



Filter Themes Extension for ArcView 3.x

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Purpose

Use the Filter Themes Extension to show just the records you want, in one or many layers, with just a few mouse clicks and in just a few seconds.



Introduction

Filter Themes, `flt_thms.avx`, is an ArcView 3.x extension useful for filtering multiple theme layers simultaneously. This extension can easily and quickly produce simple or complex filters for one or many shapefile themes that share a field name. It may be used in regular ArcView or Biotics Mapper (even in Input/Edit mode), and is ideal for quickly filtering all four Biotics themes. The extension should not be used at the same time as Filter Manager as it may “confuse” the filtering algorithms of this program.



Installation

Place `flt_thms.avx` in the same directory as other ArcView user extensions - typically in `c:\esri\av_gis30\arcview\ext32`. Turn the extension on the same way as other extensions by selecting Extensions from ArcView’s File menu. To install the extension in Biotics, follow the instructions in “Add Extensions” from Biotics on-line Help. Filter Themes Extension uses its own “SELF” tag to store persistent data so that it does not interfere with other code in Biotics Mapper.



Typical Usage

Make one or more shapefile themes the only active themes in the table of contents of an ArcView view. These active themes must share at least one field name. Next, click the Filter Themes Button in ArcView’s button bar and follow directions in the dialogs that are presented. The dialogs have been written to be intuitive and self-documenting. To explore features of the extension, work through the following tutorial.



Tutorial

Hold down the Shift key and click on the four Biotics EO themes to make them the only active themes in your view. Select the Filter Themes (beige F) button from the button bar. Select “SNAME” from the list of fields. Select one or more values for SNAME (you do

not need to hold down the Ctrl or Shift keys to make multiple selections here). All four themes will be filtered for the chosen element or elements.

[Tip: When you hover your mouse button over an icon on the button bar or tool bar you will get help information in the status bar at the bottom of the ArcView window. Sometimes the status bar is not visible. In this case, you will need to shrink or expand the ArcView window until you can see it.]

Next, hold the Ctrl key down when you click on the Filter Themes Button. Holding down the Ctrl button will make the extension skip the field selection dialog and produce the same field value selection dialog from the last time you used the extension. Filter Themes remembers the last query field even if you save and close your project and then reopen it.

Now, hold down the Ctrl and Shift buttons at the same time while you click on the Filter Themes Button. Because you held down the Shift button you will be presented with the Available Definition Options Dialog. Select “Add to Definition”. The Field Selection Dialog will be skipped because you were holding down Ctrl when you clicked the Filter Themes Button. From the Value Selection Dialog select one or more elements to add to your definition filter.



Advanced Usage

Some elements are better known by their scientific name and others better by their common name. The following shows how to use Filter Themes to create one pick list for selecting multiple elements to show by either their SNAME or SCOMNAME. This trick is possible because Filter Themes Extension supports alias field names. It can be used to produce filters on themes with similar or even unrelated fields if the fields are given the same alias name.

To do this, make the EO.Reps (Polygons) theme active. From ArcView’s Edit menu select Copy Themes and then select Paste. You should have two copies of the theme in the view. (Remember that these two layers point to the same dataset). Open the tables of these two themes. In one table open the table properties window. Give the SNAME field the alias “NAME”. In the other table give the SCOMNAME field the alias “NAME”. Now press the Select Themes button. Choose the “NAME” field from the field selection dialog. In the next dialog you will be able to select one or more elements in the same list by either the common name or scientific name.



Questions

- How can I view the generated definition query?

Filter Themes Extension creates standard ArcView queries. To view the generated query, make any of the filtered themes active, open the Theme Properties Dialog and look under Definition.

- How can I filter for reptiles and amphibians using the ELCODE field?

From the field selection dialog choose ELCODE. From value selection dialog select "Partial field selection using wildcards". Type AR* and select OK. In the Add Another Wildcard dialog select YES. Type AA* and select OK. From the Add Another Wildcard dialog select NO to finish the filter.

- How do I save and retrieve queries?

Filter Themes Extension makes it quick and easy to make simple or complex queries, but occasionally some people need to save and retrieve special queries. This is possible with Filter Themes Extension. Hold down the Shift key when you click on the Filter Themes icon. In the Available Definition Options Dialog select "Manually Edit Definition". In the Manual Edit Query Dialog, make sure the all text is selected (it should already be selected by default). Use the keystroke combination Ctrl-C to place the text into Windows clipboard. Paste the text into a text document and save the document. To retrieve a query, place the query text into Window's clipboard and navigate to the Manual Query Edit Dialog. Use Ctrl-V to paste the contents into the text field of the dialog.

- How do I transfer my saved queries from Biotics Filter Manager?

Cut and copy the query from Filter Manager into a text document. Later, copy and paste queries from saved text document to the Manual Edit Query Dialog. [See "How do I save and retrieve queries?" above for details]

- How do I create a filter for all records modified on or between January 15 and January 31 2008?

Hold the Shift key down when you click on the Filter Themes Button. Select "Manually Edit Definition" from the Available Definition Options Dialog. Type in the following text ([Mod_date] >= "20080115") and ([Mod_date] < "200802"). If you need to do this often, cut and paste the string from a text document of common queries that you have saved. [See "How do I save and retrieve queries?" above for details]

- How do I filter for only records for a given species that I have mapped? I will be using the fields Sname and Mappedby.

Generally speaking, the Filter Themes Extension is used to work with filters on one field at a time. To create a query using multiple fields the extension is run several times in succession. On executions after the first, the user holds down the Shift key to get the definition options dialog.

This type of selection is done by using the extension twice in a row. First time through , select the species you want using the standard methods indicated above. To further filter the records for only those you mapped hold down the Shift button when you click on the

extension button. You will be present with a dialog with several options. Choose "Select from Definition" and then select the field you want to further select records from using the same methods described above.

- Why does the extension ask you if you want to run wildcard extensions successively?

Providing the user with subsequent wildcard options can be useful if one wants to select several wildcard values from the same field. Say one wanted to show just grasses and sedges. First select the field ELCODE and then use the wildcard "PDPOA*" and click OK. At the next dialog choose "Yes" to add another wildcard selection from ELCODE. Enter "PDCYP*" to finish the filter.

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