

Remote Viewer

TopView® Desktop Client

Version 6.34

The screenshot displays the TopView Remote Viewer desktop client interface. The main window is titled "TOPVIEW Remote Viewer" and shows a navigation pane on the left with a tree view containing "ALL (11)", "HVAC (6)", and "Unit1 (5)". The main content area is titled "Displaying: Unit1, Current values and alarms" and has tabs for "Current values and alarms" and "Alarm history and analytics". The "Alarm history and analytics" tab is active, showing an "Alarms View" window. This window includes a table of alarms with columns for State, Ack, Priority, Time in alarm, and Alarm Message. The table lists several alarms, including "Level 2 indicator alarm", "Discharge pump 2 is running", "Station number 6 is down", "Unit 1 NOX emissions, 225, is too high", "Unit 1 power output, 168, is greater than 165", "Unit 2 power output, 167, is too high", "The valve position, 52.1, is greater than 50 percent", and "It is 15 min (15分钟) past the hour (Config=unit1kep)". A "Row summary" panel on the right shows statistics for the displayed alarms. At the bottom of the interface, there is a "Since last timed update" section with a refresh button and a "Latest Msg" section showing a message from 4/14/2020 2:55:33 PM.

State	Ack	Priority	Time in alarm	Alarm Message
	ACK	1		*Outlet temperature, 166.0, is too high
	ACK	1		*Level 1 indicator alarm
Alarm	ACK	1	000:00:00	Level 2 indicator alarm
Alarm	ACK	1	000:00:50	Discharge pump 2 is running
Alarm	ACK	1	426:22:03	Station number 6 is down
Warning		1	000:00:29	Unit 1 NOX emissions, 225, is too high
	ACK	1		*Unit 1 power output, 168, is greater than 165
	ACK	1		*Unit 2 power output, 167, is too high
Alarm	ACK	1	000:00:29	The valve position, 52.1, is greater than 50 percent
	ACK	1		*It is 15 min (15分钟) past the hour (Config=unit1kep)

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Remote Viewer Desktop Client

The screenshot displays the TopView Remote Viewer desktop client interface. The main window title is "TopView Remote Viewer". The interface is divided into several sections:

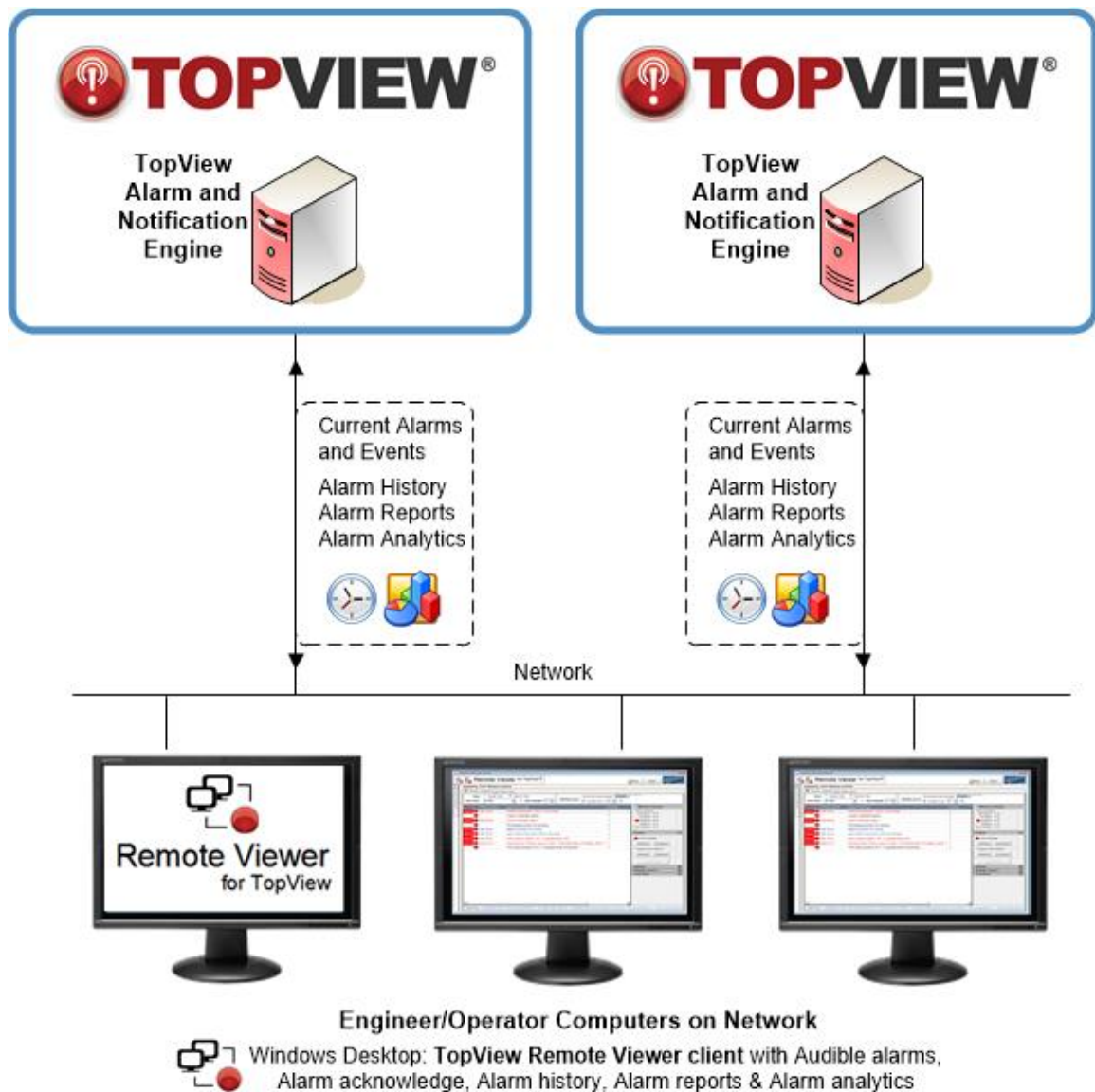
- Top Bar:** Contains the "TOPVIEW Remote Viewer" logo, a "Help" button, and an "About..." button.
- Left Sidebar:** Labeled "TopView Engines", it shows a tree view with "ALL (11)", "HVAC (6)", and "Unit1 (5)". A "Disconnect" button is visible.
- Main Content Area:**
 - Header: "Displaying: Unit1, Current values and alarms".
 - Navigation: "Current values and alarms" and "Alarm history and analytics" tabs.
 - Actions: "Acknowledge", "Acknowledge", "Alarm Actions", "Comment", "Show alarm history", "Audible", and "Disable".
 - Filters: "Values View" and "Alarms View" (selected), "Filter: No filter", and "Priority: 1 - 999".
 - Alarms View Table:**

State	Ack	Priority	Time in alarm	Alarm Message
	ACK	1		*Outlet temperature, 166.0, is too high
	ACK	1		*Level 1 indicator alarm
Alarm	ACK	1	000:00:00	Level 2 indicator alarm
Alarm	ACK	1	000:00:50	Discharge pump 2 is running
Alarm	ACK	1	426:22:03	Station number 6 is down
Warning		1	000:00:29	Unit 1 NOX emissions, 225, is too high
	ACK	1		*Unit 1 power output, 168, is greater than 165
	ACK	1		*Unit 2 power output, 167, is too high
Alarm	ACK	1	000:00:29	The valve position, 52.1, is greater than 50 percent
	ACK	1		*It is 15 min (15分钟) past the hour (Config=unit1kep)
 - Right Panel: "Window Contents" showing "Row summary" (Displayed: 10 / 23, In Alarm: 5 / 5, Unack'd: 9 / 9, Disabled: 0 / 0, Hidden: 0 / 0) and expandable sections for "Actions", "Permissions", "Options", "Sounds: (Speech)", and "Lock-down".
 - Bottom Bar:** "Since last timed update: 0 seconds" with "Update every 5 sec" and a "Refresh now" button. A "Latest Msg" section shows: "4/14/2020 2:55:33 PM: Streaming TTS to Remote Viewer clients : Level 2 indicator alarm".

Overview

The TopView Remote Viewer allows TopView users to monitor TopView from anywhere on the network. Using the Remote Viewer, the user can

- Monitor the value and status of all TopView tags (Values View)
- Monitor current alarms and unacknowledged items (Alarms View)
- Hear audible alarms (WAV and Text-to-speech)
- Acknowledge any active alarm conditions
- Disable, snooze/shelve alarms
- View and filter alarm history
- Create Alarm Reports
- Perform Alarm Analytics
- Enter comments/annotations for alarms
- View the application log



Configuring the TopView Engine instance/configuration to Accept Connections

Before you can use the Remote Viewer, you must configure each TopView Engine instance (the Alarm and Notification engine) to accept remote connections. Please see the TopView documentation section "Remote Access" for more information.

Installing the Remote Viewer

There is no installation for the Remote Viewer. The Remote Viewer is installed with TopView v5.5 and later. If you need to run the Remote Viewer from additional computers, you can download it from our web site.

Go to www.exele.com

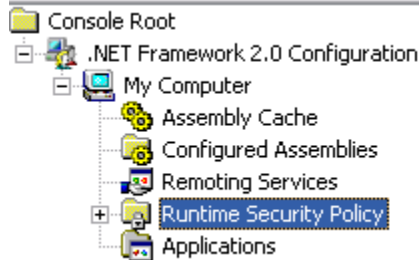
Click **Software products...Remote Viewer**

Why do I get a security error when I run the Remote Viewer?

Your company may have a default .Net Security policy which prevents .Net assemblies from running properly unless given permission to do so.

You can adjust the .Net security for the Remote Viewer. Follow these steps:

- Control Panel>Admin tools>Microsoft .NET Framework 2.0 Configuration
- From left tree, select **Runtime Security Policy**



- From the right, click **Increase Assembly Trust**

Tasks

[Increase Assembly Trust](#)

Use the Trust an Assembly wizard to increase the level of trust granted to a particular assembly. This wizard modifies security policy based on information about the evidence of the assembly selected.

- Select "To this computer" or "This user" to allow this application for the computer or user
- Browse to RemoteViewer.exe
- Set security to "Full trust"
- Click "Finish"

Specifying the TopView Engine instances/configurations to View

Each running TopView Engine instance (the TopView Alarm and Notification Engine for each TopView configuration) can listen for incoming connections from the Remote Viewer on a TCP/IP port. In the Remote Viewer, you must specify the computer name or IP address of the running TopView Engine instance along with the port number. Each TopView Engine instance/configuration running on the same computer must use a different port number. The user may choose the port number for each TopView Engine instance as part of its configuration. See "Remote Access" in the TopView documentation for more information.

What about Firewalls?

When you are using the Remote Viewer to access TopView Engine instances across a network, you must make sure that the chosen port for each TopView Engine instance/configuration is not blocked by a firewall.

Forcing single instance of Remote Viewer application

The default behavior of the Remote Viewer is to allow multiple instances of the Remote Viewer process to execute on a single computer. You can restrict this behavior, enforcing one instance per computer, or one instance per Windows user per computer.

To prevent multiple instances of the Remote Viewer:

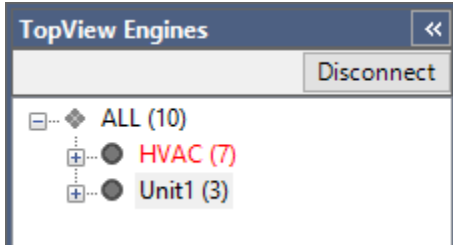
- Create a file named **RemoteViewer.SingleInstance**
You can use Notepad or another application to create this file. Verify that there is no further extension (such as .txt) on this file name.
 - Computer vs User: If this file is blank, the restriction will be one Remote Viewer instance per computer. If you would like to change the restriction to one Remote Viewer instance per user per computer, add the word USER to the file as its own line in the file.
 - Suppress single instance message: if a second instance is launched, the user will see a message regarding the single instance restriction. To suppress this message, add the word SUPPRESSMESSAGE to the file as its own line in the file.
- Locate the Remote Viewer application that you are running (RemoteViewer.exe)
- Copy the file RemoteViewer.SingleInstance to the same folder/path as the Remote Viewer application executable

The startup behavior of the Remote Viewer is as follows:

- Look for the file RemoteViewer.SingleInstance in the same folder as the Remote Viewer executable (RemoteViewer.exe)
- If the file does not exist, continue
- If the file exists:
 - If the file contains the word USER, user-restriction will be enforced
 - Query the process list of the computer for another instance of RemoteViewer.exe
 - If another RemoteViewer.exe process is not found, continue to run the Remote Viewer
 - If another RemoteViewer.exe process is found
 - If user-restriction is enforced (file contains USER)
 - If another RemoteViewer.exe process is found which is running under the user account of the current Windows user, notify the user that only a single instance is allowed ; exit the application
 - Is user-restriction is not enforced (one instance per computer)
 - If another RemoteViewer.exe process is found, notify the user that only a single instance is allowed ; exit the application

TopView Engine instance List

The TopView Engines List contains the TopView Engines instances that the user can connect to and monitor. Each listed TopView Engine must be configured using the Configure panel.



Note: before you can connect to a TopView Engine instance/configuration using the Remote Viewer, you must configure the TopView Engine instance to accept remote connections. In addition, the TopView Engine instance must be running.

Alarm Count

In parentheses next to each TopView Engine instance name, the total number of rows/tags in alarm and optionally the number of unacknowledged items for the TopView Engine instance is displayed. If the alarm count for a TopView Engine instance changes and the TopView Engine instance is not currently selected, the font color will change to red.

Notes:

- Alarm counts do not include hidden Tag Groups. See **Hiding Tag Groups** on page 11 for more information.
- To display the alarm count and unacknowledged count, see **TopView Engines tree** on page 32.

Remote Connection Details

You can display and hide the Configuration pane by clicking



in the lower left corner of the Remote Viewer.

Toolbar:

Add a new TopView Engine instance
Deleted selected Configuration
Edit selected Configuration

Name: User entered name for this TopView Engine instance. This name will be displayed in the Remote Viewer's TopView Engine List and can be different than the Configuration file name used by the TopView Engine instance.

Desc: User-entered description.

Host: host name or IP address for the computer running the TopView Engine instance.

If you are running a backup TopView computer that is listening on the same port as the primary, you can enter the both hosts in the Host field as:

primary^backup

In the event of a failure to connect to the primary TopView host, the Remote Viewer will attempt to connect to the backup host on the same port. The Remote Viewer will continue to attempt connection to the primary host until reconnection is successful.

Port: the port number for the TopView Engine instance. This port is chosen by the user as part of the TopView configuration. See "Remote Access" in the TopView documentation for more information.

Keep connection alive: if checked and the connection to TopView is lost, the Remote Viewer will attempt to reconnect every 20 seconds.

The screenshot shows the 'TopView Engines' window with a tree view on the left and a configuration pane on the right. The tree view shows a hierarchy: ALL (11) -> HVAC (6) -> Unit1 (5). Under Unit1, there are tag groups: Level (1), NOx (1), Power (0), Pressure (0), Pump (1), Station Status (1), and Temperature (0). The configuration pane is titled 'Remote Connection details' and contains the following fields:

- Name: Unit1
- Desc: (empty)
- Host: twwin10
- Port: 6170
- Title: (empty)
- Keep connection alive

Below the configuration pane is a 'Show Tag Groups' section with a list of checkboxes:

- (no tag group)
- Level
- NOx
- Power
- Pressure
- Pump

At the bottom of the window is a 'Session & Current User Info' section with an upward-pointing arrow icon.

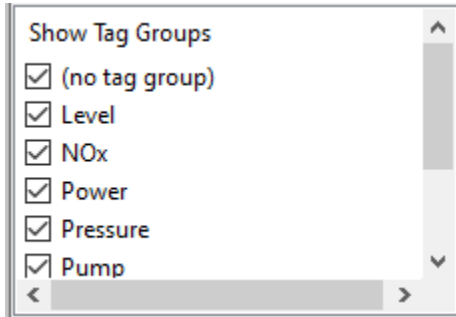
Hiding Tag Groups

The "Show Tags Groups" list displays the Tag Groups that exist in the TopView Engine instance. Since this list is retrieved from the TopView Engine instance, you must be connected to the TopView Engine instance to see the list of Tag Groups.

Initially, a Remote Viewer will display all Tag Groups from the connected TopView Engine instance unless the Tag Group has been configured to be hidden by default.

If you would like to filter the list of tags/alarms seen by an instance of the Remote Viewer, uncheck the Tag Group names you wish to hide.

If a tag is has no assigned primary or secondary Tag Groups, it belongs to "(no tag group)".

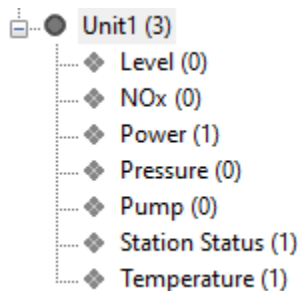


For Multi-level Tag Groups (name1\name2\...)

- You cannot view a child Tag Group (e.g. Unit1\Level) if the parent Tag Group is hidden (e.g. Unit1).
- You can view a parent Tag Group (e.g Unit1) if one or more child Tag Groups are hidden.

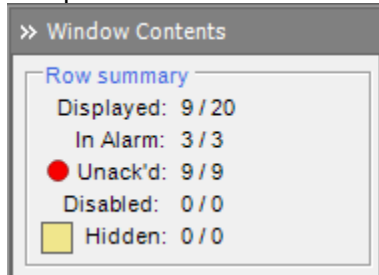
Note:

- Only non-hidden Tag Groups will be displayed in the TopView Engine Tree



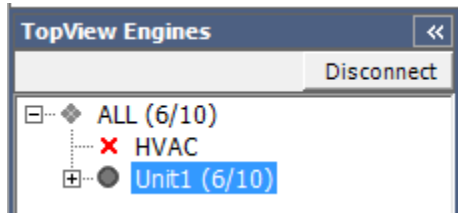
The number of alarms shown in parentheses after each Tag Group includes the alarm count for the Tag Group and each child Tag Group.

- The displayed counts (in alarm, unacknowledged) will only include non-hidden Tag Groups.



Connecting and Disconnecting to TopView Engine instances

The TopView Engine List displays the TopView Engine instances that have been configured for access by the Remote Viewer.



The current connection state for each TopView Engine instance is displayed by the icon:

- Connected to TopView Engine instance
- ✗ Not connected to the TopView Engine instance


To connect to a TopView Engine instance

- Select a TopView Engine instance and click the [Connect] button
- Double-click a disconnected TopView Engine instance name in the list

To disconnect from a TopView Engine instance

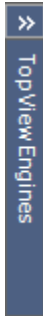
- Select a TopView Engine instance and click the [Disconnect] button
- Double-click a connected TopView Engine instance name in the list

Hide and Restore the TopView Engine instance List

To temporarily hide the TopView Engine List and Configuration pane, click the  button



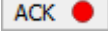
To restore a hidden TopView Engine List, click the vertical **TopView Engines** tab



Current values and alarms

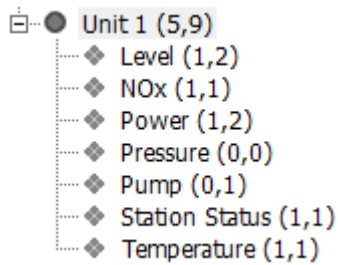
When you select a connected TopView Engine instance in the TopView Engine List, you will see the current tags and alarms in the "Current values and alarms" screen to the right.

Notes:

- The ACK button at the beginning of a row  denotes that the item is unacknowledged. Clicking the button will acknowledge the alarm.

Alarm	ACK 	1	000:00:00	Level 2 indicator alarm
-------	---	---	-----------	-------------------------

- If you select a Tag Group name (◆ icon) in TopView Engine Tree, the Window Contents pane will only display the items that are part of the selected Tag Group. Selecting the TopView Engine name (● icon) will display the items from all Tag Groups.



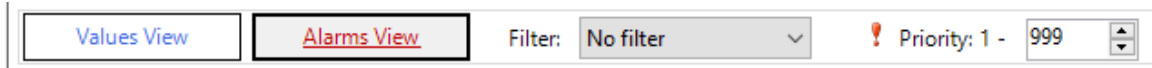
In this example, selecting "Unit 1" will display all items from all non-hidden Tag Groups. Selecting a Tag Group (NOx, Power, ...) will only display items from the selected tag group.

See **Hiding Tag Groups** on page 11 for more information.

Current values and alarms


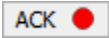
The Current values and alarm screen is an updating display of the monitored points and current alarm state of these points.

The Current values and alarms screen allows you to select **Values View** or **Alarms View**, as well as selecting a **View Filter**.



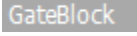
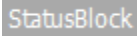
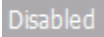
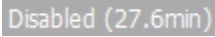
Alarm and Unacknowledged icons

The first two columns contain the current alarm and unacknowledged states

-  Row is currently in alarm
-  Row is unacknowledged

Blocked and Disabled items

The first column may also indicate a blocked or disabled item

-  The AND Gate for row is currently True (blocking). The row is blocked and no alarms can occur.
-  Alarms are blocked because "check for good status" is enabled on the Alarm Limits screen for this tag/row and the value status is not good. No alarms can occur.
-  The item is disabled
-  The item is snoozed (disabled for a period of time, "alarm shevling"). The remaining snooze time is displayed

Values View vs. Alarms View

The Current values and alarm screen provides two views of the current tags/rows and active alarms. The user can switch between Values View and Alarms View using the top "View" option buttons.



Values View

Values View can display all monitored points, including those that are in alarm and those that are not in alarm. The emphasis for Values View is the monitored point values.

The user can customize the displayed columns (see **Options** on page 29). Alarm messages for rows in alarm are viewable in a pop-up tooltip window when you hold the mouse over a row.

Values View						
		Selected Tag Group: All		Sort: Not sorted		
State	Ack	Value	Units	Time	Description	Time in alarm
	ACK ●	162.1	Deg F	4/14/2020 3:01:26 PM	Outlet temp	
		161.6	Deg F	4/14/2020 3:01:26 PM	Avg outlet temp	
Alarm	ACK ●	HI		4/14/2020 3:01:26 PM	Level 1 indicator	000:00:05
	ACK ●	HI		4/14/2020 3:01:26 PM	Level 2 indicator	
		Running	State	4/14/2020 3:01:26 PM	Discharge Pump 1	
Alarm	ACK ●	Running	State	4/14/2020 3:01:26 PM	Discharge Pump 2	000:00:45
		147.1	psi	4/14/2020 3:01:26 PM	Outlet 4 pressure	
		152.0	psi	4/14/2020 3:01:26 PM	Outlet 5 pressure	
		169.2	Deg F	4/14/2020 3:01:26 PM	Outlet 4 temperature	
		175.2	Deg F	4/14/2020 3:01:26 PM	Outlet 5 temperature	
		Up		4/14/2020 3:01:26 PM	Station 4 status	
		Down		4/14/2020 3:01:26 PM	Station 5 status	
Alarm	ACK ●	Down		4/14/2020 3:01:26 PM	Station 6 status	426:27:58
		221	ppm	4/14/2020 3:01:26 PM	Unit1 NOx	
		224	ppm	4/14/2020 3:01:26 PM	Unit 2 NOx	

Values View Filter:

- No Filter: show all tags/rows unless hidden
- Alarm: show all tags/rows that are currently in alarm
- Unacknowledged: show all tags/rows that are currently unacknowledged
- Alarm or Unacknowledged: show all tags/rows that are currently in alarm or unacknowledged
- Alarm and Unacknowledged: show all tags/rows that are currently in alarm and unacknowledged
- Disabled: show all tags/rows that are currently disabled

Alarms View

Alarms View can display

- Active alarms: items that are currently in alarm
- Inactive but unacknowledged alarms: items that are not currently in alarm but are unacknowledged

The emphasis for Alarms View is the alarm message and time in alarm.

The user can customize the displayed columns (see **Options** on page 29). If the user holds the mouse over a row, a pop-up window will display the information typically visible in Values View.

Alarms View				
		Selected Tag Group: All		Sort: Not sorted
State	Ack	Priority	Time in alarm	Alarm Message
Alarm	ACK ●	1	000:00:00	Outlet temperature, 165.2, is too high
	ACK ●	1		*Level 1 indicator alarm
Alarm	ACK ●	1	000:00:35	Level 2 indicator alarm
	ACK ●	1		*Discharge pump 2 is running
Alarm	ACK ●	1	426:28:38	Station number 6 is down
Warning		1	000:00:04	Unit 1 NOX emissions, 225, is too high
Alarm	ACK ●	1	000:00:30	Unit 1 power output, 168, is greater than 165
	ACK ●	1		*Unit 2 power output, 167, is too high
Alarm	ACK ●	1	000:02:04	The valve position, 52.1, is greater than 50 percent
	ACK ●	1		*It is 15 min (15分钟) past the hour (Config=unit1kep)

Alarms View Filter:

- No Filter: show all tags/rows that are in alarm or unacknowledged. Same as "Alarm or Unacknowledged" filter value
- Alarm: show all tags/rows that are currently in alarm
- Unacknowledged: show all tags/rows that are currently unacknowledged
- Alarm or Unacknowledged: show all tags/rows that are currently in alarm or unacknowledged
- Alarm and Unacknowledged: show all tags/rows that are currently in alarm and unacknowledged
- Disabled: disabled items cannot be in alarm, so this filter will show all tags/rows that are unacknowledged and disabled.

Note: if the Filter includes unacknowledged items, the alarm message displayed will be prefixed with an asterisks "*". These rows are unacknowledged but not currently in alarm.



Priority 1-X:

This setting is a view filter based on each item's priority.

Select the priority range that you would like displayed in the Remote Viewer. This setting is only a filter on the viewed items; it does not affect playing of new audible alarms if the new alarm's priority is outside of this range.

Toolbar**Acknowledge**

There are two acknowledge buttons on the toolbar

-  Acknowledge Acknowledge selected
-  Acknowledge Acknowledge displayed

These two buttons perform the same action as the acknowledge [Selected] and acknowledge [Displayed] buttons in the Actions pane. See **Acknowledge** on page 24.

Alarm Actions

Displays the Alarm Actions Log for the selected alarm. Alarm Actions contain details of an individual alarm's activity (active, return to normal, acknowledge), related notifications, and actions taken through notifications (e.g. alarm acknowledge through notification).

For more information, see "Alarm Actions Logs" in the TopView Admin section of the TopView help/doc.

Comment

Add a comment/annotation to the selected items. Comments can be added to items that are in alarm or unacknowledged. This feature is enabled if TopView is logging alarms to SQL Server.

Note: The Alarm History screen allows you to enter comments/annotations for active and completed alarm events. See Alarm history

Comments / Annotations on page 45 for more information.

Show alarm history

Displays the alarm history for the selected item.

Audible... Snooze Audible Alarms

Temporarily mute all audible alarms.

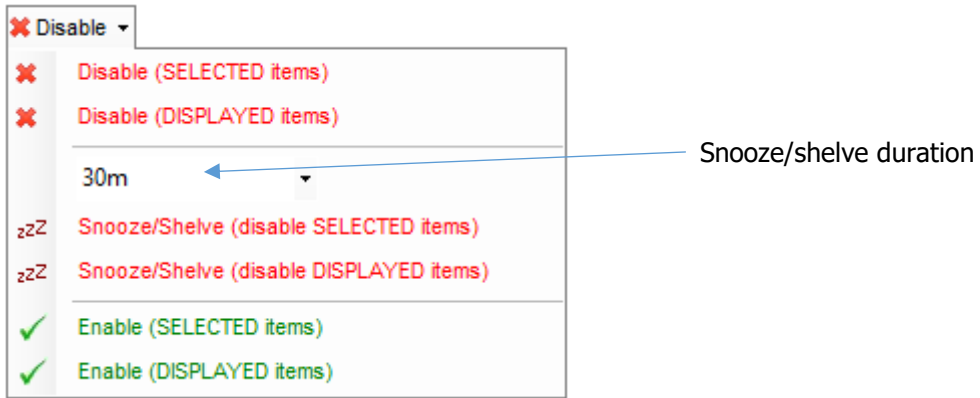
The options for the ending the audible alarm snooze are:

- Off: turn off audible alarm snooze
- Time-based: 10 seconds to 60 minutes
- Next alarm state change: any change in alarm state (into alarm or return to normal) for the monitored items in any connected TopView Engine instance
- Next unack state change: any change in unacknowledged state (item becomes unacknowledged due to new alarm event or item gets acknowledged) for the monitored items in any connected TopView Engine instance

Audible Alarm Snooze is not available is Remote Viewer sounds are turned off. See **Sounds** on page 36 for more information.

Disable

Disable, snooze (shelve), or enable alarms and notification for one or more items.



Updating the Current values and alarms

Since last timed update: Update every sec [Refresh now](#)

If “Update every” checkbox is checked (located at the bottom of the Current values and alarms screen), the Remote Viewer will re-query all connected TopView Engine instances at the selected refresh interval.

If the “Update every...” checkbox is not checked, you can re-query the TopView Engine instance by clicking [Refresh now](#).

UI Boost (User Interface Boost)

The UI Boost setting (under Options) allows the Remote Viewer to poll TopView in the background, resulting in better UI performance. See **Performance** on page 33 for more information.

Row summary

Displays a summary of the displayed values and alarms.

Summary values are displayed as X/Y: X=total in view, Y=total

Note: Y does not include tags from hidden Tag Groups. See **Hiding Tag Groups** on page 11 for more information.

Displayed

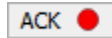
The number of tags/rows displayed.

In Alarm

The number of tags/rows currently in alarm.

Unack'd

The number of unacknowledged alarms. Unacknowledged items will have an ACK button at the start of the row.



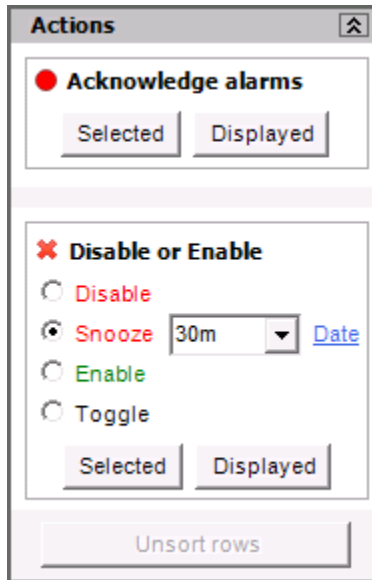
Disabled

The number of disabled rows.

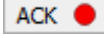
Hidden

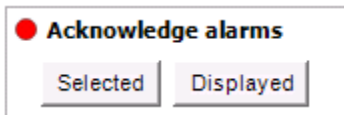
The number of hidden rows. The hidden state of each row can be set in the TopView Engine instance configuration. You can display hidden rows using the checkbox in the Options section.

Actions



Acknowledge

You can use the Remote Viewer to acknowledge tags/rows that are currently unacknowledged. Unacknowledged rows/tags have an ACK button  at the start of the row. Once you successfully acknowledge an alarm, the ACK button will disappear. The acknowledgement is performed by sending an acknowledge request to the TopView Engine instance.



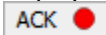
Selected

You can select multiple rows using the Ctrl or Shift key on your keyboard. Click the [Selected] button to acknowledge the selected rows.

Displayed

Click the [Displayed] button to acknowledge all displayed unacknowledged rows.

Note: Alarms can also be acknowledged by clicking the ACK button at the start of a displayed row.



Disable or Enable

You can use the Remote Viewer to enable or disable one or more rows/tags. A row that is disabled from the Remote Viewer will continue to retrieve and display the current tag value, yet TopView alarm conditions will be ignored and notification will be suppressed until the row is enabled or the TopView Engine instance/configuration is restarted. It is also possible for the TopView Engine to store enable/disable actions from the Remote Viewer back to the configuration. For more information on the behavior of "Disable", see Disable Alarms in the TopView documentation.

✖ Disable or Enable

Disable

Snooze / Shelf

Start [Date](#)

Duration [Date](#)

Enable

Toggle

Disable

Disable items (no alarms or notification) until re-enabled. This action has no effect on an item that is already disabled. If the item is snoozed/shelved, it becomes disabled. Disabled items are displayed in a gray font with "Disabled" in the first column.

Disabled	163.2	Deg F	Avg outlet temp
----------	-------	-------	-----------------

Snooze/Shelve (Alarm shelving)

Disable items (no alarms or notification) for a period of time.

Start: how long to wait before starting the snooze/shelve

Duration: how long to snooze/shelve the alarm.

If an item is already snoozed/shelved, sets a new start time and duration.

Start and duration: use the dropdown to select an amount of time, enter a new duration, or click "Date" to enter a date which will be converted to a duration of hours. The format of the start and duration is X d/h/m/s where X is a number d=days, h=hours, m=minutes, s=seconds.

Items that are currently snoozed/shelved will be displayed in a gray font with "Disabled (Xmin)" in the first column. X is the remaining number of minutes before the item is automatically re-enabled.

Disabled (29.8min)	163.1	Deg F	Avg outlet temp
--------------------	-------	-------	-----------------

Items that have a future snooze/shelve time will be displayed in their current state (alarm active or not active) and "(Disable in X min)"

High (Disable in 5.0 min)	ACK ●	170	Good
(Disable in 5.0 min)		162	Good

Enable

Enable items that are disabled (including snooze items). This action has not effect on items that are already enabled.

Toggle

If the item is enabled, set it disabled. If the item is disabled, enable it.

[Selected]

You can select multiple rows using the Ctrl or Shift key on your keyboard. Click the [Selected] button to perform the action on the selected rows.

[Displayed]

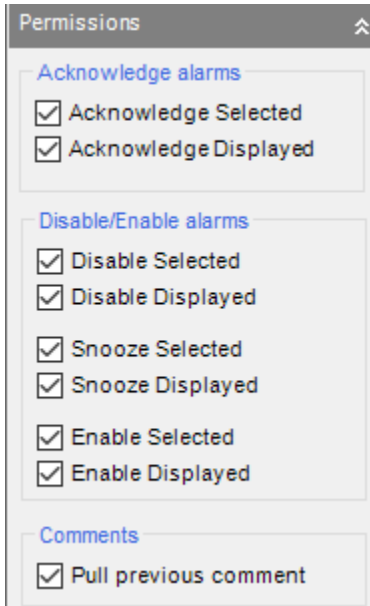
Click the [Displayed] button to perform the action on all displayed rows.

Undo user sort

If permitted, the TopView rows (Values View and Alarms View) can be sorted by clicking one of the column headers in the View.

The [Undo user sort] button will return to the default sort order. The default sort order may be the same tag/row order from the TopView Engine or a custom sort order. See **Select Columns** on page 31 for information on configuring the default row sort.

Permissions (client-side)



The screenshot shows a 'Permissions' dialog box with a title bar and an expand/collapse icon. It is organized into three sections, each with a blue header and a light gray background:

- Acknowledge alarms**
 - Acknowledge Selected
 - Acknowledge Displayed
- Disable/Enable alarms**
 - Disable Selected
 - Disable Displayed
 - Snooze Selected
 - Snooze Displayed
 - Enable Selected
 - Enable Displayed
- Comments**
 - Pull previous comment

Remote Viewer permissions determine which actions can be attempted by the Remote Viewer. These actions correspond to Remote Viewer actions available in the Actions pane (see **Actions** on page 24) and to actions performed while entering comments (see

Comments / Annotations on page 45).

If an action is checked , it is enabled. If it is unchecked , it is not enabled.

Once the permissions are set to their desired values, the user can lock down the Remote Viewer settings to prevent changes. See **Lock-down** on page 34

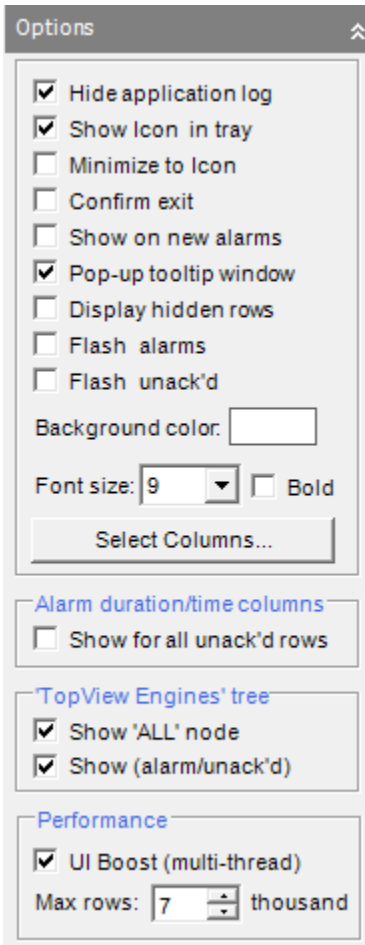
Note: An allowed action may still be denied by the TopView Engine.

These permission settings are client-side, local settings that restrict Remote Viewer actions. If the action is not enabled here, the action will be denied by the Remote Viewer. If the action is allowed here, it can be sent to TopView upon user request of the action. In addition to these client-side settings, each TopView Engine instance can set Remote Viewer security options (server-side). Therefore, an action allowed in the Remote Viewer may be denied by the TopView Engine once it is received. The allowed actions of a Remote Viewer are a combination of the local Remote Viewer permissions (client-side) plus the Remote Viewer security settings of the TopView Engine (server-side).

Options

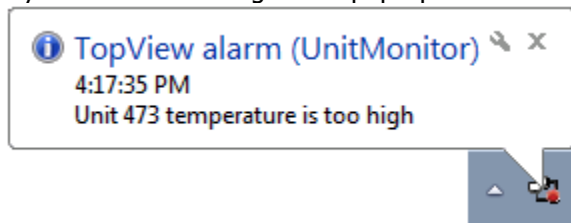
Options can be used to show hidden rows or change the characteristics of the displayed rows.

Note: These settings apply to the Remote Viewer application and not to a specific TopView Engine connection.



Show Icon in tray

Display the Remote Viewer icon in the System Notification Area of your desktop. The icon will display new alarm messages in a pop-up bubble.



Minimize to icon

When the Remote Viewer Window is minimized, it will not be visible on the Windows Taskbar. You will need to click the Remote Viewer icon to display the Remote Viewer Window.

Confirm exit

This setting will prompt the user for confirmation when they attempt to close the Remote Viewer application.

Show on new alarms

If the Remote Viewer is not visible (minimized or is not top-most) and a new alarm occurs for any connected TopView Engine instance, the Remote Viewer will be brought to the front of all opened desktop applications. Note that a "trigger row" will not cause the minimized window to appear.

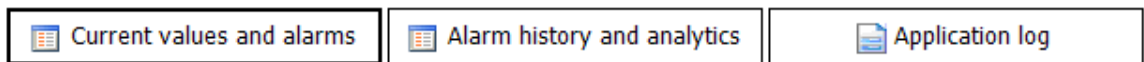
This setting will also display the Remote Viewer if a KeepAlive connection is lost (see **Remote Connection Details** on page 10)

Pop-up tooltip window

Displays details for each row as you move the mouse over the current values and alarms

Hide application log

If checked (default), the application log for each TopView Engine instance is not visible. If checked, an Application log tab will be displayed next to "Current values and alarms" and "Alarm history".



See **Application Log** on page 55 for more information.

Hide alarm history screen

If checked the "Alarm history and analytics" screen will be not be visible.

Display hidden rows

Displays hidden rows (hidden rows are configured in TopView).

When displayed in the Current values and alarms screen, hidden rows will have a dark yellow background color.

Stopped Discharge Pump 1

Flash alarms

Rows which are currently in alarm will flash on and off

Flash unack'd

Rows which are currently unacknowledged will flash on and off

Background color

Set the desired background color for the Remote TopView tree (left) and the displayed values and alarms

Font settings

Select the font settings for displayed Current values and alarms screen

Select Columns

Allows the user to

1. Select which columns to
 - a. Display in the current **Values View** and **Alarms View**
 - b. Display in TopView **Alarm History** screen
 - c. Include in **Alarm Reports**
2. Configure custom, multi-column row sorting for **Values View** and **Alarms View**

Values View and Alarms View columns

By default, the columns displayed in Values View and Alarms View are the same columns displayed in the TopView Engine as defined in the configuration file for the Engine.

- **Display the same View columns and order as each remote TopView Engine Window**

This option will use the same display columns as defined in the configuration file for the TopView Engine.

- **Display these columns in the order shown**

Check each column to be displayed in the View. The column order is displayed to the right of the column check boxes. Use the up and down arrows to change the column order. The top-most column will appear as the left-most column in the View.

Values View and Alarms View Row Sorting

The default sort order for the rows in Values View and Alarms View is ascending by tag row/order as configured in the TopView Engine monitored tag list. Optionally, the user can define a custom default sort order using multiple columns.

- **Ascending by tag row/order in the TopView Engine**

The default row sort is ascending by the tag row/order as configured in the TopView Engine monitored tag list. The user can resort the rows by clicking a column header in the View.

- **Custom sort order**

Select up to 3 columns and direction (ascending/descending) for sorting the rows in the View. If "Allow user to override..." is selected the user can resort the rows by clicking a column header in the View.

Alarm duration/time columns

In Values View and Alarms View, The user may view the 'Time in alarm' and 'Time of alarm' columns. 'Time in alarm' is the duration of the alarm (hours:minutes:seconds).

'Time of alarm' is the timestamp of when the alarm occurred.

By default, these two columns are only displayed for active alarms.

If you select 'Show for all unack'd rows', these two columns will be displayed for alarms that are no longer active, yet are unacknowledged.

TopView Engines tree

The 'TopView Engines' tree, along the left side of the Remote Viewer, displays each remote TopView Engine instance along with the visible Tag Groups from the TopView Engine.

Show ALL node:

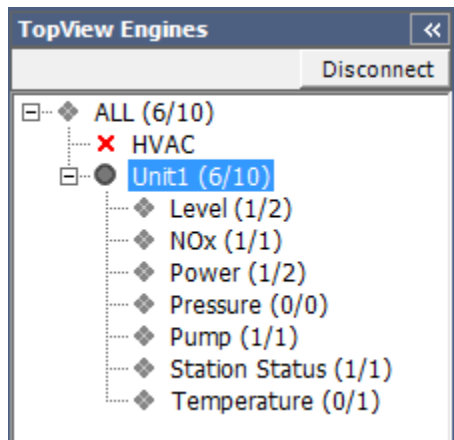
If selected, the ALL node will be displayed as the parent to the TopView Engine instances. The ALL node shows the details for all connected TopView Engines. If you are displaying the ALL node, the TopView Engine can be added as a custom column for Values and Alarms View.

Lock to ALL node:

If selected, user will not be able to move from the ALL node in the tree.

Show (alarm/unack'd)

By default, each node displays the number of active alarms in parentheses after the node name. If you select 'Show (alarm /unack'd)', each node will display both the alarm count and unacknowledged alarm count.



Confirm alarm acknowledge

The Remote Viewer user may have the ability to acknowledge alarms. Some acknowledge actions will acknowledge a single alarm while other actions can acknowledge a group of one or more alarms.

The options in this group can require an acknowledge confirmation by presenting the user with a confirmation dialog before alarms are acknowledged. The user can cancel the acknowledge action from the confirmation dialog.

Single acknowledge: prompt the user to confirm a single alarm acknowledge action

Multiple acknowledge: prompt the user to confirm a multiple alarm acknowledge action

Performance

UI Boost

At each update interval, the Remote Viewer polls the remote TopView Engine instances for the latest current values and alarms.

Without UI Boost, the Remote Viewer screen will temporarily freeze (will not respond to user input) when the Remote Viewer is performing a poll of the remote TopView Engine instances. If the network between the Remote Viewer and TopView is fast, the delay may not be noticeable. If the network is not fast, or the Remote Viewer is polling multiple remote TopView Engine instances, the user may notice the delay each refresh interval.

With UI Boost enabled, the Remote Viewer will poll the remote TopView Engine instances separately from the main user interface. When new values and alarms are available, the Remote Viewer UI will quickly update with the latest information.

If UI Boost is enabled, the user can right-click the UI Boost checkbox to display performance information for the polling of each remote TopView.

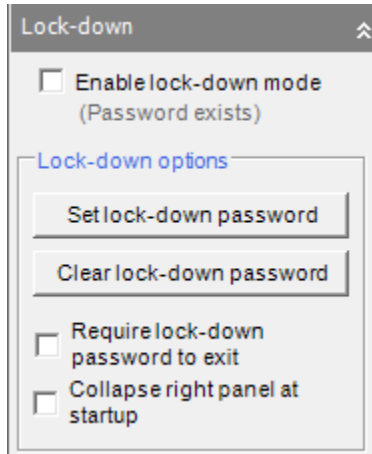
Max rows

The Remote Viewer will limit the maximum number of items displayed in Values and Alarms View to the set maximum row count.

Lock-down

Lock-down mode allows you to run the Remote Viewer with restricted permissions.

Note: These settings apply to the Remote Viewer application and not to a specific TopView Engine connection.



When the Remote Viewer is running in lock-down mode, the user cannot change:

- Permissions
- Options settings
- Sound settings
- Remote Connection settings for each TopView Engine
- Refresh interval and automatic update checkbox

You can require that the user enter the lock-down password to exit the Remote Viewer application.

When running in lock-down mode, the [Connect]/[Disconnect] button is enabled. If you would like to prevent the user from disconnecting from TopView:

- Enter a refresh interval and check the "Update every" checkbox
- Configure the Remote Window as "Keep connection alive"

If the user disconnect, the next refresh will automatically reconnect to the Remote Window.

Enable lock-down mode

Enables or disables lock-down mode

Set lock-down password

Optional: allows you to enter a password for lock-down mode. If you enter a lock-down password, you will not be able to exit lock-down mode unless you re-enter the same password.

Clear lock-down password

Clears the lock-down password

Require lock-down password to exit

If selected and a lock-down password exists, the user will be prompted for the lock-down password if they attempt to close the Remote Viewer application.

If you have lost your lock-down password, please contact Exele (support@exele.com)

Collapse right panel at startup

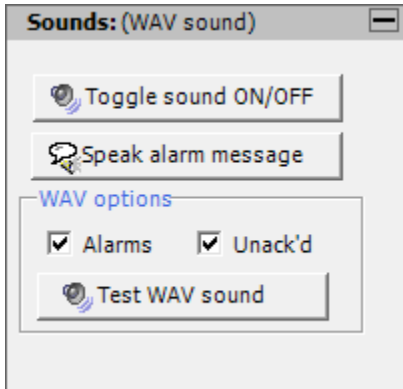
The "right panel" is the panel containing the lock-down settings along with Sounds, Options, Permissions, ...

During non-lock-down use, the Remote Viewer will store the last state of the right panel (collapsed, not collapsed) to the Remote Viewer settings file. It then restores this setting when the Remote Viewer restarts.

In lockdown mode, changes to the right panel (collapsed, not collapsed) are not stored to the settings file. This "Collapse right panel at startup" setting will be used to set the initial state of the right panel.

Sounds

If the TopView Engine is configured to play Audible Alarms (WAV or Text-to-speech), the TopView Engine can stream these audible alarm sounds to the Remote Viewer so that these same audible alarms can be heard by a Remote Viewer user.

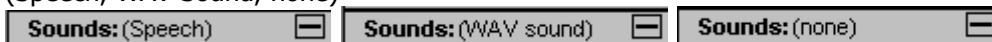


Note:

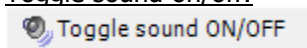
- These settings apply to the Remote Viewer application and not to a specific TopView Engine connection.
- Sounds are available if the TopView Engine has configured Audible Alarms (WAV file or Text-To-Speech). See the TopView documentation for information on Audible Alarms.
- Audible alarms are not played for hidden Tag Groups. See **Hiding Tag Groups** on page 11 for more information.
- Audible alarms are played for items that may not be visible due to the priority filter of the displayed items. See **Current values and alarms** on page 16 for more information.

Available Sounds

If audible alarms are configured for the TopView Engine, the type of sound will be displayed (Speech, WAV Sound, none)



Toggle sound on/off:




Pressing this button allows the user to toggle the Remote Viewer sound on or off. The user can also temporarily turn off sounds using the Snooze button on the toolbar.

Speak alarm message for selected row:



For Text-to-speech Audible alarms, this button will speak the alarm message for the selected tag/row.

WAV Sounds **Sounds:** (WAV sound) 

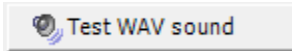


If configured for WAV file Audible Alarms, the remote TopView Engine plays the WAV file sound when any tags/rows are unacknowledged. The Remote Viewer is more flexible and can play the same alarm sound when


1. Any rows are in alarm
2. Any rows are unacknowledged

Use the checkboxes to configure the desired behavior for the Remote Viewer.

These checkboxes are only enabled if the TopView Engine is configured to play WAV file Audible Alarms.



If the WAV alarm sound is not currently playing (no active alarms/unacknowledged items), the user can listen to the WAV alarm sound by pressing [Test WAV sound]. This button can be used to test the computer speakers and volume.

When will Speech alarms will be heard? **Sounds:** (Speech) 

If the remote TopView Engine is configured to play Text-to-speech Audible Alarms, these spoken messages are generated when a tag/row transitions into an alarm state. Each time the Remote Viewer refreshes the tags/rows from the TopView Engine (see **Updating the Current values and alarms** on page 22), the most recent text-to-speech message will be retrieved and played. Therefore, if multiple text-to-speech messages occur in TopView within the refresh period of the Remote Viewer, only the most recent speech message will be heard in the Remote Viewer. This behavior is intended to limit the network bandwidth requirements between TopView and the Remote Viewer.

Alarm history and analytics

The "Alarm history and analytics" screen allows the user to

- retrieve, filter, view, and export the details of current and completed TopView alarm events
- create, view, and save alarm reports
- view and analyze overall and per-point alarm behavior through an interactive group of charts and alarm events lists

Note: If you are viewing specific Tag Groups in the Remote Viewer, you will only see the alarm history/analytics for these Tag Groups (the alarm items have matching primary or secondary Tag Groups). See **Hiding Tag Groups** on page 11 for more information.

Relative time

Time range

Base time

Start time: Now

Offset (+/- N d/h/m/s)

-1h

End time: Now

Base time

Offset (+/- N d/h/m/s)

Include spanning alarms
Alarm history source:
SQL Server

Filter

Alarm events Count: 60 Retrieval time (local): 4/14/2020 3:07:27 PM Time range (remote): 4/14/2020 2:07:27 PM to 4/14/2020 3:07:27 PM

View:

List of Alarm Events
 Alarm Reports
 Alarm Analytics

Alarm summary grouping:

Row number + Tag name

TopView Alarm Analytics

Alarm summary Alarm occurrence by period Active alarm count over time

Alarm occurrence (transition into alarm state)

Period: 5m

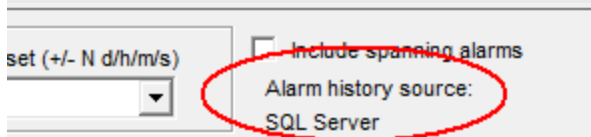
Alarm events during selected period (4/14/2020 2:22:27 PM to 4/14/2020 2:27:27 PM) Count=6

Row	Tag	Start time	End time	Alarm message
17	TopView.Dev1.Power_Unit_2	4/14/2020 2:22:34 PM	4/14/2020 2:23:24 PM	Unit 2 power output, 167, is too high
1	TopView.Dev1.OutletTemp	4/14/2020 2:23:24 PM	4/14/2020 2:26:19 PM	Outlet temperature, 161.1, is too high
6	TopView.Dev1.Discharge_Pump_2	4/14/2020 2:23:44 PM	4/14/2020 2:24:44 PM	Discharge pump 2 is not running

Alarm history source

TopView alarm history is stored in a set of alarm log files on the TopView computer. Optionally, you can also store alarm history to SQL Server.

The source for the displayed alarm history is the alarm log files unless SQL Server alarm logging is enabled and active in TopView. The current alarm history source is displayed on the Alarm history screen.



Time range

The time range defines the start and end time for alarm history retrieval.

Relative time

Check "Relative time": Relative time

Each time includes a base time and offset amount. The offset is added to, or subtracted from, the base time.

Base time

- Now: current day and time
- Today: today's date at time 00:00:00 – the most recent midnight
- Yesterday: yesterday's date at time 00:00:00
- StartOfMonth: first day of the current month at time 00:00:00
- StartOfPrevMonth: first day of the previous month at time 00:00:00

Offset

+/- N d/h/m/s

- +/- : add to, or subtract from, the base time
- N: an integer or floating point number
- d/h/m/s: units of days, hours, minutes, or seconds

Examples:

Now -1d	24 hours ago
Today	Last night at midnight
Today +8h	8am this morning
StartOfMonth - .5d	Noon on the last day of the previous month

Absolute time

Uncheck "Relative time": Relative time

Each time includes a date and time

Include spanning alarms

Check this option to include spanning alarms: alarms that are active (TRUE) at the alarm history retrieval start time but did not end before the retrieval end time.

Note that this option is only available if TopView is logging alarm history to SQL Server.

Maximum number of events for ALL node

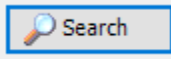
TopView's Global Options allows the user to set the maximum number of returned alarm events when an alarm history query is performed against a TopView Engine.

The ALL node in the Remote Viewer allows the user to query alarm history from multiple TopView Engines. This setting configures the maximum combined number of alarm events when querying multiple TopView Engines from the ALL node.

Warning: increasing this limit may affect the performance and memory of the Remote Viewer process.

Retrieve alarm history

Once you have entered the alarm history time range and spanning option, click the [Search] button to retrieve the alarm history for the entered time range.



Note: The listed alarm events and analytics are always based on the last retrieved alarm events from pressing the [Search] button.

Filter

The alarm history for the time range is retrieved when the user clicks [Search]. The filter is then applied to the retrieved results and will affect the displayed alarm events including the list of alarm events, alarm reports, and alarm analytics.

Changes to the filter do not require another query of alarm history and will update the displayed alarm events, reports, and analytics quickly.

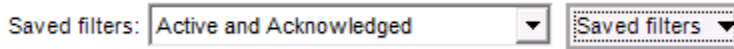
Click [Clear filter] to clear the filter items

Default filter: the default filter is selected when the Remote Viewer starts. The user can also quickly display the default filter

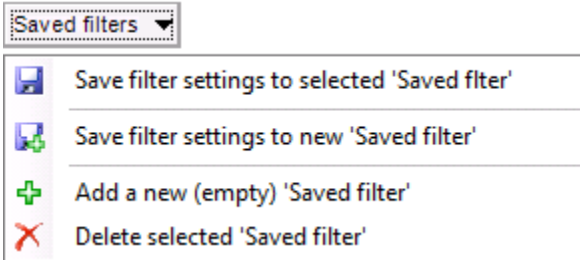
- Click [Load default filter] to set the current filter to the last saved filter (default filter)
- Click [Save as default filter] to save the current filter settings as the default filter

Saved filters

Saved filters are named sets of commonly used filter settings. Once created, the current filter settings can be set to a saved filter by selecting the saved filter from the drop-down.



The [Saved filters] button (to the right of the drop-down) provides the following functions:



1. **Save filter settings to selected 'Saved filter'**
The current filter settings will be saved to the filter in the Saved filters drop-down
2. **Save filter settings the new 'Saved filter'**
Store the current filter settings to a new Saved filter. The user will be prompted for the name of the new Saved filter.
3. **Add a new (empty) 'Saved filter'**
Create a new Saved filter with the no filter settings. The user will be prompted for the name of the new Saved filter. The user can then set the current filter settings and choose "Save filter settings to selected 'Saved filter'"
4. **Delete selected 'Saved filter'**
Delete the Saved filter currently displayed in the Saved filters drop-down.

Filter settings

Alarm state

- All: display active and complete alarms
- Active: only display active alarms (have not ended)
- Completed: only display alarms that have ended

Acknowledged state

- All: display alarms that are unacknowledged and acknowledged
- Acknowledged: only display alarms that have been acknowledged
- Unacknowledged: only display alarms that are unacknowledged

Alarm msg contains

Enter text that appears in the alarm message. This field is not case sensitive.

Comment contains

Enter text that appears in the alarm comment. This field is not case sensitive.
Enter NULL to match empty comments.

Triggers

- Non-triggers: only display alarms for non-trigger rows
- All: display trigger rows and non-trigger rows
- Triggers: only display alarms for trigger rows

Row #, Tag name, Row UID

- Displays alarms for tags with the selected row number, tag name, or Row UID

Tag Group

Select/check one or more Tag Groups.

Check/uncheck children with parent:

Tag Groups can be hierarchical. For example, Tag Group "Unit1" may have child Tag Groups named "Unit1\Temperature" and "Unit1\Pressure".

If "Check/uncheck children with parent" is selected, checking or unchecking a parent Tag Group (e.g. "Unit1") will check or uncheck any child Tag Groups (e.g. "Unit1\Temperature" and "Unit1\Pressure").

Alarm events: list of alarm events

To view the alarm events for the search time range and filter, select the “List of Alarm Events” view.

View: List of Alarm Events Alarm Reports Alarm Analytics

The alarm events for the most recent alarm history retrieval and filter are displayed.

List of Alarm Events					
Details	View selected alarm actions...	Comment	Custom tasks	Export	Columns...
Engine name	Start time	End time	Flag	Duration (min)	Alarm message
Unit1	4/14/2020 3:06:57 PM	(Active)		3.68	Outlet temperature, 166.0, is too high
Unit1	4/14/2020 3:06:42 PM	(Active)		3.93	Discharge pump 2 is running
Unit1	4/14/2020 3:06:32 PM	4/14/2020 3:06:37 PM		0.08	Outlet temperature, 165.2, is too high
Unit1	4/14/2020 3:06:27 PM	(Active)		4.18	Level 2 indicator alarm
Unit1	4/14/2020 3:06:22 PM	4/14/2020 3:06:27 PM		0.08	Level 1 indicator alarm
Unit1	4/14/2020 3:06:22 PM	4/14/2020 3:06:27 PM		0.08	Outlet temperature, 165.2, is too high
Unit1	4/14/2020 3:06:17 PM	4/14/2020 3:06:27 PM		0.17	Unit 1 NOX emissions, 223, is too high
Unit1	4/14/2020 3:06:07 PM	4/14/2020 3:06:12 PM		0.08	Unit 1 NOX emissions, 224, is too high
Unit1	4/14/2020 3:06:07 PM	4/14/2020 3:06:17 PM		0.17	Outlet temperature, 166.0, is too high
Unit1	4/14/2020 3:05:57 PM	4/14/2020 3:06:02 PM		0.08	Outlet temperature, 165.5, is too high
Unit1	4/14/2020 3:05:47 PM	(Active)		4.85	Unit 1 power output, 168, is greater than 165
Unit1	4/14/2020 3:05:27 PM	4/14/2020 3:05:52 PM		0.42	Unit 1 NOX emissions, 225, is too high
Unit1	4/14/2020 3:05:27 PM	4/14/2020 3:06:07 PM		0.67	Level 2 indicator alarm
Unit1	4/14/2020 3:05:22 PM	4/14/2020 3:05:27 PM		0.08	Level 1 indicator alarm
Unit1	4/14/2020 3:05:12 PM	4/14/2020 3:05:17 PM		0.08	Unit 1 NOX emissions, 224, is too high
Unit1	4/14/2020 3:05:02 PM	(Active)		5.60	The valve position, 52.1, is greater than 50 percent
Unit1	4/14/2020 3:05:02 PM	4/14/2020 3:05:07 PM		0.08	Outlet temperature, 166.0, is too high

The user can customize the information/columns displayed for each alarm event alarm history columns by clicking [Columns...]

The default information displayed for each alarm event includes:

- **Start time:** start time of the alarm
- **End time:** the end time of the alarm (return to normal time) or “(Active)” if the alarm has not ended
- **Flag:** * if the end time was set due to a TopView restart and not a true return-to-normal event of the alarm.
- **Duration:** length of the alarm in minutes
- **Alarm message:** the alarm message for the event
- **Comment:** comment/annotation for the event
- **Acknowledge time:** the time of any acknowledge event of the alarm or blank if not acknowledged.
- **Primary Tag Group:** the tag group for the tag that generated the alarm event
- **Tag:** the point that generated the alarm condition
- **Row index:** the row index of the monitored point in the TopView configuration (1..n).

Comments / Annotations



If SQL Server is used for alarm logging, the user can add comments/annotations for displayed alarm event. Select one or more alarm events in the list (use CTRL or SHIFT to select multiple items) and click the [Comment] button.

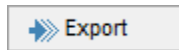
The user will be presented with a dialog where they can

- Enter a single comment for all selected alarm events (single entry and save)
User must check "Enter one comment..." to see the single comment entry
- Enter a different comment for each alarm event (entry and save per alarm event)
- Pull previous comments for one or more alarms

Pulling previous comments

- Each listed alarm contains a [Pull] button to the right of the Comment field. This button will pull the previous non-blank comment for this alarm
- At the bottom of the dialog, [Pull all previous comments] will pull the previous non-blank comment for each listed alarm
- The search duration at the bottom of the screen configures the search period for pulling single and all non-blank comments

Export



Click the [Export button] to save the details of the displayed alarm events to an external file. This exported file is CSV format and can be viewer in applications such as Microsoft Excel. Note that exported commas (,) are converted to tildas (~).

Selected alarm event details

The bottom of the Alarm history screen can display more details for the selected alarm event. This includes information that is not included in the displayed alarm events list columns.

Alarm events: Alarm Reports

To view the alarm reports for the current search time range and filter, select the "Alarm Reports" view.

View: List of Alarm Events Alarm Reports Alarm Analytics **Alarm summary grouping:** Row number + Tag name

Show alarm summary, include: Engine name Server Sample alarm msg Primary Tag Group Source (TopView Events)
 Description Row# RowUID Secondary Tag Group(s)

Show alarm event details, maximum alarm events per tag [Configure columns for alarm event details...](#)

HTML report CSV report Text report JSON report

Save to HTML file... Open last saved HTML report...

TopView Alarm Report
 Created: 4/15/2020 1:09:22 PM
 Configuration: Unit1
 Report start time: 4/14/2020 1:07:21 PM
 Report end time: 4/15/2020 1:07:21 PM
 Tag Groups: all
 Max events per tag (Alarm event details): 1
 Alarm count: 5000
 * Max alarm events reached for report period - report includes partial results

Alarm summary by 'Row number + Tag name'

Tag	Alarm count	% total	Avg duration (min)	Total duration (min)	Engine name	Source	Description	Primary Group	Server	Row	RowUID	Last alarm message
TopView.Dev1.NoX_Unit1	1824	36.5	0.2	332.0	Unit1	-	Unit1 NOx	NOx	MyKServer	14	-	Unit 1 NOX emissions, 224, too high
TopView.Dev1.OutletTemp	1301	26.0	0.7	963.9	Unit1	-	Outlet temp	Temperature	MyKServer	1	-	Outlet temperature, 166.0, is too hig
TopView.Dev1.Level Ind 2	621	12.4	0.7	413.5	Unit1	-	Level 2	Level	MyKServer	4	-	Level 2 indicato

Alarm summary grouping

Determines the method used for "per-tag" information in the alarm summary. See "Alarm Summary Grouping" for more information.

Formats

Four separate alarm reports (HTML, CSV, TXT, and JSON) are displayed

Report contents

Each alarm reports can contain

- a summary of alarms by monitored tag/point
- a list of the alarm events with an optional maximum per monitored tag/point

Select the desired content for each report. You can also customize the columns that are included in the alarm event details section of the report.

Save and View reports

Each report can be saved to a file. After the save, the user can open the file in the default program for the report file type (HTML, CSV, TXT, JSON)

Alarm events: Alarm Analytics

The list of alarm events displays each alarm event that occurred over the time range using the current filter. Alarm Analytics provides further alarm event analysis per monitored point/tag as well as overall alarm behavior during the time range.

To view the alarm analytics for the current search time range and filter, select the "Alarm Analytics" view.

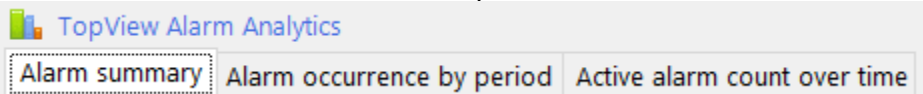
View:  List of Alarm Events  Alarm Reports  Alarm Analytics

The alarm analytics for the most recent alarm history retrieval and filter will be displayed.

There are three alarm analytics screens available:

- Alarm summary: per-tag alarm statistics and analysis based on the selected alarm summary grouping method. Includes tag-based alarm information such as alarm counts, average duration, and total duration.
- Alarm occurrence by period: alarm occurrence count (number of alarms that occurred) for each user-defined interval within the most recent alarm history time range.
- Active alarm count over time: active alarm statistics for all alarm events (using current search range and filter). Includes total active alarm counts and alarm event details over the time range.

Select the tab for the desired alarm analytics screen:



Alarm summary

Alarm statistics for each monitored tag based on the selected alarm summary grouping method.

Alarm summary grouping:

For more information see "Alarm Summary Grouping"

Alarm summary | Alarm occurrence by period | Active alarm count over time

Alarm summary by 'Row number + Tag name'

Engine	Row	RowUID	Tag	Alarm count	% total	Avg. duration (min)	Total dura
Unit1	1	-	TopView.Dev1.OutletTemp	43	31.2	0.1	4.7
Unit1	3	-	TopView.Dev1.Level_Ind_1	15	10.9	0.1	1.7
Unit1	4	-	TopView.Dev1.Level_Ind_2	15	10.9	0.7	10.0
Unit1	6	-	TopView.Dev1.Discharge_Pump_2	8	5.8	1.0	7.6
Unit1	14	-	TopView.Dev1.NoX_Unit1	46	33.3	0.2	8.5
Unit1	16	-	TopView.Dev1.Power_Unit_1	4	2.9	2.0	7.9
Unit1	17	-	TopView.Dev1.Power_Unit_2	2	1.4	0.6	1.2
Unit1	18	-	f_sin_100_5m	4	2.9	1.9	7.8
Unit1	20	-	Minute	1	0.7	0.3	0.3

Selected: Row:1 , Tag:TopView.Dev1.OutletTemp , RowUID:-, Alarm count:43

Alarm event list

#	Start time	End time
1	4/14/2020 3:00:02 PM	4/14/2020 3:00:21 PM
2	4/14/2020 3:00:31 PM	4/14/2020 3:00:36 PM
3	4/14/2020 3:00:41 PM	4/14/2020 3:00:51 PM
4	4/14/2020 3:01:01 PM	4/14/2020 3:01:11 PM
5	4/14/2020 3:01:36 PM	4/14/2020 3:01:46 PM
6	4/14/2020 3:02:06 PM	4/14/2020 3:02:12 PM

Alarm events chart

The top list displays the list of points (tags) with one or more alarm events during the current time range using the current filter. The displayed information includes:

- **Tag:** the point name (tag name)
- **Alarm count:** total number of alarms that occurred for the point
- **% total:** The point's alarm count as a percentage of all alarms that occurred for the list of displayed points (current time range and filter)
- **Avg duration (min):** the average duration (minutes) of an alarm event for this point
- **Total duration (min):** the total number of minutes that this point was in alarm
- **Server:** the data server name for the point
- **Description:** the tag description
- **Primary Group:** the Primary Tag Group for the tag

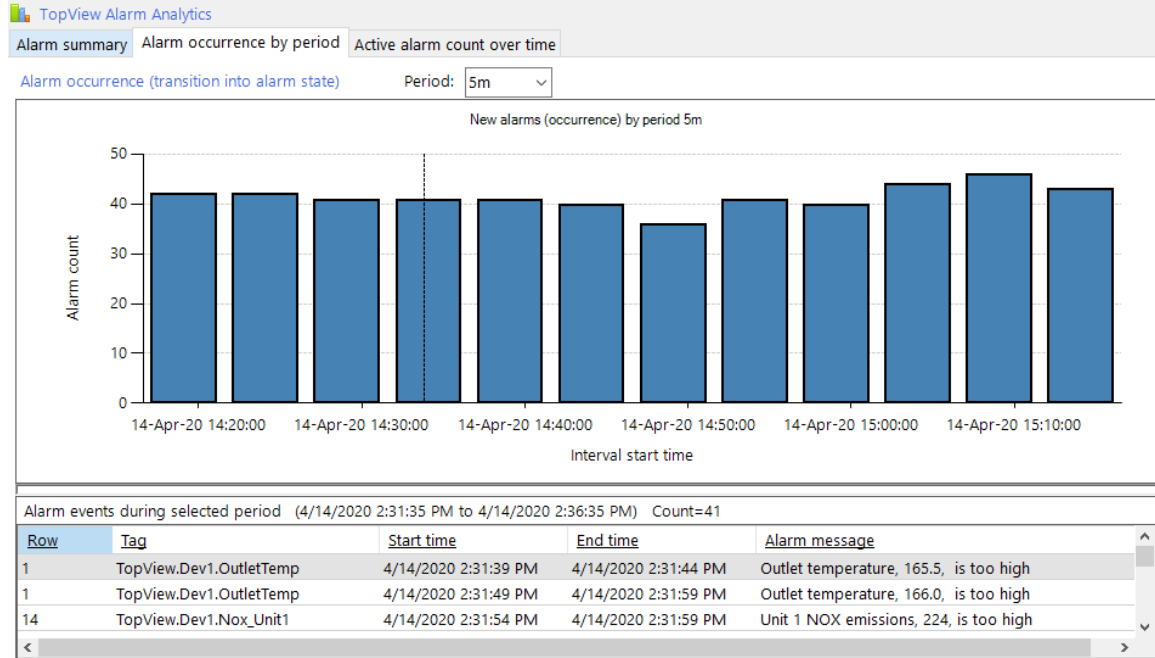
When a point is selected in the top list, the bottom list and chart displays alarm event details for the selected point.

- **Alarm event list:** displays the details of the alarm events for the selected point. This includes the start time, end time, duration, alarm message, and alarm UID. Selecting an alarm event in the list will drop a cursor on the alarm events chart at the alarm event start time.
- **Alarm events chart:** displays a chart of the point's alarm events over the time range. A value of 0 = "alarm inactive" and a value of 1 = "alarm active". Clicking an alarm

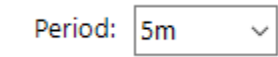
event on the chart (click the chart with the left mouse button) will highlight the alarm event in the alarm event list.

Alarm occurrence by period

Alarm occurrence count (number of alarms that occurred) for each user-defined interval within the time range



The user can select an interval of time using the Period dropdown:



The final letter of the period is m (minutes), h (hours), or d (days).

For each user-selected interval within the time range (using the current filter), the chart displays a bar representing the total number of alarms that *occurred* (transitioned into alarm) during the interval. This allows the user to recognize bursts or floods of alarms during the time range.

Selecting a bar (interval) from the chart (click the chart with the left mouse button) will display the following information underneath the chart:

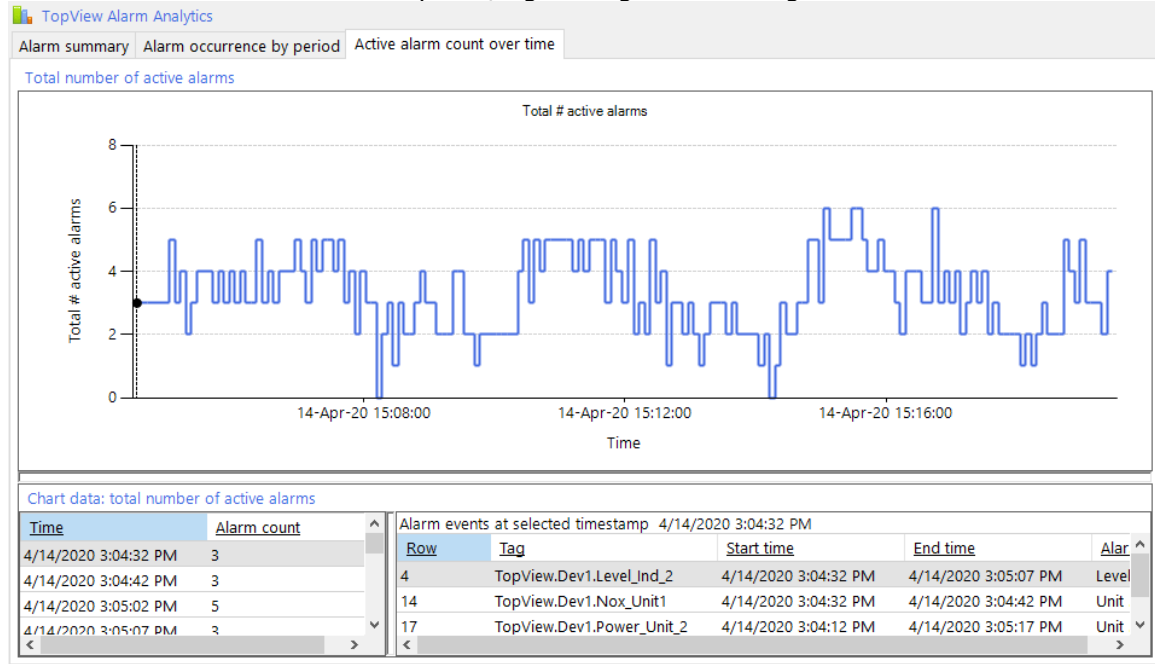
- The start/end of the selected interval and number of alarms that occurred
- The details of the alarm events that occurred in the selected interval

Alarm events during selected period (4/14/2020 2:31:35 PM to 4/14/2020 2:36:35 PM) Count=41

Row	Tag	Start time	End time	Alarm message
1	TopView.Dev1.OutletTemp	4/14/2020 2:31:39 PM	4/14/2020 2:31:44 PM	Outlet temperature, 165.5, is too high
1	TopView.Dev1.OutletTemp	4/14/2020 2:31:49 PM	4/14/2020 2:31:59 PM	Outlet temperature, 166.0, is too high
14	TopView.Dev1.NoX_Unit1	4/14/2020 2:31:54 PM	4/14/2020 2:31:59 PM	Unit 1 NOX emissions, 224, is too high

Active alarm count over time

Active alarm count statistics for all points/tags during the time range



The "Total number of active alarms" chart displays the total number of active alarms at any point within the time range (using the current filter).

The bottom of the screen displays 2 lists:

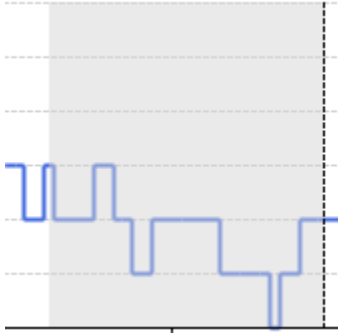
- The left list contains the datapoints in the chart: a timestamp and total active alarm count at this time.
- The right list contains the alarm events for the selected chart datapoint (selected time in the left list).

Selecting a datapoint from the left list (datapoints for chart) will drop a cursor in the chart at the selected time and also will display the alarm events (those comprising the total alarm count at the selected time) in the right list.

Selecting a time on the chart (click the chart with the left mouse button) will select the chart datapoint in the left list which will then display the active alarm events at this time in the right list

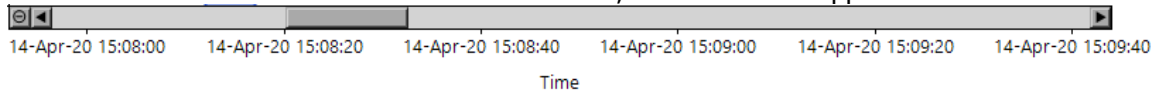
Zooming the X axis (time) on charts

The user can zoom into an area of the alarm analysis charts (X-axis time zoom) by clicking and holding the left mouse button, then dragging the mouse left or right. The zoom area will be highlighted as the user drags and the zoom will occur when the user releases the left mouse button.




Further zooming can be accomplished by repeating the click-drag process.

Once the user has zoomed into an area of the chart, a scroll bar will appear under the X-axis.



The chart time range can be changed by moving the scroll bar left or right.

Undo zoom: the user can undo the most recent zoom by clicking the undo zoom button at the left end of the scroll bar: 

Alarm Summary Grouping

The record for each TopView alarm event includes the details of the alarm event including the tag name, row number (1..n), and optional RowUID of the tag.

The alarm summary within TopView alarm reports and alarm analytics includes "per-tag" alarm information such as number of alarms and average duration.

Prior to TopView v6.34, the "per-tag" information was always gathered for each unique "tag name + row number". If a tag was moved to a different row number in the configuration, an alarm summary over this period would display the tag twice, once for each row number. This behavior presented a challenge if the user wanted to make configuration changes that affected existing tag row numbers yet wanted to preserve alarm summary information for a tag over the entire alarm history.

TopView alarm history queries now include an "alarm summary grouping" option which allows the user to choose the method for collecting and summarizing per-tag alarm information.

The available options for alarm summary grouping are:

- Row number + tag name (default)
- Row number (regardless of the tag name in the row)
- RowUID (all blank RowUIDs are grouped together)
- Tag name only
- Tag name or RowUID (use RowUID if it exists, otherwise use tag name)

The grouping options allow the user to decide how the alarm summary creates the "per-tag" information.

Which grouping options should I use?

If your configurations contain a unique list of tag name in the monitored tag list, you should choose "Tag name only".

If your configurations do not have a unique list of tags, you should enter a RowUID for each tag and choose "RowUID".

Application Log

The user can optionally retrieve and view the contents of each TopView Engine's Application log. Once you have selected a connected TopView Engine in the TopView Engine List, select the Application log tab.

By default, the application log screen is hidden. Under the Options, uncheck "Hide application log". See **Hide application log** on page 30 for details.

Type	Level	Date/Time	Message
Audio	Information	4/14/2020 3:20:20 PM	Audio TTS queue size = 0
Audio	Information	4/14/2020 3:20:21 PM	Streaming TTS to Remote Viewer clients : Unit 1 NOX er
Alarm	Information	4/14/2020 3:20:23 PM	RowAlarm 3 : ^ ID=20200414-192023.995-3 : ^ Alarm
Audio	Information	4/14/2020 3:20:23 PM	Queueing Audible Alarm TTS (1) Message=Level 1 indic
General	Information	4/14/2020 3:20:23 PM	Alarm event for Output Point 'IntoAlarm' : Tag=\\MyKS
Alarm	Information	4/14/2020 3:20:23 PM	Acknowledge of row 14 because acknowledge tag OUT
Alarm	Information	4/14/2020 3:20:23 PM	RowAlarmAck 14 : ^ ID=20200414-192018.870-14 : ^
Alarm	Information	4/14/2020 3:20:23 PM	User (\\topview\\acknowledgeTag_OUT.Int.OTAGI0200) :
Audio	Information	4/14/2020 3:20:24 PM	Audio TTS queue size = 0
Audio	Information	4/14/2020 3:20:24 PM	Streaming TTS to Remote Viewer clients : Level 1 indica
General	Information	4/14/2020 3:20:24 PM	Output for output point 'IntoAlarm' : Value=1 to \\MyKS
Alarm	Information	4/14/2020 3:20:28 PM	RowAlarmRTN 3 : ^ ID=20200414-192023.995-3 : ^ Al
Alarm	Information	4/14/2020 3:20:28 PM	RowAlarmRTN 14 : ^ ID=20200414-192018.870-14 : ^
Alarm	Information	4/14/2020 3:20:28 PM	RowAlarm 4 : ^ ID=20200414-192028.880-4 : ^ Alarm
Audio	Information	4/14/2020 3:20:28 PM	Queueing Audible Alarm TTS (1) Message=Level 2 indic
Audio	Information	4/14/2020 3:20:29 PM	Audio TTS queue size = 0
Audio	Information	4/14/2020 3:20:29 PM	Streaming TTS to Remote Viewer clients : Level 2 indica
Alarm	Information	4/14/2020 3:20:39 PM	RowAlarm 14 : ^ ID=20200414-192039.085-14 : ^ Alar
Audio	Information	4/14/2020 3:20:39 PM	Queueing Audible Alarm TTS (1) Message=Unit 1 NOX e

Updating the displayed Application log

When you first select the "Application log" tab, the application log information will be retrieved from the TopView Engine. Press the [Refresh now] button to update the Application log information. There is no automatic refresh for the displayed Application log information.

Note: the Remote Viewer will show up to 1000 of the most recent Application log records.

Row summary

Displays a summary of the current Log file information

Returned

Number of Application log records returned from the TopView Engine.

Displayed

Number of Application log records currently displayed (not filtered)

Filtered

Number of Application log records not displayed (not filtered)


Message filter

Use the message filter to display a partial list of the application log records returned from TopView.

Use Filter

Checking this item will turn filtering on.

Msg text filter

Enter a text filter for the application log "Message" column. Use an asterisk "*" to match multiple character, a question mark "?" to match single characters, blank or a single * to match all text. Once you have changed the text filter, click the refresh button  to refresh the displayed application log records using the new text filter.

Message level

Select the message level(s) you would like displayed. Message level can be Information, Warning or Error.

Message type

Select the message type(s) you would like displayed.

Settings storage and redirection

Settings storage overview

By default, the Remote Viewer stores all settings in an XML file located in the same folder as the Remote Viewer executable. The name of this file is **TVRemView.xml**. If this file does not exist, it will be created by the Remote Viewer when it attempts to store the current settings.

In some cases, you may want to share a single Remote Viewer settings file among multiple users, or force a specific user to use a specific settings file. The Remote Viewer support "redirection" of the settings file. This allows you to instruct the Remote Viewer to use a specific XML settings file that may or may not be located in the same folder as the Remote Viewer executable. As with the default XML settings file, the Remote Viewer will create this file if it does not exist.

Redirection

Redirection refers to a method of instructing the Remote Viewer to use a specific XML settings file instead of the default settings file. There are two methods you can use to perform redirection:

1. **Create a redirection file**

Create a text file in the same directory as the Remote Viewer executable that contains the path and filename of the desired XML settings file.

- a. The name of the redirection file is **TVRemView.XML.Redirect**. This file must be located in the same folder as the Remote Viewer executable. This file does not exist until it is created using a text editor (e.g. Notepad)
- b. The contents of the redirection file should be a single line that contains the path and file name for the desired XML settings file.

Example:

```
c:\mysettings\RVSettings1.xml
```

2. **Pass the XML settings file on the command line**

If you create a shortcut to the Remote Viewer executable, you can modify the Target property of shortcut to pass the path and name of the desired XML settings file. You should enclose the XML settings file in double quotes.

Example shortcut target:

```
c:\exele\RemoteViewer.exe "c:\mysettings\RVSettings1.xml"
```

Verifying the XML settings file in use

In the Remote Viewer, click the [About] button. The About dialog will display the current XML settings file.