTEXT)** works. The text appears like an ordinary text or Mtext object, but it's really referencing an outside file. As the external file is updated, so is the **RTEXT** within the drawing file.

Productivity Tips

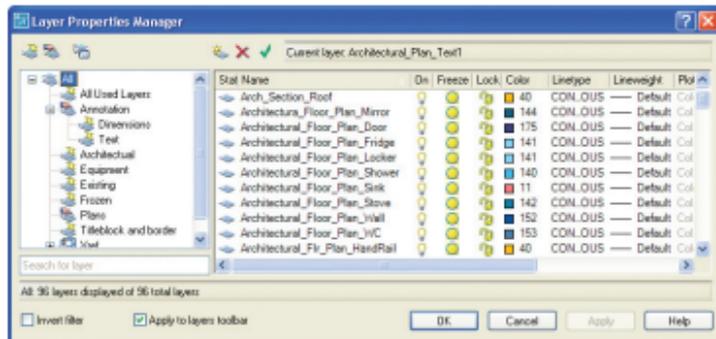
8

Layers

AutoCAD 2005 has added several layer enhancements to the new Layer Properties Manager to help you organize and manage your layers more efficiently.

User Interface changes

- Right-click on a column heading to maximize the column.
- Click the new Apply button to immediately apply layer changes.
- There is a new column for layer description.
- The new Status column displays whether a layer is current, used, or unused.
- Filters are added to control the list of layers that display in the Layer Properties Manager.
- The new Filter Tree view displays existing filters.
- Xref layers are automatically filtered.



Property Filters

As you did with the previous Named layer filter dialog box, you have the ability to filter out any layer property such as visibility, color, name, and so on. Say you'd like to display all the layers that start with "Text" that are the color red.

1. Select the New Property Filter icon.
2. Name the new filter list.
3. Indicate the desired filters.
4. The list provides a preview update as you assign filters.
5. When finished, the new filter appears in the Filter Tree view for quick access.

Group Filters

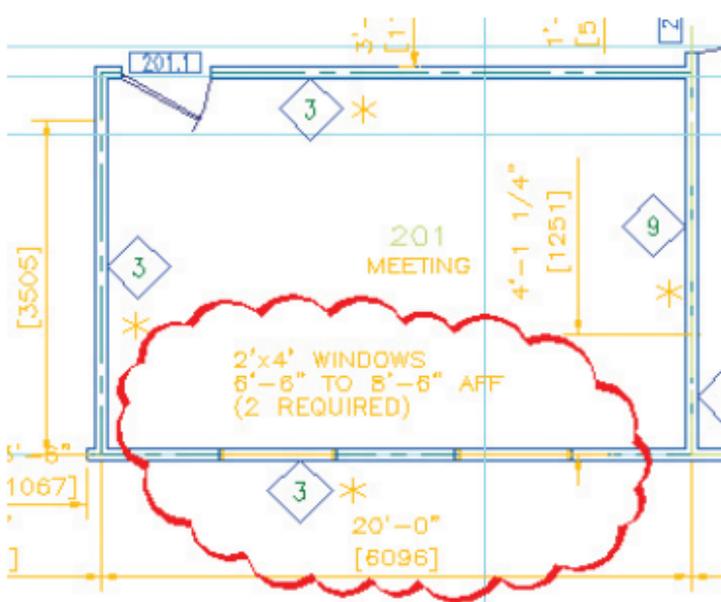
Many requests have been made of Autodesk to divide layers into specific layer categories. Done!

1. Select the New Group Filter icon.
2. Name the new filter.
3. Display all layers by double-clicking on All.
4. Drag and drop the layers you want to be added to the new filter, or choose Select Layers>Add from the shortcut menu to select objects from the drawing. AutoCAD adds the object layers to the group.

Miscellaneous Tips

Revision clouds

Designers like to use Revision clouds to clearly point out changes to a drawing. Use the **REVCLOUD** command to create a cloud-shaped object out of sequential arcs with a user-defined width. The new Calligraphy option makes it look even more authentic.



Zoom to Object

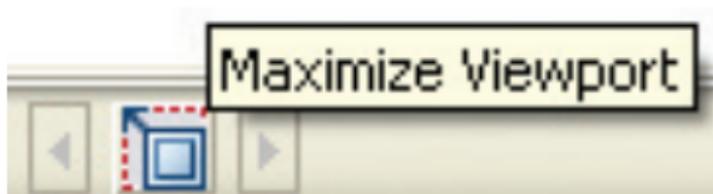
Quickly zoom to the extents of one or more objects by selecting the new **Object** option in the **ZOOM** command.

Maximize a Viewport

While in a paper space layout, you can automatically maximize a layout to work on your model space drawing, using the entire drawing area. Doing so won't modify the scale factor in any way.

1. Select the viewport.
2. Click the **Maximize Viewport** button on the status bar.
3. Work on the viewport—pan and zoom won't change the scale factor.
4. The layer settings remain the same as those assigned to that viewport.
5. Click the **Minimize Viewport** button on the status bar.
6. AutoCAD will return you to the same view you had before maximizing the viewport.

Note: You can also use the Maximize/Minimize buttons on the status bar to get the same results.



Trim to Hatch

The **Trim** command now works on hatch patterns (neat!).

Publish

9

Publishing (Without Sheet Sets)

Printing one layout or drawing at a time

You'll find the new Plot dialog box easier to use than ever.

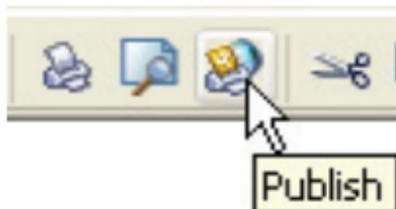
Plot offset

The **PLOTOFFSET** variable controls whether the plot offset is relative to the printable area (value of 0) or to the paper's edge (value of 1).

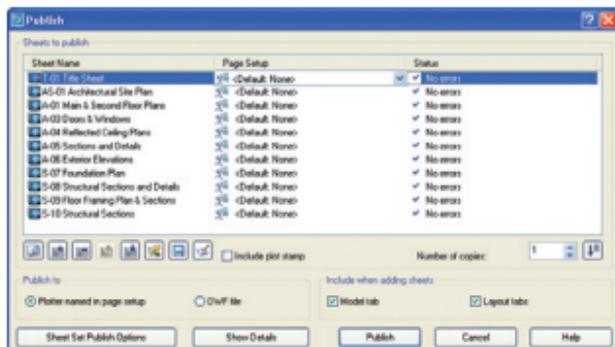
Printing multiple layouts and drawings

The **PUBLISH** command makes it a snap to share your data with anyone—even if they don't have AutoCAD! You can publish to hard copy or to DWF™ (Design Web Format™) format, which supports multiple layouts and multiple drawing files within one small, compact file.

1. Execute the PUBLISH command.

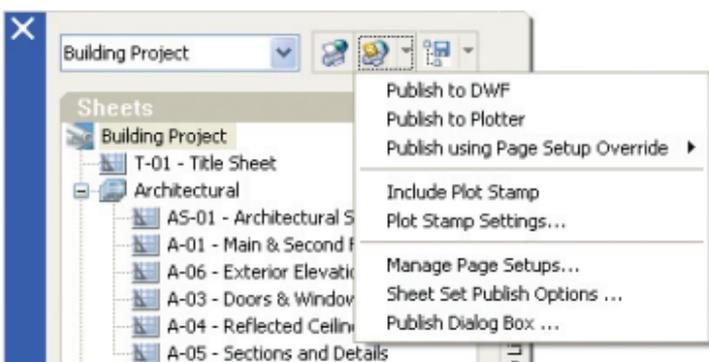


2. Add or remove sheets as needed (including layouts from other drawing files).
3. Assign the proper page setup where needed by selecting from the drop-down list (page setups will be used to determine the final published outcome for the sheet).
4. Reorder as needed.
5. Add a Plot Stamp if you wish.
6. Save to an external file (.dwd format) for future use if needed.
7. Output to a hard copy by selecting the "Plotters named in page setups" option (similar to batch plot).
8. Output to a DWF file that anyone can view by selecting the "DWF file" option. Password-protect the DWF file if you wish in the Publish Options dialog box.



Publishing with Sheet Sets

AutoCAD 2005 allows you to publish an entire sheet set with just a couple of clicks. The currently assigned page setups will be used for each sheet. You can also print the sheets individually by selecting the sheet, right-clicking, and selecting **Publish to Plotter** in the Sheet Set Manager. The shortcut menu provides additional options to make sure you get the perfect plot!



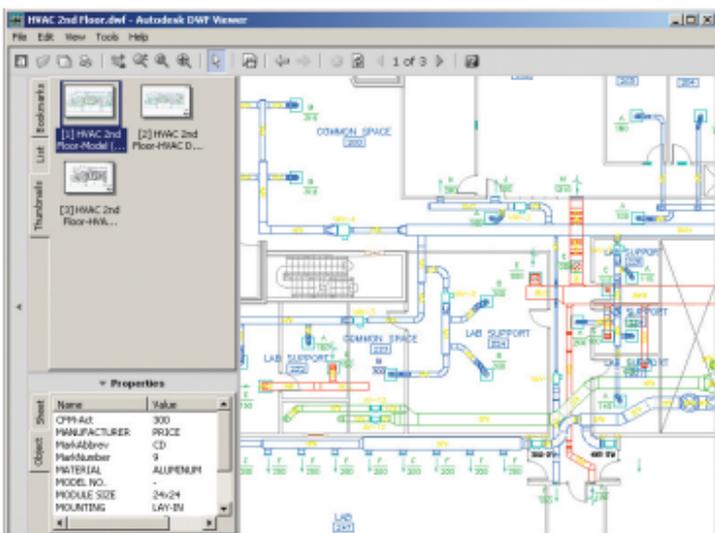
Background Printing

AutoCAD 2005 now supports background printing so you can continue designing while plotting. It alerts you when printing is finished and provides a log file listing plot details, if desired.

View and Marking DWF Files

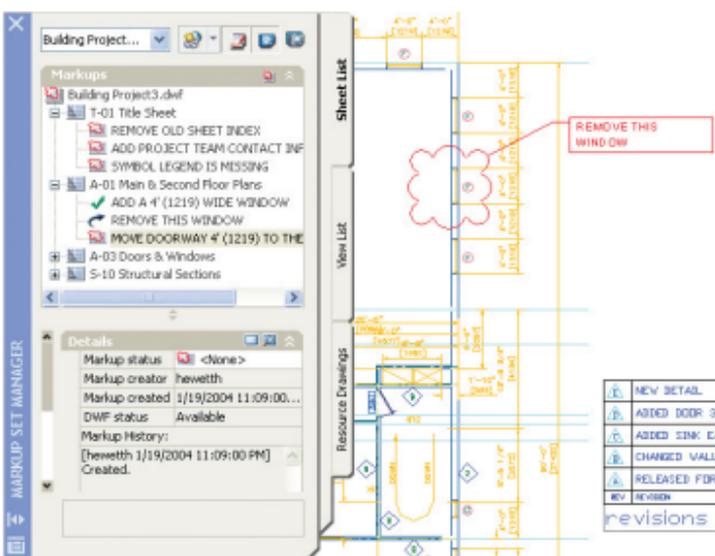
DWF files are easily viewed by the lightweight Autodesk® DWF™ Viewer. This <2 MB viewer can be downloaded free at www.autodesk.com/dwfviewer. The Autodesk DWF Viewer has the following capabilities:

- Fast viewing of all drawing sheets.
- Zooming via window, extents, or in/out, plus easy panning.
- Ability to restore saved views.
- Ability to turn layers on and off.
- Plotting to scale, with full fidelity, and with tiling if necessary.



Autodesk DWF Composer

Autodesk® DWF™ Composer takes the DWF Viewer several steps further. With it you can measure distances and areas, access markup and redlining functionality, even create a markup file that easily overlays the original AutoCAD drawing. DWF Composer automatically maintains a list of markups created as well as comments made throughout the revision process. Ensuring that modifications get done has never been easier!



Share and Protect

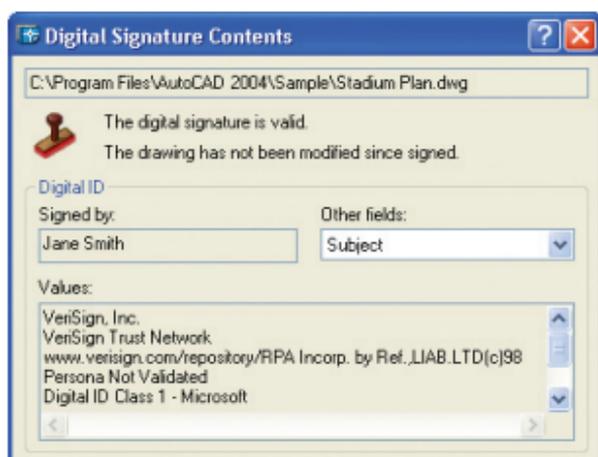
10

Digital Signatures

Digital signatures are used to electronically sign a drawing file. That way, you can be assured the file has been signed and approved and that it hasn't been modified since it was signed. Digitally signed files are read-only.

1. Purchase a digital signature for your computer (many companies provide this service). The digital signature will be saved to your `.reg` file.
2. Use the external program **Attach Digital Signatures** to select and sign drawing files.

If someone alters the drawing file in any way, a warning will be issued and the digital signature will be invalidated.



Password Protection

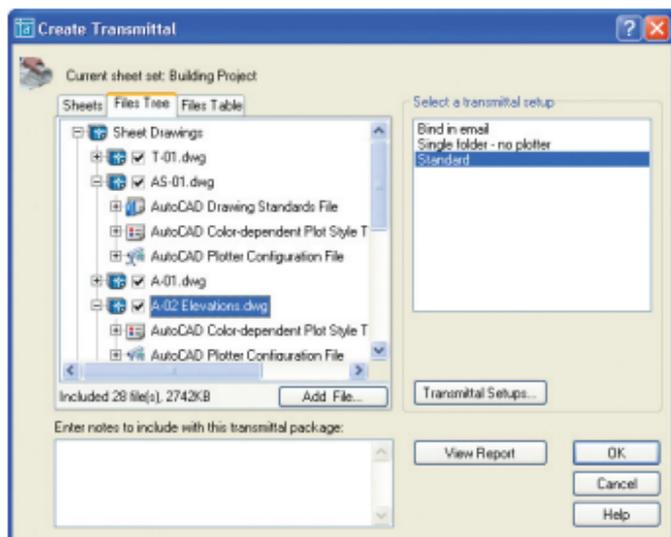
For those of you with maximum security concerns, you can password-protect your drawing files.

1. Select **Save As** from the file menu.
2. Select **Tools, Security Options**.
3. Input your password.

Warning: Be sure to save your password in a safe place, since there's no way to retrieve your password if you lose it!

Transmittal Sets

It's easy to send your sheet sets to others with the updated **eTransmit**. eTransmit packs up all the needed files to make sure your transmittal set is complete, including external references, images, text fonts, and the like.



Archiving Sheet Sets

Archiving functionality allows you to save your project data in its current state to a single file. The process is similar to creating a transmittal set with eTransmit and can be easily launched from the shortcut menu in the Sheet Set Manager.

Fields

Bonus Tip!

Fields are equivalent to “smart text” that updates automatically. Use field data for such things as dates, sheet numbers, titles, and so on.

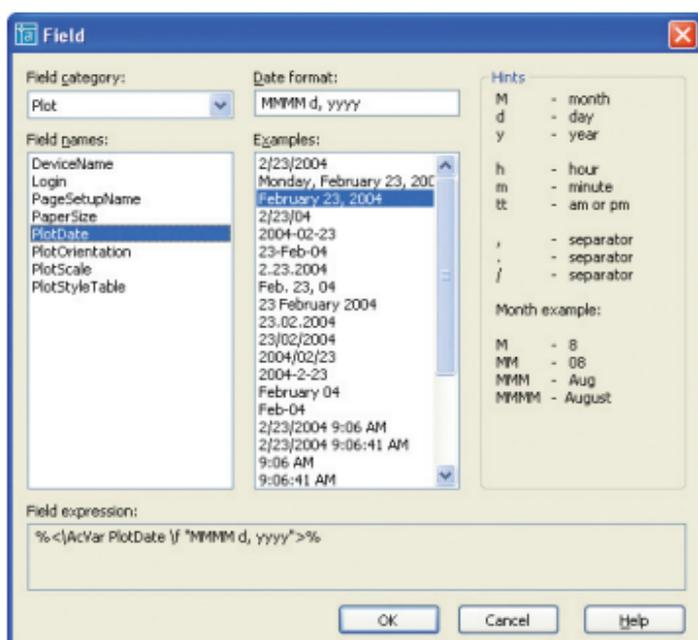
Inserting Fields

Select fields from a list of predefined fields. These fields can be inserted into text objects, attributes, or table cells.

There are three methods for inserting a Field:

1. Select **Insert Field** in the shortcut menu when prompted for text in MTEXT, DTEXT, ATTDEF, and BATTMAN. Some of these commands also have an “insert field” button.
2. Press Ctrl+F.
3. Execute the **Field** command (this will place the field as MTEXT).

Whichever route you take, simply select the field you wish to add. The FIELD-DISPLAY system variable toggles the display of a gray background for field text (intended for easy recognition of Field text).



Editing and Updating Fields

Editing

Easily edit your fields by double-clicking. The appropriate editing command will appear (DDEDIT, EATTEDIT, and the like).

Updating Fields

By default, field values automatically update when you open, save, plot, eTransmit, or regenerate a drawing. You can suppress this automatic evaluation by setting the **FIELDEVAL** system variable. You can also use the **UPDATEFIELD** command to manually update.

Lynn Allen, *Cadalyst* columnist and Autodesk® technical evangelist, speaks to more than 20,000 AutoCAD users worldwide each year. For the past 11 years she has written a monthly column in *Cadence* magazine called "Circles and Lines." Lynn started using AutoCAD software with Release 1.4, more than 19 years ago, and has taught at the corporate and college level for 13 years. She is consistently one of the highest-rated speakers at Autodesk University and is a sought-after public speaker with a unique comedic style. She is the author of *AutoCAD 2002, Inside and Out: The Best of Lynn Allen*.

You can purchase AutoCAD 2005 software through an Autodesk Authorized Reseller. To locate the reseller nearest you, visit www.autodesk.com/reseller.

© 2004 Autodesk, Inc. All rights reserved. Autodesk, AutoCAD, Design-Center, Design Web Format, and DWF are either 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.

000000000000114069

autodesk®