

LEARNING OBJECTIVES

After completing this lesson, you will be able to:

1. Start AutoCAD program
2. Understand AutoCAD Workspaces
3. Recognize all of the features in the AutoCAD Window
4. Use AutoCAD Help

LESSON 1

STARTING AUTOCAD

To **Start AutoCAD** use one of the 2 methods below.
(Be patient it may take a few minutes to load. It is a large program)

1. Select **Start / All Programs / Autodesk / AutoCAD 2010**
or
2. Double click on the AutoCAD 2010 desktop shortcut icon.

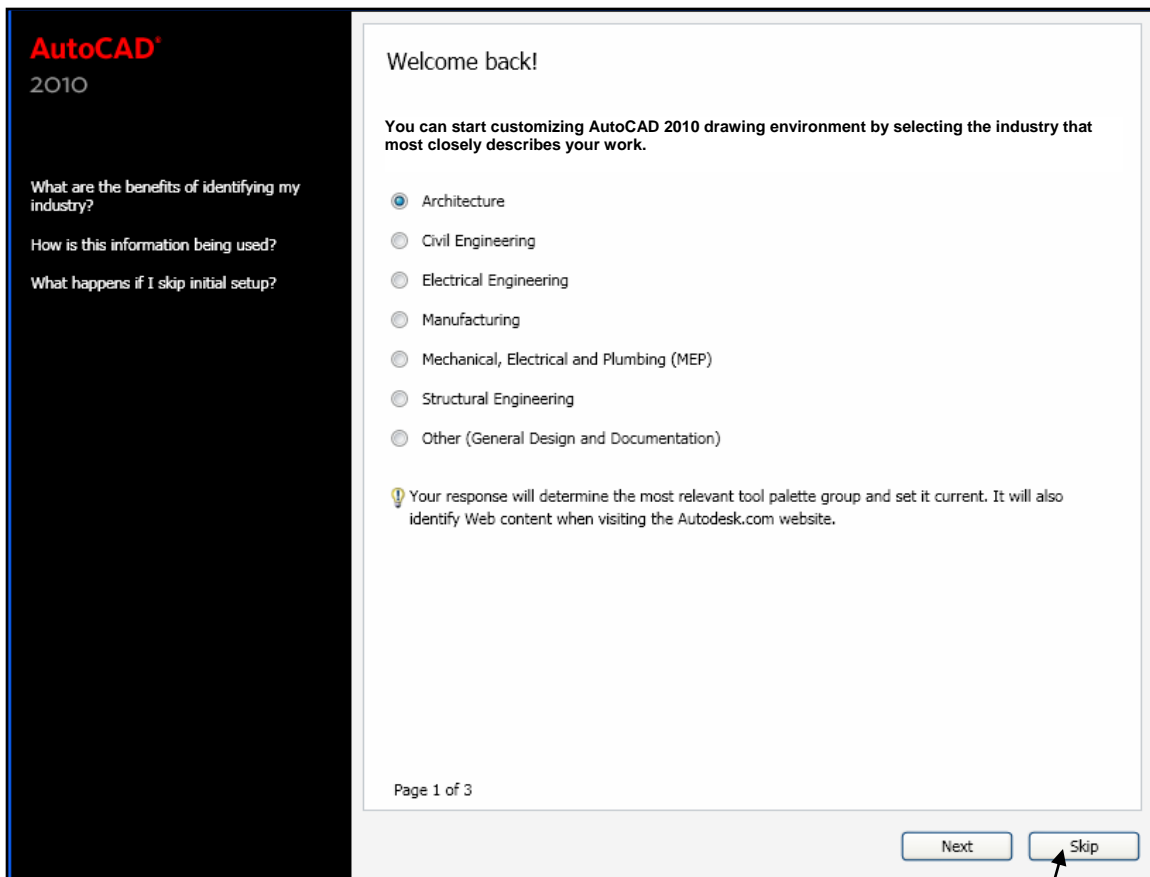
Initial Setup should appear

Initial setup allows you to customize AutoCAD when you start the first time. After responding to a few questions AutoCAD will add a few tools and palettes that are specific to your industry.

You may experiment with after you are more familiar with AutoCAD.
For now I would like you to select **Skip**.

You may return to Initial Setup any time by selecting
Options / User Preferences tab Refer to page Intro-5

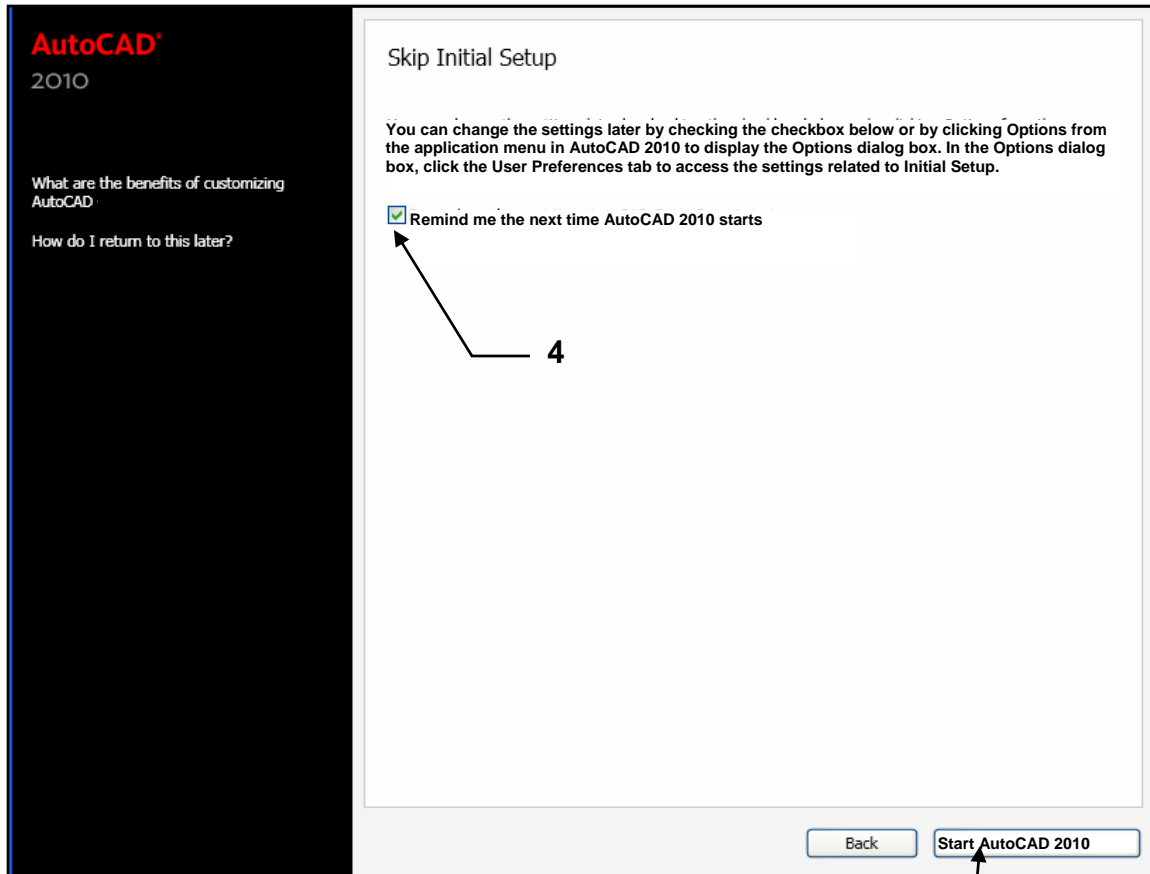
3. Select the **Skip** button.



STARTING AUTOCAD....continued

Skip Initial Setup should appear

4. Select the Remind me the next time AutoCAD 2010 starts.
5. Select **Start AutoCAD 2010** button.



5

AutoCAD Workspaces

WHAT IS A WORKSPACE?

Workspaces controls the display of menus, toolbars, and palettes. AutoCAD gives you the option of deciding how you would like them displayed. There are 3 preset Workspaces.

2D Drafting & Annotation (shown on the next page)

This workspace is the default display. It displays the necessary menus, tools and palettes for 2D drafting. We will be using this workspace for all lessons within this workbook.

AutoCAD Classic or AutoCAD LT Classic

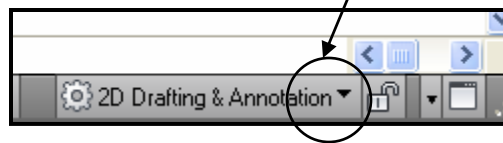
AutoCAD kept the classic workspace from older releases of AutoCAD if a user preferred not to use the Ribbon. The classic workspace arranges the toolbars on the sides and top of the screen.

3D Modeling

This workspace will display the necessary menus, tools and palettes for 3D drafting. This workspace will not be used with this workbook because this workbook does not include 3D commands.

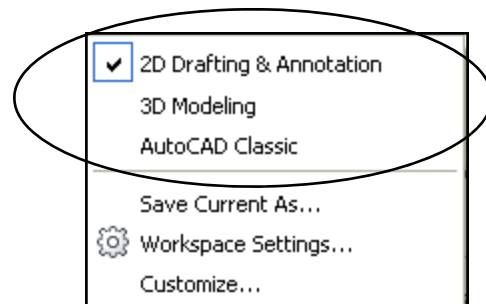
HOW TO SELECT A WORKSPACE

1. Selecting a workspace is easy. Select the ▼ located in the lower right corner of the screen.



2. Select the workspace from the pop up menu that appears.

Note: We will be using:
2D Drafting & Annotation.



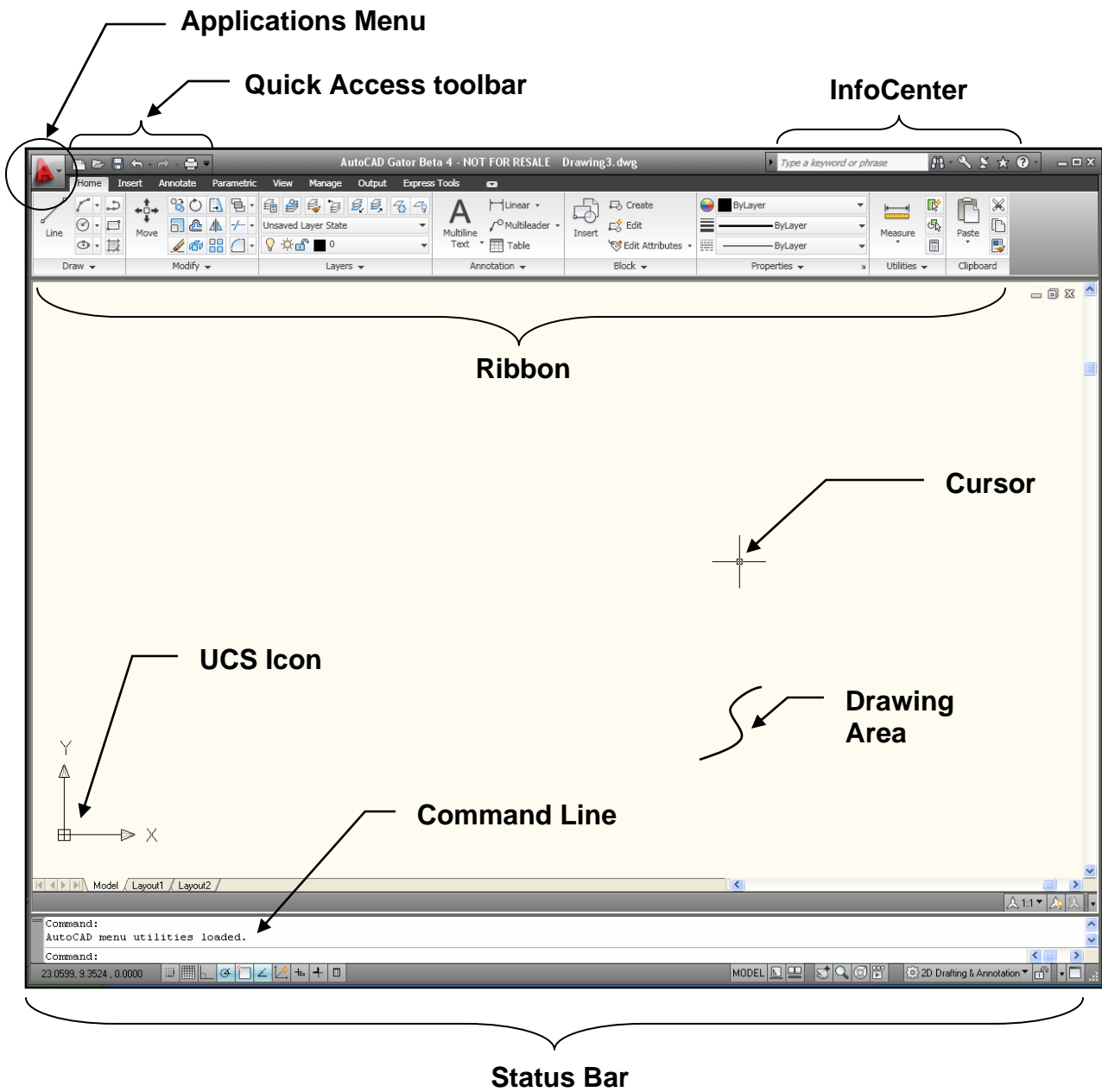
The “check” box indicates which workspace is current and in use.

AUTOCAD APPLICATION WINDOW

The AutoCAD Application Window default workspace **2D Drafting & Annotation**, is shown below.

Important:

If your screen does not appear as shown below go to the Intro section and follow the steps for configuring AutoCAD to match the workbook configuration.



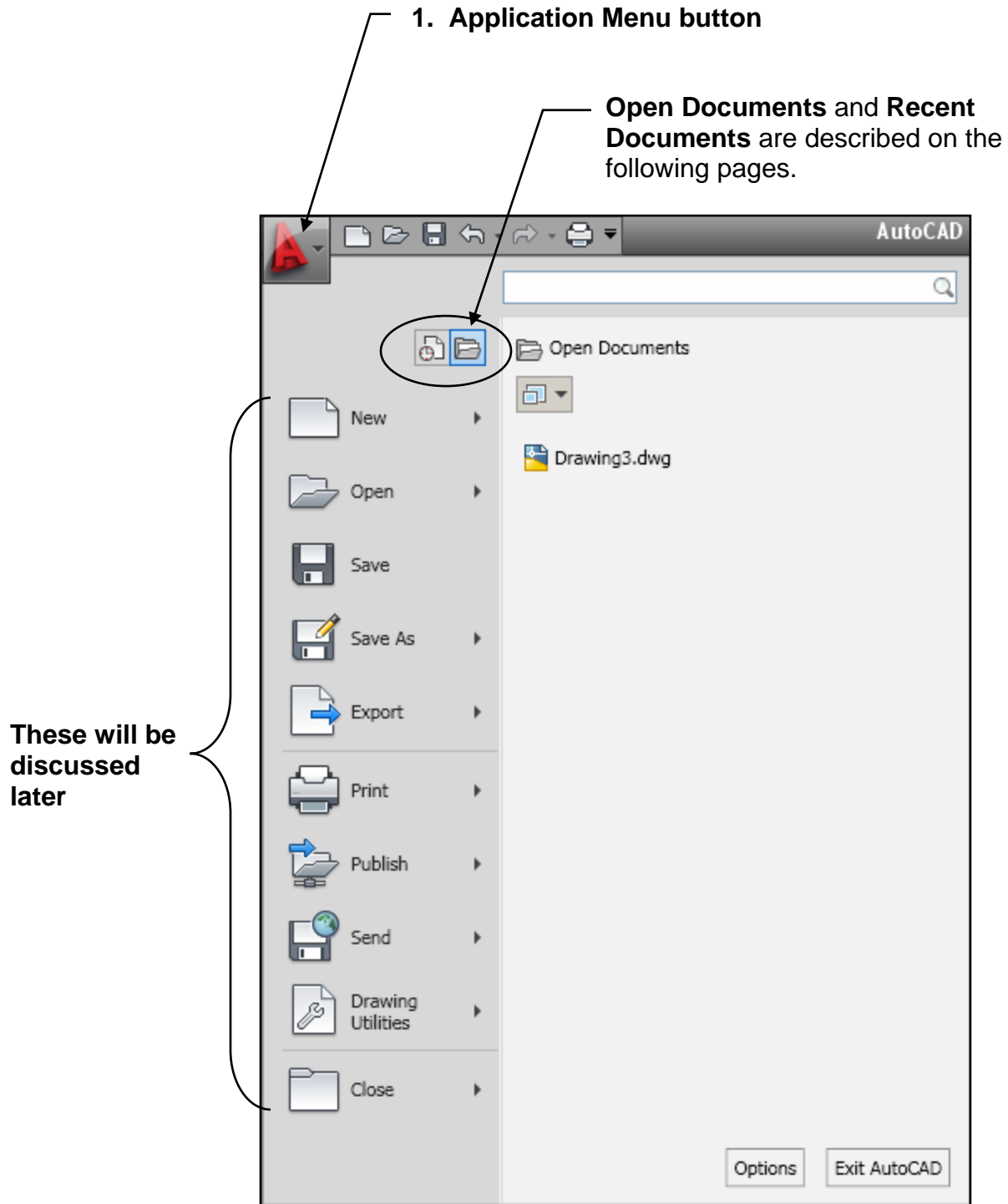
A description of each area is shown on the following pages.

APPLICATION WINDOW DESCRIPTIONS

APPLICATION MENU

The Application Menu provides easy access to common tools
Each of the tools will be discussed later in the workbook.

1. Click on the **Application Menu button** in the upper left corner of the AutoCAD display screen.



APPLICATION WINDOW DESCRIPTIONS....continued

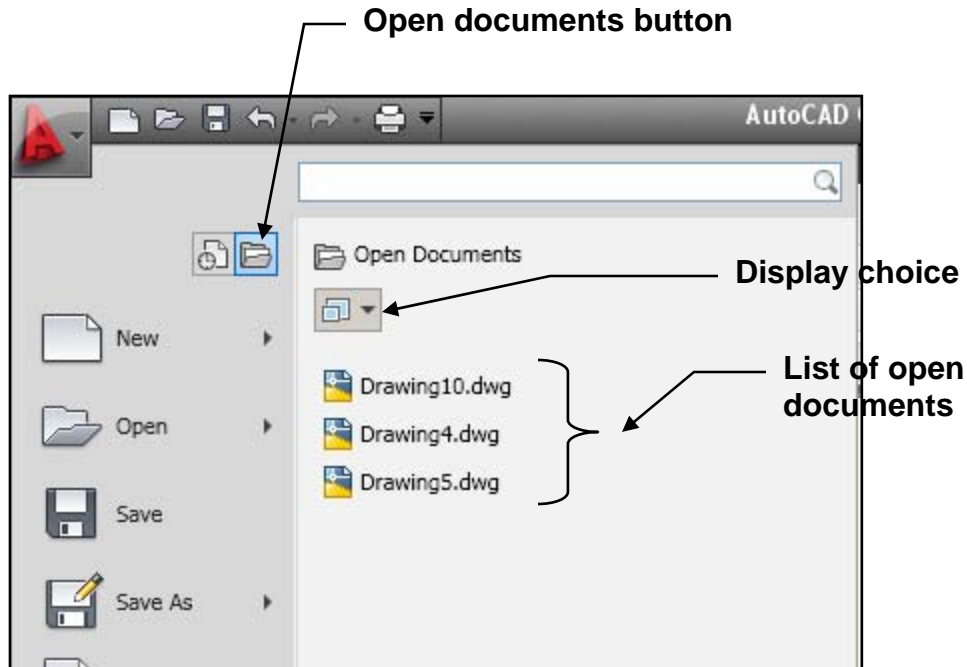
Open Documents

First let me emphasize **this is not a method to “open” a drawing file.**

Open Documents is a list of all documents that are **already open** within AutoCAD.

This list may be displayed as icons or images

If you hover the cursor over a document name a preview image will appear.



Important setting change for new AutoCAD users.

AutoCAD allows you to have multiple drawing files open at the same time. This is very helpful to experienced AutoCAD users but can be confusing for users NEW to AutoCAD.

While using this workbook you might find it helpful if you change a setting to restrict you to only one drawing file to be open at one time. This will only change AutoCAD and will have no affect on any other software on your computer. In addition this setting may be turned ON and OFF instantly.

- 1.You should only have one drawing open. Close all but one drawing file.
- 2.Type: sdi <enter>
- 3.Type: 1 <enter>

Now AutoCAD will restrict you to one drawing on the screen. If you choose to go back to multiple drawings repeat the steps above except enter “0” instead of “1”.

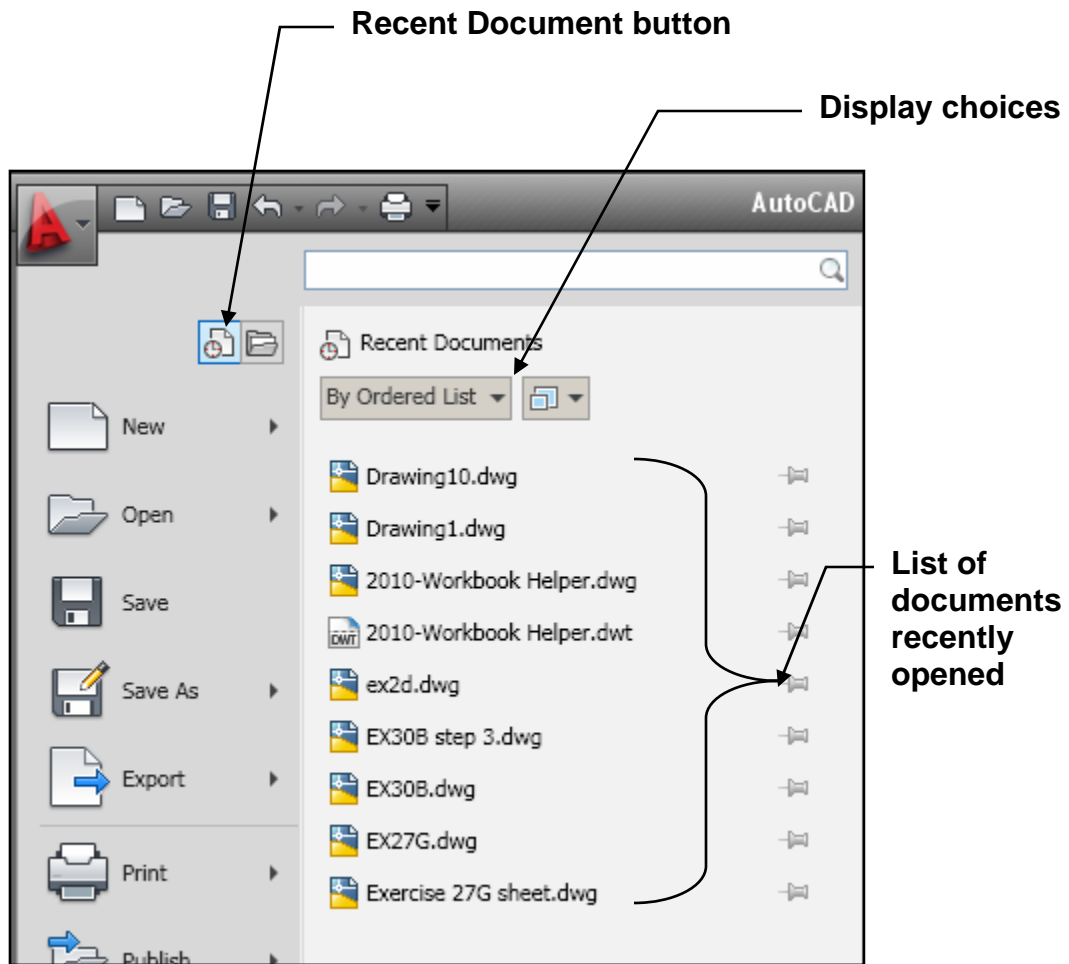
APPLICATION WINDOW DESCRIPTIONS....continued

View Recent Documents

When you select **Recent Documents** a list of the recently viewed documents will appear.

This list may be displayed as icons or images and may be sorted in an ordered list or grouped by date or file type.

If you hover the cursor over a document name a preview image will appear.



APPLICATION WINDOW DESCRIPTIONS....continued

Quick Access Toolbar

The **Quick Access Toolbar** is located in the top left corner of the AutoCAD window. It includes the most commonly used tools, such as New, Open, Save, Undo and Redo and Plot.



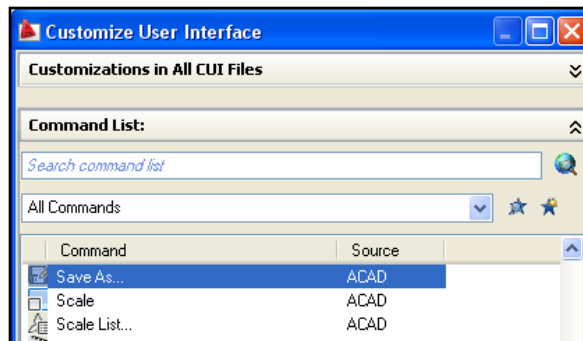
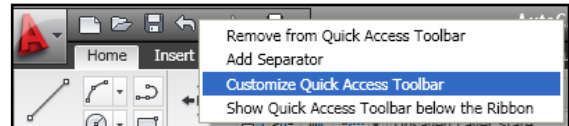
Customize the Quick Access Toolbar

You can add tools with the Customize User Interface dialog box.

For Example:

I like students new to AutoCAD to use the **“Save As”** command rather than the **“Save”** command. So I add the **“Save As”** tool to the Quick Access Toolbar. If you would like to add the **“Save As”** tool to your Quick Access Toolbar follow the steps below.

1. Place the Cursor on the Quick Access Toolbar and press the right mouse button.
2. Select **“Customize Quick Access Toolbar...”** from the pop up menu.
3. Scroll through the list of Commands to **“Save As...”**



4. Press the Left mouse button on **“Save As...”** and drag it to the Quick Access Toolbar and drop it by releasing the left mouse button.
5. Select the **OK** button at the bottom of the Customize User Interface dialog box.

The Customize User Interface dialog box will disappear and the new Quick Access Toolbar is saved to the current Workspace.



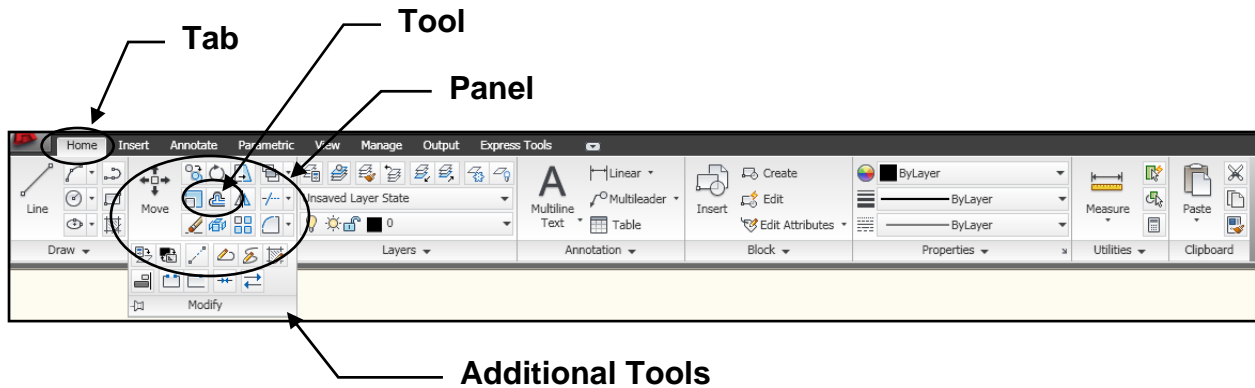
To Remove a tool:

Place the cursor on the top and press the right mouse button. Select **Remove from Quick Access Toolbar**.

APPLICATION WINDOW DESCRIPTIONS....continued

RIBBON

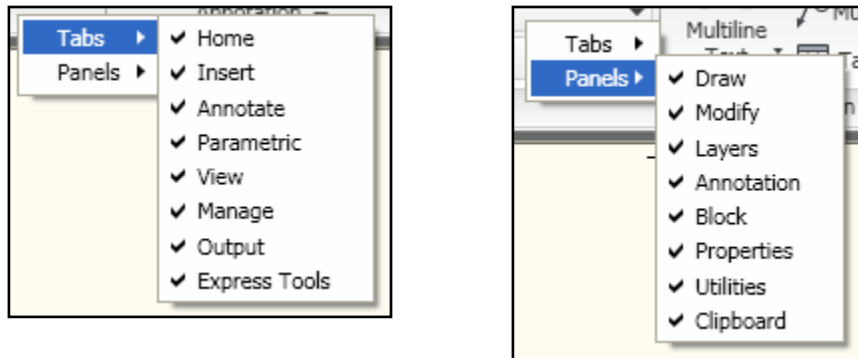
The RIBBON provides access to the AutoCAD tools.
The TABS contain multiple PANELS. Each PANEL contains multiple tools.
When you select a TAB a new set of PANELS will appear.



If you select the ▼ symbol, at the bottom of the panel, the panel will expand to access additional tools.

Control the display of Tabs and Panels

Right click on the Ribbon and select which Tabs or Panels you choose to display.



Control the TAB order

If you would like to change the order of the tabs click and drag the tab to the new location.

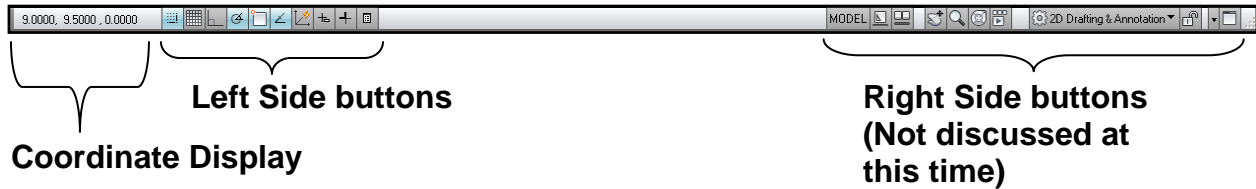
Floating PANELS

If you prefer to separate a Panel from the Ribbon you may drag the panel off the Ribbon to a new location on the screen.

APPLICATION WINDOW DESCRIPTIONS....continued

STATUS BAR

The Status Bar is located on the bottom of the screen. It displays the current settings. These settings can be turned ON or OFF by clicking on one of the buttons or by pressing a corresponding function key, F1, F2 etc.



These numbers will change as you move the cursor. The coordinates display the location of the cursor in reference to the Origin. The Origin is currently in the lower left corner of the Drawing Area.

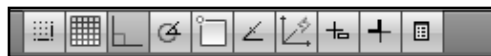
The first number represents the horizontal movement (X-axis), the second number represents the vertical movement (Y-axis) and the third number is the Z-axis which is used for 3D.

This is basically for reference and will not be used often.

Left side buttons

The left side of the Status bar displays 10 icons.

This display can be changed from **icons** to **traditional text labels**.



ICONS



TRADITIONAL TEXT LABELS

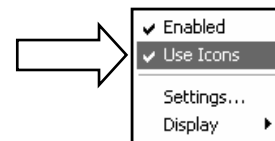
Note: I think it will make it easier to learn if you make this change.

To change the icon display to traditional text labels.

Right click on any of the icons and select "use icons".

The check mark means use **icons**.

No check mark means use **traditional text labels**.



A brief description of each button is shown on the next page. Each button will be discussed in more detail in future Lessons.

APPLICATION WINDOW DESCRIPTIONS....continued

STATUS BAR BUTTON DESCRIPTIONS



ICONS



TRADITIONAL TEXT LABELS

SNAP (You may also use F9 to toggle ON or OFF)

Increment Snap controls the incremental movement of the cursor. If it is ON the cursor will “snap” in an incremental movement. If it is OFF the cursor will move smoothly. You may set the increments by right clicking on the Snap button and selecting Settings.

GRID (You may also use F7 to toggle ON or OFF)

The dots in the Drawing Area are called the Grid. It is only a drawing aid and will not print. The default spacing is 1 unit of measurement. You may change the Grid spacing at any time by right clicking on the Grid button and selecting Settings.

ORTHO (You may also use F8 to toggle ON or OFF)

Ortho restricts the movement of the cursor to Horizontal or Vertical. When Ortho is ON the cursor moves only in the horizontally or vertically. When Ortho is OFF the cursor moves freely in any direction.

POLAR (You may also use F10 to toggle ON of OFF)

PolarSnap restricts cursor movement to specified increments along a polar angle.

OSNAP (You may also use F3 to toggle ON of OFF)

When Osnap is ON the cursor will “snap” to preset locations on objects.

OTRACK (You may also use F11 to toggle ON of OFF)

Polar tracking restricts cursor movement to specified angles.

DUCS (You may also use F6 to toggle ON of OFF)

Dynamic User Coordinate System changes the grid plane to follow the XY plane of the dynamic UCS. Used for 3D, refer to Exercise Workbook for Advanced AutoCAD.

DYN (You may also use F12 to toggle ON of OFF)

When Dynamic Input is on, you can enter coordinate values in tooltips near the cursor.

LWT

Lineweight displays the width assigned to each object. When it is ON the lineweights are visible.


QP

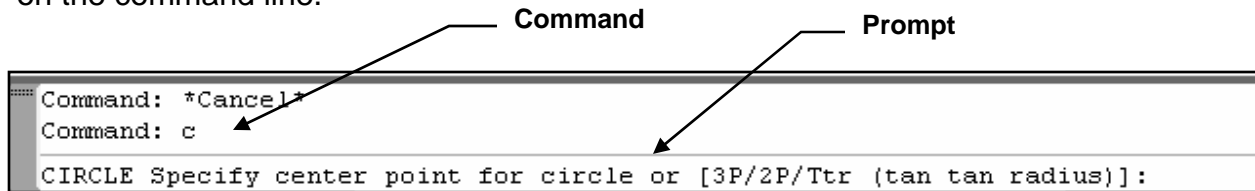
If ON, Quick Properties displays the properties of the object selected. If OFF the Quick Properties box will not appear.

APPLICATION WINDOW DESCRIPTIONS....continued

COMMAND LINE

The **Command Line** is located at the bottom of the screen. This is where AutoCAD will prompt you for information and you will enter commands, values and select options. Basically this is how you communicate with AutoCAD.

When you select a tool such as Circle  the prompt and options will be displayed on the command line.



AutoCAD then responds with a "prompt" that asks you to:

"Specify center point for circle" or [3P/2P/Ttr (tan tan radius)]:

The information within the [] brackets are options that you may select. This will be discussed more in Lesson 2.

Some users prefer to type their command choice on the command line rather than selecting a tool or searching through menus.

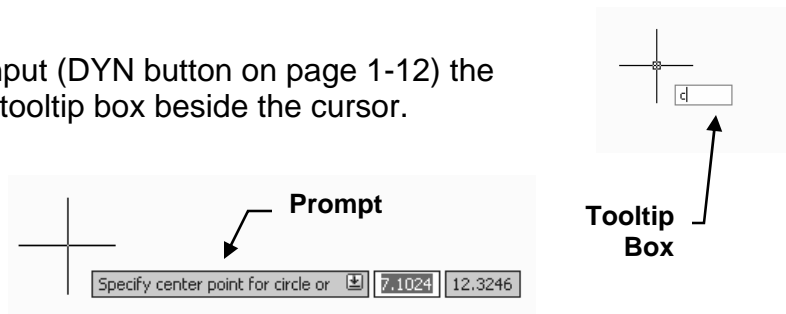
For example, if you wanted to draw a Circle you could type: **c <enter>**

You may turn the Command Line ON and OFF using Ctrl + 9.

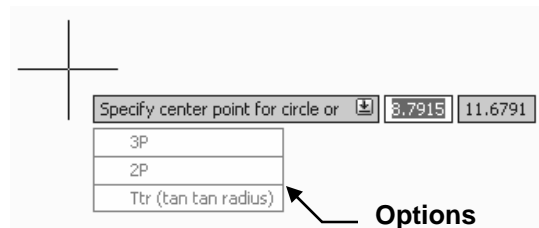
DYNAMIC INPUT

If you choose to use Dynamic Input (DYN button on page 1-12) the command will be entered in the tooltip box beside the cursor.

The prompt will then appear.



If you press the ↓ down arrow the options will appear below the prompt.



APPLICATION WINDOW DESCRIPTIONS....continued

DRAWING AREA

The Drawing Area is the large open area of the screen. This is where you will draw. Consider this your paper.

The color of this area can be changed using **Options / Display tab / Color**

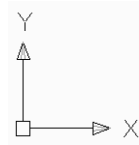
UCS Icon

World Coordinate System (WCS) icon indicates the location of the Origin.

The Origin is where the coordinates X and Y originate.

The X and Y coordinates for the Origin is 0, 0.

This will be discussed more in future Lessons.

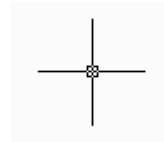


CURSOR

The Cursor is located within the Drawing Area. The movement of the pointing device, such as a mouse, controls the movement of the cursor.

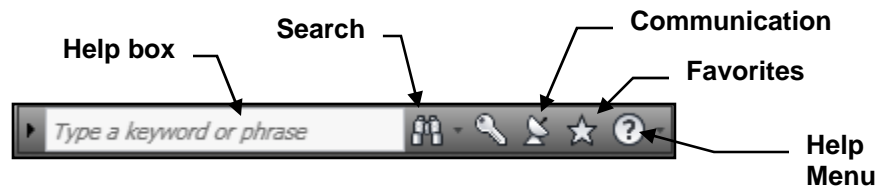
You will use the cursor to locate points, make selections and draw objects.

The size can be changed using **Options / Display tab / Crosshair Size**.



INFOCENTER

The InfoCenter is a tool to search for information. It is located in the upper right corner of the screen.



Help Box

The InfoCenter allows you to search for information by typing key words or a question in the "Help Box".

After typing press <enter> or click on "Search". AutoCAD searches it's help resources and displays links on a panel. You may click on any of the links to display the help topic, article or document.

Communication

The Communication panel displays links to information about product updates and announcements from Autodesk.

Favorites

Displays the Favorite panel to access saved topics.

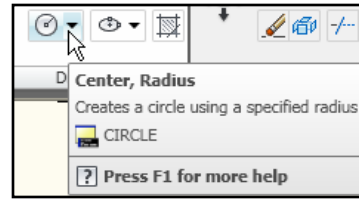
Note:

To view an animated demonstration of the InfoCenter go to the Help menu described on the next page.

TOOLTIP HELP

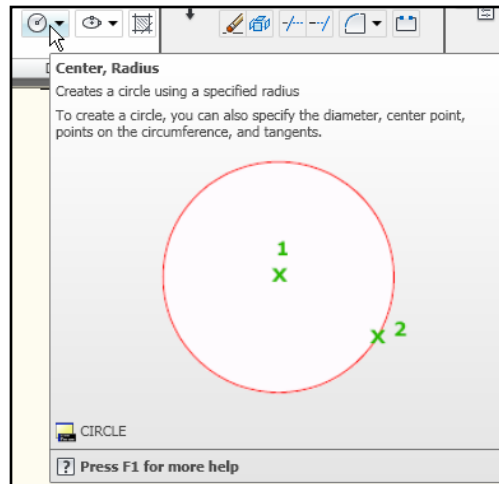
Basic Tooltip

When you hover your cursor over a tool an initial Tooltip will appear telling you the name of the tool with a brief description.



Extended Tooltip

If you hover just a little longer a graphic display, directly from the Help system, will appear.



How to turn off Tooltips

After you become familiar with AutoCAD you will want to turn these off. Or you may just want to delay the extended Tooltips.

1. Type **options** on the command line and press <enter>.
2. Select the **Display** tab
3. Uncheck boxes

