C H A P T E R **6**

Alarm Threshold Triggers

This chapter describes the predefined alarm threshold triggers available for defining TCAs that are displayed in the Trigger tab of the Add TCA dialog box. This chapter includes the name, description, and unique fields displayed in the dialog box for each alarm threshold trigger.

You can define multiple alarms for the same soft property. The alarm is displayed in the ticket pane of the Prime Network Vision window.

A counter value, as described in this chapter, is a numeric value that always increases.

Topics include:

- Value Equal, page 6-1
- Value Not Equal, page 6-2
- Upper Threshold, page 6-2
- Lower Threshold, page 6-2
- Upper Rate, page 6-3
- Lower Rate, page 6-3

For more information about the Add TCA dialog box, see Defining TCA Parameters, page 3-14.

Value Equal

The alarm condition is reached when the soft property value is equal to the value defined in Alarm Value regardless of whether or not it is numeric.

When the Value Equal threshold type is selected from the Trigger drop-down list of the Add TCA dialog box, the Trigger tab is displayed.

The following fields are displayed in the Trigger tab when the Value Equal threshold type is selected:

- To value—The target value.
- Trigger alarm only if change persists more than—Select this option to trigger the alarm if the alarm criteria persist for the defined period. The time period is defined in seconds in the trigger alarm field. For example, if CPU usage is over 85% (the alarm criteria) and this condition persists for more than one minute (the defined period), then the alarm is triggered. When setting the values for this option, bear in mind that if the soft property polls the device every x seconds, entering a defined period for less than x provides no benefit.

Value Not Equal

The alarm condition is reached when the soft property value is *not* equal to the value defined in Alarm Value, regardless of whether or not it is numeric.

When the Value Not Equal threshold type is selected from the Trigger drop-down list of the Add TCA dialog box, the Trigger tab is displayed.

The following fields are displayed in the Trigger tab when the Value Not Equal threshold type is selected:

- To value—The target value.

- Trigger alarm only if change persists more than—Select this option to trigger the alarm if the alarm criteria persist for the defined period. The time period is defined in seconds in the trigger alarm field.

Upper Threshold

When it is crossed, the upper threshold value triggers the alarm for the defined numeric properties.

This threshold trigger must receive a numeric value. To receive a numeric value, the parse integer rule must be applied on the soft property as an ending rule. For more information about parsing integers, see Chapter 5, "Parsing Operators/Rules."

When the Upper Threshold type is selected from the Trigger drop-down list of the Add TCA dialog box, the Trigger tab is displayed.

The following fields are displayed in the Trigger tab when the Upper Threshold type is selected:

- Trigger alarm when value is above—The value which, when crossed, generates the alarm.

- Clear alarm when value is below—The value which, when crossed (when going back), clears the alarm.

- Trigger alarm only if change persists more than—Select this option to trigger the alarm if the alarm criteria persist for the defined period. The time period is defined in seconds in the trigger alarm field.

Lower Threshold

When it is crossed, the lower threshold value triggers the alarm for the defined numeric properties.

This threshold trigger must receive a numeric value. To receive a numeric value, the parse integer rule must be applied on the soft property as an ending rule. For more information about parsing integers, see Chapter 5, "Parsing Operators/Rules."

When the Lower Threshold type is selected from the Trigger drop-down list of the Add TCA dialog box, the Trigger tab is displayed.

The following fields are displayed in the Trigger tab when the Lower Threshold type is selected:

- Trigger alarm when value is below—The value which, when crossed, generates the alarm.

- Clear alarm when value is above—The value which, when crossed (when going back), clears the alarm.

- Trigger alarm only if change persists more than—Select this option to trigger the alarm if the alarm criteria persist for the defined period. The time period is defined in seconds in the trigger alarm field.

Upper Rate

The upper rate trigger is used to check the counter value changes over a period of one second. When the specified rate is crossed, it triggers the alarm for the defined numeric property. When this is used with the *Trigger alarm only if change persists more than* option, described in Upper Threshold, page 6-2, you can check that the rate is maintained above the specified value over time.

Note   The following is the calculation for the rate every one second: If the property is sampled every x seconds, the calculation is the *current value* less the *previous value* divided by x seconds.

This threshold trigger must receive a numeric value. To receive a numeric value, the parse integer rule must be applied on the soft property as an ending rule. For more information about parsing integers, see Chapter 5, "Parsing Operators/Rules."

When the Upper Rate threshold type is selected from the Trigger drop-down list of the Add TCA dialog box, the Trigger tab is displayed.

The following fields are displayed in the Trigger tab when the Upper Rate threshold type is selected:

- Trigger alarm when value is above—The value which, when crossed, generates the alarm.

- Clear alarm when value is below—The value which, when crossed (when going back), clears the alarm.

- Trigger alarm only if change persists more than—Select this option to trigger the alarm if the alarm criteria persist for the defined time period. This period is defined in seconds in the trigger alarm field.

Lower Rate

The lower rate trigger is used to check the counter value changes over a period of one second. When the specified rate is crossed, it triggers the alarm for the defined numeric property. When this is used with the *Trigger alarm only if change persists more than* option, described in Upper Threshold, page 6-2, you can check that the rate is maintained below the specified value over time.

Note   The following is the calculation for the rate every one second: If the property is sampled every x seconds, the calculation is the *current value* less the *previous value* divided by x seconds.

This threshold trigger must receive a numeric value. To receive a numeric value, the parse integer rule must be applied on the soft property as an ending rule. For more information about parsing integers, see Chapter 5, "Parsing Operators/Rules."

When the Lower Rate threshold type is selected from the Trigger drop-down list of the Add TCA dialog box, the Trigger tab is displayed.

The following fields are displayed in the Trigger tab when the Lower Rate threshold type is selected:

- Trigger alarm when value is below—The value which, when crossed, generates the alarm.

- Clear alarm when value is above—The value which, when crossed (when going back), clears the alarm.

- Trigger alarm only if change persists more than—Select this option to trigger the alarm if the alarm criteria persist for the defined time period. This period is defined in seconds in the trigger alarm field.