TOPVIEW®
ALARM AND NOTIFICATION SOFTWARE

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 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:** AVEVA 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:** Performance Counters and Network Ping

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

NOTIFICATION
- Audible text-to-speech and WAV file alarms
- Notify on alarm, return-to-normal and acknowledge
- **Email 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 acknowledgment 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
- Alarm actions: details of each alarm state, acknowledge and notification actions
- 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 RSS feed generation and publishing
- "EventHooks" for user-written event handling

REMOTE ACCESS AND ACKNOWLEDGE
- 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 VIEWER ALARM CONSOLE
- Alarm monitoring, alarm management, audible alarms and alarm acknowledgment 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)
- 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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TOPVIEW
- Alarm and notification engine
- Audible alarms
- SQL server alarm logging (optional)
- Manage alarms and events

- **Monitor value and alarm events**
- **Alarm acknowledge**
- **Perform operations, logic**

- **Heartbeat**
- **Alarm acknowledge**

DATA SOURCES
- OPC/SCADA
- PI/AF Servers (OSIsoft)
- ODBC/OLEDB (SQL)
- OPC A&E
- MQTT Broker
- Performance Counters

ALERTS

EMAIL
- Notify and reply acknowledge
- Outgoing (SMTP with OAuth)
- Incoming (IMAP/POP with OAuth)

TEXT/SMS & MESSAGING
- Notify and reply acknowledge
- Cellular modem SMS
- Cloud SMS
- MS Teams
- WhatsApp
- Pushover

PHONE (VOIP)
- Notify and acknowledge
- ON-prem or hosted VOIP
- Analog line support

MANAGE

REPORTING
- Alarm reports
- Alarm snapshots
- Health warnings
- Audit/change log

HEALTH MONITORING
- Built-in monitoring
- Notification of health warnings
- Monitor via admin tools

REAL-TIME VIEWERS
- Mobile Web App for current alarms, values, tag details, acknowledgment
- Desktop app for audible alarms, acknowledgment, history, reports, analytics