

1.0 CONTROLLING THE COMMAND LINE

Autodesk has finally introduced a new way to interact with the application that makes the command line **optional rather than mandatory**. It is called **dynamic input**, and it is comprised of three separate components: **pointer input**, **dimension input**, and **dynamic prompts**.

- Previous versions did not provide an option for turning off the command line. The command can now be **completely hidden** and in most cases you can work without showing it on screen at all. This gives you more valuable room for the drawing area.
- To force the command line to show use **CTRL+9**, or you can toggle it from the Tools Pull-down menu.
- You can also undock the command line and work with it using its new **auto-hide feature**.

2.0 DYNAMIC INPUT

The first thing you'll notice when you open AutoCAD 2006 and start to draw is that there's a sort of **command line at the mouse cursor**. This is called the **Dynamic Input (DI)** tool tip. As mentioned above Dynamic Input has three parts: 1) The prompt; 2) A down arrow: press the down arrow on your keyboard to see the current command's options, and 3) a text box where you can enter values, such as the length of the line, or as coordinate. Dynamic Input is controlled by AutoCAD's new System Variable, **DYNMODE**.

DYNMODE turns dynamic Input features on and off. The initial value is 3. When all features are on, **the context governs what is displayed**.

When DYNMODE is set to a **negative value**, the Dynamic Input features are not visible, but the setting is stored. **Press the DYN button** in the status bar to set DYNMODE to the corresponding positive value.

0 = all off

1 = pointer input on only

2 = dimensional input on only

3 = All on

When **DYNMODE** is set to anything but 0, you can turn off all features temporarily by holding down the temporary override key, **F12**.

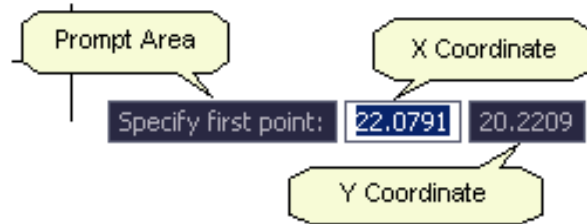
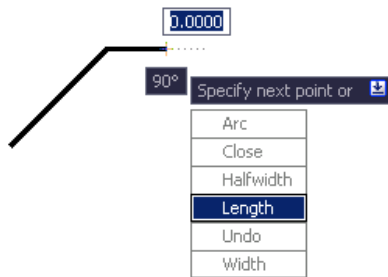


Figure 1 - Dynamic Input Components



There are five different fields you can choose to display for grip editing:

Resulting Dimension, Length Change, Absolute Angle, Angle Change and Arc Radius (available by selecting Settings under Dimension Input).

Tip: Set the system variable TOOLTIPMERGE to 1 to display both the indicated object snap and the command prompts.

Figure 2 - Down Arrow to Access Options



Figure 3 - Arrow Up to Show Last XY Coordinates

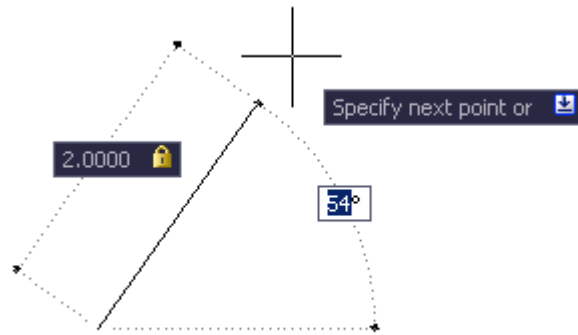


Figure 4 - Constrain Dimensional Input with the Tab Key

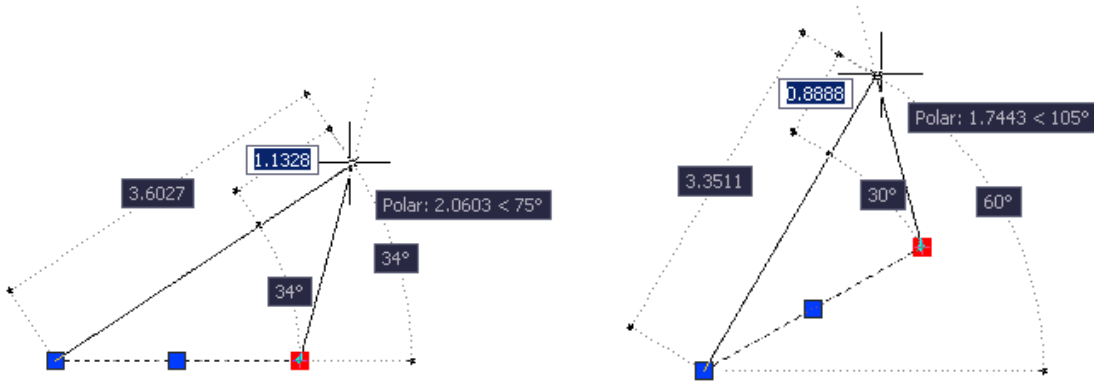


Figure 5 – Additional Dimensional Input Fields

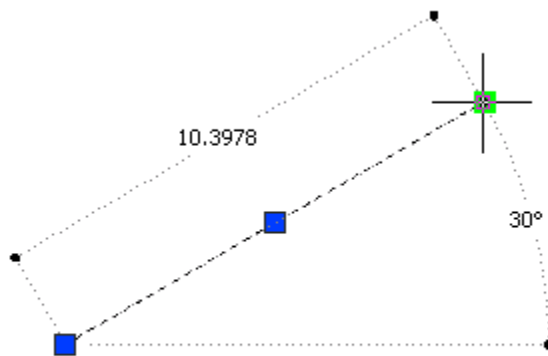


Figure 6 - Hover Status Readout

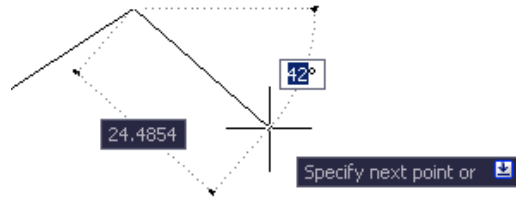


Figure 7 - Use Tab Key to Dimensional Input Focus

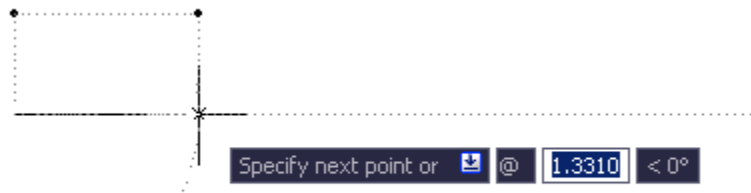


Figure 8 - Using the @ Symbol

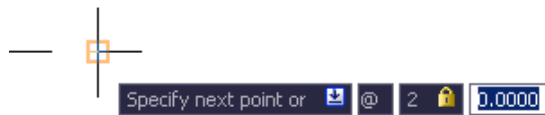


Figure 9 - Using the @ Symbol then a Comma

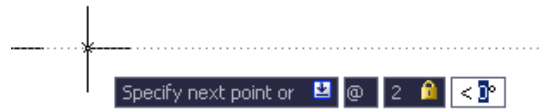


Figure 10 - Using the Polar (<) Symbol

- You activate Dynamic Mode using **DYN** (Dynamic Input) on the active status line, enable Pointer Input using **DYNMODE** and show the command prompt in the Tool Tip using **DYNPROMPT**.
- Settings can be set on the command line or in the Drafting Settings dialog box. The **Tab key** is used to toggle between values, and the **Down arrow key** is used to access and select the options for a command.
- You may want to experiment with closing the Command Line window altogether (remember you can toggle its display by pressing **Ctrl+9**), although this will probably give you the jitters from a long habit of depending on that trusty command line. Also, if you don't like DI, you can turn it off by **clicking the new DYN button on the status bar**. Use can still use the F2 key to toggle the command line history window! Or you can undock the command window and use **Auto-hide** to roll open or roll up the window.
- You can customize the tool tip quite a bit to specify when it **appears**, what it looks like, and how it **behaves**. For example, if you type coordinates in the tool tip, by default they act like **relative coordinates**. You can change this, but don't. **You may never have to type the @ symbol again!**
- When all three components are active and you select a command, all coordinate, and dimension values as well as command prompts, are displayed near the cursor, and the values get dynamically updated as the cursor moves.

Tip: Set the brand new TOOLTIPMERGE system variable to 1 to merge the OSNAP and DI tool tips and simplify the display.

3.0 DIMENSIONAL INPUT AND GRIPS

The behavior has changed when you use grips to stretch vertices when **dimensional input** is turned on (DYNMODE = 2 or 3). Entering a single direct distance value differs from previous releases because you are editing the segments' total length or angle value, not the vertex position. For best results, turn off dimensional input by setting DYNMODE to 0 or 1, by **pressing F12**, or by clicking the Dynamic Input button (DYN) on the status bar.

- There are **five different fields** you can choose to display for grip tool tip editing, they are: Resulting Dimension, Length Change, Absolute Angle, Angle Change and Arc Radius (available by **right-click -> Settings**, on the DYN button, then under **Dimension Input Settings area**).
- When **Dimension Input** is on, coordinate entry fields are tied to dimensions on the geometry being created or edited. The values in the tool tip changes as you move the cursor. When you use grips to stretch objects or when you create new objects, the dimensional input pointer displays only acute angles. That is, all angles are displayed as 180 degrees or less. Angle specifications rely on the direction of the **cursor movement** to determine the positive angle direction.
- When you **hover over** a grip to edit an object, the tool tip displays the original dimensions. As you move the grip, length and angle values are **updated dynamically**.

4.0 DYNAMIC INPUT GUIDELINES

- You can now enter coordinate values in a tool tip instead of on the command line. The X,Y coordinate values you enter for most commands are by default interpreted as **relative polar coordinates**--**not absolute coordinates**, as in previous releases of the product.

- To enter relative coordinates, you usually do not need to enter the at sign (@); you only need to enter the relative offset values. To indicate absolute coordinates, use the pound sign (#) prefix. For example, to move an object to the drawing origin, enter #0,0 at the second point prompt.
- The **DYNPICOORDS** system variable controls whether pointer input uses relative or absolute format for coordinates. You can use symbol prefixes to temporarily override these settings:
- Remember, to enter absolute coordinates when relative coordinates are displayed in the tool tip enter #, to enter relative coordinates when absolute coordinates are displayed, enter @. And as always, to enter absolute world coordinate system (WCS) coordinates, enter * (an asterisk).
- When dimensional input is turned on (DYNMODE = 2 or 3), the program switches to pointer input when you enter a comma (,) an angle bracket (<) or when you select multiple grip points.
- When you enter a dimensional value and press the TAB key, the field displays a lock icon, and the cursor is constrained by the value that you entered.
- You may get unexpected results if you enter values in a Dynamic Input tool tip when the cursor is off the drawing area and the tool tip is not visible.
- Dynamic Input is not supported for perspective views.

5.0 POINTER INPUT GUIDELINES

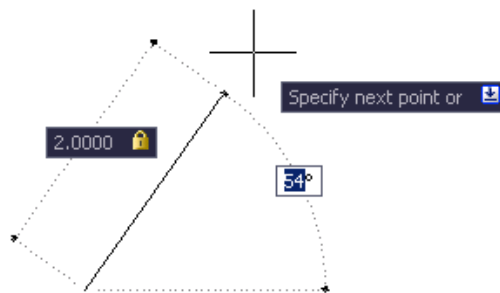
When Pointer Input is on, the cursor displays coordinate values as you move it in the drawing area. To enter coordinates, type the value and press the TAB key to switch the focus to the next tool tip, then type the next coordinate value. When you specify the point, the first coordinate is an absolute coordinate. The format for the next point is relative polar coordinates.

- For dimensional input (DYNMODE=3): When you select multiple objects that share a common grip and then click the grip, the TAB key cycles through all the dimensions for each selected object
- For pointer input (DYNMODE=1): If you enter a value during a command, use the left angle bracket (<) or comma (,) instead of the TAB key to display an additional input field.

6.0 CONSTRAINING DIMENSIONAL INPUT

1. You can constrain any length or angle value by using the TAB key to validate your input. In other words the number 4 followed by the TAB key would constrain the length of an object on an alignment path to 4" no matter what the angle of travel was.

Example: A line is to be drawn 2" long at 54 degrees. A command sequence of 2 TAB key will strike a 2" line and constrain that length while it is moved into the 54-degree position.



7.0 PASTE VALUES INTO A DYNAMIC PROMPT TOOLTIP

- To use PASTECLIP to paste values from the Windows Clipboard into a dynamic prompt tooltip.

Note: type a letter in the tool tip and then backspace to delete the letter before you paste the entry Otherwise, the entry is pasted into the drawing as text.

8.0 TEMPORARY OVERRIDE KEYS (!!!)

You can temporarily turn on or off drawing aids such as object snaps, tracking, and Ortho, by **holding down** a key or combination of keys. For example, if you have set running object snaps but you want to turn them off for **one point**, you can **hold down F3**. When you **release** this override key the running object snaps are **restored (yes!)**

- **Hold down the Shift key** to turn off Ortho while you're placing a line. As soon as you **release** the Shift key, Ortho comes **goes back on!** This is MUCH easier than finding the **F8** key or clicking the **ORTHO button** on the Status bar.
- **Hold down Shift+A** to temporarily **turn off Osnap**. Again, much easier than **F3** or the **OSNAP** button.
- **Hold down Shift+E** to temporarily turn on the Endpoint Osnap.
- Remember when **DYNMODE** is set to anything but 0, you can **turn off all** features temporarily by holding down the temporary override key, **F12**.

9.0 SELECTION PREVIEW

Another heads up feature is the new selection display. Have you ever been frustrated because the wrong object was selected when you clicked? Now you can pass your cursor over an object and it darkens to show, which object you would select. This feature is called **rollover highlighting**.

- A Selection Preview option enables highlighting of objects when the **cursor moves over it**, helping to minimize selection errors.
- You may want to customize the look. For example, you can keep the thickening effect, but not the dashed effect.
- Also, when creating a selection set using a window, or crossing window, a **transparent box** (blue for selection; green for crossing) appears so you can see what will be inside the window.

- You can turn on or turn off Selection Preview or change its appearance in **Selection tab** of the **Options dialog box** (“visual effect setting”). Or you can change the highlighting appearance by **entering** **PREVIEWEFFECT** on the command line.

DYNMODE SYSTEM VARIABLE

Type: Integer
Saved in: User-settings
Initial value: 3

Turns Dynamic Input features on and off. When all features are on, the context governs what is displayed.

When DYNMODE is set to a negative value, the Dynamic Input features are not visible, but the setting is stored. Press the Dyn button in the status bar to set DYNMODE to the corresponding positive value.

0 All off

1 Only pointer input on

2 Only dimensional input on

3 All on

When DYNMODE is set to anything but 0, you can turn off all features temporarily by holding down the temporary override key, F12.

Settings are on the Dynamic Input tab in the [Drafting Settings dialog box](#).

DYNPICOORDS SYSTEM VARIABLE

Type: Switch
Saved in: User-settings
Initial value: 0

Controls whether pointer input uses relative or absolute format for coordinates.

0 Relative

1 Absolute

The [DYNMODE](#) system variable turns Dynamic Input features on and off.