

# AutoCAD and Its Applications **BASICS**

## Supplemental Material—Chapter 5

# Creating Layer Filters

Layer filters are most appropriate when it becomes difficult to manage a very large number of layers. Filter layers to make it easier to work with only those layers needed for a specific drawing task. As you learn more about AutoCAD and create drawings with large lists of layers, explore layer filters in more detail. Refer to this supplement for information on using the **Layer Properties Manager** to create and manage custom layer filters.

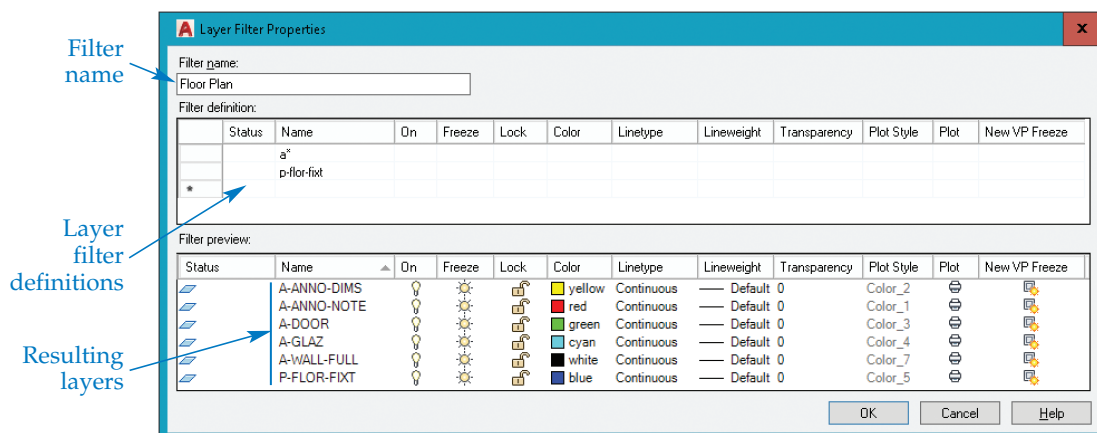
## Creating a Property Filter

A *property filter* screens layers according to a specific layer property. An example of a property filter is filtering all layers that are on, or have a name beginning with the letter A, or both. The default **All Used Layers** filter is a property filter that filters layers according to layer status. To create a property filter, pick the **New Property Filter** button to display the **Layer Filter Properties** dialog box. See [Figure 5B-1](#). Enter a name for the new filter in the **Filter name:** text box. Pick the appropriate **Filter definition:** area field box to define properties to filter.

The Status, On, Freeze, Lock, Plot, and New VP Freeze fields display a flyout. Select an option from the flyout to filter according to the selection. For example, pick the **On** icon from the On field to display only layers that are on. In the Name field, type a layer name or a partial layer name using the \* wildcard character to filter according to layer name. For example, to see all layers that start with an A, type a\*. You can filter using the Color, Linetype, Lineweight, Transparency, or Plot Style fields by typing an appropriate value or selecting the ellipsis (...) button to select from the corresponding dialog box.

**Figure 5B-1.**

Use the **Layer Filter Properties** dialog box to create and edit a property filter. Use multiple rows in the **Filter definition:** area to add layers to the filter set.



After you define a property filter, another row appears in the **Filter definition:** area. This allows you to create a more advanced filter. **Figure 5B-1** shows a filter named Floor Plan, in which two rows are used to filter out all the layers except the layers beginning with the letter A and the P-FLOR-FIXT layer. To save the filter, pick the **OK** button. The new filter now displays in the filter tree view area.

## Creating a Group Filter

A *group filter* is created by adding layers to the filter definition. To create a group filter, select the **New Group Filter** button. A new group filter appears in the filter tree view. Select the **All** node at the top of the filter tree area to display all the layers in the drawing. Then, to add a layer to the group filter, drag a layer from the list and drop it onto the group filter name. For example, you could drag and drop all electrical plan layers into a group filter.

You can also add layers to a group filter by selecting the group filter, right-clicking, and selecting **Add** from the **Select Layers** submenu. This feature allows you to select objects assigned to layers to add the layers to the group filter. After selecting objects, right-click or press [Enter].

Pick **Replace** from the **Select Layers** submenu to select objects on the layers to replace all other layers in the group filter. After selecting the objects, right-click or press [Enter] to replace the layers in the group filter with the layers of the objects you selected. To remove a layer from a group filter, right-click on the layer in the layer list area of the **Layer Properties Manager** and select **Remove From Group Filter**.

## Activating a Layer Filter

Select the filter from the filter tree view of the **Layer Properties Manager** to activate the filter. When a layer filter is active, only those layers associated with the filter appear in the layer list area of the **Layer Properties Manager** and the **Layer** drop-down list in the **Layers** panel of the **Home** ribbon tab. To view all the layers again, pick the **All** node at the top of the filter tree area of the **Layer Properties Manager**.

### NOTE

The status bar at the bottom of the **Layer Properties Manager** provides a description of the active layer filter settings.

## Inverting Layer Filters

To invert, or reverse, a layer filter using the **Layer Properties Manager**, pick the **Invert filter** check box located in the lower-left corner, or right-click in the layer list area and select **Invert Layer Filter**. For example, invert the **All Used Layers** filter to show all unused layers without creating an additional filter.

## Additional Layer Filter Options

Other options associated with filters are accessible from a shortcut menu that appears when you right-click on a filter in the **Layer Properties Manager**. Most of the options in the shortcut menu are the same for different types of filters, but some options are available only for a certain filter. [Figure 5B-2](#) describes the filter options.

## Filtering by Searching

The **Layer Properties Manager** contains a search tool to filter layers in the list view without creating a property or group filter. To use the search feature, type a layer name or a partial layer name using the \* wildcard character in the **Search for layer** text box. For example, to see all the layers that start with an A, type a\*. As you type, layers that match the letters you enter display. Add letters to narrow the search, with the most relevant or best-matched layers listed first.

**Figure 5B-2.**

Additional layer filter options available from the shortcut menu that appears when you right-click on a filter in the **Layer Properties Manager**.

Option	Function
<b>Visibility</b>	Changes the <b>On/Off</b> and <b>Thawed/Frozen</b> states of the layers associated with the filter.
<b>Lock</b>	Locks or unlocks the layers associated with the filter.
<b>Viewport</b>	Freezes or thaws the layers associated with the filter in the current layout viewport.
<b>Isolate Group</b>	Freezes all layers except those associated with the filter and the current layer.
<b>New Properties Filter...</b>	Opens the <b>Layer Filter Properties</b> dialog box.
<b>New Group Filter</b>	Creates a new group filter.
<b>Convert to Group Filter</b>	Converts a property filter to a group filter.
<b>Rename</b>	Renames the selected filter.
<b>Delete</b>	Deletes the selected filter.
<b>Properties...</b>	Edits a property filter.
<b>Select Layers</b>	Provides options to add layers or replace layers in an existing group filter.

## Activity 5B-1

1. Open the EX5-6 file you saved during Exercise 5-6.
2. Save a copy of EX5-6 as ACT5B-1. The ACT5B-1 file should be active.
3. Add a layer named A, with color green, and a layer named B, with color red.
4. Create a property filter with the following specifications:

Filter name:	a b green red on thawed
Status	(leave blank)
Name	a*
On	On
Freeze	Thawed
Lock	Unlock
Color	green
Linetype	(leave blank)
Lineweight	(leave blank)
Plot Style	(leave blank)
Plot	(leave blank)
5. In the second filter definition row, use the same settings as above, except for the following:

Name	b*
Color	red
6. Pick the **OK** button.
7. Select the new property filter in the filter tree view area to view the results in the layer list.
8. Create a new group filter and name it test.
9. In the filter tree view area, select the All filter and then drag and drop the A and B layers onto the test group filter.
10. Pick the All filter to show all layers.
11. Experiment with filtering layers using the **Search for layer** text box.
12. Resave and close the file.