Deep Dive into the Filter Builder

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Center for Technology & Training
Which to use:

Legend or Filter?
Legend: lists and explains the symbols and colors used on a map.
Roadsoft Filters can be used to:

- Hide features on the map
- Make selections
- Limit data on reports
- Define collection set for the LDC
- Define set of roadways for Strategies
Roadsoft Filter:

Defines a “set” of related roadway features that can be saved and used for multiple purposes.

Total Miles:
1059.087
Total Miles: 1059.087

Asphalt Miles: 259.688
Total Miles: 1059.087

Asphalt Miles: 259.688

Miles Rated < 5: 485.250

SET INTERSECTION:
Asphalt AND Rated < 5: 100.389
Total Miles: 1059.087

Asphalt Miles: 259.688
Miles Rated < 5: 485.250

SET UNION: Asphalt OR Rated < 5: 644.549
Where’s the Filter Builder?

- Map Button Bar
- Right-click Menu
- Reports Form
- Strategy Form
- LDC Export

View Module
- Multi-edit Selection...
- Layer Properties
- Labels
- Zoom In
- Add a Feature to the Map
- Print Current Map View...
- Conditional Visibility...
- Filter Builder...
- Manage filters...
- Apply Saved Filter as Selection...
- Clear Selection...
- Save Selection as Filter...
- Apply Saved Filter...
- Clear Filter...
- Web Integration
- Filter Builder
Manually Selected Filter

- Filter Builder...
- Manage Filters...
- Apply Saved Filter as Selection...
- Clear Selection...
- Save Selection as Filter...
- Apply Saved Filter...
- Clear Filter...
Another Manually Selected Filter

View Module...
Multi-edit Selection...
Layer Properties
  Labels
  Zoom In
Add a Feature to the Map
Print Current Map View...
Conditional Visibility...
Filter Builder...
Manage Filters...
Apply Saved Filter as Selection...
Clear Selection...
Save Selection as Filter...
Apply Saved Filter...
Clear Filter...
Web Integration
## Filter Builder

### Road Layer Filter Builder

<table>
<thead>
<tr>
<th>Field</th>
<th>Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>AADT</td>
<td>Traffic</td>
</tr>
<tr>
<td>AADT Year</td>
<td>Traffic</td>
</tr>
<tr>
<td>Activity Type</td>
<td>Routine Maintenance</td>
</tr>
<tr>
<td>ADT</td>
<td>Traffic</td>
</tr>
<tr>
<td>ADT Date</td>
<td>Traffic</td>
</tr>
<tr>
<td>Average URCI Value</td>
<td>URCI Sample</td>
</tr>
</tbody>
</table>

**Operator:** Value: 2016-05-19

### Filter Criteria

3997 Segments/1124.909 Linear Miles [unfiltered]

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Buttons:
- Apply as Filter
- Append to Selection
- Replace Selection
Top Button Bar

- **Open**
  - Load the criteria from a saved filter
- **Save**
  - Name the criteria so it can be used again
- **Delete**
  - Get rid of the old stuff
- **Clear**
  - Clean up the working space so you can start over
Save Filter

Optional Group
  - Helps to stay organized

Shared Filter
  - Allows use by others
### Manage Filters

#### Multi-edit Selected Filters

<table>
<thead>
<tr>
<th>Name</th>
<th>Group</th>
<th>Shared</th>
<th>Owner</th>
</tr>
</thead>
<tbody>
<tr>
<td>06_AM</td>
<td></td>
<td></td>
<td>Admin</td>
</tr>
<tr>
<td>07AMSurvey</td>
<td></td>
<td></td>
<td>Admin</td>
</tr>
<tr>
<td>08AMSurvey</td>
<td></td>
<td></td>
<td>Admin</td>
</tr>
<tr>
<td>2006 Activity</td>
<td></td>
<td></td>
<td>Admin</td>
</tr>
<tr>
<td>2007 Projects</td>
<td></td>
<td></td>
<td>Admin</td>
</tr>
<tr>
<td>2009 Federal Aid</td>
<td></td>
<td></td>
<td>Admin</td>
</tr>
<tr>
<td>2011 Non-Federal Aids</td>
<td></td>
<td></td>
<td>Admin</td>
</tr>
<tr>
<td>2011 Paser county roads</td>
<td></td>
<td></td>
<td>Admin</td>
</tr>
<tr>
<td>2012 City &amp; Village</td>
<td></td>
<td></td>
<td>Admin</td>
</tr>
<tr>
<td>2012 Federal Aid</td>
<td></td>
<td></td>
<td>Admin</td>
</tr>
<tr>
<td>2012 Federal Aid 2</td>
<td></td>
<td></td>
<td>Admin</td>
</tr>
<tr>
<td>Alcona County Act 51 Roads</td>
<td></td>
<td></td>
<td>Admin</td>
</tr>
<tr>
<td>Alcona Town</td>
<td></td>
<td></td>
<td>Admin</td>
</tr>
</tbody>
</table>

**Group:** 2012 Retired Filters

**Sharing:** Shared

**Apply**

**Cancel**
<table>
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<tr>
<th>Name</th>
<th>Shared</th>
<th>Owner</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012 City &amp; Village</td>
<td></td>
<td></td>
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<tr>
<td>2012 Federal Aid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012 Federal Aid 2</td>
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<td></td>
</tr>
</tbody>
</table>
Finding Fields

- Field Groups drop-down
  - Limits the field list to a particular grouping
- Find field...
  - Partial search by field name
Operators list will depend on Field Type

- =, <>, >, >=, <, <=, Like, Not Like

Values will also depend on Field Type

- Select from lookup value list
- True or False
- Select from list of collected data values
- Type in a value
- Search
Add Criteria

Use criteria and display resulting counts
Add more criteria

Implements a SET INTERSECTION (AND) between criteria
Rating of 1, 2, 3, 4

Asphalt Miles: 259.688
Miles Rated < 5: 485.250

Total Miles: 1059.087

SET INTERSECTION:
Asphalt AND Rated < 5: 100.389
Separates criteria into numbered Groups
Implements a SET UNION (OR)
Total Miles: 1059.087

Asphalt Miles: 259.688

Miles Rated < 5: 485.250

SET UNION: Asphalt OR Rated < 5: 644.549
Bottom Button Bar

- **Apply as Filter**
  - Displays only features in defined set and turns off rest of display
Bottom Button Bar

- Append to Selection
- Replace Selection
Pay attention to the Group!

### Rating

<table>
<thead>
<tr>
<th>Field</th>
<th>Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latest Base Rating</td>
<td>Other Ratings</td>
</tr>
<tr>
<td>Latest Drainage Rating</td>
<td>Other Ratings</td>
</tr>
<tr>
<td>Latest IBR Rating</td>
<td>IBR Ratings</td>
</tr>
<tr>
<td>Latest Ride Rating</td>
<td>Other Ratings</td>
</tr>
<tr>
<td>Latest Surface Rating</td>
<td>Surface</td>
</tr>
<tr>
<td>Rating</td>
<td>Curb/Gutter</td>
</tr>
</tbody>
</table>

### Surface

<table>
<thead>
<tr>
<th>Field</th>
<th>Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface Spec Notes</td>
<td>Surface Design</td>
</tr>
<tr>
<td>Surface Sub-Type, Historical</td>
<td>Surface</td>
</tr>
<tr>
<td>Surface Sub-Type, Latest</td>
<td>Surface</td>
</tr>
<tr>
<td>Surface Type</td>
<td>Surface</td>
</tr>
<tr>
<td>Surface Type (Scheduled)</td>
<td>Scheduled Maintenance</td>
</tr>
<tr>
<td>Surface Width</td>
<td>Physical/Design</td>
</tr>
</tbody>
</table>
Commonly Confused Fields

- **Current** = Calculated Rating
- **Later** = Last Actual Rating
- **Historical** = Exists anywhere in the History
Finding things that are missing

Empty Fields
Finding things that don’t exist

- Non-existing repeatable fields
Filter Builder sometimes handles this for you
But not always....
Now what? Try it backwards...
Using Saved Filters

Sign Filter Builder

Saved Filters

Field

Saved Filter

Operator:  Value:

-  

Select Saved Filter

Group: 1

Criteria

Saved Filter  

Signs with Maintenance

747 Support(s) found

Apply as Filter  Append to Selection  Replace Selection
Best Advice

Know what you expect you should get

Check what you get to see if it was what you wanted to get
Some ROAD fields are available directly.
Saved Road Filters can also be used.
Sign Filters create a set of SUPPORTS
Roadsoft Tech Support

(906) 487-2102
roadsoft@mtu.edu

www.roadsoft.org
- Roadsoft Manual
  - Navigate the Map & Select Assets