

Alarm and Event Management

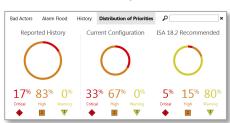
Updated May 9, 2016

Standard Component

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1 2016-05-03 13:33:39 2016-05-03 13:33:17	Ack Ack	Alarm Alarm	LM Pre-Mix	WaterTreatmentPlant\.\RawWater\Tur WaterTreatmentPlant\Pre-Mix\RawWa	Shelve Add Note	Pre-N Pre-N	2016-03-07 (01145) Event System Application Application 2016-03-07 (01145) Event System Application Application 2016-03-07 (01145) Event System Application Application 2016-03-07 (01145) Event System SetDefaults Changed
2 2016-05-03 13:36:39	Ack Ack	Alarm	LM Pre-Mix	WaterTreatmentPlant\Pre-Mix\InletBo	Show Details	Pre-N	2016-02-20 11.13.31 Event System Application Application Application 2016-02-20 11.13.31 🗣 Disable LM Pre-Mix WaterTreatmentPlantL.3HWatming Pre-Mix Rai
1 2016-05-03 13:35:54 2016-05-03 13:32:52	Ack	Alarm Alarm	LM Pre-Mix LM Pre-Mix	WaterTreatmentPlant\Pre-Mix\MixTan WaterTreatmentPlant\Pre-Mix\MixTan	Plot Go to Page	Pre-N Pre-N	2016-02-0111331 Oitable Network/domination Network/informat/AhmDaker Primary All 2016-02-0111331 Siteble Utlow Lift Amp Static, JSurgeVakeOpen1451 Low Lift Am 2016-02-011131 Disable Utlow Lift Amp Static, JSurgeVakeOpen1453 Low Lift Amp
1 2016-05-03 13:32:52	Ack Ack	Alarm		NetworkInformation\PrimaryAlmDial	Properties	Prima	2016-02-20 11-1311 ← S Disable LM Pre-Mix WaterTrastmeetPlant/Mar/WaterTurbidity Pre-Mix Ra 2016-02-30 11-1311 ← S Disable LM Pre-Mix WaterTrastmeetPlant/MixTankLaved Pre-Mix Ma 2016-02-30 11-13131 ← S Disable LM Pre-Mix _eM+ HighSPFeedback Pre-Mix Reid

Out-of-the-Box Alarm and Event Management

events. Additionally, the standard VTScada Alarm Page provides an instantly



New Standard Alarm Reports





Alarm Shelving Expiration

The New VTScada Anywhere Client

Thanks to VTScada's integrated design, every new application includes preconfigured databases that support an unlimited number of process alarms and intuitive alarm management interface. This approach reduces integration time and ensures that your mission-critical alarm features remain tightly integrated over the life of your system no matter how many times you expand your application or update VTScada.



ISA 18.2 Compliant - The re-imagined alarm page and augmented tools help you enact the best practices outlined in the ISA 18.2-2009 Alarm Management Standard.

VTScada Anywhere Client – This new Thin Client display option provides a consistent alarm interface across computers, phones, and tablets.

Intuitive Operator Interface

In the event of an alarm, simply click the blinking icon in the top right corner of every page to jump to the VTScada Alarm Page.

- See current, active, unacknowledged, and disabled alarms.
- Easily sort by date/time and filter by functional area or priority.
- Acknowledge, silence, or mute alarms even while configuring.
- Shelve alarms to stop alerts during maintenance and alarm floods.
- Print any range of the alarm or event history.
- Reduce eyestrain by choosing daytime and nighttime views.
- Adjust text and row size for optimal viewing on different screens.
- . Access a time-stamped list of system events (e.g., logons or setpoint changes).

Advanced Situational Awareness

- . Instantly identify the status and priority of each alarm in the list.
- Plot the associated tag's data or open related displays. .
- Use a combination of text, symbols, color, and sound to best meet the visual needs of your team (e.g., color vision deficiency).
- Provide context by adding encrypted operator notes to alarms. Require notes when acknowledging, shelving, or un-shelving alarms.
- 'Alarm Details' dialog provides an overview of each alarm's configuration, history, and notes.
- Secure remote Thin Client access allows operators to manage alarms from anywhere using their own mobile devices.
- New VTScada Anywhere Client provides access to all advanced alarm analysis tools.

Trihedral



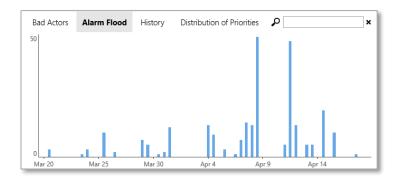


Alarm Diagnostics and Nuisance Alarm Reduction

Four new alarm reports help you to easily identify trouble spots in your physical system or the application's configuration.

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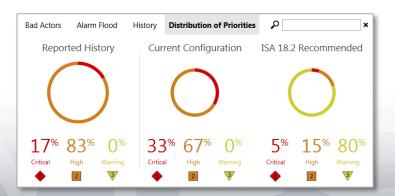
Bad Actors Report – A 'bad actor' is an alarm that is tripped excessively indicating problems with equipment, processes, or alarm configuration. Easily spot bad actors by scanning alarm events within a specific period, sorted by the number of activations.



Alarm Flood Report – An 'alarm flood' occurs when there are more alarm events in a specific period than operators can reasonably handle.

Quickly identify floods by moving your mouse over the blue bars to see the number of alarms tripped within periods of time. Click a bar to zoom into that period.

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Ba	ad Actors	Alarn	n Flood	History	Distribution of Priorities 🔎	×
	Date 🔻		Event	Area	Name Description	User
2	2016-04-07 12:03:29	•	Active	Zone 1	Local TCP Port\PLCSim\Tank 1\Tank Level Monitor tank level HIGH	
2	2016-04-07 11:00:50	•	Active	Zone 1	Local TCP Port\PLCSim\Tank 1\Tank Level Monitor tank level HIGH	
	2016-04-07 10:55:36	۰	Active	Zone 2	Local TCP Port\PLCSim\Tank 2\Tank Level Monitor tank level HIGH	
2	2016-04-07 10:54:05		Active	Zone 1	Local TCP Port\PLCSim\Tank 1\Tank Level Monitor tank level HIGH	



History Report - This pre-filtered list shows only Active and Trip alarm events. Select an alarm then use the tools in the Analysis Toolbar to gather more information about it.



- Alarm Details
- Historical Data Viewer
- Open Associated Pages
 Alarma Data anti-
- Alarm Properties

Distribution of Priorities – Easily compare your application's alarm priority distribution with the ISA 18.2-2009 Alarms Management Standard.

Compare the priority distribution for both your reported history and current configuration with the distribution recommended in the ISA 18.2-2009 standard.

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Multi Plant Architecture - Centralized Management, Autonomous Operations

Configure multiple alarm databases to separate operational alarms (e.g., plants and processes) for targeted alarm processing.

	Scada					
System Alarm DB 🔻	Alarm Actions) 🗾 🗗 🗞 irts & Analysis	11 💆 30d History	▼ Ÿ, ▼ Ÿ ₆ Filter) ™, A A Ξ‡ View
System Alarm DB System Event DB		Current	Shelved	Disabled	Configured	view
Time			Status	Area		

New VTScada applications include separate alarm and event databases. Existing applications are automatically converted.

- The Alarm Database Tag allows you to add more databases as required and synchronize them across a network.
- Filter the Alarm Page on any networked workstation to display lists from one or all of them.
- Locally stored databases allow operators to manage and modify alarms even when disconnected from alarm servers.
- Synchronized distributed databases keep your priceless alarm and event history safe and up-to-date.

Areas of Responsibility

Define what information users can see in large applications. For example, if an application monitors two plants, operators may see and respond to alarms from their respective plants, while the management team can see alarms from both plants.

Efficient Alarm Configuration

In seconds, authorized developers can create alarms in the Alarm Tag Properties Dialog in the VTScada Tag Browser. To simplify the process further, Alarm Tags are built right into the Analog Status and Digital Status Tags.

Developers can also embed customized alarm lists into any custom display using the VTScada Idea Studio.

Configure pop-up dialogs to ensure that operators are aware of high priority alarms.

Uninterrupted Alarm Management

VTScada's online configuration allows you to view and acknowledge alarms even while editing application tags, screens, and properties.

SCADA Alarm Security

Tightly control access to the Alarm Page and Alarm properties using application-level privileges assigned to specific user accounts in their areas of responsibility.

Users must log in with their own credentials to access alarm information via workstations, Thin Clients, and alarm notifications. Alarm privileges can be revoked instantly across the whole system.

Alarms/Events	2016-05-02 09:06:36	WaterDistributionSy WaterDistributionSy		Tank level too lo Tank level too lo		^
Ack All	2016-05-02 09:05:29	Application	active (totike ow_c		ted (0 min 19 sec)	~
	E	mbedded Cus	tom Alarm Lists			
VT Alarm (W	aterDistributionSys	stem\Zone_2\`	Tank_2\TankHig	h_2) Prope	erties	×
ID	Trig	ger	Actions		Display	
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O Con	stant	⊖ Expr	ession	۲	Tag	
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The Alarm Tag Configuration Dialog

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Mobile Alarm Management Optional Component

VTScada Thin Clients allow authorized users to view and acknowledge alarms from anywhere. Easily select the display format that best suits your screen size and data plan.

- VTScada Internet Client (VIC) Windows PCs Identical to a VTScada Thick Client operator workstation.
- Mobile Internet Client (MIC) HTML5 browsers on smartphones, tablets, PCs, and Macs - Text-based alarm interface optimized for smaller screens.
- The VTScada Anywhere Client State-of-the-art Thin Client provides a consistent operator experience on any HTML5 device. Event-driven execution provides real-time data without overloading your data plan. Zero-footprint means nothing to download and install. No Java either.

Note: WAP is discontinued as of 11.2.

Alarm Notification System

Optional Component

When alarms happen, your SCADA system needs to alert the right people as soon as possible no matter where they might be.

Automatic Alarm Callout - The VTScada Alarm Notification System (ANS) transmits alarm information anywhere via text-tovoice phone calls, SMS text messages, emails, and pagers.

Dial-in Phone Access - Dial into your application using your application security account to check levels, acknowledge alarms, change setpoints, or send commands to equipment.

Built-In is Better

VTScada's unique integrated approach vastly reduces integration time and ensures tight compatibility over the life of your system no matter what version you are running.

Add ANS to any VTScada Runtime or Development Runtime license by simply updating your software key. The ANS shares the same tag and alarm databases as the VTScada application.

TRY IT FOR YOURSELF Download the 90-day Trial

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Trihedral.com/trial

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The New VTScada 'Anywhere' Client



ID Contacts		acts	Activation	Display	
Robert Villa Robert		Username	Mode	Enabled	^
		RobertV	Email		
		RobertV	Compact Email (SMS ready)	✓	
Norman Abram		NormanA	Compact Email (SMS ready)	1	
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÷ 4					×
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Robert Villa			RobertV		
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Email Addres	nisoldhouse.c	om			
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bob.villa@tl Pager PIN					
bob.villa@t			1		

Intuitive Roster Configuration.

1.902.835.1575 1.403.921.5199 1.407.888.8203 +44 (0) 1224 258910

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