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Getting started

This section helps you get started using BtoCAD software by explaining how to install it and providing basic information about how to use it.

NOTE *This guide assumes that you have used other Windows-based programs and are familiar with Windows terminology and techniques.*

Topics in this chapter

System requirements

You need the following software and hardware to install and run BtoCAD:

- Microsoft® Windows 98, Windows 2000, or Windows XP
- Intel® Pentium (or faster) processor
- 64 megabytes (MB) of RAM (minimum); 128 MB of RAM or more (recom- mended)
- 90 MB of free hard disk space for a full installation, including sample files, elec- tronic documentation, and online Help
- Super VGA (800x600) or higher resolution, video adapter, and monitor
- Mouse, or other pointing device
- CD-ROM drive for installation, if installing from a CD

Installing BtoCAD

A setup program guides you through the BtoCAD installation process. The program transfers files to a folder that it creates on your hard disk. The program also creates a menu item on the Start menu.

Installation starts automatically after you insert the BtoCAD compact disc into your CD-ROM drive. If installation does not start, you can install BtoCAD by using the following procedure.

To install BtoCAD from a compact disc

1   Insert the BtoCAD compact disc into your CD-ROM drive.

2   Do one of the following:

- Wait for the autorun feature to start.
- Choose Start > Run and in the Open field, type *d:\setup,* where *d* is the letter assigned to your CD-ROM drive. Click OK.

3   Follow the instructions on your screen.

NOTE If you did not receive an BtoCAD compact disc, for example, if you downloaded the program from the Internet, follow the instructions that came with the program.

Starting BtoCAD

To start BtoCAD, choose Start > All Programs > BtoCAD 2007> BtoCAD 2007 (may vary, depending on your operating system).
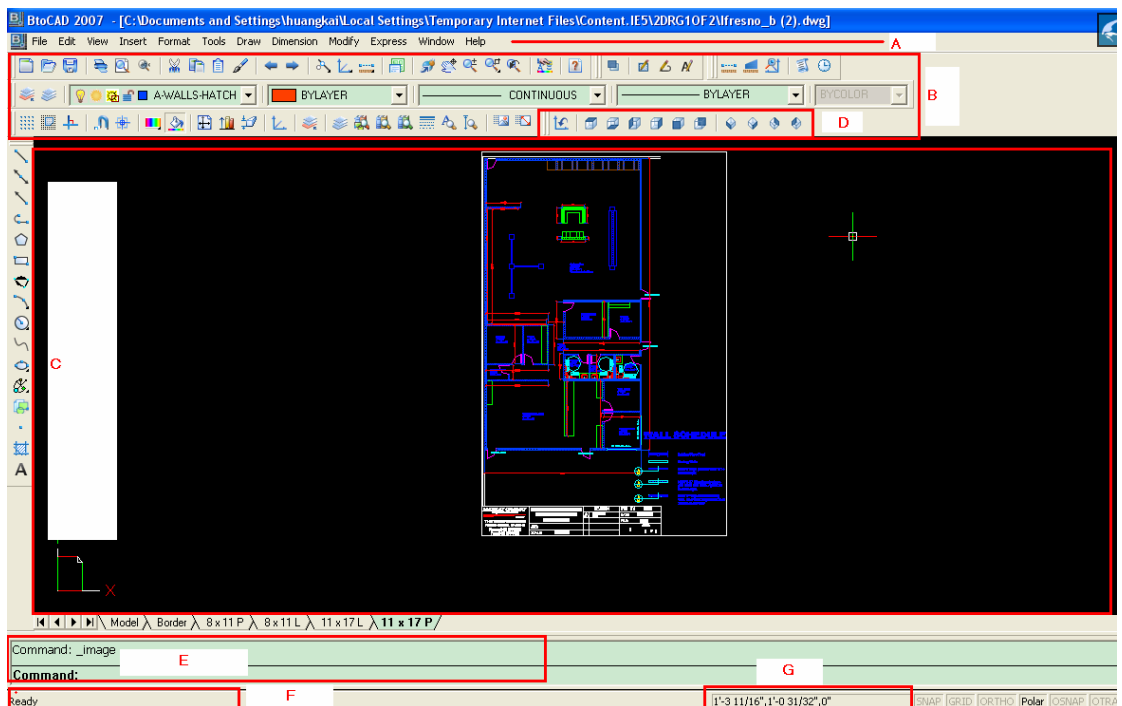
When you start BtoCAD, the program opens a new, blank drawing based on a default template, icad.dwt. Using a template as the basis for a new drawing has sev- eral advantages:

• You can use predetermined units of measure, grid settings, text heights, and other settings appropriate for the type of drawing you're creating.

• You can predefine special layers.

• You can predefine the type of print style table.

• You can include predefined title blocks and borders.

Each time you start BtoCAD, a Tip of the Day appears on your screen. To display the Tip of the Day dialog box at any time, choose Help > Tip of the Day. To prevent the Tip of the Day dialog box from being displayed, click the check box for Show Tips On StartUp to clear it.

Working in BtoCAD

You can work with the BtoCAD window and its elements in a variety of ways. For example, you can display and rearrange the toolbars, display the command bar, and enable the status bar. The toolbars and command bar can also be floated anywhere on the screen or docked to the edges of the main BtoCAD window.

A   You can customize the menu bar at the top of the window.

B   You can customize the toolbars, changing the appearance and arrangement of tools and adding your own commands and macros.

C   Your drawings are displayed in the drawing window.

D   Click a tab to switch between the drawing of your model and a printed layout.

E   You can type commands in the command bar. To reposition the command bar, drag it to another location on your screen.

F   The status bar displays information such as the name or purpose of a tool, the current cursor coordinates, layer name, and mode settings.

G   The user coordinate system (UCS) icon indicates the orientation of the drawing in three- dimensional space.

H   You can move and dock the toolbars to any location on your screen.

Displaying commands on a shortcut menu

Shortcut menus provide quick access to specific commands. A shortcut menu dis- plays when you right-click an entity, toolbar, status bar, the Model tab name, or a Layout tab name. The selections presented in the shortcut menu depend on what you clicked.

When you right-click a toolbar, the program displays a shortcut menu that lets you toggle the command bar, status bar, and various toolbars on and off. If you select one or more entities and then right-click, the program displays a shortcut menu from which you can choose a command to modify the selected entities. To display a short- cut menu from which you can choose an entity snap, press and hold down the Shift key, and then right-click anywhere within the drawing window.

Displaying and hiding toolbars

When you start BtoCAD the first time, multiple toolbars are displayed. BtoCAD provides more than a dozen toolbars, which you can customize by adding and delet- ing tools. You can also move and resize toolbars, and you can create new toolbars. You can use a shortcut menu to display or hide toolbars.

You can also choose whether toolbars are displayed large or small and in color. You can choose to display or hide ToolTips, which provide descriptions of tools that dis- play when you pause the cursor over them. Go to View > Toolbars to make these selections.

Toolbars are either docked or floating. A floating toolbar has a title bar and a Close box, can be located anywhere on the screen, and can be resized. A docked toolbar does not display a title or Close box, cannot be resized, and is attached along one of the edges of the drawing window.

- To dock a toolbar, drag it to the perimeter of your drawing; to undock it, drag it away from the perimeter.

- To position a toolbar in a docking area without docking it, press Ctrl while you drag it.

- To move a toolbar, drag it to a new location.

- To resize a toolbar, move your cursor to the edge until it changes to a resize arrow, and then drag.

To choose which toolbars to display

1   Do one of the following:

- Choose View > Toolbars.

- Right-click anywhere on a docked toolbar to display the toolbar shortcut menu, and then choose Toolbars. You can also select the toolbars you want displayed directly on the shortcut menu.

2   In the Select Toolbars dialog box, choose the toolbars you want displayed, and then click OK.
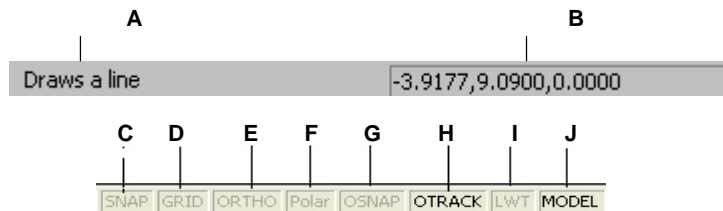
Using the command bar

The command bar is a dockable window in which you type BtoCAD commands and view prompts and other program messages. To display the command bar, choose View > Command Bar. The command bar displays the three most recent lines of prompts. You can move the command bar by dragging it.

When the command bar is floating, you can drag the top or bottom of the window to change the number of lines of text it displays. You can dock the command bar at the top or bottom of the drawing.

Using the status bar

If you elect not to use the command bar, the status bar displays information about the selected command or tool. It also displays the current cursor coordinates, the name of the current layer, mode settings, and other information about current settings.

In addition to displaying information, the status bar is a quick way to access many features. You can click status bar items to make changes, and right-click items to dis- play short-cut menus that allow you more choices.

A							**B**

Draws a line   -3.9177,9.0900,0.0000

C	**D**	**E**	**F**	**G**	**H**	**I**	**J**

SNAP GRID ORTHO Polar OSNAP **OTRACK** LWT **MODEL**

A Information about the current command.		**B** Cursor coordinates (x,y,z).	
C Snap setting. click to toggle on or off.		**D** Grid setting. click to toggle on or off.	
E Orthogonal setting. click to toggle on or off.		**F** Polar tracking setting, single-click to off or on.	
G Obejct snap setting. click to select entity snaps.		**H** Obeject snap tracking seting, click to off or on.	
I Lineweight display. click to toggle on or off.		**J** Model space or paper space. click to toggle between model space and paper	

To change the items that display on the status bar

1   Right-click an empty area of the status bar.

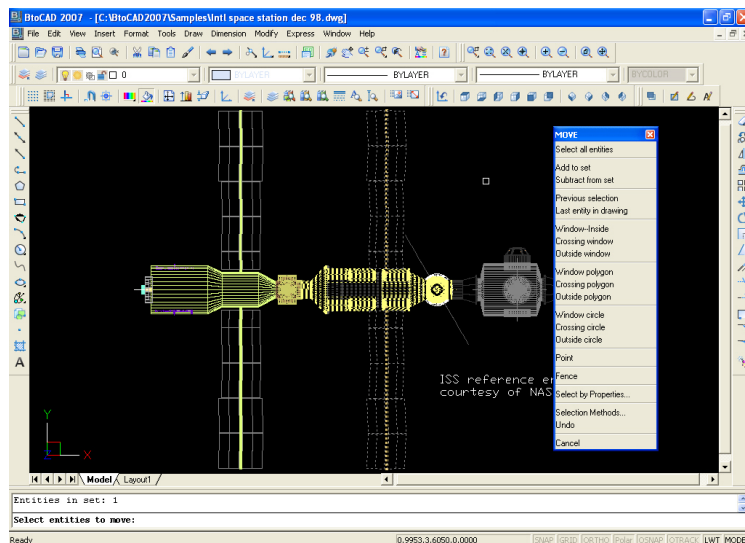**2**   Select an item to add or remove it.

To display or hide the status bar

1   Do one of the following:

- Choose View > Status Bar.

- Type *statbar* and then press Enter.

Using prompt boxes

BtoCAD commands often provide several options. These options appear in the sta- tus bar or command bar and also in a prompt box (called a *context menu* in AutoCAD) initially displayed in the upper right corner of the screen. You can move the prompt box by dragging it; future prompt boxes will appear where you last placed it. The options appear as menu selections. Choose the appropriate option by selecting it in the prompt box. To close a prompt box, click the Close box.

The prompt box is displayed by default. To turn off the display of prompt boxes, choose Tools > Options, click the Display tab, and then click the Display Prompt Boxes check box to clear it.

The BtoCAD user interface.

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Selecting commands

Select commands using any of these methods:

- Choose a command from a menu.
- Click a tool in a toolbar.
- Type the command in the command bar.

Some commands remain active until you end them, so you can repeat an action with- out having to select a command repeatedly. You can end a command by clicking Done in the prompt box or by pressing Esc.

Using commands

You can use most commands while another command is active. For example, while drawing a line, you may want to use the Pan command to move the drawing across the screen to select the endpoint of the line. You can also change the settings of draw- ing aids such as snap or grid while other commands are active.

Starting commands using toolbars

To start a command from a toolbar, click a tool and respond to the prompts.

NOTE   *The available toolbars depend on the experience level that is set. To change the current experience level, choose Tools > Options, and then click the General tab.*

Some tools, such as Line or Arc, contain flyouts, which are options either for using the basic tool with different methods or that contain other, related tools. Flyouts are indicated by a small triangle in the lower right corner of a tool. To display a flyout, click the tool and hold down the mouse button. To select a tool from a flyout, point to the tool you want and then release the mouse button. The tool you select on the flyout becomes the default tool on the toolbar.

Starting commands using menus

To start a command from a menu, choose it from the list of menu options available.
The available menu options depend on the experience level that is set. To change the current experience level, choose Tools > Options, and then click the General tab.

Starting commands using the command bar

Type a command, and then press Enter. If the command bar is displayed, the command you typed appears there. If the command bar is not displayed, the command you typed appears in the status bar.

TIP *Quickly start commands using the command bar by copying, cutting, and pasting text. In the command bar or Prompt History window, right-click to select various cut, copy, and paste commands.*

Repeating a command

You can repeat a command you used previously without having to reselect it.

To repeat the command you just used

1   Do one of the following:

- Press the spacebar.

- Press Enter.

- Click the right mouse button in the drawing.

To repeat commands you used previously

1   Do one of the following:

- In the command bar or Prompt History window, press Ctrl and double-click the previous command text.

- In the command bar or Prompt History window, right-click, choose Recent Commands, and then choose the desired command.

- Press Ctrl + K, repeat until you get back to the desired command, and then press Enter. Press Ctrl + L to move forward to the desired command, and then press Enter.

- Use the Up and Down arrows to display previously used commands, if Use Up/ Down Arrows for Command History Navigation is selected in Tools > Options.

TIP *If you are using the command bar to type commands, you can type* multiple *before starting some commands (Circle, Arc, and Rectangle, for example) to repeat a command indefinitely. When you are done*

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with a command, press Esc.

Nesting a command

If you are working in the command bar, you can use another command from within a command, called *nesting*. To use a command inside an active command, type an apostrophe before you type the command, such as *'circle*, *'line*, or *'pyramid*. You can nest commands indefinitely in BtoCAD. Many menu and toolbar macros work this way by default; for example, select color, reference grid, zoom, and snap. When you have finished with the nested command, the original command resumes.

Modifying a command

If you are working in the command bar, there are special ways that you can modify a command as you work. You can modify the active command using any of the following options:

•**Entity snaps** — Type an entity snap command, such as *nearest* or *midpoint*, to enable a one-time entity snap for a single selection. You can also use a one-time entity snap to override a running entity snap.

•**Extension snaps** — Type *int* after selecting a command, such as Line or Circle, to enable a one-time snap to the logical location where two entities would intersect if they were of infinite length. Type *app* to enable a similar one-time snap if the extensions would not intersect in three-dimensional space but would intersect in the current view.

•**Midpoint snaps** — Type *m2p* or *mtp* to enable a one-time snap to the midpoint of two points that you specify.

Using the Prompt History window

The Prompt History window displays a history of the commands and prompts issued since you started the current session of BtoCAD. By default, the program tracks up to 256 command lines. There is no limit to the number of command lines you can track, but program performance may be degraded if you choose to track an exces- sively high number of lines.

To display or close the Prompt History window

- Press F2.

To view entries in the Prompt History window

1 Do one of the following:
   - Use the scroll bars.
   - Press Ctrl + K to browse backward; press Ctrl + L to browse forward.
   - Use the Up and Down arrows to display previously used commands, if Use Up/ Down Arrows for Command History Navigation is selected in Tools > Options.

To copy or paste text in the Prompt History window

1 If copying text, do one of the following:
   - Highlight text using your mouse.
   - Press Ctrl + Shift + arrow keys to highlight text.

2 Right-click and choose whether to copy or paste.

TIP *You can also copy the entire command history by choosing Copy History or copy the last command line by choosing Copy Last Line.*

To change the number of command lines to track

1 Do one of the following:
   - Choose Tools > Options, and then click the Display tab.
   - Type options and then press Enter. Click the Display tab.

2 In the Command Lines To Track field, type the number of command lines you want to display, and then click OK.

Using mouse shortcuts

You can use your mouse, often combined with the keyboard, to start commands and perform other actions.

Mouse shortcuts

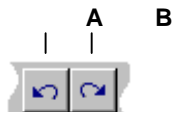| Shortcut	Action
Ctrl + Shift + Hold and drag left mouse button	Real-Time Zoom command
Ctrl + Shift + Hold and drag right mouse button	Real-Time Pan command

Ctrl + Hold and drag left mouse button	Real-Time Sphere command
Ctrl + Hold and drag right mouse button	Real-Time Z command
Shift + Left-click mouse	Deselect entities
Shift + Right-click mouse	Entity snap shortcut menu
Hold and drag left mouse button	Move selected entities
Ctrl + Hold and drag left mouse button	Copy and move selected entities
Right-click mouse	Display shortcut menu for the selected entity
Rotate mouse wheel	Zoom In and Zoom Out commands
Hold mouse wheel, and then move mouse	Pan command

Using scripts

The BtoCAD Script Recorder captures and saves many of your actions so you can play them back. After you enable the Script Recorder, all commands and options that you type in the command bar are recorded until you type a command to stop recording. When you run the script, the program carries out the recorded commands in succession.

Correcting mistakes

BtoCAD tracks the commands you use and the changes you make. If you change your mind or make a mistake, you can undo, or reverse, the last action or several pre- vious actions. You can also redo any actions that you reversed.

A   B

A   Click the Undo tool to reverse the last action.
B   Click the Redo tool to reverse the previous undos.
You can undo multiple actions by typing *undo* and specifying the number of actions to undo.

Getting online Help

BtoCAD includes online Help, which contains task-oriented topics, a command reference, a system variables

reference, and a programming language reference. You can display online Help in any of these ways:

- Choose a command from the Help menu.
- Click the question mark in a dialog box.
- Type help in the command bar.

Saving your drawing

You can save your drawing at any time. To save a drawing, use one of the following methods:
- On the Standard toolbar, click Save
- Choose File > Save.
- Type save and then press Enter

TIP When you save a drawing the first time, the program displays the Save Drawing As dialog box so that you can choose a directory and type a name for the drawing. To save the drawing later using another name, choose File > Save As and type the new name.

Exiting BtoCAD

When you have finished working in BtoCAD, choose File > Exit.

Customizing BtoCAD

You can tailor many aspects of BtoCAD to better suit your needs. For example, you can easily create and modify toolbars by simply dragging and dropping icons. If you want to restore any area of the user interface back to its default state, click Reset. BtoCAD stores your customized settings in the Windows registry; you can also store them in a separate file, called a profile. BtoCAD supports the most important AutoCAD customization files, including linetypes, hatch patterns, text fonts, the unit conversion file, menus, toolbars, and aliases. In addition, BtoCAD unifies four AutoCAD customization functions with a single customize command: command aliases, keyboard shortcuts, menus, and toolbars.

You can also add custom programs written in any of several programming languages, including the following:
- LISP (the program's Autodesk® AutoLISP-compatible language)
- SDS (the program's Autodesk® ADS-compatible language)

- Microsoft® Visual Basic for Applications (VBA)