



Andhra Pradesh State Skill Development Corporation



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AutoCAD(CIVIL)

Properties and Layers Panels

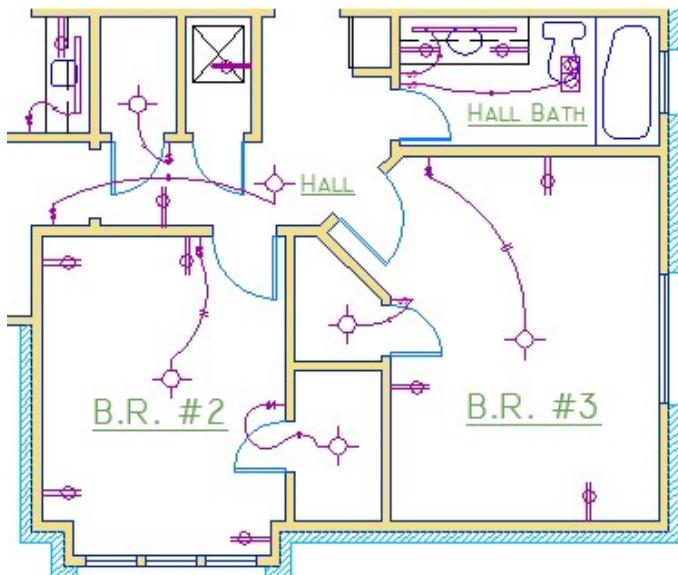


HOME TAB PANELS AND ISOMETRIC DRAWING PROPERTIES AND LAYERS PANELS

PROPERTIES PANEL

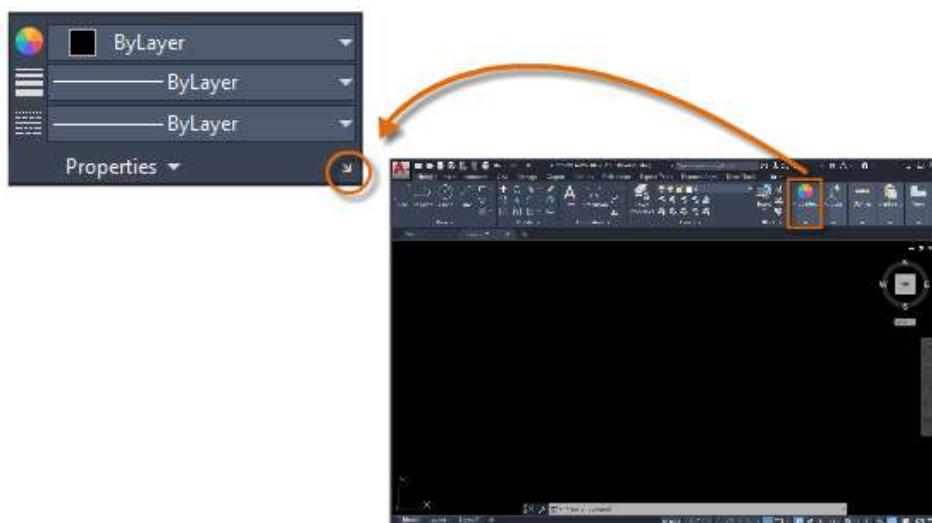
You can assign properties such as color and linetype to individual objects, or as default properties assigned to layers.

In the following drawing, the walls, exterior stone facing, doors, fixtures, cabinetry, HVAC, electrical, and text were created using different colors to help differentiate between them.



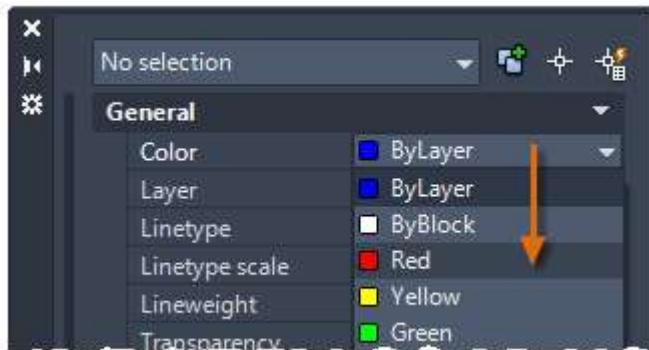
The Properties Palette

The Properties palette is an essential tool. You can open it with the PROPERTIES command (enter PR in the Command window), you can press Ctrl + 1, or you can click the tiny arrow in the Properties panel on the Home tab—whichever you prefer.



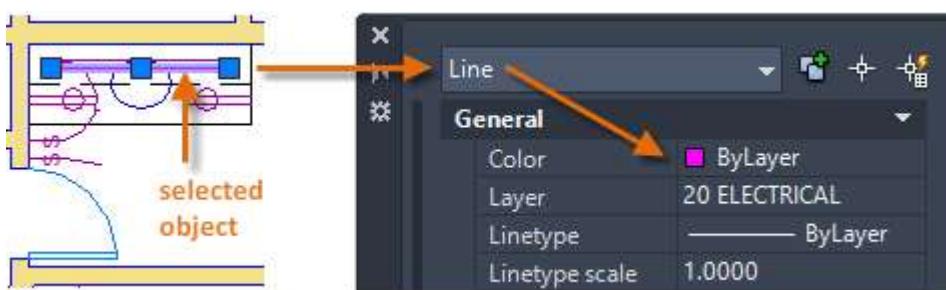


The Properties palette displays a list of all the important property settings. You can click any of the available fields to change the current settings. In the following example, if no objects are selected, the current color will be changed from ByLayer to Red. All subsequently created objects will then be assigned the color property Red.



Verify and Change Object Properties

You can also use the Properties palette to verify and change property settings for selected objects. If you click an object in your drawing to select it, here is what you might see in the Properties palette.



Notice that the current properties for the selected object are displayed in the Properties palette. You can change any of these properties by clicking it and changing the setting. A property that is set to "ByLayer" inherits its setting from its layer. In the previous example, the objects that were created on the 20 ELECTRICAL layer are purple because that is the default color of the objects on that layer.

If you select several objects, only their common properties are listed in the Properties palette. If you change one of these properties, all the selected objects will change in one operation. Selecting objects is covered in more detail in the Modifying topic.

Note: To clear the current selection, press Esc.

Quick Access to Property Settings

The Properties palette takes up a lot of space. For quick access to the most common properties, use the Properties panel on the ribbon. As you can see in this example, the listed properties will all be determined by the current layer.



The Properties panel works the same way as the Properties palette. When you select an object, the current property settings are replaced by the properties assigned to the selected object, and you can use this panel to easily change the properties of one or more selected objects.

Match the Properties of Objects

For a fast way to copy the properties of a selected object to other objects, use the Match Properties tool, or enter MATCHPROP or MA in the Command window.

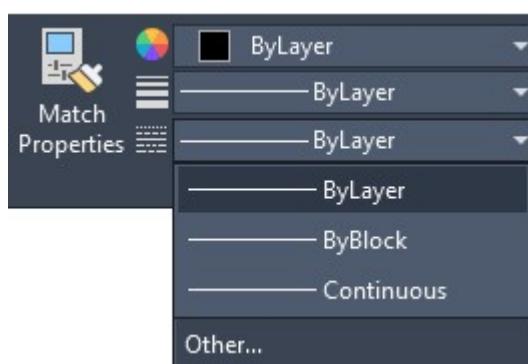


After you click the Match Properties tool, select the source object, and then select all of the objects that you want to modify.

Linetypes

Dashed and other non-continuous linetypes are assigned from the Properties panel. You first need to load a linetype before you can assign it.

In the Linetype drop-down list, click Other.



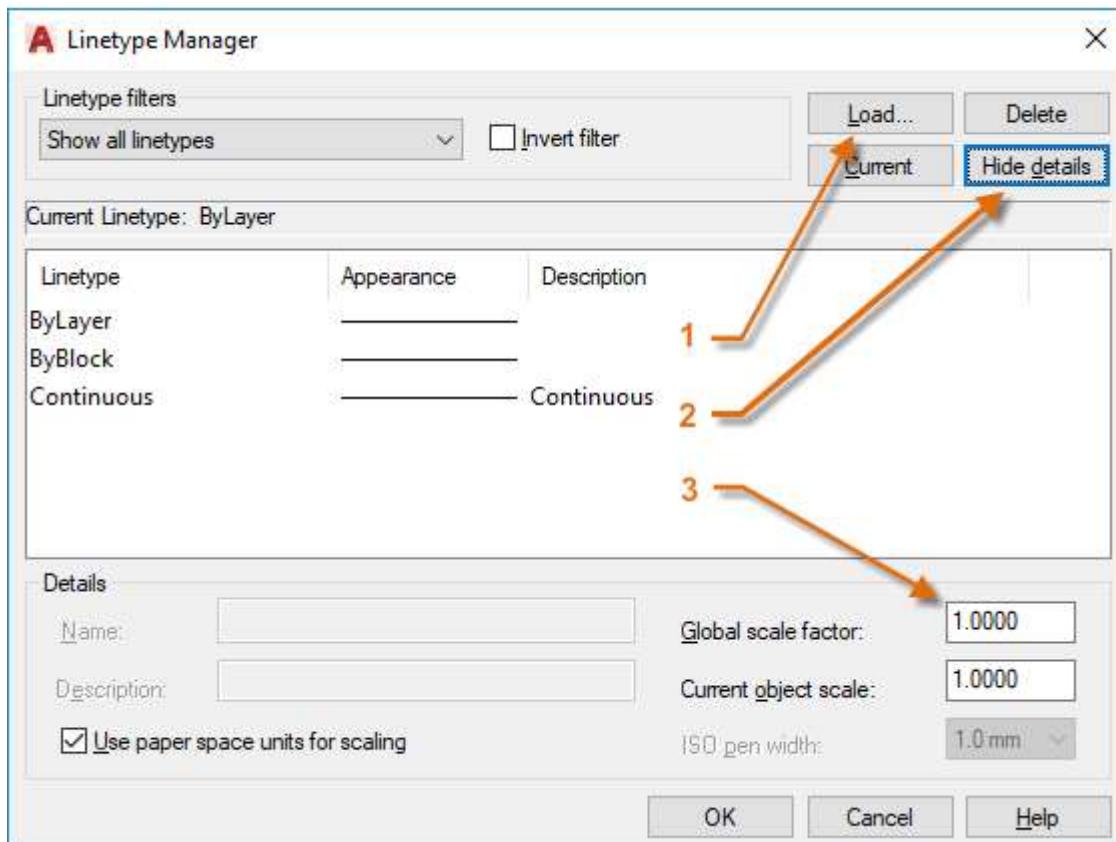
This action displays the Linetype Manager dialog box.

Perform the following steps:

1. Click Load. Choose one or more linetypes that you want to use. Notice that dashed (non-continuous) linetypes come in several preset sizes.
2. Click Show/Hide details to display additional settings.



3. Specify a different "global scale factor" for all linetypes—the larger the value, the longer the dashes and spaces. Click OK.



Once you've loaded the linetypes that you plan to use, you can select any object and specify a linetype from the Properties panel or the Properties palette. Alternatively, you can specify a default linetype for any layer in the Layer Properties Manager.

Lineweights

The Lineweight property provides a way to display different thicknesses for selected objects. The thickness of the lines remains constant regardless of the scale of the view. In a layout, lineweights are always displayed and printed in real-world units.

Lineweights can also be assigned from the Properties panel.

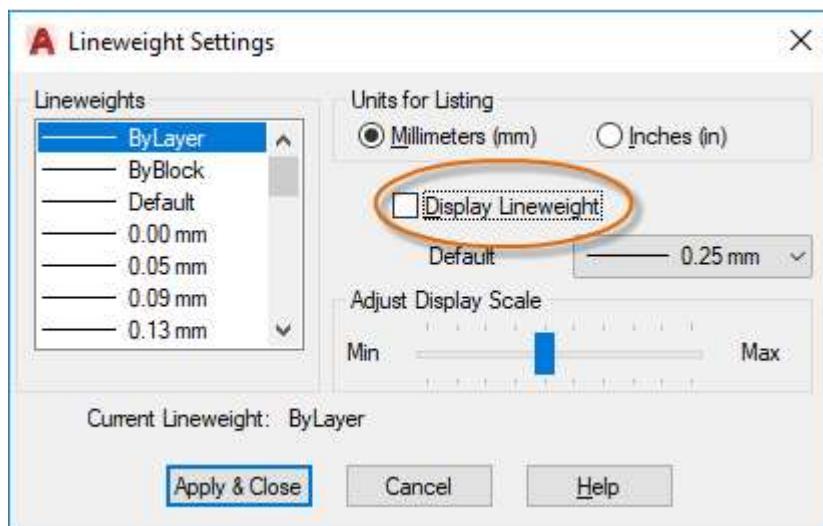




You can leave the linewidth set to ByLayer, or you can specify a value that overrides the layer's linewidth. In some cases, the linewidth previews look the same because they are displayed in approximated pixel widths on a monitor. However, they will print at the correct thickness.

Tip: It's usually best to leave linewidths turned off while you work. Heavy linewidths can obscure nearby objects when you use object snaps. You might want to turn them on for checking purposes just before you print.

To control the display of linewidths, click the Lineweight Settings button at the bottom of the linewidth list. In the Lineweight Settings dialog box, you can choose whether you want to display or hide linewidths.



Regardless of the display setting, linewidths will always be printed at the correct scale.

LAYERS PANEL

Layers are the primary method for organizing the objects in a drawing by function or purpose. Layers can reduce the visual complexity of a drawing and improve display performance by hiding information that you don't need to see at the moment.

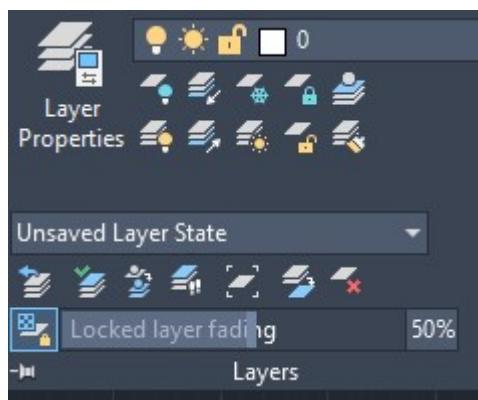
The layering system is an essential drawing management in AutoCAD, and you should use layers in every drawing. The common usage of layers is to draw objects on a layer based on their function. Create all dimensions on a specific layer. Create walls, doors, windows on separate layers





AutoCAD Layers

- The layer command is used to control and manage the drawings in AutoCAD for different purposes.
- It increases the display performance of the AutoCAD by hiding the portion of our drawing when needed. It also improves the visual complexity of the drawing.
- We are required to create a set of layers having different properties. For example, in a floor plan or house plan, we can create separate layers for doors, walls, etc.
- We can create many layers by specifying the name for the corresponding layer. We can also control the order of the layers.
- The shortcut command of the layer is 'LA'.
- The Layer on the ribbon panel looks like the below image:

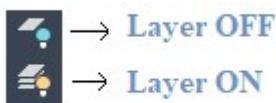


Let's discuss the layer properties in detail.

Layer ON/OFF

It is used to turn **ON** or turn **OFF** the layer of the selected object.

The layer is represented as:



The shortcut command for the Layer ON and Layer OFF is **LayON** and **LayOFF**.

Layer Isolate/Unisolate

The Isolate is used to hide or lock the layers. The Isolated layers are defined as visible layers. The layers are locked except for the selected objects.

The layer is represented as:



The UNISOLATE is used to unlock the layers. It is the reverse of the LAYER ISOLATE command.



Layer Freeze/Thaw

The FREEZE is used to freeze the layer of the selected object, while the THAW is used to remove the freeze from the layer.

The LAYER THAW unfroze the layers.

The layer is represented as:



The objects become invisible after applying the LAYER FREEZE command.

Layer LOCK/UNLOCK

The LOCK is used to lock the layer of the selected object, while UNLOCK removes the lock from the layer.

The layer is represented as:



The LAYER LOCK command prevents the object from actually being modified.

Current layer

The Current layer sets the selected layer as the current layer on the viewport. The objects will be created based on the selected current layer.

The layer is represented as:



Match layer

The MATCH LAYER is used to change the current layer to match the destination layer. The current layer is the layer of the selected objects.

The layer is represented as:

