

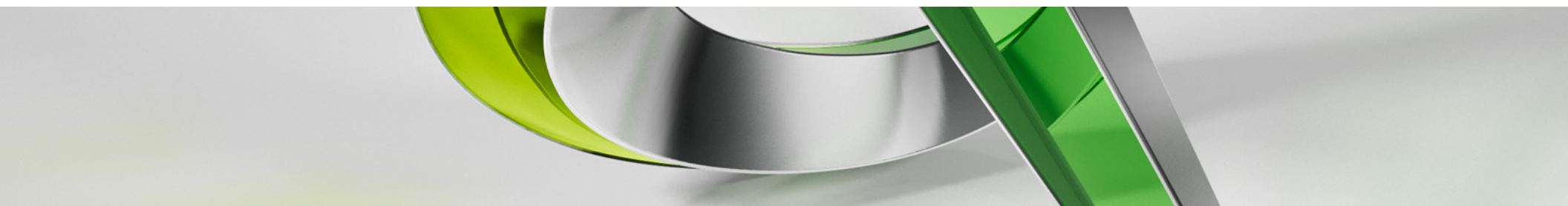


GEN11005-L - The Power of Fields and Attributes in AutoCAD

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About me...



- Working as BIM Manager – PTW Architects
- 17 Years of Industrial Experience with Architectural Engineering Construction (AEC) Industry
- Certified Instructor/Professional from Autodesk for AutoCAD, Revit & 3ds max
- Training AutoCAD, 3ds max in ATC from 1998.
- Training Revit in ATC from 2005.
- AEC Building Certification for Technical Representatives – Autodesk

Class summary

Have you imagined how powerful attributes and fields can be in your design process? Learn how to add intelligence to your design data using fields and attributes. You will learn how to define and redefine attributes, using fields with text/Mtext and attributes.

See how quickly you can use fields to extract properties of elements and combine them with formulas for complex calculations. You will also learn how to extract attribute/fields from the design data and output as AutoCAD software Table or export as a Microsoft Excel or database file.

Key learning objectives

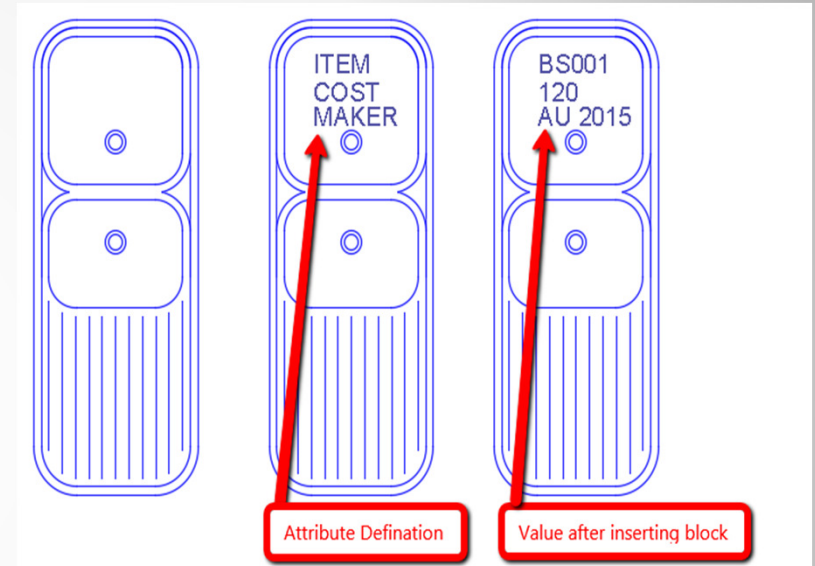
At the end of this class, you will be able to:

- Learn how to create attributes and redefine existing attributes
- Learn to insert fields, insert field with text/mtext, or use with attributes
- Learn to use field for complex calculation using elements property combining with formulas
- Learn how to extract attribute/fields from the design data and output as AutoCAD Table or export as Excel or database file

About Attributes

An attribute is text that can be attached to a block to convey more information than just the geometry.

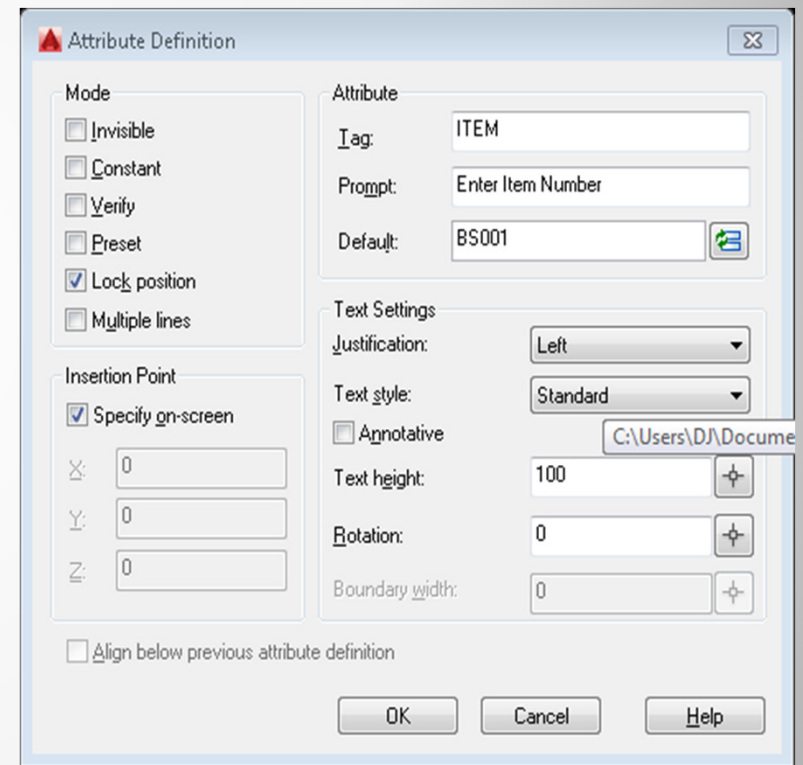
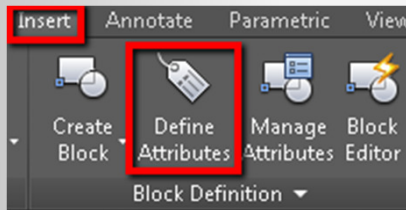
- Can also be easily extracted to an external file such as an Excel spreadsheet or database.
- Can also be placed as a table within the drawing.
- Using Attributes helps to maintain the consistency of Design
- Eg: Part number, Manufacture name, cost etc.



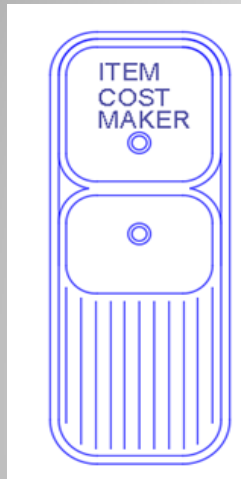
Defining Attributes

Attributes can be defined by using

Command : **ATTDEF** or **AT**
or by using “**Insert > Define Attributes**” Panel



Exercise Time:



Attribute Definition

Mode

- ☐ Invisible
- ☐ Constant
- ☐ Verify
- ☐ Preset
- ☒ Lock position
- ☐ Multiple lines

Attribute

Tag: ITEM

Prompt: Enter Item Number

Default: BS001

Text Settings

Justification: Left

Text style: Standard

☐ Annotative

Text height: 100

Rotation: 0

Boundary width: 0

Insertion Point

☒ Specify on-screen

X: 0

Y: 0

Z: 0

☐ Align below previous attribute definition

OK Cancel Help

Block Definition

Name: Basin

Base point

☐ Specify On-screen

☒ Pick point

X: 16492.33680339913

Y: 10946.17472752941

Z: 0

Objects

☐ Specify On-screen

☒ Select objects

☐ Retain

☐ Convert to block

☒ Delete

28 objects

Behavior

☐ Annotative

☐ Match block orientation to layout

☐ Scale uniformly

☒ Allow exploding

Settings

Block unit: Unitless

Hyperlink...

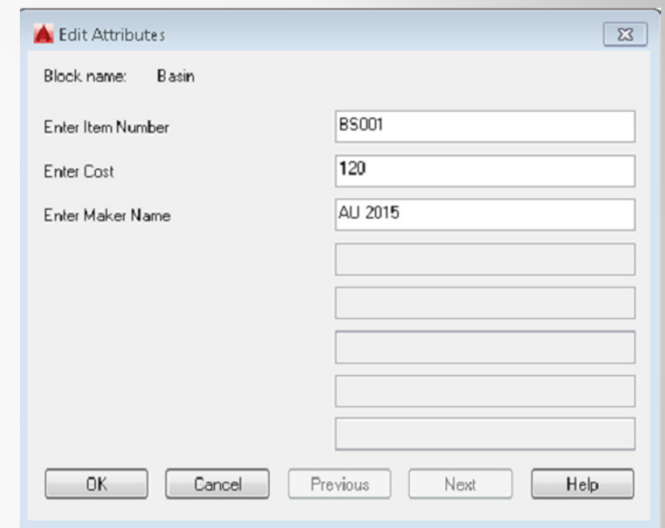
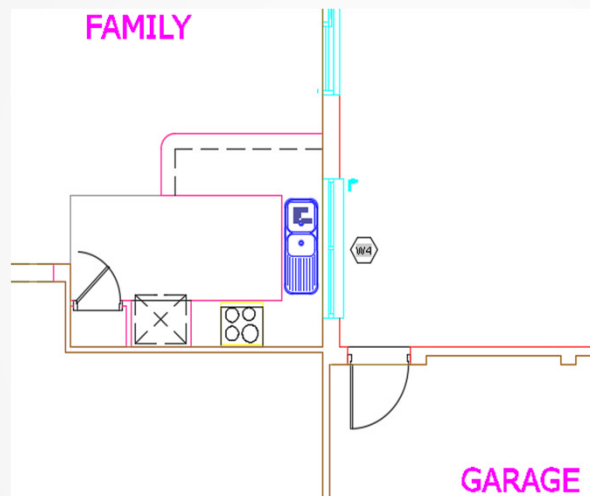
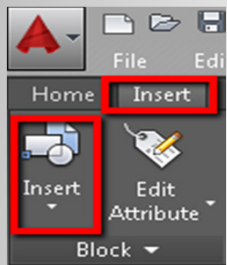
☐ Open in block editor

Description

OK Cancel Help

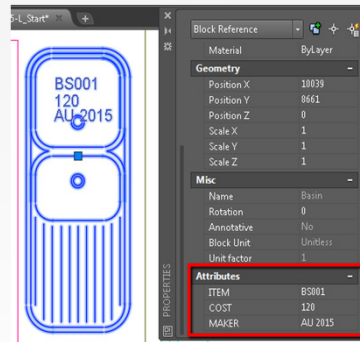
Insert Block and define value

Command: I or INSERT

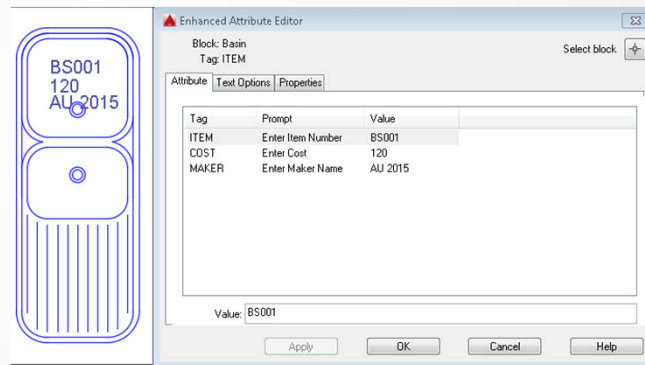
The image shows the 'Edit Attributes' dialog box in AutoCAD. The dialog box has a title bar that says 'Edit Attributes'. Inside, there are several fields for defining the block's attributes. The 'Block name' is 'Basin'. The 'Enter Item Number' field contains 'BS001'. The 'Enter Cost' field contains '120'. The 'Enter Maker Name' field contains 'AU 2015'. There are five empty text boxes below the 'Enter Maker Name' field. At the bottom of the dialog box, there are buttons for 'OK', 'Cancel', 'Previous', 'Next', and 'Help'.

Editing Attributes

Using PROPERTIES PALATTE



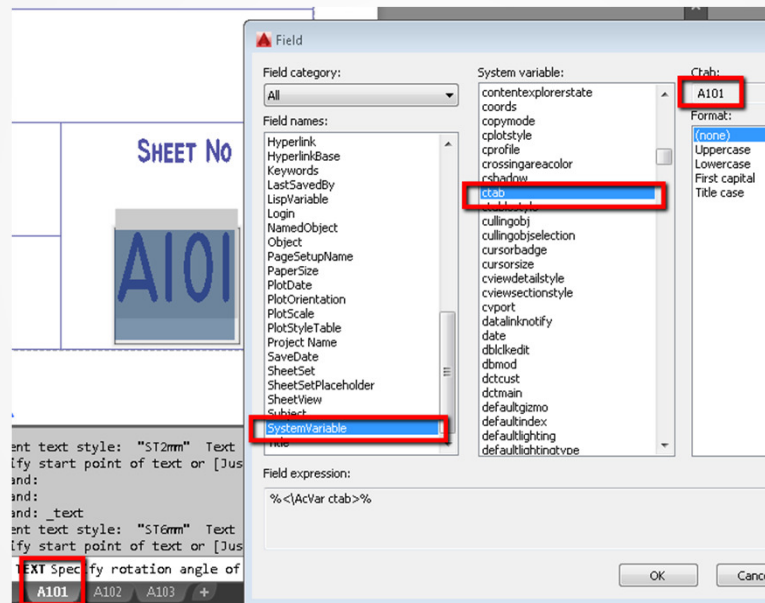
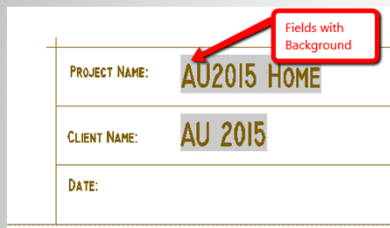
Command: EATTEDIT



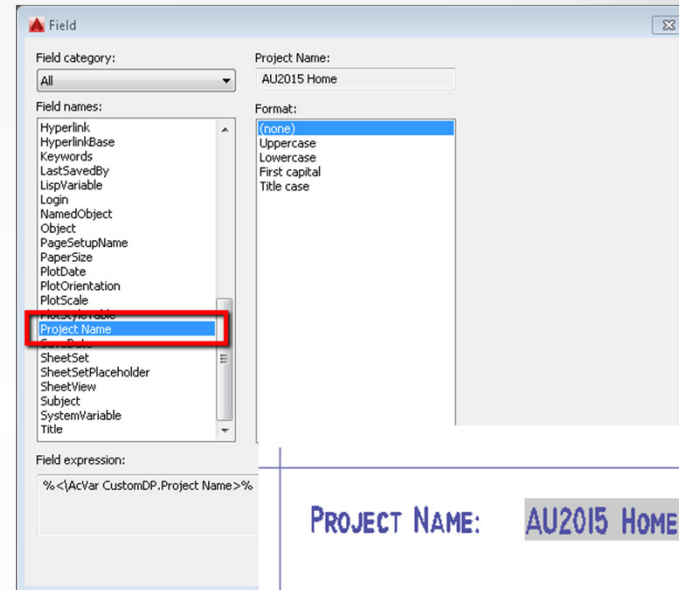
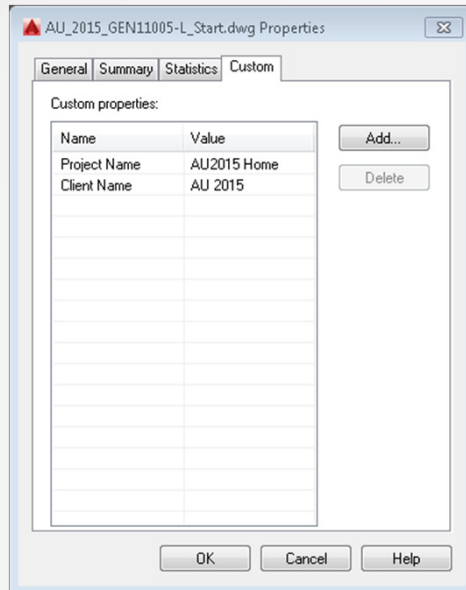
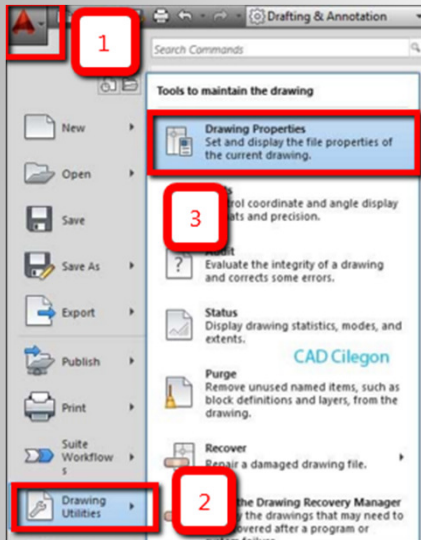
Command: BATTMAN

Fields

A field in text contains instructions to display data that you expect to change during the life cycle of a drawing.



Exercise Time:

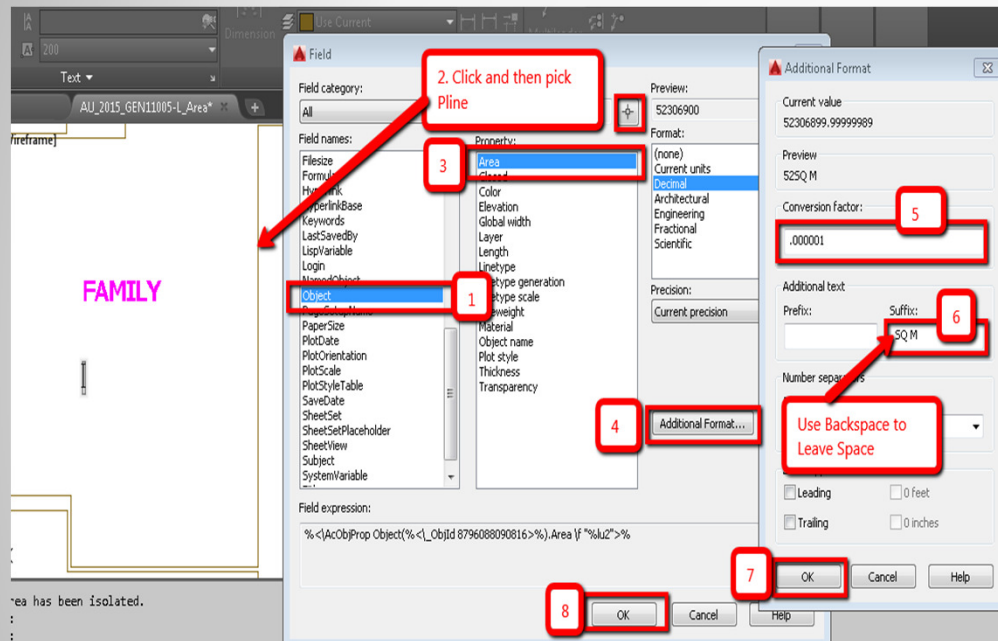


PROJECT NAME: AU2015 HOME

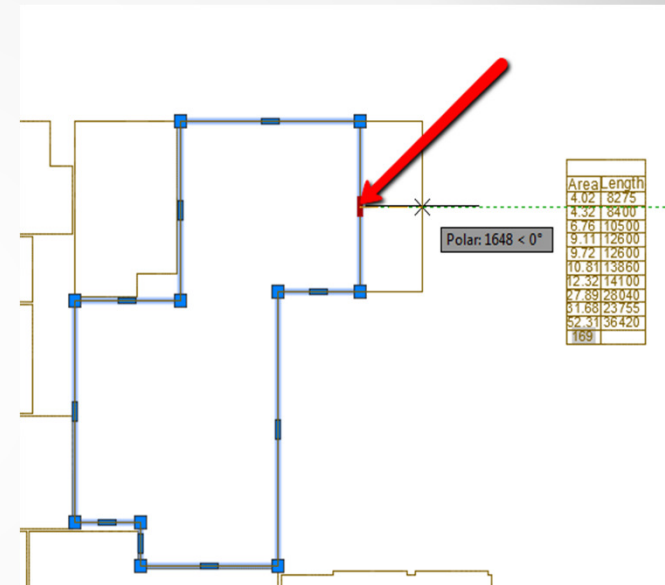
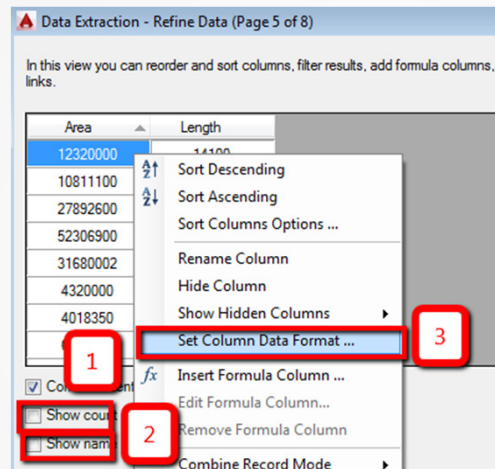
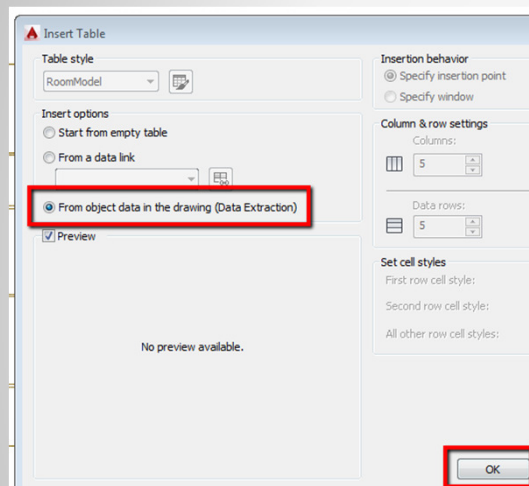
CLIENT NAME: AU 2015

DATE:

Exercise Time:



Exercise Time: Area Calculation using Fields and formulas



Questions & Answers

