

# NOTES FOR PROFESSIONALS

# 3D AUTOCAD

TOOL BARS & SHORT CUT KEYS



9930375161  
9833900335

[WWW.AUTOCADTRAININGINSTITUTE.COM](http://WWW.AUTOCADTRAININGINSTITUTE.COM)

# Mastering AutoCAD 3D: **Shortcut Keys and Command Guide**

AutoCAD 3D is a robust tool for professionals in engineering, architecture, and design to create precise 3D models. This eBook is tailored to help users understand the most commonly used **3D AutoCAD shortcut keys and commands**, structured in a **tabular format** for quick access and understanding.

## ■ Chapter 1: Introduction to AutoCAD 3D

AutoCAD 3D expands the 2D capabilities of AutoCAD into three dimensions, allowing users to model real-world objects and structures. This includes 3D solids, surfaces, meshes, and rendering tools.

## ■ Chapter 2: Essential 3D Navigation Shortcuts

Command	Shortcut Key	Description
Orbit	3DO or SHIFT + Middle Mouse	Rotates the view of the 3D model
Pan	P or Middle Mouse Button Drag	Moves the view without rotating
Zoom	Z	Zooms in or out
Zoom Extents	Z then E	Zooms to the full drawing extents
ViewCube	NAVVCUBE	Toggles ViewCube on/off

## ■ Chapter 3: 3D Modeling Commands

Command	Shortcut Key	Description
Extrude	EXT	Converts 2D shapes into 3D solids by extruding
Revolve	REV	Revolves a 2D profile around an axis
Sweep	SWEEP	Sweeps a profile along a path to create 3D shape
Loft	LOFT	Creates 3D solids between multiple cross-sections
Presspull	PRESSPULL	Extrudes or subtracts volume by clicking inside a closed boundary
Polysolid	POLYSOLID	Draws walls like a polyline but in 3D

## Chapter 4: 3D Object Modification Shortcuts

Command	Shortcut Key	Description
Union	UNI	Combines two or more 3D solids
Subtract	SU	Subtracts one 3D solid from another
Intersect	IN	Creates a 3D solid from overlapping volume
Slice	SLICE	Slices a solid into two pieces
Section Plane	SECTIONPLANE	Creates section views
Interfere	INTERFERE	Finds interferences between solids
Shell	SHELL	Converts a solid into a hollow shell

## Chapter 5: Solid Editing Commands

Command	Shortcut Key	Description
Move Faces	SOLIDEDIT > Face > Move	Moves faces of solids
Offset Faces	SOLIDEDIT > Face > Offset	Offsets a face to resize it
Color Faces	SOLIDEDIT > Face > Color	Changes face color
Delete Faces	SOLIDEDIT > Face > Delete	Deletes faces from a solid

## Chapter 6: 3D View and Visual Style Shortcuts

Command	Shortcut Key	Description
Visual Style Manager	VISUALSTYLES	Opens Visual Styles Manager
Wireframe	2 (top bar)	Displays model in wireframe mode
Shaded	SHADEMODE or 3 (top bar)	Applies shaded view
Realistic	REALISTIC	Applies realistic materials and lighting
Conceptual	CONCEPTUAL	Uses simplified rendering for design visualization

## Chapter 7: 3D Coordinate Systems and UCS Shortcuts

Command	Shortcut Key	Description
UCS (User Coord. System)	UCS	Defines a new coordinate system
World UCS	UCS > W	Returns to World UCS
UCS Follow	UCSFOLLOW	Auto zooms on UCS change
Dynamic UCS	F6	Toggles Dynamic UCS
Plan View	PLAN	Sets the view perpendicular to current UCS

## Chapter 8: Mesh Modeling Shortcuts

Command	Shortcut Key	Description
Mesh Box	BOX then Mesh option	Creates a box mesh
Mesh Sphere	SPHERE then Mesh option	Creates a sphere mesh
Smooth Mesh	MESHSMOOTH	Increases mesh smoothness
Mesh Edit	MESHEDIT	Edits mesh vertices/faces/edges

## Chapter 9: Rendering and Material Shortcuts

Command	Shortcut Key	Description
Render	RENDER	Renders the scene
Materials Editor	MATERIALS	Opens material browser
Apply Material	MATERIALATTACH	Attaches material to object
Lights	LIGHT	Places and adjusts lights
Camera	CAMERA	Creates a 3D camera view

## Chapter 10: General Editing & Management

Command	Shortcut Key	Description
Move	M	Moves objects in 3D space
Rotate 3D	3DROTATE	Rotates objects in 3D space
Align	ALIGN	Aligns and moves objects in 3D space
Mirror 3D	MIRROR3D	Creates a mirror copy of 3D objects
Array 3D	ARRAYCLASSIC	Creates 3D array (polar/rectangular/path)

## Chapter 11: Shortcut Keys for File & Workspace

Command	Shortcut Key	Description
New Drawing	CTRL + N	Creates new drawing
Open Drawing	CTRL + O	Opens existing file
Save Drawing	CTRL + S	Saves current drawing
Plot/Print	CTRL + P	Prints the drawing
Workspace Switch	WS	Switches between 2D & 3D workspace

## Chapter 12: Tips to Speed Up 3D Modeling

- Use **Dynamic Input (F12)** for real-time dimensions
- Switch to **3D Basics or 3D Modeling workspace** for access to 3D tools
- Assign custom shortcuts using the **CUI (Customize User Interface)** dialog
- Use **Tool Palettes** for frequently used 3D components

## Chapter 13: Conclusion

Understanding and memorizing these 3D AutoCAD shortcuts can significantly enhance productivity and modeling speed. Whether you're designing a mechanical part, a building, or a furniture prototype, these tools and shortcuts will help you master AutoCAD 3D efficiently.

**Practice regularly, and consider creating custom shortcuts tailored to your workflow.**

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