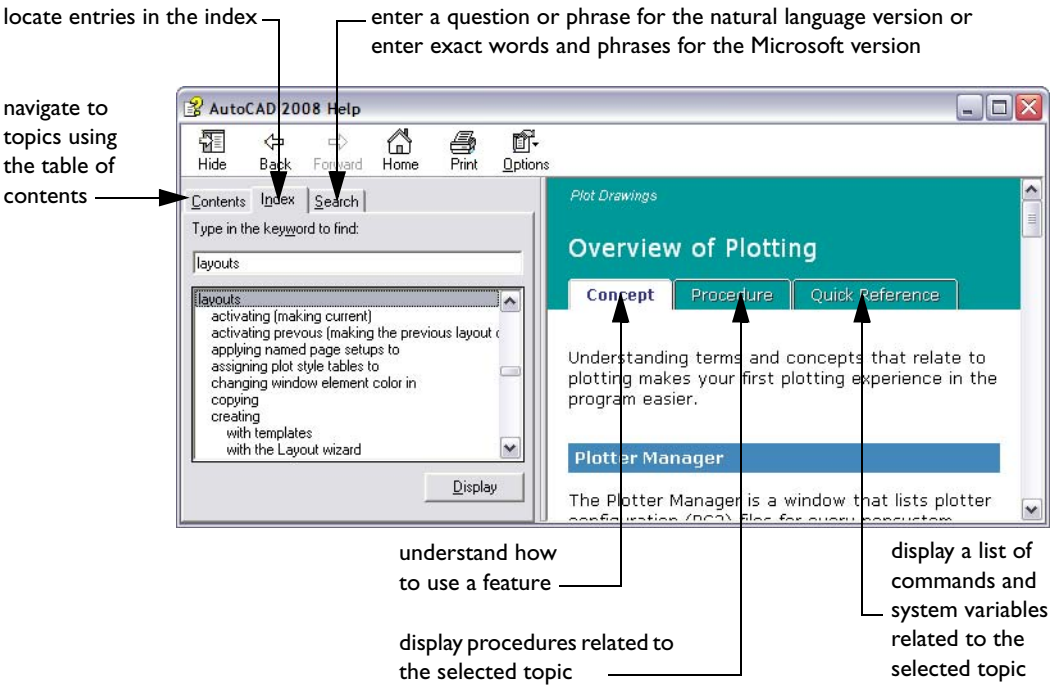
Building Your World

Conceptual Design and Visualization with AutoCAD®

Quick Reference

Use the Help System



Autodesk®

Useful Command Aliases

Command	Alias	Command	Alias
ADCENTER	dc	LINE	l
ARC	a	MOVE	m
BLOCK	b	MTEXT	t
CIRCLE	c	OFFSET	o
COPY	co	OPTIONS	op
DIMSTYLE	d	PAN	p
DIST	di	PLINE	pl
DSETTINGS	ds	PROPERTIES	pr
ERASE	e	ROTATE	ro
EXPLODE	x	TABLE	tb
EXTEND	ex	TOOLPALETTES	tp
FILLET	f	TRIM	tr
HATCH	h	UNDO	u
INSERT	i	XREF	xr
LAYER	la	ZOOM	z

You can define your own command aliases; see *Create Command Aliases* in the Help system. For a complete list of command aliases, click Tools ➤ Customize ➤ Edit Program Parameters.

Shortcut Keys

Shortcut Keys	Description	Command or System Variable
F1	Opens the Help system	HELP
F2	Switches between text window and drawing area	GRAPHSCR, TEXTSCR
F3	Turns running object snaps on and off	OSNAP
F6	Turns dynamic UCS on and off	UCSDETECT
F7	Turns the grid on and off	GRID
F8	Turns Ortho mode on and off	ORTHO
F9	Turns Snap on and off	SNAP
F10	Turns polar tracking on and off	DSETTINGS
F11	Turns object snap tracking on and off	DSETTINGS
F12	Turns off Dynamic Input temporarily	DYNMODE
CTRL+9	Turns the command window on and off	COMMANDLINE/HIDE
CTRL+0	Turns user interface elements on and off	CLEANSCREENON/OFF
CTRL+R	Cycles through viewports	CVPORT

Coordinate Entry

Method	Format	Description
Absolute Cartesian coordinates	#*X*,*Y*	Specifies a location measured by distances from 0,0 in the current UCS
Relative Cartesian coordinates	@*X*,*Y*	Specifies a location measured by distances from the last point
Absolute polar coordinates	#distance<angle	Specifies a location measured by distance and angle from 0,0 in the current UCS
Relative polar coordinates	@*distance*<*angle*	Specifies a location measured by distance and angle from the last point
Coordinate filters	**.x** or **.y** or **.z** or **.xy** or **.yz** or **.xz**	Specifies a location by combining coordinate values from two or three locations
Direct distance entry	distance	Specifies a location from the direction of the pointing device and a distance you enter
Lock an angle for a point	<angle	Specifies an angle override that locks the cursor for the next point entered

Enter coordinates, filters, and distances at any point prompt on the command line.

System Variables for 3D Modeling

System Variable	Description
3DSELECTIONMODE	Controls the selection precedence of visually overlapping objects when using 3D visual styles
DELOBJ	Controls whether the geometry used to create 3D objects is retained or deleted
DISPSILH	Controls the wireframe display of silhouette edges of solid objects
FACETRES	Adjusts the smoothness of shaded and rendered objects and objects with hidden lines removed
IMPLIEDFACE	Controls whether or not bounded areas on solids can be detected for press or pull editing
ITERFERECOLOR	Sets the color for interference objects created with the INTERFERE command
ISOLINES	Specifies the number of contour lines per surface on objects
PERSPECTIVE	Specifies whether the current viewport displays a perspective view
PERSPECTIVECLIP	Determines the location of eyepoint clipping
SHOWHIST	Controls access to the original objects that were used to create composite solids
SOLIDHIST	Controls whether a history is maintained when creating composite solids
UCSICON	Controls the display of the UCS icon in the current viewport
UCSDETECT	Controls whether dynamic UCS acquisition is active or not
VSFACEOPACITY	Controls the transparency of faces in the current viewport

For a complete list of system variables, see the *Command Reference* in the Help system.

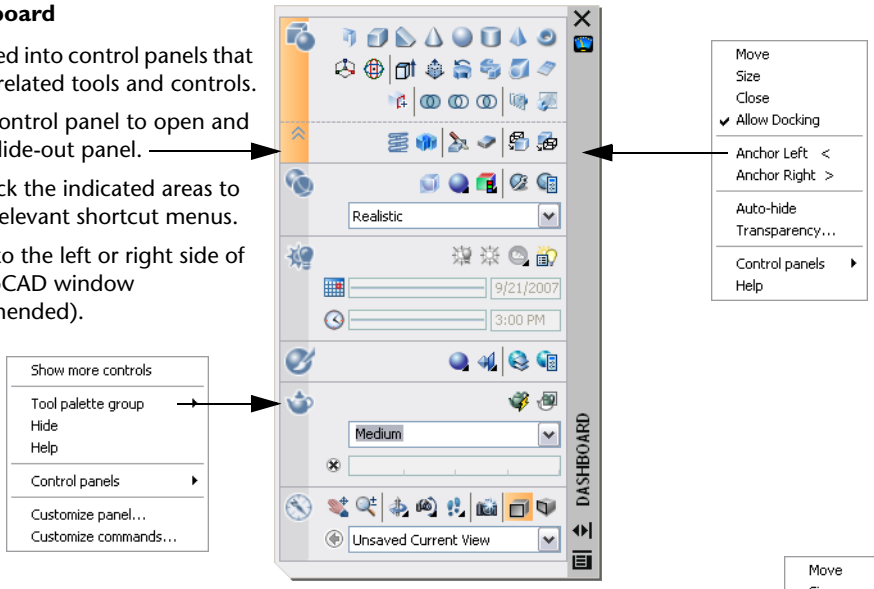
Commands for 3D Modeling

Command	Description	Alias
3DORBIT	Controls the interactive viewing of objects in 3D	**3do**
3DFLY	Changes your view so that you appear to be flying through a 3D model	
3DWALK	Changes the view so that you appear to be walking through a 3D model	**3dw**
–SHADEMODE	Controls the display of solid object shading in the current viewport (legacy)	
VISUALSTYLES	Creates and modifies visual styles and applies a visual style to a viewport	**vsm**
UCS	Manages user coordinate systems	
UCSICON	Controls the visibility and placement of the UCS icon	
BOX	Creates a 3D solid box	
CONE	Creates a 3D solid with a circular or elliptical base tapering symmetrically to a point or a circular or elliptical planar face	
CYLINDER	Creates a 3D solid cylinder with circular or elliptical top and bottom faces	**cyl**
POLYSOLID	Creates a 3D solid composed of a series of connected straight or curved walls	**psolid**
PYRAMID	Creates a 3D solid pyramid with a specified number of sides that can end in a point or a flat surface	**pyr**
SPHERE	Creates a 3D solid ball	
BOUNDARY	Creates a region or a polyline from an enclosed area	**bo**
HELIX	Creates a 2D or 3D spiral	
REGION	Converts an object that encloses an area into a region object	**reg**
EXTRUDE	Creates a 3D solid or surface by extruding an object or planar face a specified distance and direction	**ext**
LOFT	Creates a 3D solid or surface by lofting through a set of two or more curves	
REVOLVE	Creates a 3D solid or surface by revolving 2D objects about an axis	**rev**
SWEEP	Creates a 3D solid or surface by sweeping a 2D curve along a path	
INTERFERE	Highlights the common volumes of 3D solids that overlap	**inf**
INTERSECT	Creates 3D solids or 2D regions from the intersection of selected solids or regions	**in**
SUBTRACT	Combines selected 3D solids or 2D regions by subtraction	**su**
UNION	Combines selected 3D solids or 2D regions by addition	**uni**
PRESSPULL	Presses or pulls faces or bounded areas	
SECTION	Uses the intersection of 3D solids and a plane to create a region	**sec**
SECTIONPLANE	Creates a section object that acts as a cutting plane through a 3D solid	**splane**
SLICE	Slices 3D solids into halves with a plane or surface	**sl**
SOLIDEDIT	Edits selected faces and edges of a 3D solid	
AREA	Calculates the area and perimeter of objects or of defined areas	**aa**
MASSPROP	Calculates the mass properties of 3D solids or 2D regions	

The Dashboard and Tool Palettes

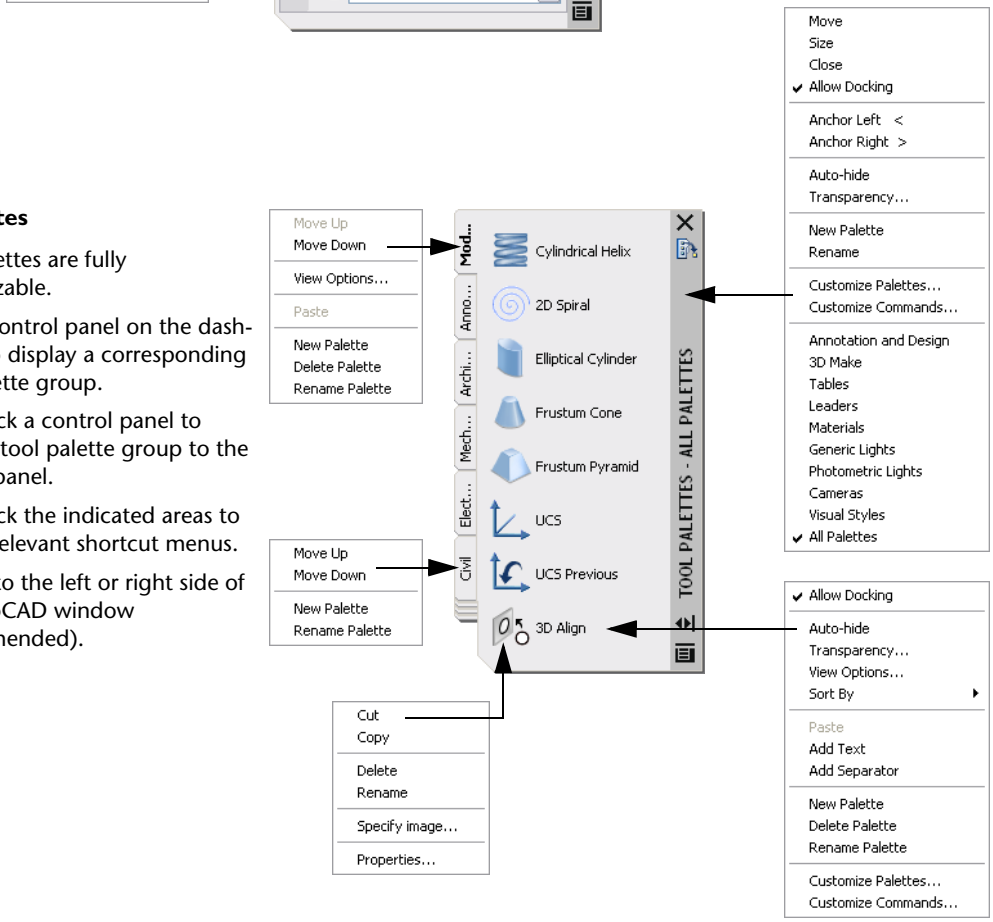
The Dashboard

- Organized into control panels that contain related tools and controls.
- Click a control panel to open and close a slide-out panel.
- Right click the indicated areas to display relevant shortcut menus.
- Anchor to the left or right side of the AutoCAD window (recommended).



Tool Palettes

- Tool palettes are fully customizable.
- Click a control panel on the dashboard to display a corresponding tool palette group.
- Right click a control panel to assign a tool palette group to the control panel.
- Right click the indicated areas to display relevant shortcut menus.
- Anchor to the left or right side of the AutoCAD window (recommended).



User Interface Controls, Buttons, and Settings in the 3D Modeling Workspace