

Using Filters To Highlight Unconnected Nodes On Analytical Model

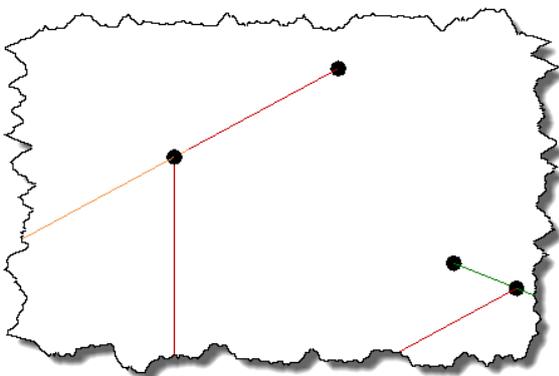
Autodesk Revit Structure

How using filters on a analytical model to help indicate all the unconnected nodes.

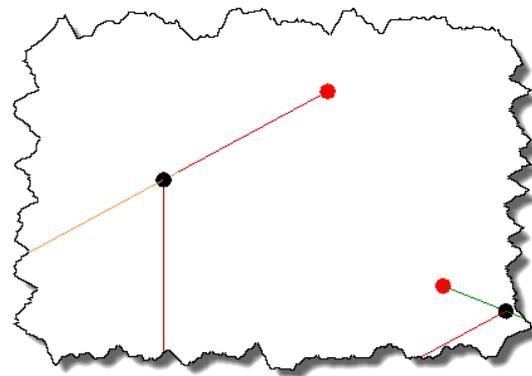
Filters

Filters are a great way to override the graphic display and control the visibility of elements which share a common properties within a view in Revit model.

When in an analytical model you may notice that the nodes which are unconnected show the same colour as the connected ones which does make it difficult to pick out which is which. If you are going to export the model out for analysis to Robot Structural Analysis or any other analysis program, its not going to be able to analysis beams or columns which aren't connected. So I am going show you how using a filter can help you see all the unconnected nodes in your model.



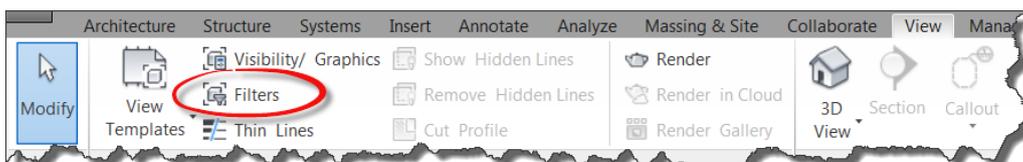
No Filter Applied



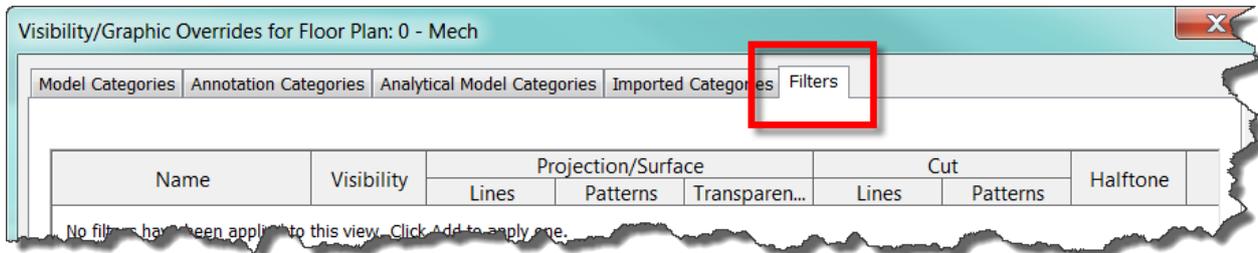
Filter Applied

Creating a Filter

To create a filter we need to go the Ribbon **View (tab) > Graphics > Filters**.

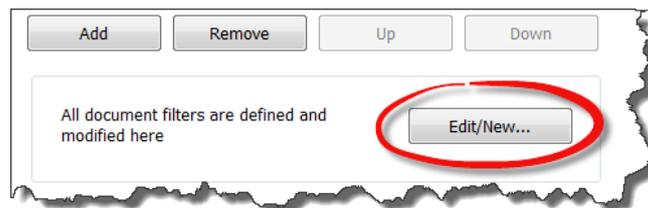


Another alternative is to access filters through the **Visibility Graphics** dialog window. To open the **Visibility Graphics** you can either use the keyboard shortcut keys **VV** or **VG**, from the Ribbon **View (tab) > Graphics >  Visibility/Graphics**. Also from the properties window.

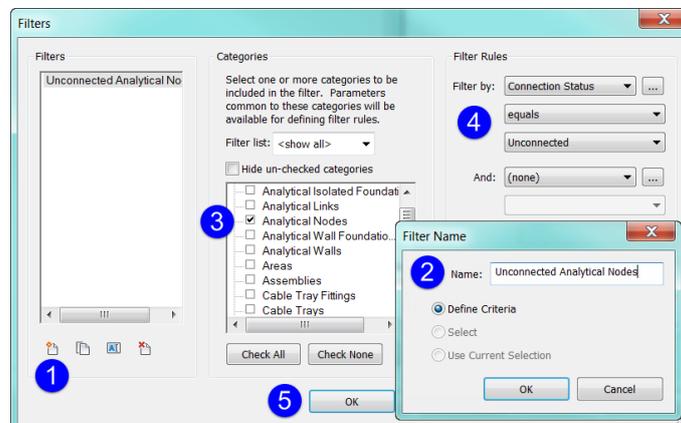


In the **Visibility Graphics** dialog window you will see a Filters tab. This is where you can add, remove and apply filters to your views.

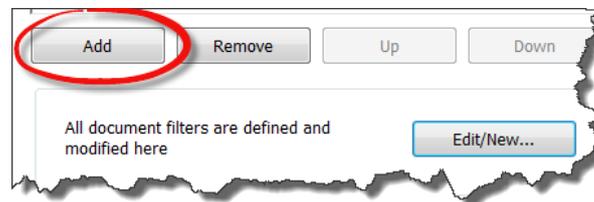
To create a new Filter select the Edit/New icon. (As shown in below image).



1. To create new filters click  New.
2. Type the name of the filter, for example **'Unconnected Analytical Nodes'**. It will then appear in the Filters column on the left hand side. The press **OK**.
 - a. **Note:** Make sure you name relevant to what its being used it for.
3. Now under the Categories section you need to apply it to the categories, so we need to select **Analytical Nodes**.
4. The Filter Rules you need to filter by **Connection Status**. Then just below select the Filter Rulings in this case we are going to use **equals**. Finally the field below select **Unconnected**.
5. The filter is now done so select **OK**.



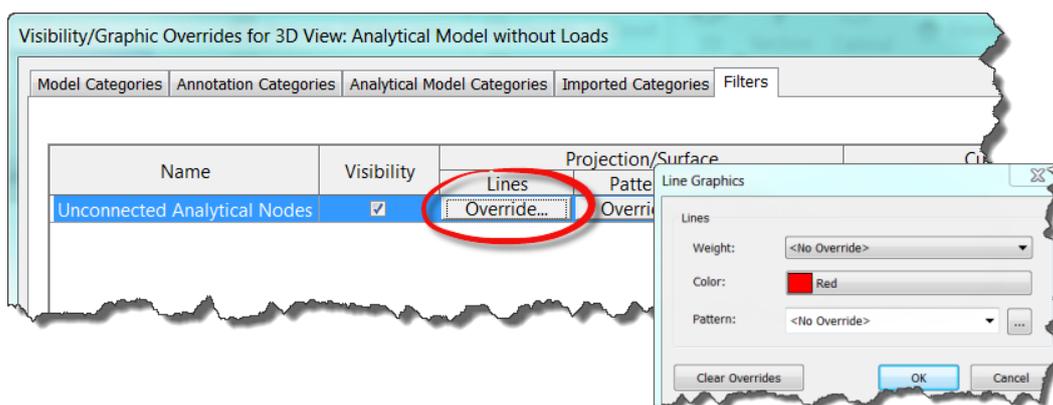
To add the filter select the Add icon on the bottom left hand side. (As shown in below image)



The Add Filters dialog box will appear on screen and your new filter should be list, select **Unconnected Analytical Nodes**, then click **OK**. The filter should now appear in the Filters list. (As shown in below image)

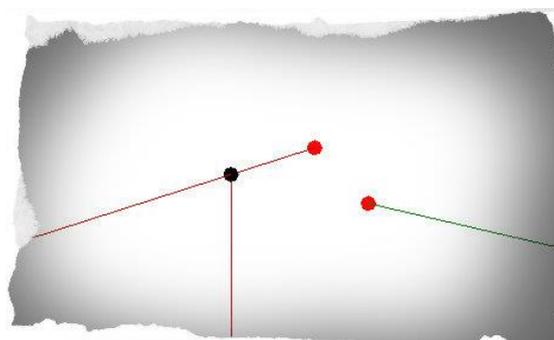
Note: the Visibility should be selected automatically but its not you need to click to apply.

To apply the filter select the Overrides button for Lines (As shown in below image). It will open the Graphics dialog box, where you can select the Line Graphics dialog box either Line Weight, Colour or Pattern.



As you will see in the above image I have selected the Colour **RED** to highlight all unconnected analytical nodes.

If you select **OK** on Line Graphics dialog box. Then to apply the filter to the view you can either click **Apply** then **OK**, or just **OK**. Then see the filter applied in your view.



I hope you have found this White Paper usefull and its give you a better insight to using Filters in Revit.

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