! TOPVIEW®
ALARM AND NOTIFICATION SOFTWARE

EXELE TopView Software Data Sheet

Operating Systems

Windows 7SP1/8.1/10/11 (64 bit)
Windows Server: 2008R2SP1/2012/2012R2/2016/2019/2022 (64 bit)

Data Sources (monitored data):

OPC/SCADA: OPC Classic (DA/HDA) or OPC UA (DA) Servers. Available for most PLCs, SCADA Systems, DCS's, and Historians.
SCADA Connect/Sync option for popular SCADA Systems to import alarm tags

OPC Alarms and Events: OPC A&E Servers including Emerson DeltaV, ICONICS, GE iFIX, Honeywell Experion, and others

PI/PIAF: OSIsoft PI tags and AF attributes

MQTT: MQTT events from one or more brokers

SQL Lookup: ODBC and OLEDB databases

SQL Events: ODBC SQL-based event logs

PerfMon: Microsoft Windows System Performance and Network Ping Response

General

- Runs interactively or as a Windows Service
- Multi-level tag/alarm grouping for categorizing, filtering, and notification of alarms
- Verbose Application, Alarm and Notification logs
- Alarm comments/annotations
- Monitor and alarm result of calculation/expression
- Audit change log, detailed change reports, and automatic backup to files and SQL Server
- Failover/redundancy for alarm Engine and clients
- Performance & health monitoring with notification
- Programmatic configuration API

Alarm/Event Features

- Configurable value, status, timestamp-age, value flat-line, change, trend up/down alarm conditions
- Complex alarm conditions involving multiple tags and conditions
- Alarm logic and function scripting with VB.Net and optional access to external libraries
- Monitor and detect abnormal alarm activity (active alarm counts, frequency, flooding)
- Delay of alarm unless condition is active for a period
- Expiration of alarm after a period of time
- Alarm limit value dead bands
- Blackout period for alarm frequency filtering
- Suppress alarm detection if associated equipment not running or alarm inhibited
- Suppress alarm detection if status of tag not good
- Flexible alarm condition scheduling (days/time-of-day, exclude date ranges)
- Fixed and dynamic limits (e.g. tag values as limits)
- Define alarm and notification settings once for multiple tags (templates and inheritance)
- Tag groups/Alarm groups for notification and filtering
- Alarm priority and priority range colors
- Alarm time zones for accurate time reporting
- Custom alarm and return to normal messages
- Notification escalation of unacknowledged or persistent alarms
- Disable and snooze alarms (alarm shelving)
- Synchronize alarm acknowledge with monitored system (e.g., SCADA)
- Suppression of startup alarm notifications
- Programmatic API and command-line/scripted configuration changes to tags, alarm conditions, and alarm limits

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Notification

- Audible text-to-speech and WAV file alarms
- Notify on alarm, return-to-normal, and acknowledge
- E-mail notification: SMTP, reply acknowledge (POP3/IMAP), SSL, attachments, and failure retry. OAuth support (sign in with Google/Microsoft)
- SMS Notification: SMS/text messages with reply alarm acknowledge via cellular modems/devices or Twilio (hosted SMS)
- Messaging notification: with reply alarm acknowledge via Microsoft Teams, WhatsApp, Pushover or SIP Instant Messaging (IM)
- Voice notification: audible text-to-speech to any phone using VOIP. VOIP-to-analog line and VOIP-to-cellular support.
- Redundancy: Email, SMS, Messaging, and Voice
- Custom notification: can be developed by users
- MQTT: publish alarms and current state messages
- SNMP Traps: send alarms as v1 and v2 SNMP Traps
- Custom message content and email subjects
- Message templates for detailed message content and formatting (text or HTML)
- Escalate persistent or unacknowledged alarms
- Prioritized message delivery
- Output/write to tags upon alarm, return-to-normal, and alarm acknowledgement events
- Launch other applications/scripts upon alarm/RTN
- Contact database with flexible recipient scheduling and notification enable/disable
- Active Directory support for contact information
- Dynamic recipients (use tag values as recipients)
- Local/Remote Windows Notification Area icons

Bi-direction Email/SMS communication

- Reply to email/SMS to acknowledge alarms
- Request reports or state information via email/SMS

Reports, Feeds, and Events

- HTML Snapshot reports of current values/alarms with local file output, publishing, and email
- Ad-hoc and Scheduled alarm history reports with local file output and/or email
- Alarm actions: details of each alarm state, acknowledge, and notification actions
- Alarm RSS Feed generation and publishing
- "EventHooks" for user-written event handling

Remote Access and Acknowledge

TopView offers multiple options for remotely accessing TopView and acknowledging alarms:

- Mobile Web App for Apple iOS, Android, any browser
- Remote Viewer client for Windows Desktop
- 2-way Email/SMS/Messaging communication for alarm acknowledge and current state information
- Voice dial-in (VOIP) to hear and acknowledge alarms
- Notification direct-link to acknowledge web page

Remote Alarm Console

- TopView *Remote Viewer* provides alarm monitoring, alarm management, audible alarms, and alarm acknowledgement in a rich, yet thin client.
- User-specific, customized views of alarm activity
- Query and filter alarm history, create alarm reports
- Interactive alarm analytics (tables and graphs)
- Permissions to view and acknowledge alarms

Mobile Web App

- Apple iOS, Android, tablets, and desktop browsers
- Monitor values and alarms, acknowledge alarms
- Query alarm history and identify bad actors
- Real-time alarm/value updates pushed to clients
- Optional user logon security and permissions

Configuration and Management

- Intuitive Configurator for users of all levels
- Web (local/remote) and desktop (local) configuration tools
- Bulk configuration through CSV files
- Administrative tools for real-time monitoring of alarms, notification queues, performance, and logs
- Built in Engine Health warning and reports

SQL Server Output (optional)
Provides additional features and easy integration

- Alarm logging (Alarms table) enables alarm comments/annotations and provides better reporting performance and external access
- Current Values/Alarms (Snapshot table) provides current state information to external applications

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Data Sources (OPC/SCADA, PI, SQL, MQTT, CanaryLabs, PerfMon)

OPC/SCADA · PI/AF Servers · ODBC/OLEDB · OPC A&E · MQTT Broker · Canary Labs · Perf Counters

Snapshot Reports Values/Alarms
Desktop and Mobile browsers

Monitor values, alarms, events, perform operations, logic, and calculations

Outputs (OPC/SCADA and PI)
Heartbeat
Alarm event
Acknowledge event
Return to Normal event

HTML Snapshot Reports

Web Server

Reports to Email

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TopView Alarm and Notification Engine

Alarm Reports

Alarms and Events

Email Notify

Email/SMS gateway reply acknowledge

Reply

SMTP Mail Server (outgoing) with OAuth support

Speakers Audible alarm and event messages (Text to Speech)

Microsoft SQL Server
Alarm logging
Current state

Email Reply

POP3 or IMAP Mail Server (incoming) with OAuth support

Alarm Acknowledge/information query (Email & SMS Gateway)

SNMP Trap Messages

RSS

MQTT

SNMP Manager

MQTT Broker

Alarm RSS Feed

SMS & Messaging Notify/Reply

Cellular modem

Cloud SMS Provider — twilio

Microsoft Teams — Microsoft Teams

WhatsApp — WhatsApp

Pushover — Pushover

SIP Instant Message — SIP/VOIP Server

Cellular network

2-way SMS/Text and Messaging Notify and acknowledge

Voice Call-out Notify

Voice Dial-in

Network

Network (VOIP) on-premises or hosted

VOIP-to-Analog or VOIP-to-Cellular converter

Analog Phone line
Cellular

Audio message
Text to Speech

Plant Paging System

Phone Audio Message Keypad Acknowledge

Network (LAN/WAN/VPN)

Current Alarms and Events
Alarm History
Alarm Reports
Alarm Analytics

Remote Viewer

Web: **TopView Mobile Web App** runs on all platforms with modern browsers including mobile and tablet devices View current alarms, values, and Tag details Acknowledge alarms

Windows Desktop: **TopView Remote Viewer client** with Audible alarms, Alarm acknowledge, Alarm history, Alarm reports & Alarm analytics