CDOT InRoads Feature Filters

This document guides you through the use of InRoads feature filters.

InRoads Feature Filters

Purpose of using Feature Selection Filters

InRoads utilizes feature based digital terrain models (DTM). Often users find the need to sort, or filter, through the contents of various InRoads dialog boxes that allow the users to display, annotate, or review the contents of a DTM. By creating Feature Selection Filters, the user will more efficiently be able to:

- Identify or view different categories of features found in a DTM
- Create a selection set of specific features

Example Feature Filters

A variety of feature filters have been developed for the CDOT configuration. A user may elect to use the developed feature filters or build and/or refine filters to suit individual needs.

Feature filters have been created based on major categories such as Design, Hydraulics, Topography and pay item number. Additional filters have been developed to allow the filtering of select subsets within the major categories.
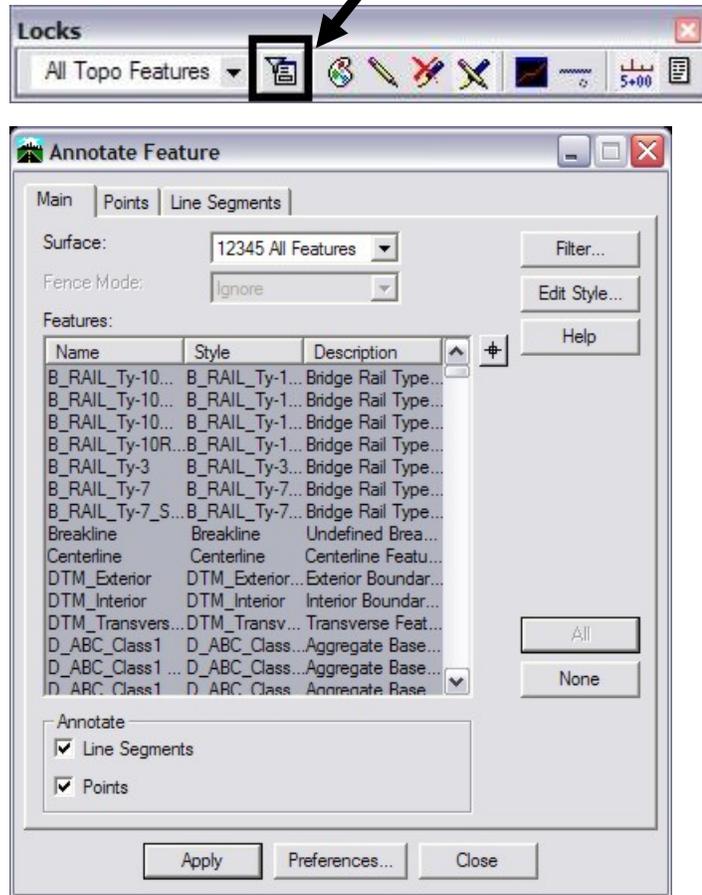
For example, the filter:

- T_* ……. will display only features beginning with the T-under bar designation (all topography features)
- T_Gate* (ALL)……. will display all features that relate to Topo_Gate. (i.e. T_Gate Barbed Wire, T_Gate Combination, T_Gate Chain Linked etc.)
- Pay Items 403*…… pay items beginning with the primary number 403
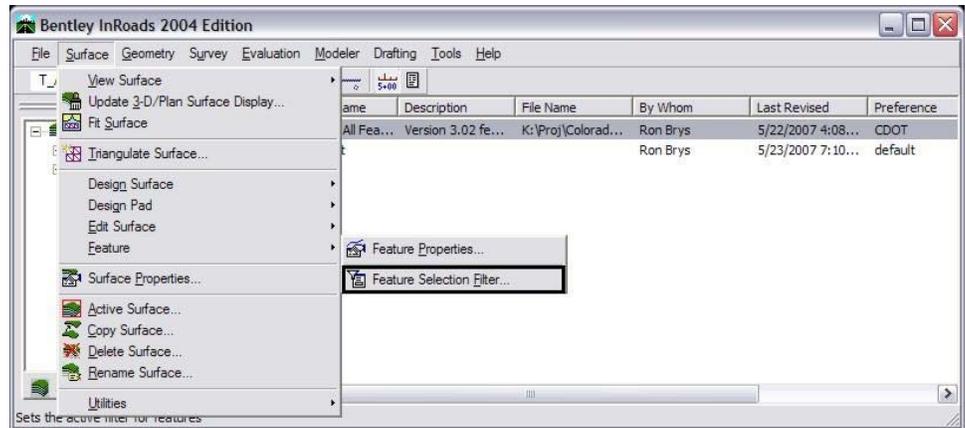
Feature Filter Example #1

In the Locks toolbar, The Feature Filter Lock is off, or **deactivated,** so the selected T_All Topo Features filter is not active. Therefore, in the Annotate Feature dialog box, **all** features located in that particular DTM are displayed in the item list. (**Note**: Features within a Feature Filter can be displayed by opening the view features, edit features, or annotate features dialog boxes).
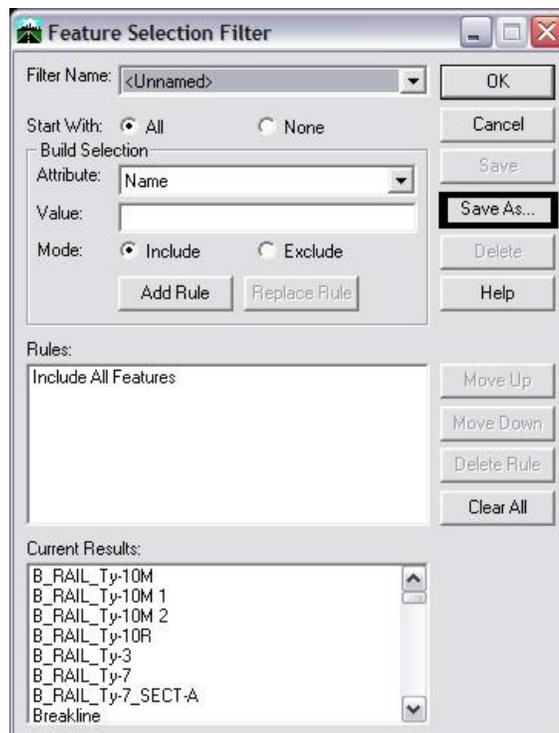
Feature Filter Lock (deactivated)

Feature Filter Example #2

To display the results of the selected Feature Filter, in this case T_All Topo Features, The Feature Filter Lock is simply toggled *on*, or activated, and the filter will then sort the assigned features. Notice in the Annotate Feature dialog box the features are displayed once the filter is activated, when compared to Example #1 when the filter was deactivated.

Feature Filter Lock (activated)

Creating a Selection Filter

1. From the Surface pull down menu **Surface>Feature>Feature Selection Filter**

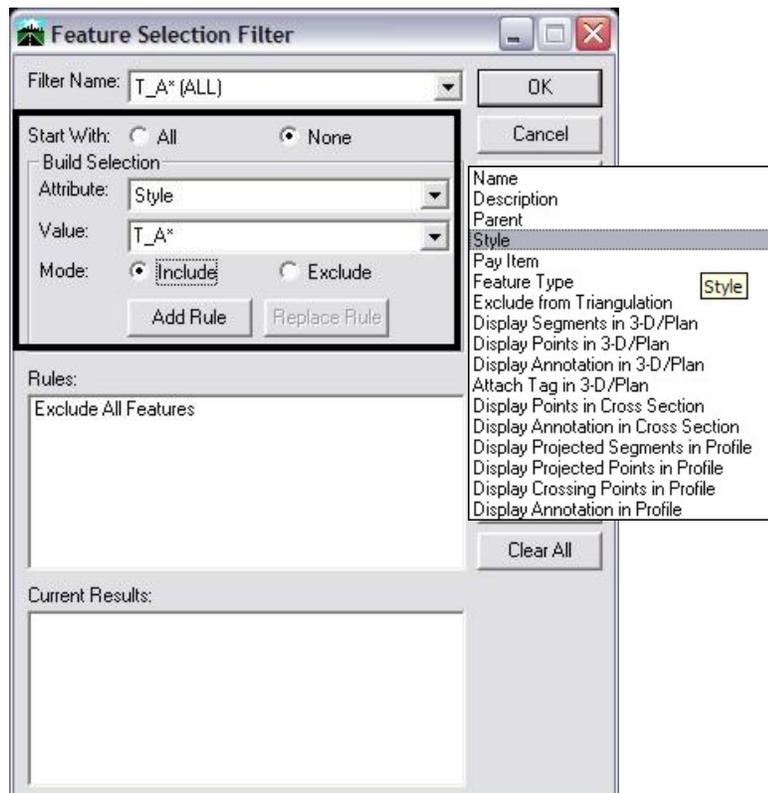2. In the Feature Selection Filter dialog box, create a name in the Filter Name field by Click **Save As**…

3. In the **Save Filter As** dialog box, create a name for the filter. The newly created name will appear in the Feature Filter name pull-down in the Locks dialog box. (**Note**: The Feature Filter pull-down in the Locks Toolbar has a limited amount of viewing display capability, so the filter name should be created accordingly).
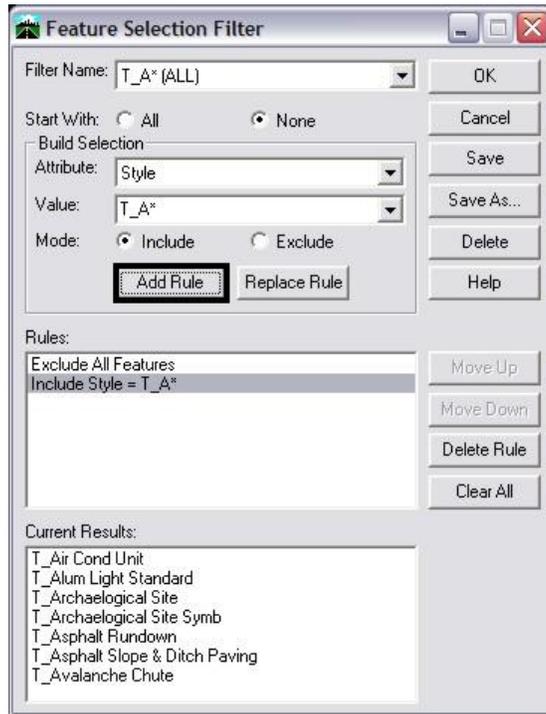

4. The first rule in all filters is the **Start With** field. Toggle either **All** or **None**. This selection allows the user to build the filter by adding or removing features with subsequent rules.

5. Complete the Build Selection section of the Feature Selection Filter dialog box by: Selecting an **Attribute**, **Value**, and **Mode**.

Note: A wide variety of Attributes are available as criteria for building filters. These include display properties as defined by the feature style assigned to the features.
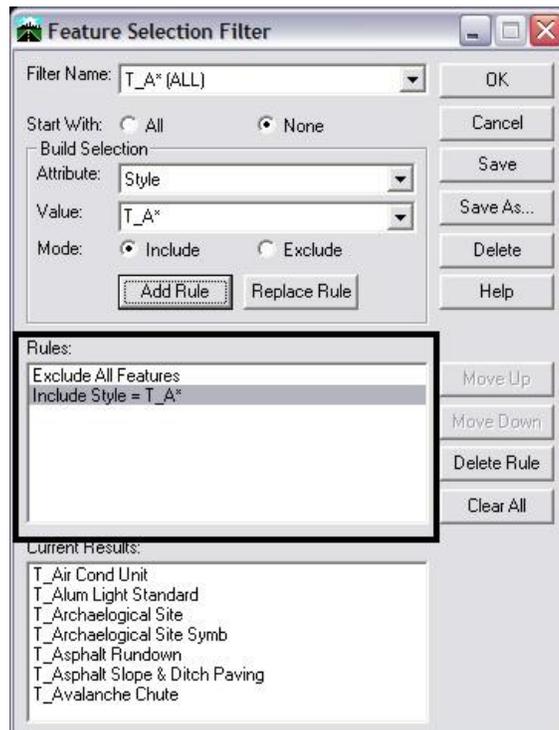

Note: The wild card symbol "*****" is often used in filters created for CDOT. This particular symbol matches any number of characters at and following the location of the symbol.
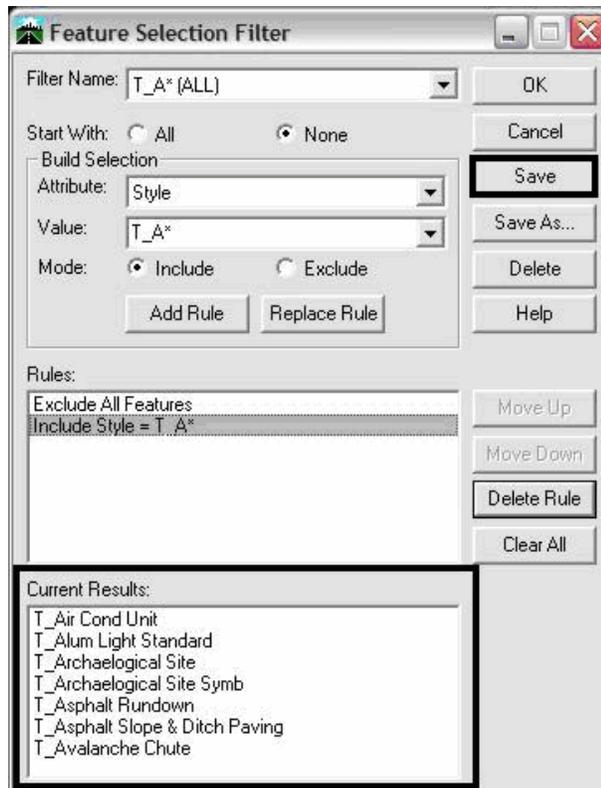
6. **Click** the **Add Rule** button. The Current Results portion of the dialog updates as rules are added, deleted, updated, or re-ordered.

7. Verify that the rule was added in the **Rules** portion of the dialog

8. Verify that the correct Feature(s) were added in the **Current Results** window area.

9. **Click** the **Save** button.

Note: The previous Feature Filter example was created by the use of only two rules: *Exclude All Features* and *Include Style = T_A**. It should be noted that when creating rules, they can include any of the following attributes: style, name, description, parent, pay item, triangulation, etc. Multiple rules can be incorporated to further refine the filtering. The order in which the rules are listed in a filter is important. They are always read from top to bottom and build sequentially based on the Results that passed the previous rule. Also, be aware that when inputting value(s) as rules, the input is case sensitive.
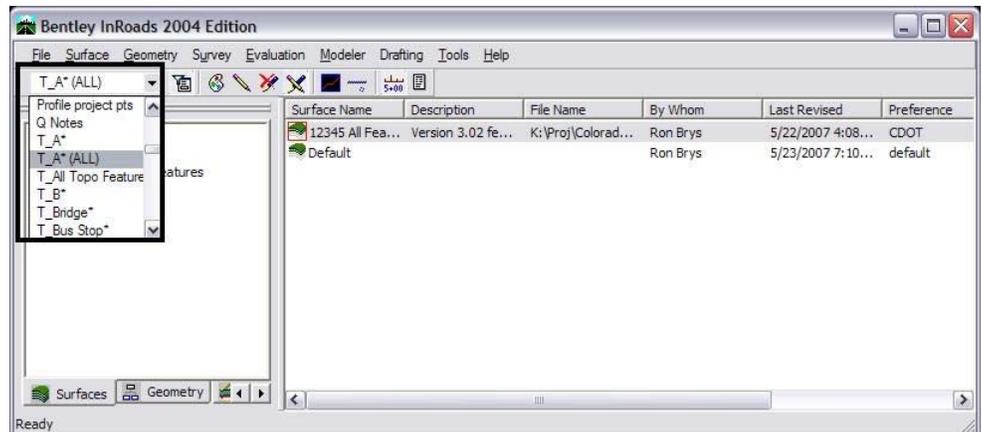
Using a Feature Selection Filter

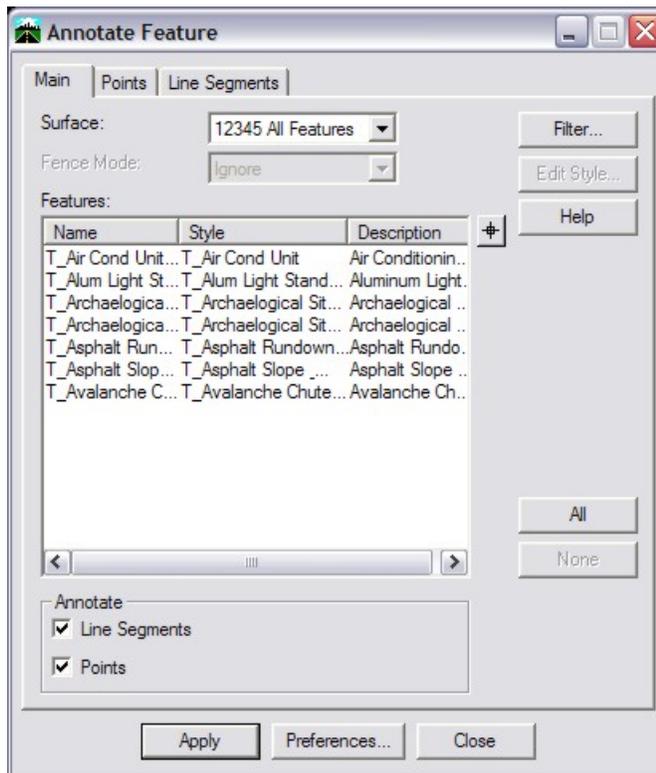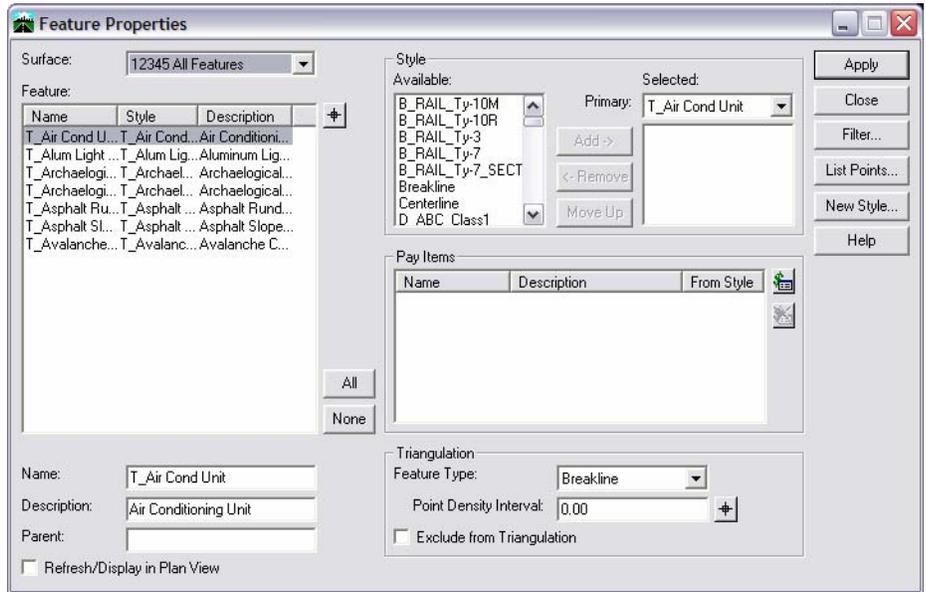1. **Surface>Feature>Feature Properties**

Verify that the *Feature Filter Lock* option is toggled on

2. In the Locks Toolbar, **select** the drop down **Feature Filter** option and select a **Feature Filter**.

3. The selected Features will be displayed in the appropriate dialog boxes.

Note: Remember to disable the Feature Filter Lock when it is no longer desired.