

Query Editor

The Query Editor is available as a service in the Object Group Manager and Event Browser applications. It gives you the option to create object groups or browse events based on a query. The query is set up using a number of criteria which can be configured to match your requirements. You can choose to include or exclude devices or events (for example, include all events of major severity).

Query Editor Window

The Query Editor is split into tabbed sections. Different applications may use the Query Editor with different combinations of criteria, refer to Chapter 6, “Event Browser,” or Chapter 7, “Object Group Manager,” for more information. This section describes all possible criteria.

Step 1 Open the Query Editor.

Step 2 Scroll through the tabs to see the following options:

- Severity
- Time
- Event Status
- Source Domain
- Mgmt Domain
- User
- Event Class
- Object Scope
- Object Class
- Object Attribute Presence
- Object Attribute Value.


Four types of panels exist beneath the tabs:

- tabs with two panels: **Available Values** and **Selected Values** (such as **Severity**)
- tabs which require you to enter details in data entry boxes (for example, **Time**)
- tabs which require you to apply and add selections through another pop up window (such as **Object Scope**)
- tabs which require you to make selections from context lists (for example, **Object Attribute Presence**, and **Object Attribute Value**).

Each of the tabs contains a criteria to be matched against system objects or events. The Query Editor is used to construct a query by including criteria relevant to the objects or events that are needed.

Note By default, the query is empty and returns no results.

Step 3 Set the criteria in all of the tabbed windows as described in the “Severity Tab” section on page 11-3 through the “Object Attribute Value Tab” section on page 11-16.

Step 4 From the **File** menu select **Close** or press **Ctrl + W** or click the Close icon  from the tool bar.


A dialog box asking *Save query changes?* is displayed.

Step 5 Click **Yes** to save changes or **No** to cancel.

Activating All Criteria Selections

You can activate all query criteria selections. If you choose to activate all query criteria, however, and there is a criteria with no values set, that query will pass all of the objects or events which match the other set query criteria.

From the **Edit** menu in the Query Editor window, select **Activate All** or


click the Activate All icon  from the tool bar. All of the tabbed sections are activated (they all become dark gray.)

Note If you activate all of the criteria sections and either no criteria are selected or individual criteria are selected that cannot be matched to any object, no results are returned.

Deactivating All Criteria Selections

You can deactivate all criteria selections. This reverts the query to an empty query and returns no results.

From the **Edit** menu on the Query Editor window, select **Deactivate All** or

click the Deactivate All icon  from the tool bar. All of the tabbed sections are deactivated (they all become light gray.)

Activating a Single Tab

Click the **Activate** button if the tab is not active.

Note When a tab is active it has a dark grey background.

Setting a Selected Value

On tabs with two panels (**Available Values** and **Selected Values**), you can:

- Step 1** Select the relevant entry in the **Available Values** list.
 It becomes highlighted.
- Step 2** Click the double right arrow button or double click the selected entry.
 The selected entry appears in the **Selected Values** list.

Removing a Selected Value

On tabs with two panels (**Available Values** and **Selected Values**), you can:

- Step 1** Select the relevant entry in the **Selected Values** list.
 It becomes highlighted.
- Step 2** Click the double left arrow button or double click the selected entry.
 The selected entry is removed from the **Selected Values** list.

Selecting/Deselecting all Values

On tabs with two panels (**Available Values** and **Selected Values**), you can:

- Step 1** Move all of the selected values from one list to the other by right clicking on an entry in the list.
- Step 2** A pop up menu appears. Click on **Select all**. This highlights all entries in the list; or, click on **Deselect** to return a highlighted list to normal.
- Step 3** Move the selected entries to the desired list.

Configuring a Query

The Query Editor gives you the option to configure queries to match your requirements. You can choose to include or exclude these criteria as outlined below.

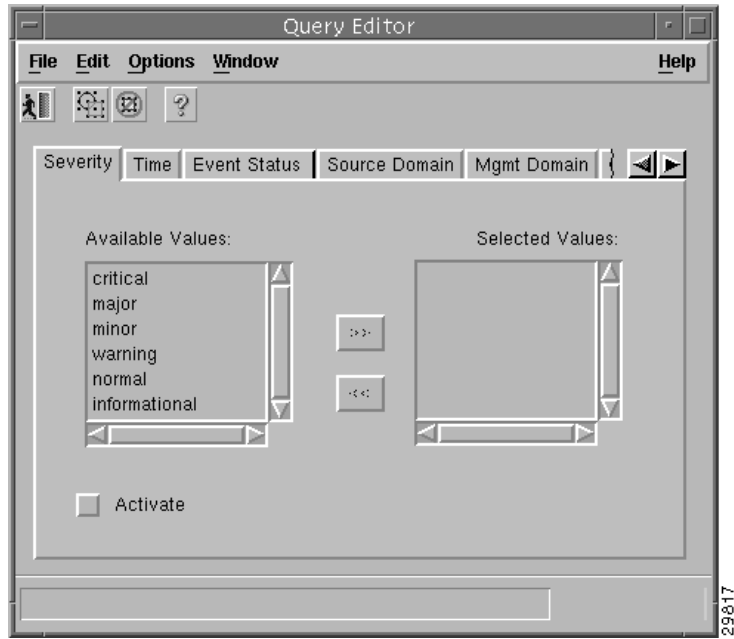
Note By using a combination of these query criteria, the effect is cumulative.

Severity Tab

The **Severity** tab is displayed by default and allows you to specify severity types as query criteria. The left panel displays **Available Values**; the right panel displays **Selected Values**.

One or more severities can be selected. To show objects with any severity that matches other set criteria, select no particular severity.

Figure 11-1 Severity Tab Window

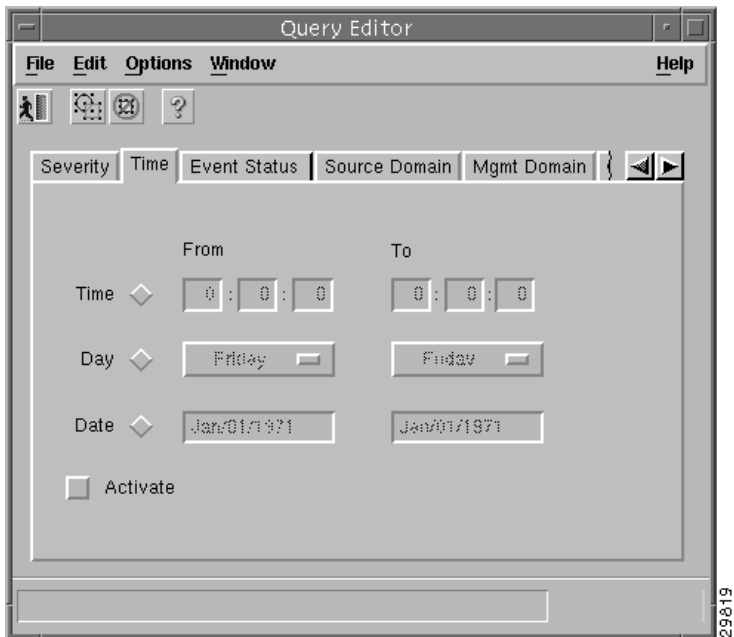


Time Tab

The Time window is accessed by selecting the **Time** tab.

Note **Time**, **Day**, and **Date** can be used cumulatively.

Figure 11-2 Time Tab Window



The **Time** query allows you to specify the following:

Time—you set a start time and a finish time using the 24 hour notation. The times are inclusive. When the time query is selected, any event which occurs between the specified times and matches the other queries set is included. For example, if the times specified are `From 09:00:00 To 11:00:00` and two events are reported, the first at 08:59:45, and the second at 09:01:35, only the second event would meet the time criteria specified.

Note When you enter a **Time** range `From 09:00:00 To 08:59:59`, all events reported match this time criteria.

Day—when the **Day** query is selected, any event which occurs between the specified days and matches the other criteria set is included. For example, if the days specified were `From Monday To Thursday` and two events are reported, the first on a Tuesday and the second on a Sunday, only the first event would meet the day criteria specified.

Note When you enter a **Day** range `From Tuesday To Monday`, all events reported match this **Day** criteria.

Date—when the **Date** query is selected, any event which occurs between the specified dates and matches the other criteria set is included. For example, if the dates specified were `From May/18/1999 To May/25/1999` and two events are reported, the first on May/19/1999 and the second on May/26/1999, only the first event would meet the date criteria specified.

When the **Time** tab is not activated, all active events are shown that match the other query criteria, but will not query on time.

Note You can activate individual ranges or a combination of ranges. For example, if you activated **Time** `From 08:00:00 To 12:00:00`, **Day** `From Friday To Monday` and **Date** `From Mar/12/1999 To Apr/14/1999`, all events reported between eight and twelve o'clock in the morning on any Friday, Saturday, Sunday, or Monday between the 12th of March and the 14th of April, meet the criteria set.

When a range is inactive, the displayed text is grayed out. When a range is active, the button next to it appears depressed and the text is displayed in black.

Setting the Time Selection

- Step 1** Click the button next to **Time**.
The data entry boxes become active.
- Step 2** Enter the start time in the data entry box under **From**.
- Step 3** Enter the finish time in the data box under **To**.

Note The time range specified includes the start and finish time.

Setting the Day Selection

- Step 1** Click the button next to **Day**.
The drop down menus become active.
- Step 2** Select the start day from the list under **From**.
- Step 3** Select the finish day from the list under **To**.

Note The range of days specified include the start and finish days.

Setting the Date Selection

- Step 1** Click the button next to **Date**.
The data entry boxes become active.
- Step 2** Enter the start date in the data entry box under **From**, using the format `<Mmm>/<dd>/<yyyy>` (month, day number, year number).

Note The month must be abbreviated to three letters, with the first letter uppercase, then lowercase (such as Dec or Apr).

- Step 3** Enter the finish date in the data box under **To**, using the format `<Mmm>/<dd>/<yyyy>` (month, day number, year number).

Note The date range specified includes the start and finish dates.

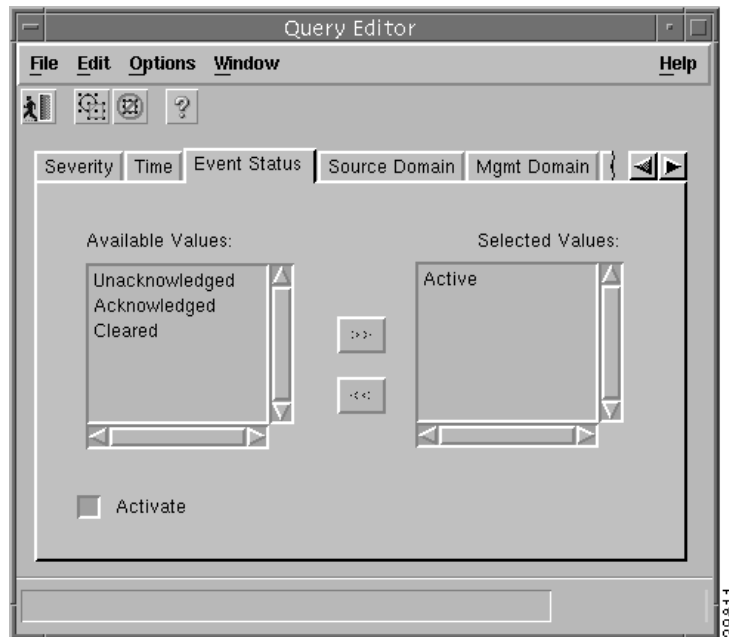
Event Status Tab

You can use this panel to query on the status of events. The available values are:

- Unacknowledged
- Acknowledged
- Active
- Cleared

One or more status options can be selected. To show events in any state which match other set criteria, select no particular status.

Figure 11-3 Event Status Tab Window



- Step 1** Select the relevant status to appear in the **Selected Values** list.
- Step 2** Remove any status not required from the **Selected Values** list.
- Step 3** Click the **Event Status** tab.

Source Domain Tab

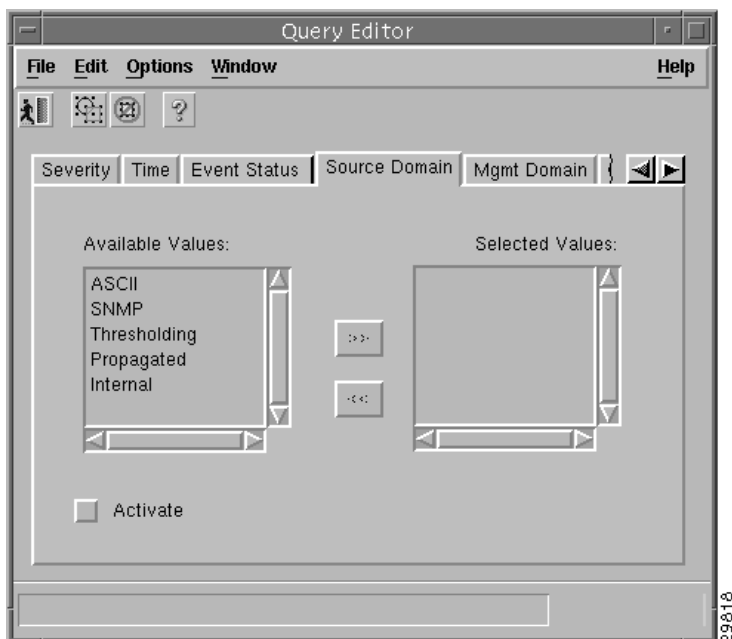
Source Domain is a unique name which represents the physical domain on the network that an event comes from. A Source Domain could be:

- Thresholding (if an Event Manager event was generated by the Event Thresholder)
- Internal (events generated internally by Cisco EMF controllers)
- ASCII (the ASCII set of 128 characters includes letters, numbers, punctuation, and control codes, such as a character that marks the end of a line. Each letter or other character is represented by a number).
- SNMP (event was generated by the managed network).

You can use this window to query on the Source Domain of an event. This allows you to specify source types as a query criteria. For example, the query can be set up to query for SNMP events generated by an SNMP device on the network.

The Source Domain window is accessed by clicking the **Source Domain** tab.

Figure 11-4 Source Domain Tab Window



- Step 1** Select the relevant Source Domains to appear in the **Selected Values** list.
- Step 2** Remove any Source Domain not required from the **Selected Values** list.
- Step 3** Click the **Source Domain** tab.

Mgmt Domain Tab

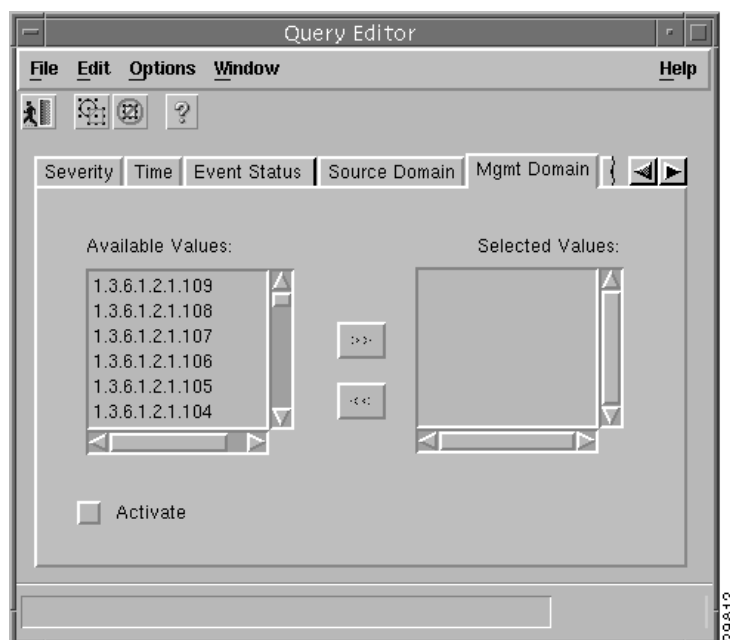
Management Domain is a sub-division within a Source Domain. For SNMPv1, it is the enterprise ID of the trap that generated the event. For SNMPv2/v3, it is the unique ID of the notification that generated the event.

The Management Domain is a string that looks like “1.3.6.4”. It is defined by the vendor of the physical device and defined within the MIB.

For example, Company A could have a management domain of 1.3.6.1.4.1.285. This allows Company A to define its routers as Router 1 : 1.3.6.1.4.1.285.1.1 and Router n : 1.3.6.1.4.1.285.n.1. You can use this to define a query to accept all of the routers (everything under .285) or individual routers (285.1.1).

The Mgmt Domain window is accessed by clicking the **Mgmt Domain** tab.

Figure 11-5 Mgmt Domain Tab Window



- Step 1** Select the relevant Management Domains to appear in the **Selected Values** list.
- Step 2** Remove any Management Domain not required from the **Selected Values** list.
- Step 3** Click the **Mgmt Domain** tab.

User Tab

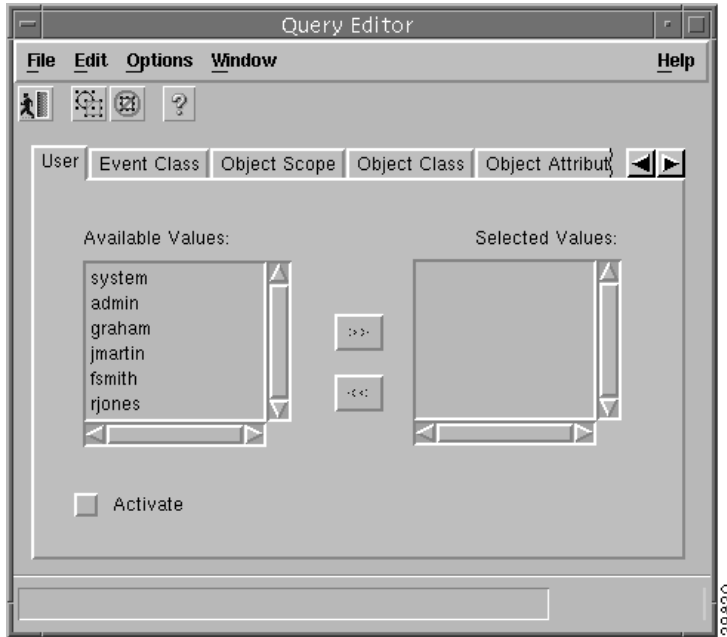
The **User** tab allows you to specify user(s) as a query criteria. The left panel displays **Available Values** and always includes **system** and **admin** by default. **Selected Values** are shown in the right hand panel.

One or more users can be selected. In the Event Browser, this will query events that have been acknowledged or cleared by the user selected in the query.

The **system** user is created for the purpose of having a distinct value (in the **UserId** field, where applicable) for tasks that are automatically carried out by system processes (for example, clearing of alarms over a certain age).

The **admin** user is the application super-user and should not, in general, be used by someone for day-to-day tasks. Allowing filtering on this user enables this monitoring to be carried out.

Figure 11-6 User Tab Window

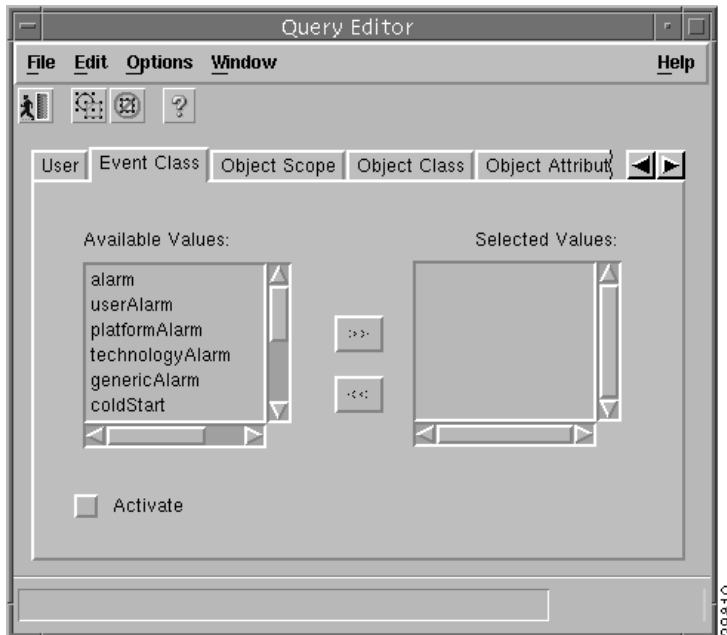


Event Class Tab

The **Event Class** tab allows you to specify event classes as query criteria. The left panel displays **Available Values** and the left panel displays **Selected Values**.

One or more event classes can be selected. To show any event classes which match other set criteria, select no particular event class.

Figure 11-7 Event Class Tab Window

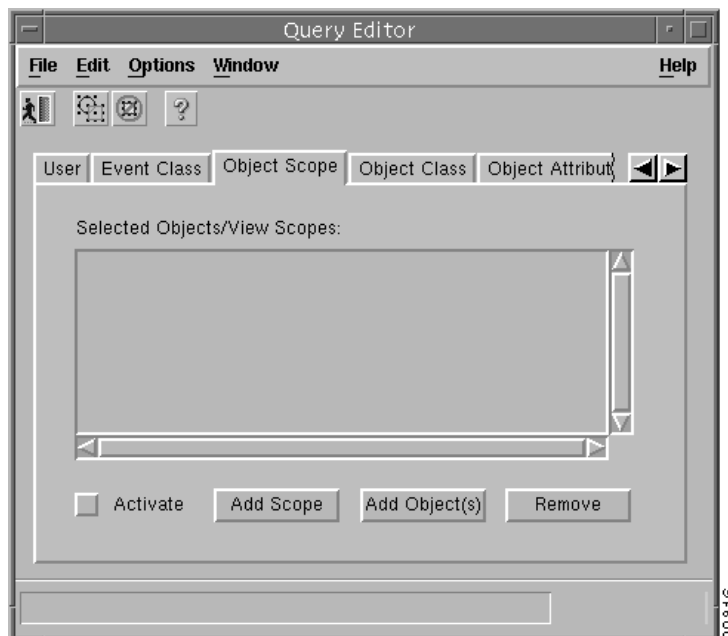


Object Scope Tab

The **Object Scope** tab is used to define managed objects and scopes in the query. You can include ranges of objects by specifying a scope, or add individual objects. The **Object Scope** tab incorporates three options:

- Add Scope—use this option to add the scope(s) of the query. Define the starting object and specify the number and direction of levels from that object. The levels could be up (ancestors) or down (descendants) the view in the network. You have to specify if you want to include the starting object or not.
- Add Object—a source object is the individual managed object. Any managed object within the network can be specified.
- Remove—you can remove an item from the list.

Figure 11-8 Object Scope Option Tab Window



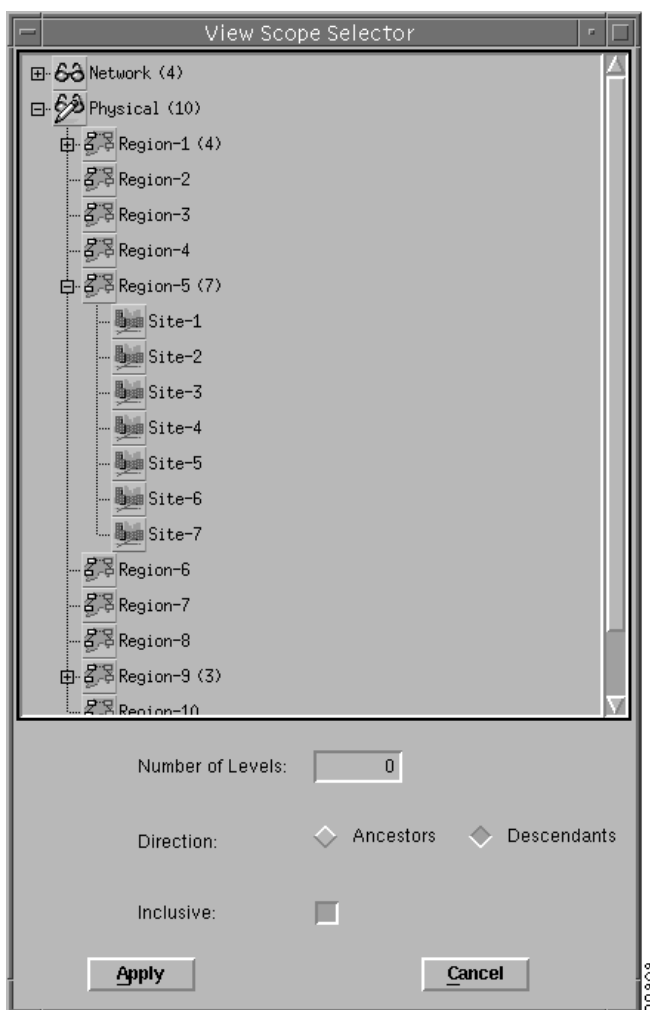
Adding Scopes

To add scopes to the query, proceed as follows

Step 1 Click the **Add Scope** button.

A view of the managed network, similar to the window shown in Figure 11-9 is displayed.

Figure 11-9 Containment Scope Selector Window



In the **Hierarchy** view, you have the option to set the following criteria:

- Number of Levels—enter the number of levels you require (0 means all levels)
- Direction—this is either Ancestors (up) or Descendants (down)
- Inclusive—click this button to include the starting object. If this button is not clicked, the starting object is excluded.

Step 2 Select the start object you require with the correct criteria, then click **Apply**.

The view scope is shown on the **Object Scope** tab.

Step 3 You can remove a scope from the list by clicking on the scope and selecting **Remove**.

Step 4 Click the **Object Scope** tab.

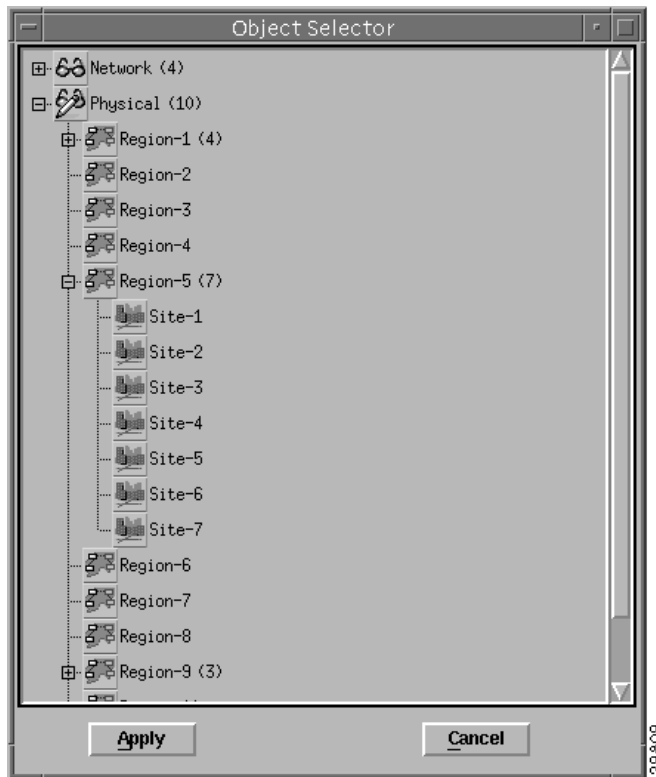
Adding Objects

To add objects to the query, proceed as follows:

Step 1 Click the **Add Object** button.

The Object Selector window, shown in Figure 11-10 is displayed.

Figure 11-10 Object Selector Window



Step 2 Select the object(s) you require, then click **Apply**.

The object(s) are shown on the **Object Scope** tab.

Step 3 Click the **Object Scope** tab.

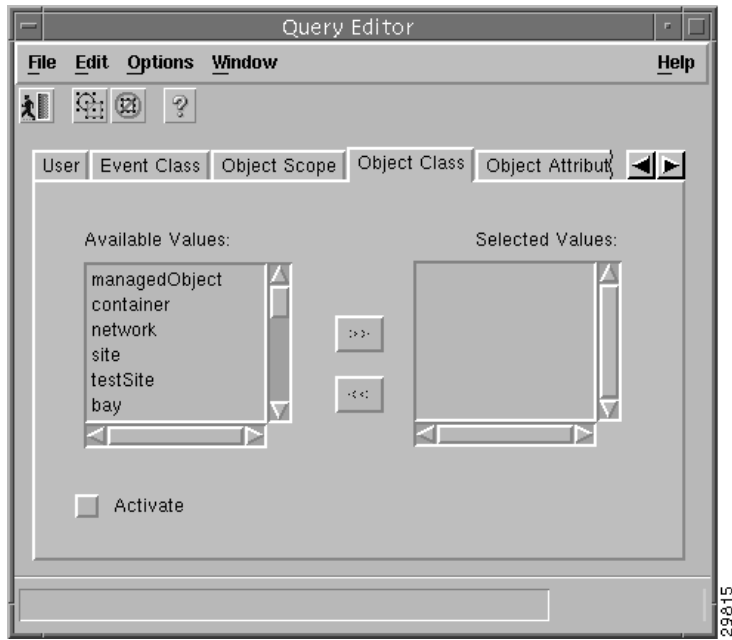
Removing a Scope or Object

In the **Object Scope** tab, select the object(s) you want to remove from the list, then click **Remove**.

Object Class Tab

You use this window to select one or more object classes to include in the query. The left panel displays **Available Values** and **Selected Values** are shown in the right hand panel.

Figure 11-11 Object Class Option Tab

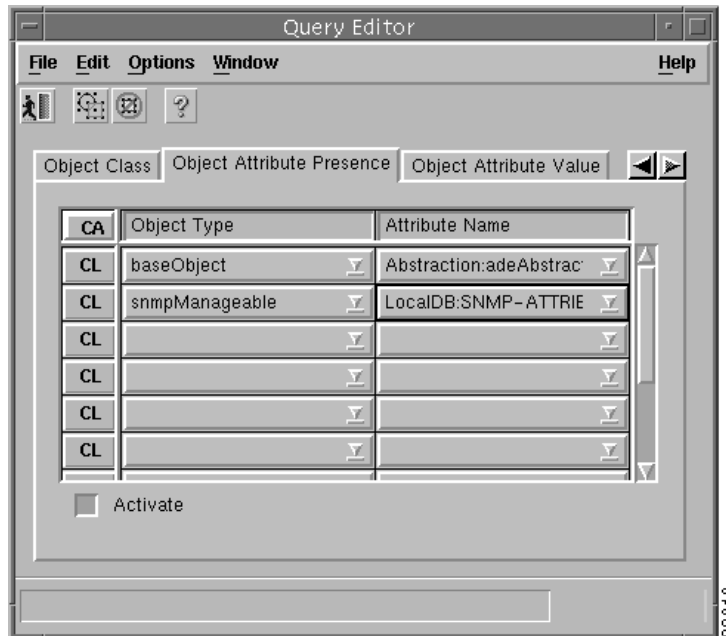


Object Attribute Presence Tab

You can use this window to select one or more object attributes to include in the query.

Note The **Object Type** is not saved as part of the filter, but is supplied as a convenient way for you to restrict the number of attributes displayed to a manageable value.

Figure 11-12 Object Attribute Presence Option Tab



Step 1 The window comprises two lists:

- **Object Type**—select the first drop down menu from the **Object Type** list, then select the option you require
- **Attribute Name**—a drop down menu is associated with the **Object Type** you have chosen. Select the pop up menu adjacent to the selected **Object Type**, then select the **Attribute** name you require.

Note You can select **CA** to clear all selections in the window or **CL** to clear the adjacent selection.

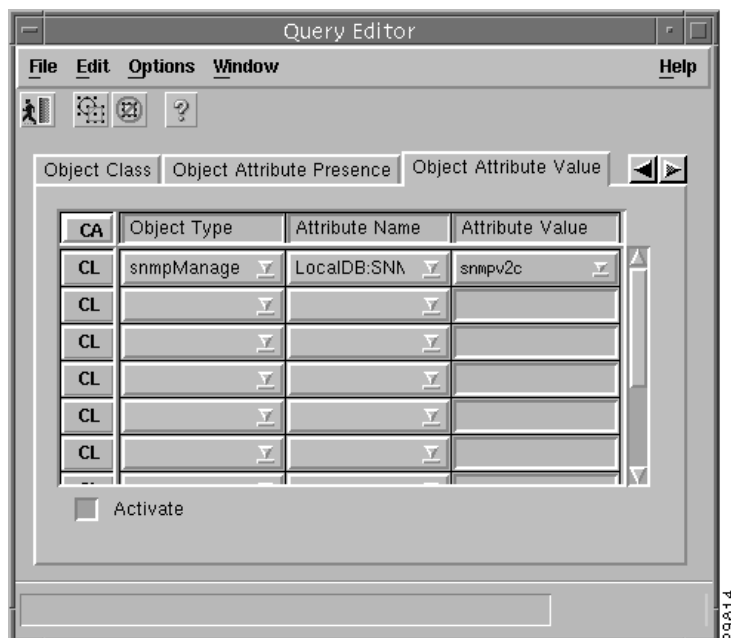
Step 2 Click the **Object Attribute Presence** tab.

Object Attribute Value Tab

You can use this window to select one or more object attribute values to include in the query.

Note The **Object Type** is not saved as part of the filter but is supplied as a convenient way for you to restrict the number of attributes displayed to a manageable value.

Figure 11-13 Object Attribute Value Option Tab



Step 1 The window comprises three lists:

- **Object Type**—select the first drop down menu from the **Object Type** list and select the option you require.
- **Attribute Name** —a drop down menu will be associated with the **Object Type** you have chosen. Select the pop up menu adjacent to the selected **Object Type** and select the Attribute name you require.
- The third column is **Attribute** value. You must enter the exact value you want to match on as this query is an exact match of the string you enter. The search string is case sensitive.

Note You can select **CA** to clear all selections in the window or **CL** to clear the adjacent selection.

Step 2 Click the **Object Attribute Value** tab.