

AutoCAD

INTRODUCTION TO AUTOCAD

Basic Features and Commands

“Covers all versions”

by

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Introduction to Commands

Opening a Drawing

1. **Choose** File, OPEN.
or
2. **Press** CTRL + O.
or
3. **Click** the OPEN icon.
or
4. **Type** OPEN at the command prompt.
Command: **OPEN**
5. **Press** ENTER
6. **Double Click** the desired directory to find the drawing to open.
7. **Click** the drawing name to open.
8. **Click** The OK button.

New Drawings

NEW Command

Creates a new drawing file.

1. Choose File, New.

or

2. Press CTRL + N

or

3. Click the New icon.

or

4. Type NEW at the Command prompt.

Command: NEW

5. Choose One of the options for creating a new drawing.

6. Click The OK button.

7. Save the drawing as another name.

Saving Drawings

SAVE and SAVEAS

Saves the most recent changes to a drawing. The first time an Unnamed drawing is saved the “Save As” dialog box appears. AutoCAD saves its drawings as files with extensions ending in .DWG.

1. Choose File, Save or Saveas.

or

2. Type SAVE or SAVEAS at the command prompt.

Command: SAVE or SAVEAS

3. Press ENTER

4. Type A new drawing name or keep the existing drawing name.

5. Click The OK button.

QUICK SAVE

QSAVE

The **QSAVE** command is equivalent to clicking Save on the File menu. If the drawing is named, AutoCAD saves the drawing using the file Format specified on the Open and Save tab of the Options dialog box and does not request a file name. If the drawing is unnamed, AutoCAD displays the Save Drawing As dialog box (see SAVEAS) and saves the drawing with the file name and format you specify.

1. Press **CTRL + S**.

or

2. Click the Save icon.

or

3. Type **QSAVE** at the command prompt,
Command:**QSAVE**

Exiting AutoCAD

QUIT

1. Choose File, Exit.
or
2. Type QUIT at the command prompt.
Command: QUIT
3. Press ENTER
4. Click Yes to save changes or No to discard changes

Function Keys

Function Keys

Keyboard shortcuts predefined in AutoCAD

F1 Online Help

F2 Flipscreen

F3 Osnap ON/OFF

F4 Tablet On/Off

F5 Isoplane Toggle

F6 Coords On/Off

F7 Grid On/Off

F8 Ortho On/Off

F9 Snap On/Off

F10 Polar On/Off

F11 Object Snap Tracking ON/OFF

Function Keys Specific

Osnap “F3”

Instantly locates exact points relative to existing objects (points).

Object Snap Modes: Endpoint, Midpoint, Center, Quadrant, Intersection, Insertion, Perpendicular, Tangent, Nearest, Node, and None.

Orthogonal Lines “F8”

Controls lines from being drawn at various angles to straight lines. When the snap grid is rotated, ortho mode rotates accordingly.

Cartesian Coordinate System

The Cartesian coordinate system divides a two dimensional plane with two perpendicular axis.

The X axis runs horizontal across the bottom of the screen.

The Y axis runs vertically along the left side of the screen.

These two axis intersect at the bottom left corner of the screen.

Each of these axis is further divided into segments. Each segment is given a value.

The X axis segments increase in value to the right.

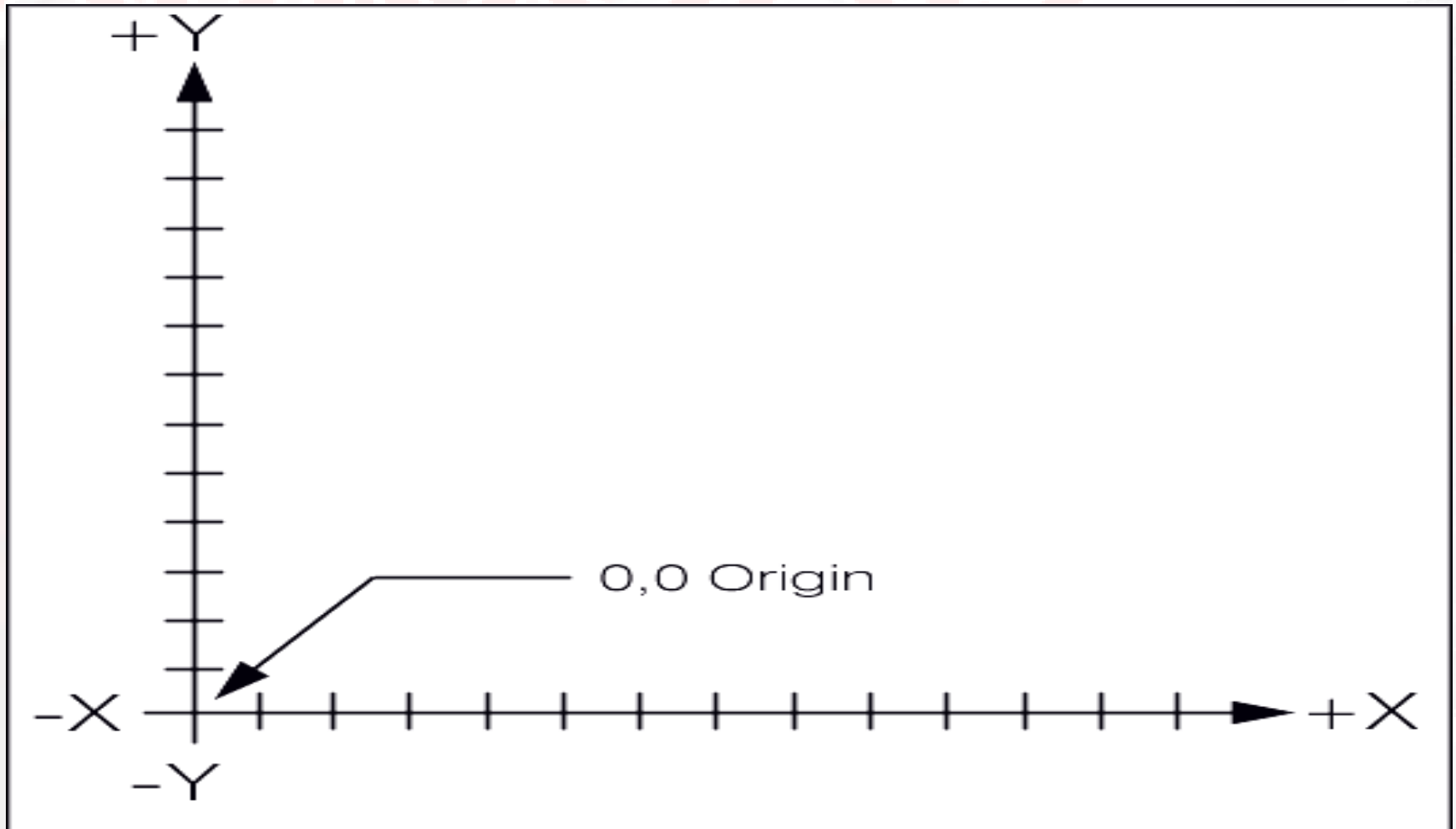
The positive X values are to the right of the intersection of the two axis.

The negative X values are to the left.

The positive Y values are above the intersection and increase up.

The negative values are below.

Cartesian Coordinate System



Delta “Incremental” Coordinates

1. Type the X,Y coordinate when AutoCAD asks for a point.
2. Command: _LINE Specify first point: 0,0
3. Specify next point or [Undo]: 100,0
4. Specify next point or [Undo]: 0,100
5. Specify next point or [Close/Undo]: -100,0
6. Specify next point or [Close/Undo]: 0,-100

Relative Polar Coordinates

Command: LINE

LINE Specify first point: 0,0

Specify next point or [Undo]: @100<0

Specify next point or [Undo]: @100<90

Specify next point or [Close/Undo]: @100<180

Specify next point or [Close/Undo]: @100<270

Drawing Commands

LINE: Draws straight lines between two points

CIRCLE: Draws circles of any size.

Construction Commands

OFFSET: Constructs an entity parallel to another entity at a specified distance.

CHAMFER: Changes any corner to an angled corner.

FILLET: Changes any corner to a rounded corner.

MOVE: Moves designated entities to another location.

MIRROR: Makes mirror images of existing objects.

COPY: Draws a copy of selected objects.

Editing Commands

ERASE: Erases entities from the drawing

EXTEND: Lengthens a line to end precisely at a **boundary edge**.

TRIM: Trims a line to end precisely at a **cutting edge**.

Command Aliases

Aliases are shortcuts or alternative names for commands that you enter at the keyboard.

Line Alias-Type L at the command prompt.

Command: L

Circle Alias-Type C at the command prompt

Command: C

Offset Alias-Type O at the command prompt

Command: O

Erase Alias-Type E at the command prompt

Command: E

Zoom Alias-Type Z at the command prompt

Command: Z