

Layer Manager (MGL)

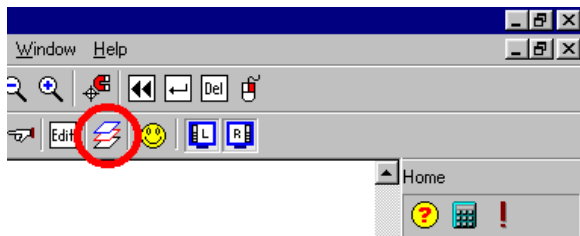
Introduction

The Layer Manager in the diagram program offers a way of isolating different objects in the drawing onto different layers or pages. Imagine a stack of clear sheets of paper, each sheet being a different layer. Much like human anatomy sections in encyclopedias which allow you to pull away layers of the body such as skin, veins, muscle, down to the skeleton. Layering in the diagram program is a lot more powerful than turning pages in a book, but the concept is the same.

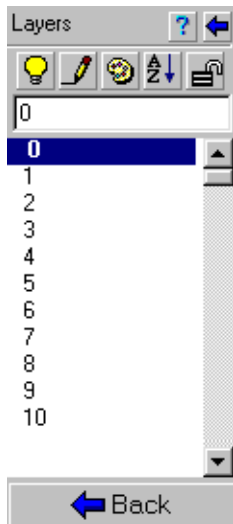
Layers are essential if you have a complex diagram of entities or one that might consist of different time frames such as a car crash. You could set up a layer for the roads, a layer for the cars before the crash, a layer for the cars at impact, and a layer for the cars after the crash at their resting positions. You would also set up layers for text and dimensions. It's up to you how you set up your layer system.

To open Layer Manager:

Select Layer Manager from the Utilities pull-down menu, select the Layer Manager icon from the Speed bar, or type MGL on the keyboard.



A dialog box appears, displaying a list of layers. You can use the scroll bar to display the status of all layers supported by The Diagram Program. There are 1024 layers available. Layer numbers and names are displayed, the current layer is displayed in boldface, and layers with data on them are marked with asterisks (*). Listings for hidden layers are grayed.



Buttons on Layer Manager



The buttons on the layer dialog are used to control layer display (on/off), current layer, layer properties, layer sorting, and layer locking. You can also find these features and some bonus features on a pop up menu by right clicking in the layer dialog. More info on the pop up menu will follow this section.

Layer Display



The Layer Display button is an on/off toggle. If the selected layer is currently displayed then clicking on this button will hide it and visa versa. A hidden layer's name or number will be displayed in italics.

Warning: You cannot hide the current layer. If you want to hide the current layer then you need to select a different layer to be current.

Make Selected Layer Current

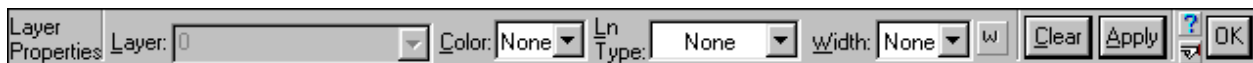


Clicking on this button will make the selected layer the current layer. You can also double click on a layer to make it current. Anything drawn or placed in the diagram are placed on the current layer. When starting a new drawing Layer 0 is the default layer.

Set Layer Properties -



Click on this button to bring up the properties dialog for the current layer. You can set different properties for different layers. You can set color, line type, and line width properties using the properties dialog at the top of the screen in the speedbar.



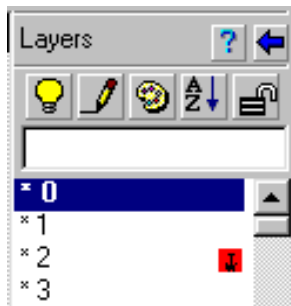
For example, if you wanted layer 10 to be set for edits and corrections you might want all lines to be red and thick. You would do the following;

1. Click on layer 10 to select it.
2. Click on the Properties button.
3. Set color to red and line width 2.
4. Click OK on the properties dialog to accept the property settings.

Tip: If you do not click on OK then the layer properties dialog will remain open. Hit the “Apply” button to apply the layer properties to the selected layer. You can then click on a different layer, change property settings, and click on the “Apply” button to finish the settings for that layer. Click on “OK” when you’re done.

Now, anytime you make layer 10 current then anything you draw on that layer will be red and have a thick line width. If you don't set layer properties then the current property settings in the program will still be in effect.

Once layer properties are set for a layer an icon will appear on that layer showing the color set in layer properties. If line type is set in layer properties then a "T" will be displayed in the icon. If line width is set in layer properties then a "W" will be displayed in the icon as well.



Tips:

Selecting and Modifying Multiple Layers

In Layer Manager you can select more than one layer at a time by holding down the Shift key and drag over the layers you want select. You can then click the Layer Display or Layer Properties buttons and modify all the selected layers. If you want to select multiple layers that are not in line with each other you can hold down the Control key and click on the layers to select.

You can highlight ranges of layers by dragging across the desired range (using standard Windows techniques), or click the select-all feature to select all layers. You can also select ranges of layers by typing them in the text box above the layer list box. You can indicate a range with a dash, and separate individual layers or ranges with commas. For example, you can select several layers by typing : 3-8, 10, 14, 17-25, 60.

Setting Different Properties

On the Layer Properties Settings Bar, select options from the drop-down list to set the layer properties, and then click Apply to assign those properties to the selected layer. Move to the next layer to change properties on and do the same thing. Click OK to close the Layer Properties Settings Bar.

Changing Properties of Objects on Layers with Property Settings

If you want to change properties of an object that has automatically been assigned the properties set for that layer, select the object(s) and then select Edit Properties from the Edit/Modify pull-down menu. Set the desired properties from the Settings Bar or from the dialog box that is displayed.

Determining the Layer of a Selected Object

If you want to know what layer an item is on you can do one of two things. Click on the object

and then click on Edit Properties. The layer of the selected object will be displayed in the layer box of the Properties dialog.

You can also click on an object, move your cursor inside the selection handles of the object (the cursor will have a four-way arrow attached to it when you're inside the selection handles) and then read the yellow command line at the bottom of the screen. Information pertaining to the object will be displayed with Layer number being displayed at the end.

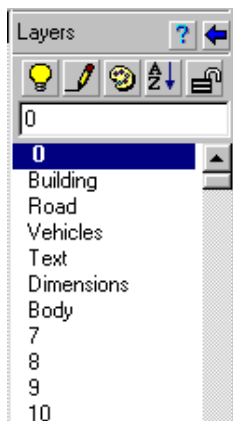
Sort Layers Alphabetically or Numerically



Click on this button to sort your layers alphabetically or numerically. This feature makes sense if you have a mixture of named and numbered layers.

Warning: You cannot rename a layer using a number for the first character. If you want to show a number followed by text then begin the name with a dash or underscore. **Example:** 2ndLevel

Naming Layers



To name or rename a layer, click once on the layer, pause, then click again (think of it as a slow double click). Type in the desired layer name and press Enter.

Lock or UnLock Layers

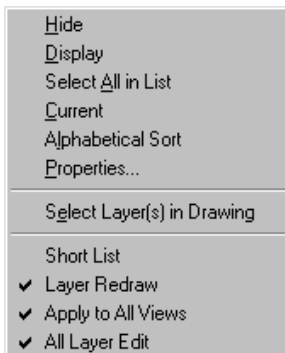


To see layers but not be able to edit them click on the “All Layers Locked/Unlocked” button. All layers except for the current layer will be editable. You could hide a layer if you didn't want to inadvertently edit it, but you may need the layer displayed for reference but don't want to be able to select it or alter it. If this is the case then you will want to lock all layers. You will still be able to snap to points on locked layers. Anything on the current layer is fair game for editing, moving,

deleting, etc...

A good time to lock layers would be if you imported a photo (bitmap) and you wanted to draw over the top of it such as an aerial photo of an intersection. You might want to draw lines over the photo to highlight the streets and place vehicle symbols on it. If you don't put the photo on it's own layer and lock the layers then every time you click on or near the photo it will be selected and cover any work you've done. You need to give this a try to really understand. If you lock the layers and use a different layer for drawing entities then the photo bitmap will not get selected accidentally.

Pop Up Layers Menu -



With the cursor positioned somewhere inside the layers dialog click the right-mouse button. The layers pop up menu will appear in the upper lefthand corner of the screen. Many of the commands coincide with the command buttons in the layer dialog.

Hide and Display



Select All in List - highlights all layers in the list.

Current



Alphabetical Sort



Properties



Select Layer(s) in Drawing

Short List - displays only those layers that have been named or have data on them.

Layer Redraw - if checked, layers will redraw when the display is changed between Hide and Display (light bulb on or off). If un-checked you will have to manually refresh the screen when hiding or displaying a layer.

Apply to All Views - n/a

All Layer Edit



