

AutoCAD® 2005 software provides powerhouse productivity tools that help you create single drawings as productively as possible, as well as new features for the efficient creation, management, and sharing of entire sets of drawings.

**Note:** AutoCAD 2005 introduces some new terminology, as follows: a drawing is a single DWG file; a drawing contains a layout. A layout is referenced as a sheet in the Sheet Set Manager, and a sheet set is an organized collection of sheets.

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## The New Standard in CAD Productivity

Productivity always has been and always will be a cornerstone in the profitability and viability of any industry that creates, consumes, or manages design information. With the new standard in CAD productivity from Autodesk, you have the tools you need to always go further than the competition and ensure maximum speed, power, and efficiency throughout your process.

The new standard began with the AutoCAD® 2004 software release, giving users measurable efficiency gains, like file sizes averaging 52 percent smaller and productivity increases of up to 70 percent.\* AutoCAD 2005 software builds on the dramatic productivity gains of AutoCAD 2004 with new tools that free you from tedious drafting tasks and help you efficiently manage sets of drawings. For example, enhanced tool palettes simplify and even eliminate repetitive tasks, and the Sheet Set Manager enables you to create, share, and manage entire sets of related drawings from a single location—all of which translates into better-coordinated documentation, lower risk, and higher speed and accuracy.

From creating single drawings, to managing entire sets of drawings, from sharing design information over the web, to creating compelling, graphics-rich presentations that market your work—AutoCAD and AutoCAD LT® help you go further with the new standard in CAD productivity.

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\* Measurement is a preliminary indicator based on automation testing over a controlled network. Results are approximate and are subject to error and change. Product information and specifications are subject to change without notice. Autodesk provides this information "as is," without warranty of any kind, either express or implied.

## Introducing Sheet Sets

AutoCAD users need to create, manage, and share drawing file information related to a project. Organizations using AutoCAD and AutoCAD-based products may have hundreds or even thousands of drawing files for a specific project, each having multiple layouts depicting different views or scales of project data. Most organizations manage sheet sets using a file and folder structure on local disk drives and network servers. This manual method is labor intensive and susceptible to error.

AutoCAD 2005 enables you to go beyond single drawing productivity by providing new tools that make it easier to manage entire sets of related drawings or sheet sets.

## Sheet Set Manager

### Problem

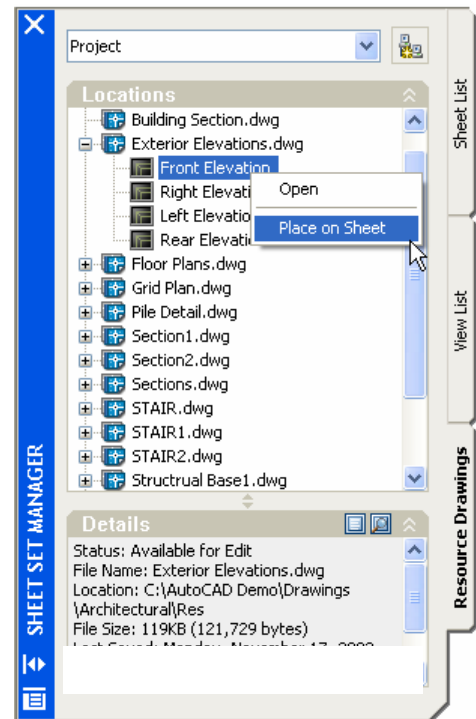
Throughout the duration of a project, team members may rotate in and out and drawing file content may change frequently. Such variables can introduce workstyle inconsistencies. Team members can spend a significant amount of time collating sheet sets, renumbering sheets, and updating sheet index information.

### Solution

The new Sheet Set Manager in AutoCAD 2005 provides an easy way to collate drawing sheets into logical sets and subsets that you can define by company, project, or other industry standards. You can quickly assemble sheet sets using existing drawings, propagate sheet standards over multiple projects, and provide simultaneous access to sheet sets within your local area network. You can then easily add or remove sheets from a sheet set or any subset by using the Sheet Set Manager tool palette or the context-sensitive menu.

### Benefit

Using the new Sheet Set Manager in AutoCAD 2005, organizations can more efficiently manage their sheet sets. Organizations can use sheet sets to quickly communicate current project status or easily retrieve information from an earlier point in the project. The Sheet Set Manager also helps to eliminate confusion and reduce time spent referencing and cross-referencing individual drawings. Adjusting page numbers and sheet index information is now effortless.



## Sheet Views and Viewports

### Problem

Some projects require extensive documentation to accurately communicate design information, resulting in sheets with many layouts and views. These views may use dimensional scales that provide support for greater detail. Organizations must then track all references and cross-references for each detail drawing, reference tag, callout, and label. Managing and updating these sheets manually requires close attention to detail.

### Solution

AutoCAD 2005 enhancements can dramatically reduce the time required to create layouts (named views) and reuse viewport settings. The Sheet Set Manager automatically places and updates reference tags,

callouts, and labels throughout an entire sheet set, and changes to drawing files are automatically reflected in the views on each sheet. Viewport enhancements also enable you to associate a layout with specific layer settings.

### **Benefit**

Automatic updating of tags, callouts, and labels reduces the risk of error. You can quickly restore specific settings for one or more viewports anywhere in a sheet set. And because changes are automatically reflected in all views, you know that your sheet sets are always up-to-date.

## **Publishing and Sharing**

### **Problem**

Most organizations that use AutoCAD software need to publish sheet sets for distribution throughout various phases of a project. Whether you are preparing hard-copy plots for a client meeting, distributing partner-specific sheet sets to team members, or sending Design Web Format™ files (DWF™ files) to suppliers, you need to know that the correct information is being collected, published, and shared. Currently, plotting to hard copy or publishing to DWF requires the user to navigate through a complex set of dialogs and occupies the application while it is being performed (sometimes for hours at a time).

### **Solution**

The Sheet Set Manager enables quick and easy identification and access to individual sheets in a set by using the intuitive, tree-structured folder hierarchy common to many Microsoft® Windows® applications. You can create an unlimited number of named sheet sets for any project. With AutoCAD 2005, you are now able to perform plotting and publishing as a background process on their workstation, freeing you to continue working. The new simplified plot user interface also makes it easier to setup and publish your drawings. The new plot log file creates a history of any problems that occurred during the plot operation making it easier for the you or the CAD manager to diagnose and fix them.

The Sheet Set Manager supports the publishing of data-rich DWF files as individual sheets or as a single multisheet set. If project participants are using Autodesk® DWF™ Composer software to mark up or redline sheet sets, they can simply send back the marked-up DWF sheet set. AutoCAD 2005 guides you directly to the correct file so that you can make the documented changes. For more information about Autodesk DWF Composer, see [www.autodesk.com/viewers](http://www.autodesk.com/viewers).

You can easily share sheet sets by using the Sheet Set Manager to create an electronic transmittal package. The eTransmit command has been enhanced in AutoCAD 2005 to support publishing of sheet sets.

### **Benefit**

Plotting from the Sheet Set manager allows you to easily plot a complete set of drawings without the effort of tracking down where the individual DWG files reside on file servers. This helps save you large amounts of time. The new user interface gives you an easier and less-error-prone way to set up plot jobs, and background plotting allows you to continue working even when a job is plotting.

## **Archiving**

### **Problem**

To archive project documents, organizations typically must copy individual drawing files from one folder to another. Storing multiple versions of drawing files increases the risk of using incorrect or out-of-date project information.

### **Solution**

The Sheet Set Manager produces and stores copies automatically, providing a more dependable method for archiving project data.

### **Benefit**

Automatically archiving the sheet makes it easy to revisit project milestones. In addition, it ensures that you work with pertinent data and minimizes the chance for mistakes caused by storing multiple versions of drawing files.

## **Annotating and Composing Drawings**

An AutoCAD drawing consists of text and graphical information. The creation, placement, and editing of textual information can be tedious, time-consuming, and prone to error. Many drawings also use industry-specific symbols or special characters that must align correctly with other characters and symbols in your drawings.

The following sections highlight powerful, new AutoCAD 2005 commands that provide flexibility for inserting and manipulating annotated information.

### **Tables**

#### **Problem**

Tabular data such as lists, schedules, and legends is a fundamental part of many sheet sets. This table data is created using basic AutoCAD objects such as lines and text. Manually creating or updating table data requires many steps and time-consuming attention to detail, and the risk for error can increase as the project progresses.

#### **Solution**

The new Table command in AutoCAD 2005 streamlines the process of creating tables and controlling their properties so you can focus on content. You can predefine table styles that control elements such as border properties (grid visibility, line weight, and color), cell properties (text style, height, color alignment, and background fill), the location of headings, and more. Use an existing table style to create new tables that inherit all the defined style properties. Change any property of any table element or apply a new table style in seconds.

AutoCAD 2005 also supports complex changes, such as merging cells, matching cell properties, and inserting or deleting columns or rows. If a table or cell is not the correct height or width, simply use the grip edit functionality to make the necessary adjustments.

To paste textual information from a Microsoft Windows application such as Microsoft® Excel into an AutoCAD 2005 drawing, simply specify an insertion point. If the OLE (object linking and embedding) object contains text, AutoCAD 2005 automatically approximates the point size to an equivalent size in AutoCAD units. In addition, when you paste an OLE object into paper space or model space, AutoCAD automatically establishes the scale of the OLE object.

#### **Benefit**

AutoCAD 2005 makes it easy to change any table property and to create table data with a variety of formatting options. You can quickly create accurate tables using predefined table styles and a single command or import a table or schedule that you have already created.

### **Fields**

#### **Problem**

Text-based information in a set of drawings is constantly being updated and revised. In addition, much of the information is repeated throughout the entire drawing set (e.g., the project name, client information, etc.). Updating or entering this information by hand is a tedious and time-consuming process. CAD managers spend hours or days at the end of every project matching up and verifying callout blocks, label blocks and title blocks before sheet sets are finalized, printed, and distributed. They know that each inconsistency will generate a request for information from on-site personnel that will cost them and the project time and money to correct

**Solution**

In AutoCAD 2005, the new Field command simplifies the task of creating, placing, and editing text. A field can be used as an object placeholder for content that may change during the project. AutoCAD 2005 includes a wide selection of commonly used fields. For example, you can use the new Field command to insert current time and date information into a title block. AutoCAD software automatically updates the date and time when the drawing file is opened.

You can also use the Field command with the new Table command to automatically update table data. Additional functionality helps you maintain backward compatibility with older versions of AutoCAD software, including the ability to convert fields to text objects.

**Benefit**

Automatically update text as your designs and documentation progress, helping save time and avoid costly mistakes.

**Enhanced Tool Palettes**

**Problem**

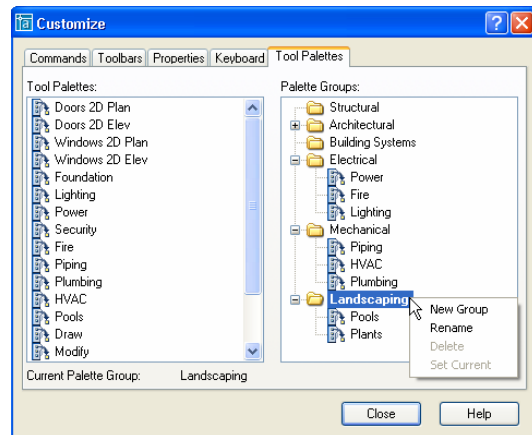
Most AutoCAD users have invested time customizing their software for industry-, business-, or project-specific needs. Some organizations have created toolbars as a way to make custom functionality accessible to staff. Tool palettes, introduced in AutoCAD 2004, are proven time-savers over their predecessors' toolbars.

**Solution**

AutoCAD 2005 significantly increases the flexibility of tool palettes; now you can assign any type of content—including commands, macros, and calls to LISP and ARX routines—to a tool palette. You can take full advantage of toolbar customization work, thereby eliminating the need to maintain and manage toolbars. AutoCAD 2005 supports any number of tool palettes and makes it easy to organize them into logical groups for efficient access.

**Benefit**

Standardize drawing content and store customized commands on space-saving, project-specific tool palettes that you can distribute to the entire team.



*Customize and organize your tool palettes.*

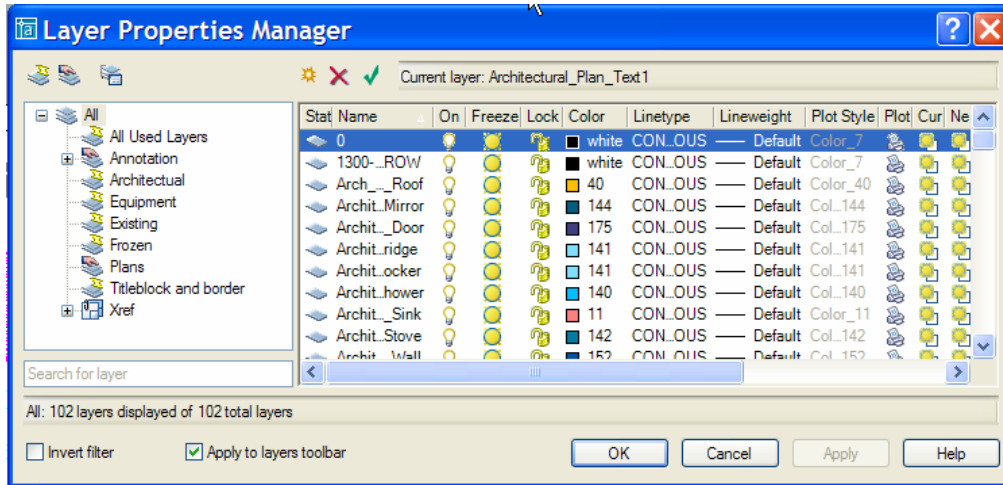
**Layers**

**Problem**

Because AutoCAD software supports an unlimited number of layers in a drawing file or sheet, some organizations have sheets that contain hundreds of layers. Using layers in this way provides flexibility for organizing drawing information, but managing all the individual layers can be difficult.

**Solution**

In AutoCAD 2005, you can now define groups of layers to quickly and easily adjust layer settings, and you can change layer properties for many layers at a time. The new Layer Properties Manager takes up less screen space and is easier and more flexible to use. Plus, you can see the results of changes immediately.



***New Layer Properties Manager***

**Benefit**

Manage layers more efficiently with filters that uniformly apply property changes to all layers in a group.

**Object Draw Order**

**Problem**

It's not always easy to place a 2D object precisely where you want it. You must often use a multistep, time-consuming trial and error process to get the results you want.

**Solution**

AutoCAD 2005 provides predictable draw order results that you can establish quickly and easily.

**Benefit**

This feature gives you the confidence of knowing that what you see on the screen is what you get on hard-copy prints and plots.

**Learning and Migration Tools**

All of the new capabilities in AutoCAD are of little use to a you if you can not easily upgrade from an older release. To help with this, we have added migration tools to help you automatically migrate your customizations from older version of AutoCAD to AutoCAD 2005, and we have enhanced the New Features Workshop, to help get you started with the new features as quickly as possible.

**New Features Workshop**

**Problem**

You have the new AutoCAD 2005 software. Now you need a quick and easy tool to learn about what's new in the product – but only what you need to handle the job at hand.

**Solution**

The interactive New Features workshop helps you access information about new functionality and enhancements in AutoCAD 2005 when you need it. It provides a short introduction to the features and a small 'hands on' tutorial to get started quickly. In addition, both AutoCAD 2004 and AutoCAD 2005 can be temporarily installed on the same workstation to ease the transition.



### Benefit

This visual tool makes it easy to learn the new and enhanced functionality in AutoCAD 2005 and put your knowledge to immediate use. Interactive animations, exercises, and descriptions get you up and running fast. Move over to the new release at your own pace while still having your AutoCAD 2004 version at your fingertips.

## Migration Tools

### Problem

Customization within AutoCAD—such as menus, quick key settings, linetypes, and hatch patterns—is very common. When you move to a new version of AutoCAD you must recreate these customizations, before beginning productive work.

### Solution

In-product and stand-alone migration capabilities in AutoCAD 2005 transfer your files, settings, preferences, and customized menus and routines, and have you up and running quickly.

### Benefit

AutoCAD 2005 migration tools smooth your transition and limit downtime.

## Conclusion

AutoCAD 2005 enables organizations to efficiently and accurately create, manage, and share information. The Sheet Set Manager provides a better way to compose, publish, update, and distribute vital project information. The Sheet Set Manager, used with the new Table and Field commands, can help you to increase your organization's productivity by improving collaboration and reducing the time spent referencing and cross-referencing individual drawing files.

Productivity directly impacts your company's profitability and position in the marketplace. AutoCAD 2005—the new standard in CAD productivity—keeps you competitive no matter what industry you work in, giving you maximum speed, power, and efficiency throughout your design process.

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