

Layers

Layers are organisational structures that allow the user to maintain data in a way that allows flexibility for manipulation, modelling, and representation. Layers usually contain related data; for example, the following layers may be seen in a topographic map:

- Natural Surface – contains information about the existing surface i.e. levels
- Buildings – contains information about any buildings
- Water – contains information about any water features such as water ways

A Layer could be compared to a sheet of transparent paper on which certain entities are drawn, if the sheet does not need to be viewed it is removed (or in CAD turned off). Users can create as many layers as required in MAGNET Office and assign line styles, symbols, and colours for display purposes. In addition to this, Avoidance layers can be setup for use with Machine Control and other field software to alarm the operator if avoidance areas are entered.

Advantages of using layers:

- Each layer can be defined to have its own colour, symbol, line style or the thickness that is to be shown.
- Each layer created can be independently switched on and off to have a better visibility of the working area.
- All layers if required can be locked to ensure that nothing is overwritten or changed in the layer.



Any entity that is added will automatically go into the \$\$DEFAULT layer or the “Current” layer. This layer is shown in the properties toolbar or shown with an asterisk() in the Layer Settings.*

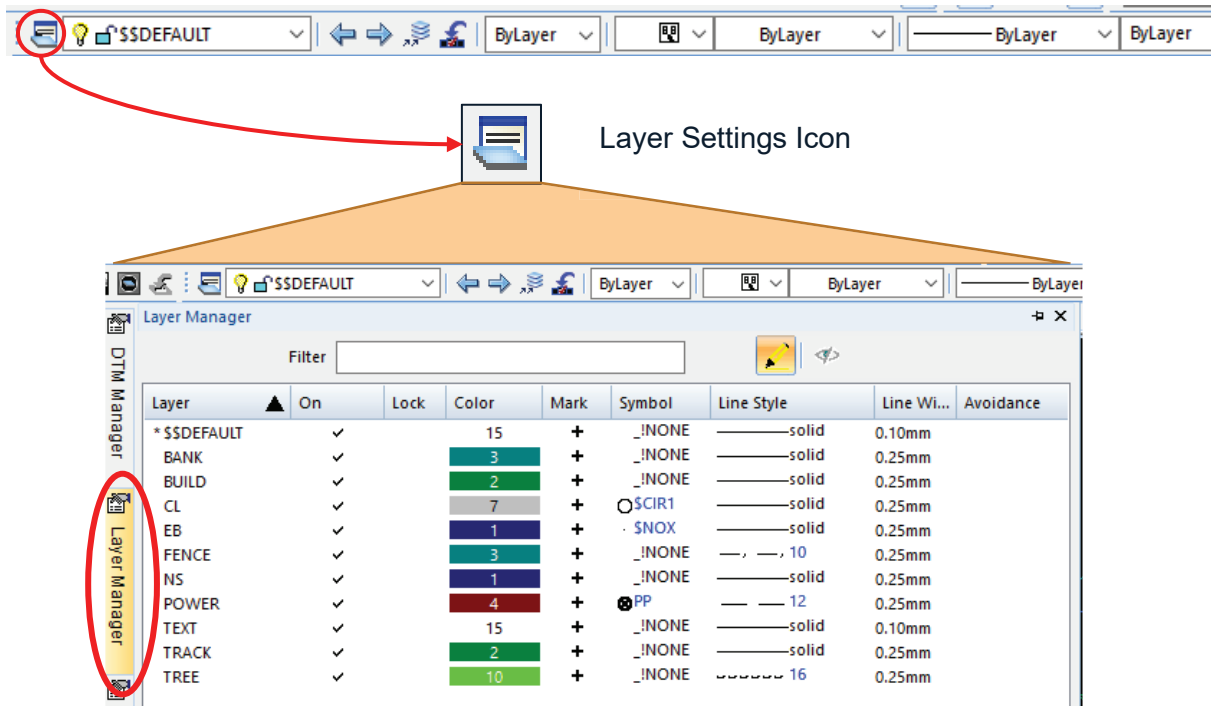


Creating Layers

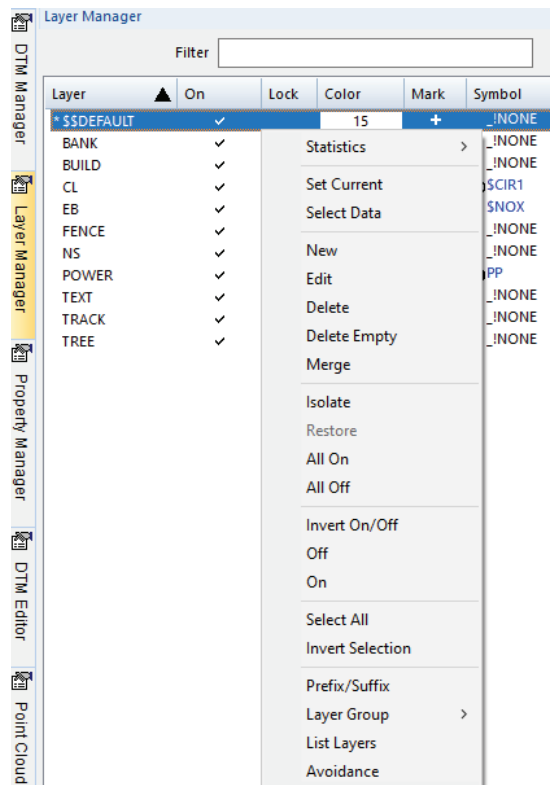
In MAGNET Office, layers can be created by manual input for creating specific layers or automatically when data is imported. For automatic creation of layers there are some requirements that the incoming data and the Survey Code library need to meet. This will be covered in the 'Library' section.

Creating a new layer can be done in the “Layer Settings” or by pressing the ‘Add’ button in the ‘Edit Layers’ section of the View menu. All the options that relate to layers are available in this dialogue box (these extra options are found down the right side of the window). There are 2 ways to access this dialogue box, using the “View” ribbon style menu, then “Layers”, or simply clicking on the icon which is located on the “Properties” toolbar.

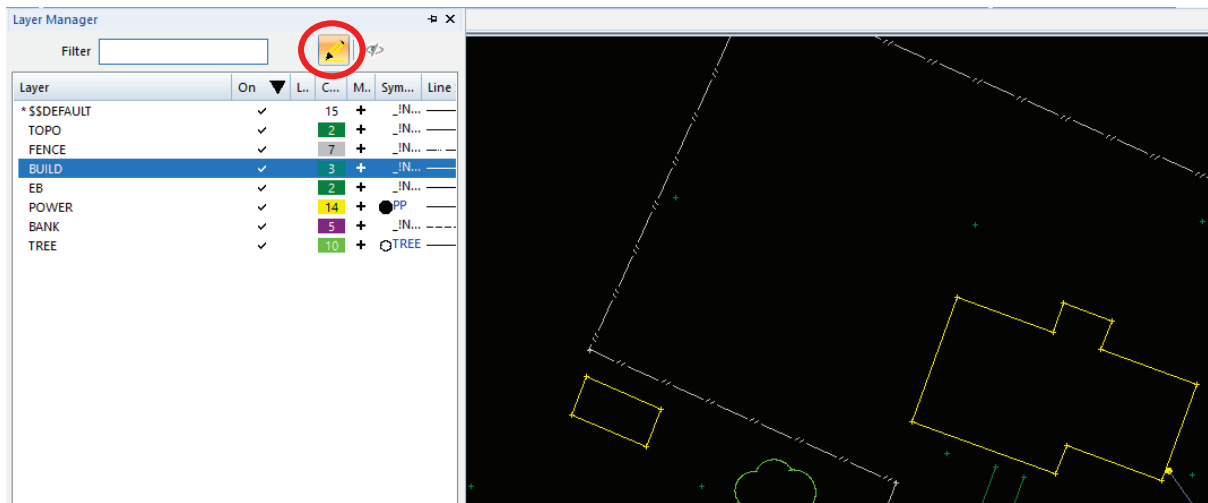




With the Layer Manager screen open, right click the mouse to show the context menu for additional options for Layers.



Selecting a layer and then picking the highlighter icon will show the selected layer and the highlighter stays active when you pick other layers and will show their position.



OPTION	DESCRIPTION
HIDE EMPTY	Hides layers that contain no data and are empty.
NEW	Creates a new user defined layer. Usernames layer and chooses layer attributes e.g. colour, linestyle, point symbol...
EDIT	Opens the edit option for the layer which is highlighted in blue.
DELETE	Deletes the layer which is highlighted in blue
DELETE EMPTY	Runs through all the layers within the current project to find and delete the layers which are empty
MERGE	Enables the merging of the highlighted layer with another layer selected from the existing list
SET CURRENT	Sets the highlighted layer to be the current or 'active' layer
INVERT ON/OFF	Inverts the check for selected layers to their invert setting (i.e., ON turns to OFF) and is controlled by the column it is sorted by e.g., to invert the layers the "ON" column needs to be sorted
OFF	Turns layer off
ON	Turns layer on
SELECT ALL	Selects all layers in list
INVERT SELECTION	Inverts the current select of the list, to use this sort of the layers by the on/off column, press select all and then invert selection.



PREFIX/SUFFIX	Enables the user to define the layers with a different prefix or suffix options
LIST LAYERS	Creates a note pad report on all the layers in the current job
ADD GROUP	Enables the use of grouping of layers for quick selection of 'group' layers
SELECT GROUP	Selects the group of layers and displays the associated options
GROUP SETTINGS	List the available groups in the project and opens the settings box for editing the group options
AVOIDANCE	Setup layers for use with Machine Control and other field software to alarm the operator if avoidance areas are entered.

