

# AutoCAD Advanced, Efficiency Tips and Tricks



For Architects by Architects

## OVERVIEW

Start incorporating an experienced and professional architects tips and techniques in your CAD workflow. Covering the new Autodesk 360 enabled collaboration tools, enhanced command line, and georeferencing options. Learn how to become more efficient power user, reducing the amount of time it takes to accomplish a task, increasing profit margins, and strengthening marketplace competitiveness. The course covers everything from shortcuts used in geometry creation, to program customization, to real world solutions to common problems. Interface customization, block and reference management skills, and express tool usage are also covered.

## COURSE STRUCTURE

### 1. Connecting to Autodesk 360

- Creating an account
- Touring the online interface
- Managing files
- Sharing files and collaborating using Design Feed
- Syncing AutoCAD files and settings automatically

### 2. Exploring New Interface Tools

- Automating command line entry
- Accessing content from the command line
- Controlling command line behavior
- Using file tabs to manage drawings
- Merging objects into a single layer
- Changing xref attachments or path types
- Managing Exchange apps

### 3. Geo-referencing Maps & Drawings

- Adding aerial view map
- Exploring geo-location options
- Using a GIS coordinate system to align drawings

### 4. Interface Customization

- Adding relevant data to Quick Properties and tooltips
- Creating custom ribbon tabs and panels
- Increasing speed with command aliases (ALIASEDIT)
- Anchoring the palettes to the side
- Accessing drawings using Favorites
- Controlling notification bubbles
- Restoring hidden messages

### 5. Drawing Tools

- Disabling mode settings on the fly
- Creating hatches and boundaries in busy drawings
- Selecting with window polygon (WP) & previous (P)
- Generating boundaries from difficult shapes
- Calculating the overall length of multiple entities
- Calculating the area of multiple shapes (REGION)
- Flattening geometry to a single elevation

- Trimming all entities to one side of an object
- Eliminating duplicated geometry (OVERKILL)
- Moving and copying entities using Windows shortcuts
- Solving expressions using the command prompt calculator
- Temporarily activating one object snap mode

### 6. Blocks and References

- Making global edits to attribute data
- Exchanging one block symbol for another (BLOCKREPLACE)
- Using drag-and-drop to insert content
- Creating a block library in two clicks
- Making blocks inherit layer properties

### 7. Layers Leveraging Techniques

- Making global changes to layer names
- Converting all object properties to BYLAYER
- Producing a hard copy of the layer settings
- Removing stubborn layers
- Dealing with unreconciled Layers
- Understanding layer state manager

### 8. Layouts Extra Tools

- Creating legends using the Change Space tool
- Using UCS to rotate a drawing
- Importing layouts from template files
- Freezing layers in specific viewports (Vp Freeze)

### 9. Miscellaneous Problems

- Consolidating backup files into a single folder (MOVEBAK)
- Salvaging data from a corrupt drawing (AUDIT)
- Identifying the owner of a drawing (WHOHAS)
- Creating "one-click" dimensions
- Dimensioning angles greater than 180 degrees
- Xref layers line weight

### 10. Annotative Objects

- Concept of Annotation

- Annotative objects in AutoCAD
- Creating annotative text
- Creating annotative dimensions and multileaders
- Viewing annotative objects
- Adding scales to annotative objects
- Removing scales from annotative objects
- Creating annotative blocks
- Creating annotative hatch
- Creating a custom scale
- Converting non-annotative objects to annotative
- Displaying model space linetypes using (MSLTSCALE)
- Paste to original coordinates

## 11. Multi-Line Text Tools

- Justifying multi-line text vertically
- Adjusting line spacing
- Controlling the display of fractions
- Creating multiple columns of MTEXT
- Converting single-line text to multi-line text
- Adding a background mask

## 12. Tables

- Creating and navigating tables
- Editing table geometry
- Formatting table data
- Inserting formulas
- Breaking tables into multiple parts
- Defining table styles
- Importing tables from Microsoft Excel

## 13. Dimension Tools

- Dimensioning with the spacebar
- Creating rotated linear dimensions
- Adding alternate dimensions
- Dimensioning arcs
- Breaking dimensions
- Inserting a jog line
- Creating ordinate dimensions

## 14. Fields

- Creating smart labels
- Automating title block information
- Creating labels to identify drawing updates

## 15. Blocks Mastering

- Using blocks to automate layout data
- Leveraging the block rotation angle
- Using DWG files to create blocks
- Understanding the WBLOCK command
- Inserting blocks with Divide and Measure
- Exchanging one block for another

- Creating a block tool palette

## 16. Attributes

- Creating an attribute to hold data
- Understanding the attribute modes
- Using attributes for labels
- Editing attributes
- Understanding the attribute system variables
- Redefining blocks with attributes
- Extracting attribute data

## 17. External References

- Understanding external references
- Creating a link to a DWG file
- Controlling the appearance of referenced drawings
- Choosing whether to attach or overlay
- Clipping an external reference
- Binding references

## 18. Adding Imagery

- Inserting images
- Editing the appearance of images
- Controlling the display of the image border
- Clipping images
- Scaling images to a measurable scale
- Applying transparency to images