

Alarm and Alert List Concepts

About the Alarm and Alert List

The Alarm and Alert List page provides all the tools you need to manage the alarm notifications and alerts that are reported to the enteliWEB alarm and alert management system. This page also displays system messages.

In this and related topics, the term "alarm list" refers to the list of alarms, alerts, and system messages on the Alarm and Alert List page.

The alarm list displays active alarms that have been reported by objects in devices on a BACnet network. Alarms are reported when the object that detects a problem generates an alarm notification that is sent over the BACnet network.

The alarm list reflects only the alarm notifications that reach enteliWEB. Therefore, the definitive source for active alarms remains in the objects.

For background information about the enteliWEB event management system, see [Event Management System Concepts](#).

On the Alarm and Alert List page, you can perform the following tasks:

- Acknowledge one or multiple alarms
- Search the alarm list based on text
- Filter the alarm list based on text
- Filter the alarm list based on numerous criteria
- Create reusable filters based on numerous criteria
- Flag one or multiple alarms for specific treatment
- Assign one or multiple alarms to a user
- Add notes to one or multiple alarms
- View trend log plot
- View the alarm history
- View related objects
- Configure the emailing of alarm or alert notifications to users or groups of users
- Update the alarm list from the source devices
- Remove one or multiple alarms from the alarm list
- Save alarm list as PDF or as CSV file

See [Alarm and Alert List Tasks](#) for the detailed procedures.

What is an active alarm?

When a problem is detected by the building automation system, such as a room temperature that is too high or a freeze stat that is tripped, an alarm notification is generated and sent to enteliWEB over the BACnet network. enteliWEB notifies the user and places the alarm in the alarm list.

An alarm is active, and therefore remains on the alarm list, when one or both of the following conditions is present:

- The building automation system component that is reporting the problem is currently in an alarm state or fault state.
- The building automation system component no longer has the problem and is currently in a normal state, but was previously in an alarm state or fault state that was not acknowledged.

An alarm notification is generated by an Event Enrollment (EV) object, by an EV object that is associated with the monitored object, or by the monitored object itself when it supports intrinsic reporting.

An alarm notification can also be generated by a [custom module](#).

What is an alert?

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When a problem is detected with an enteliWEB subsystem in the enteliWEB server, an alert notification is generated. An alert is an alarm that reports an internal problem, rather than an alarm that reports a problem from the building automation system over the BACnet network.

In addition, an application module that has been implemented with the [enteliWEB API](#) can generate alerts.

The Alarm and Alert List page lets you manage alerts in the same way that you manage alarms.

For detailed information about alerts, see [Alert Concepts](#).

What is a system message?

When a device detects a network issue, such as a circular network or multiple devices with the same device number, it generates a system message and sends it over the network. To view a system message, in the left navigation pane, click **Alarms > Alerts > System**. System messages are also displayed in the [alarm notification history window](#) and are recorded in the log.

System messages do not need to be acknowledged. Like other alarm/alert notifications, they can be assigned to a user for investigation. System messages that are not assigned to a user are deleted after 24 hours.

What is a filter?

Perhaps the most powerful feature of the Alarm and Alert List page is its filtering capability. You can narrow down the list of alarms by specifying criteria that an active alarm must match to appear in the alarm list.

You can create any number of filters to allow you focus quickly on the alarms you are interested in, such as critical alarms, alarms assigned to you, alarms from certain devices and so on.

A filter also governs some aspects of the treatment of the alarms such as visual notifications and email notifications.

How do you extinguish an alarm?

To extinguish an alarm and remove it permanently from the alarm list you must resolve the condition or conditions that make the alarm an active alarm.

If the alarm requires an acknowledgment, then you must acknowledge it.

If the component that has the problem is in either an alarm state or the fault state currently then you must correct the problem to allow the component to return to the normal state.

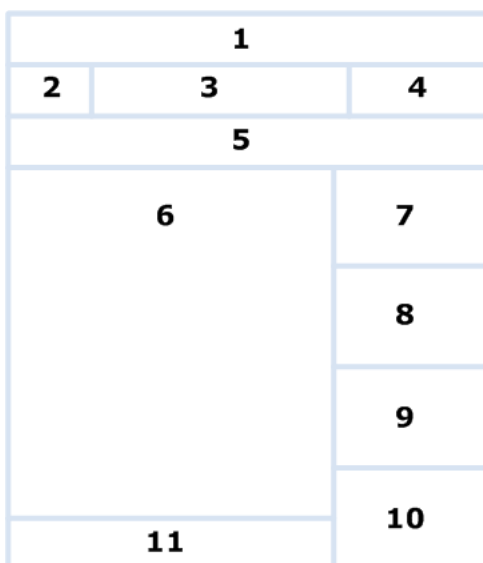
When happens to an alarm when it is no longer active?

When an alarm is no longer active, it is placed in the enteliWEB log. To view the enteliWEB log, select the Log section from the left navigation pane.

How the Alarms and Alert List Page Is Organized

The Alarm and Alert List page is organized to allow for many different alarm management styles and approaches.

The following illustration identifies the functional components and their location.



Legend

- 1 - [Source for alarms](#)
- 2 - [Command list](#)
- 3 - [Search](#)
- 4 - [Filter and Manage Filters dialog buttons, Save as PDF or CSV buttons](#)
- 5 - [Quickbar](#)
- 6 - [List of active alarms](#)
- 7 - [Alarm flags, Assign to, and Notes](#)
- 8 - [Trend log plot](#)
- 9 - [History](#)
- 10 - [Related Items](#)
- 11 - [Page Selection and Refresh](#)

Source for Alarms

The alarms that are listed on the Alarm and Alert List page come from the one source that you select in the Alarms section of the left navigation pane or from the source or sources you configure in the advanced filter.

The Alarms section of the left navigation pane lists the following types of sources, in tree view format:

- Network (which consist of sites)
- Alerts
- Views

The advanced filter allows you configure the following types of sources:

- Multiple sites
- Multiple systems/views
- Range of device addresses
- Types of objects

Command List

The Command list allow you to select from the following commands.

Acknowledge

The Acknowledge command sends an acknowledgment indication to the devices for the alarms that you have selected from the alarm list. You are prompted to add an acknowledge message. The execution of this command is recorded in the enteliWEB log with a separate log record for each alarm that was acknowledged.

Acknowledge All

The Acknowledges All command sends an acknowledgment indication to all devices in the alarm list that require an acknowledgment. You are prompted to add an acknowledge message. The execution of this command is recorded in the enteliWEB log with a separate log record for each alarm that was acknowledged.

Delete Alarm

The Delete Alarm command deletes the selected alarms from the alarm list.

When you delete an alarm from the alarm list, you are deleting it from enteliWEB's internal list of active alarms. You are not acknowledging the alarm and you are not changing the alarm state of the source object.

Therefore, when you update the alarm list, the alarms that you deleted are listed again in the alarm list.

Update Alarms

The Update Alarms command discards the current alarm list that is held in the [BACnet Server](#) and reloads the active alarms from all devices and objects on the network.

Search

The search lets you narrow down the number of active alarms that are displayed in the alarm list.

Search matches the text fragment you enter with any occurrence of that fragment in any field in an alarm notification, for the active alarms that are listed.

For example, enter temp in the search field to view only the active alarms in the list in which temp or words that include the letters temp appear in the alarm notification or in associated information such as alarm flags, assign to and notes.

Filter and Manage Filters Dialog Buttons

Filter

The Filter dialog lets you search based on information in certain fields of an active alarm. You can save the filters that you use regularly.

The Filter dialog is where you can create filters and apply them against the active alarm list to test them.

The Filter dialog is hidden when it is not being used.

The filter button allow you to open the Filter dialog and the [Manage Filter](#) dialog.

To indicate that the displayed alarm list is a filtered view, the **Filter** button is highlighted as follows: **Filtered**.

Advanced Filter Dialog

The Advanced Filter dialog lets you create a BACnet network-oriented filter to filter across multiple sites, by device range, system and object type.

The Advanced Filter dialog is included as an option in the Filter dialog.

When multiple filters are activated, the alarm list displays only the active alarms that meet the filter settings of all of the activated filters. That is, search, filter, and Quickbar are logically ANDed.


Manage Filters

The Manage Filters dialog allows a user to view and change the filter setting and attributes of saved filters, depending on the user's permissions. Administrative users are granted more capabilities than non-administrative users.

The Manage Filters dialog allows administrative users to assign filters to users and groups and to subscribe users and groups to receive alarm notification emails.

See [Managing Filters](#) for information about filter management capabilities for administrative and non-administrative users.

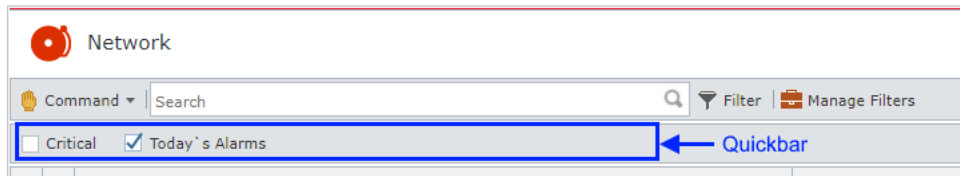
Save as PDF or CSV File Buttons

The  button lets you save the active alarms in the list to a file in PDF format.

The  button lets you save the active alarms in the list to a file in CSV (Comma-Separated Value) format.

Quickbar

The Quickbar pane holds the filters that you use frequently, which lets you activate and deactivate them with a click. An activated filter is displayed with highlighting, as for example, **Today's Alarms**. The Quickbar displays two default filters: Critical and Today's Alarms. The Critical filter includes alarms that belong to the Critical BACnet notification class. The Today's Alarms filter includes alarms that were generated for the current day.



The Quickbar is consistent across the alarm lists for multiple sites and views. That is, when you select different items in the Alarms section of the left navigation pane, the Quickbar remains in place with the all the filters displayed.

The Quickbar is hidden when it holds no filters.

You add a filter to the Quickbar using the Manage Filters dialog.

Alarm and Alert List

The alarm list displays detailed information about the active alarms and alerts that match your text search and filter settings.

When you are not using the Advanced filter, the alarm list displays active alarms or alerts for the one source that you selected in the Alarms section of the left navigation pane. Alternatively, if you are using the advanced filter, the alarm list displays active alarms or alerts for the sources that you have selected in the advanced filter.

When the text search and filter settings are empty, the alarm list displays all of the active alarms or alerts that enteliWEB knows about for the source that you selected in the Alarms section of the left navigation pane.

To view all active alarms for all sites, select Network in the left navigation pane as the source.

See [Alarm and Alert List Reference](#) for the organization of the information that is presented in an active alarm.

Alarm Flags, Assign To, and Notes

The Alarm Flags, Assign To, and Notes pane displays information about the active alarm that you selected in the alarm list.

The Alarm Flags and Assign To assignments and the Notes information you enter for an alarm are saved by enteliWEB. Then when the same alarm occurs again and is listed in the alarms list, the Alarm Flags, Assign To and Notes from the previous occurrence of that alarm are displayed.

You can add and save the following information about the alarm, information which you can then filter on:

Alarm Flags

An alarm flag is an attribute that you can assign to one or more alarms. Typically, an alarm flag is used to mark a critical alarm or to assist you to implement a workflow for managing certain types of alarms. Alarm flags have no inherent meaning to enteliWEB.

enteliWEB has four built-in alarm flags: Nuisance, Important, Needs Repair, Under Repair

Assign to

Assign to lets you associate an enteliWEB user with one or more alarms. By assigning alarms to users, you can implement a workflow for delegating alarms. Each user should create an "assigned to me" filter.

Notes

Notes lets you add comments about one or more alarms. Anyone who views the alarm will see the notes.

Trend Log

The trend log pane displays a plot from the trend log object that is trending the monitored object.

The trend log pane is hidden when there is no trend log to display.

History

The History pane displays a list of the recent activity for a selected alarm.

 indicates that an operator acknowledge message is associated with the activity

Related Items

The Related Items pane lists all the links to associated objects, dashboards and graphics that pertain to the monitored object for a selected alarm.

Page Selection and Refresh

The Page Selection and Refresh area lets you step through the alarm list from page to page, and to refresh the alarm list either on your command or by enabling enteliWEB to refresh it periodically.

Refresh means to update the Alarm and Alert List page with the active alarms that match your text search and filter settings, from the list of active alarms that enteliWEB knows about. Otherwise, unless enteliWEB is set to refresh the Alarm and Alert List page automatically, the alarm list is not updated when new active alarms are annunciated.

When enteliWEB is set to refresh the Alarm and Alert List page automatically, it does so approximately every 20 seconds.

When you select an alarm from the alarm list, the automatic refresh function is deactivated.

Refresh vs. Update Alarm List

The Refresh operation and the Update Alarm List operation perform different functions. The Refresh operation updates the alarm list from enteliWEB's internal alarm list. Update Alarm List replaces enteliWEB's internal alarm list by uploading all active alarms from the devices on the network.

Managing Filters

You manage filters to keep them current with your changing alarm management needs. Administrative users are granted more filter management capabilities than non-administrative users.

The Manage Filters dialog is provided for managing filters. The Manage Filters dialog consists of two main parts: the filter list and the filter settings for the filter you select in the filter list.

The filter management capabilities for administrative users and for non-administrative users are described separately in the following sections.

Managing Filters by an Administrative User

An administrative user for alarms is a user who is a member of a group with Manage Alarms permission.

An administrative user can manage the filters that he or she created and filters that other administrative users have created. An administrative user can assign those filters to other users.

An administrative user can perform all of the following the tasks.

- Create a filter
- Delete a filter
- Change filter settings for a filter
- Display a checkbox on the Quickbar that can be used to apply the filter
- Disable alarm annunciations for alarm notifications that match the filter
- Set the subscriber list of users and groups who will be emailed a notification about alarms or alerts that match the filter
- Set the subscriber list of users and groups for whom a checkbox is displayed on their Quickbar to allow them to apply the filter, for a filter created by the administrator

See [Permissions and Alarm Management](#) for other aspects of user permissions and alarms.

Managing Filters by a Non-Administrative User

A non-administrative user for alarms is a user who is a member of a group with access to the Alarms section of the left pane navigation tree. A non-administrative user does not have Manage Alarms permission.

A non-administrative user is limited to managing the filters that he or she created. A non-administrative user can't manage a filter on the Quickbar that has been subscribed for the user by an administrative user.

A non-administrative user can perform all of the following the tasks for a filter that he or she created.

- Create a filter
- Delete a filter
- Change filter settings for filter
- Display a checkbox on the Quickbar that can be used to apply a filter
- Disable alarm annunciations for alarm notifications that match filter
- Subscribe to be emailed an alarm notification about alarms that match filter
- View but not change or delete settings for a filter that an administrative user has subscribed for the non-administrative user

See [Permissions and Alarm Management](#) for other aspects of user permissions and alarms.

About Alarm Notifications

An alarm notification alerts the user that a notification has been received by enteliWEB, that is, a transition has occurred in the state of a monitored object.

enteliWEB provides the following methods for annunciating the alarm notification to the user:

- [Notification History Window](#)
- [Notification Pop-up Window](#)
- [Notification Sound](#)
- [Notification Status Indicator](#)
- [Email](#)
- [Alarm Graphic](#)

Each of these methods is described in the following sections.

Notification History Window

The notification history window displays information about the recent notifications in chronological order.

The notification history window presents, in tabular format, one row that contains the following information, for each notification:

- Color indicator corresponding to the associated alarm group
- Status icon
- Name and link to monitored object
- Alarm notification message text
- Link to acknowledge the alarm, for alarms that require acknowledgment.
- Link to the system dashboard that contains the monitored object
- Link to alarm graphic

When the notification history window is pinned, it remains visible and persists when the user moves from page to page in enteliWEB. When it is not pinned, the notification history window closes when it loses user focus.

The user can clear the notification history window at any time by dismissing the notifications.

Behavior of Notification History Window When it is Pinned

When the notification history window is pinned, it remains active and open at all times. A user may or may not be present when new notifications are received and he or she will not see the annunciation. Therefore, a new alarm notification is identified with a shaded background until it is cleared by the user.

Notification Pop-up Window

The notification pop-up window is a temporary display in the lower right corner of the page that provides summary information to alert the user about one or more new alarm notifications. The user can choose to ignore the pop-up or click it to deal with the alarm immediately.

The notification pop-up is enabled or disabled in the user settings by the administrator.

The notification pop-up can be disabled for certain alarms when an alarm list filter has Exclude from Alarm Notification selected.

Notification Sound

An alarm notification can be annunciated by sound at the user's workstation. You choose the sounds by adding the sound files to the enteliWEB server and assigning them to alarm groups. A different sound can be played for each alarm group.

The notification sound is enabled or disabled in the user settings by the administrator.

The notification sound can be disabled for certain alarms when an alarm list filter has Exclude from Alarm Notification selected.

Notification Status Indicator

The notification status indicator is displayed to allow the user to open the notification history window. When the notification status indicator is clicked, the notification history window opens.

The notification status indicator is presented in the following formats



Two new notifications are listed in the notification history window. The number corresponds to the number of notifications that have occurred since the last time the user opened the notification history window.



No new notifications are listed in the notification history window.

The notification status indicator is not displayed when the user has dismissed all notifications from the notification history window.

The notification status indicator is enabled or disabled in the user settings, by the administrator.

The notification status indicator can be disabled for certain alarms when an alarm list filter has Exclude from Alarm Notification selected.

Emailing Notifications

By subscribing to email in a filter, a user can receive an email message for every alarm or alert notification that matches the filter. The email is sent to the address that is specified in the user settings.

See [Managing Filters](#) for information about subscribing to alarm or alert notification by email.

Email notification is not enabled and disabled by the Alarm Notification setting in the user settings.

Email notifications are not sent to disabled users.

See [Permissions and Notifications](#) for information about user permissions and email notifications.

A user's email address is specified in the user settings [email address](#).

Alarm Graphic

An alarm graphic is a graphic that you associate with a monitored object. When the monitored object transitions to an alarm and is annunciated by enteliWEB, the alarm graphic is either opened automatically or opened when the user clicks the link that is included in the notification history log entry. See [Site Graphics Concept](#) for detailed information about alarm graphics.

The automatic display of an alarm graphic is enabled or disabled by the Alarm Notification setting in the user settings, by the administrator.

The automatic display of an alarm graphic can be disabled for certain alarms when an alarm list filter has Exclude from Alarm Notification selected.

Server Not Responding Error

The client computer you are using polls the enteliWEB server periodically to request new alarm notifications to display.

When the server does not respond as expected, an error message is displayed in the notification history window similar to following:

Dismiss All **Error receiving alarms!** Last Refresh 3 mins ago

Permissions and Alarm Management

To allow a user to work with alarms, he or she must be a member of a group with the correct permissions.

Three types of permissions must be taken into account: Manage permissions, User Interface permissions and Network permissions.

See [Group Permissions](#) for information about group permissions in enteliWEB.

Permissions and Notifications

Notifications, including email, are not annunciated to a user in the following situations:

- User is not a member of a group that has permission for the site.
- User is a member of a group that has permission for the site but user is not a member of a group that has permission for the device.
- User is a member of a group that has permission for the site and for the device but user is not a member of a group that has at least Read permission for the monitored object.

Annunciating Notifications of Notify Type = Event

For a discussion of notify type, see [About Alarms Settings](#).

For the procedure to display notifications of notify type = event, see [Annunciating Notifications of Notify Type = Event](#).

Related Topics

[Alarm and Alert List Reference](#)

[Alarm and Alert List Tasks](#)

[Alarm Settings Concepts](#)

[Event Management System Concepts](#)