FactoryTalk® View Site and Machine Edition v11.0
FactoryTalk® ViewPoint v11.0

January 2019

What's New in v11.0

FactoryTalk View v11.0 Release Summary

- FactoryTalk® AssetCentre Integration
  - Disaster recovery for FactoryTalk® View SE applications
  - Operator actions (Audits) on TrendPro
- FactoryTalk View SE Runtime Improvements
  - Extended system sizing with support for 120 clients
  - Pinned popup displays
  - ISA-101 styling for TrendPro
  - OSI PI data source integration into TrendPro
  - Partial download detection for RecipePro+
  - Recipe name display for RecipePro+
  - FactoryTalk® diagnostic viewer display object
- Mobility with FactoryTalk® ViewPoint SE application
  - Mobile FactoryTalk® Alarms & Events command support
  - Mobile alarm on trend support
- Licensing Improvements for FactoryTalk View SE Runtime
  - ThinManager® licensing integration

- FactoryTalk View SE Software Design Improvements
  - FactoryTalk® View Studio usability enhancements
  - Embedded E-Signature for common controls
  - FactoryTalk View SE application manager expansion for Station
  - HMI TagDB VBA object model for project code
- FactoryTalk Alarms and Events (SE)
  - Production events for server-based FactoryTalk Alarms & Events
  - Alarm management enhancements
  - Server-side alarm redundancy enhancements
  - Retirement of legacy HMI alarms
  - Alarm reporting improvement for FactoryTalk® VantagePoint®
- FactoryTalk® View ME Improvements
  - Optimization of onboard audit messages
  - Graphic performance improvement for PanelView™ Plus 7 Performance HMI
  - MER / APA version info in Application Manager

FactoryTalk AssetCentre Integration

FactoryTalk AssetCentre v9.0 and forward

# Archive Project Management & Disaster Recovery with FactoryTalk AssetCentre

FactoryTalk View SE v11.0 and FactoryTalk AssetCentre v9.0 Software

New FactoryTalk View Site Edition asset for FactoryTalk AssetCentre v9.0 adds support for fully automated application backup, version management, and compare report showing changes between versions

- Requires FactoryTalk AssetCentre v9.0

- Included with FactoryTalk AssetCentre Disaster Recovery for ROK

- Support for both distributed and network station applications

- Leverages enhanced application manager for full backup

  Back up running applications; no need to shut down

- Version management of FactoryTalk View SE applications

- Store and access multiple versions of application backups

- Compare FactoryTalk View SE projects version to version

  Compare report lists which graphic or any other project component changed between versions

- Extract individual project components directly from archive
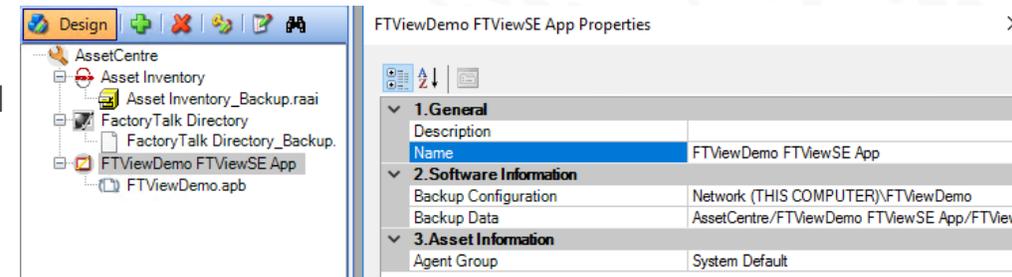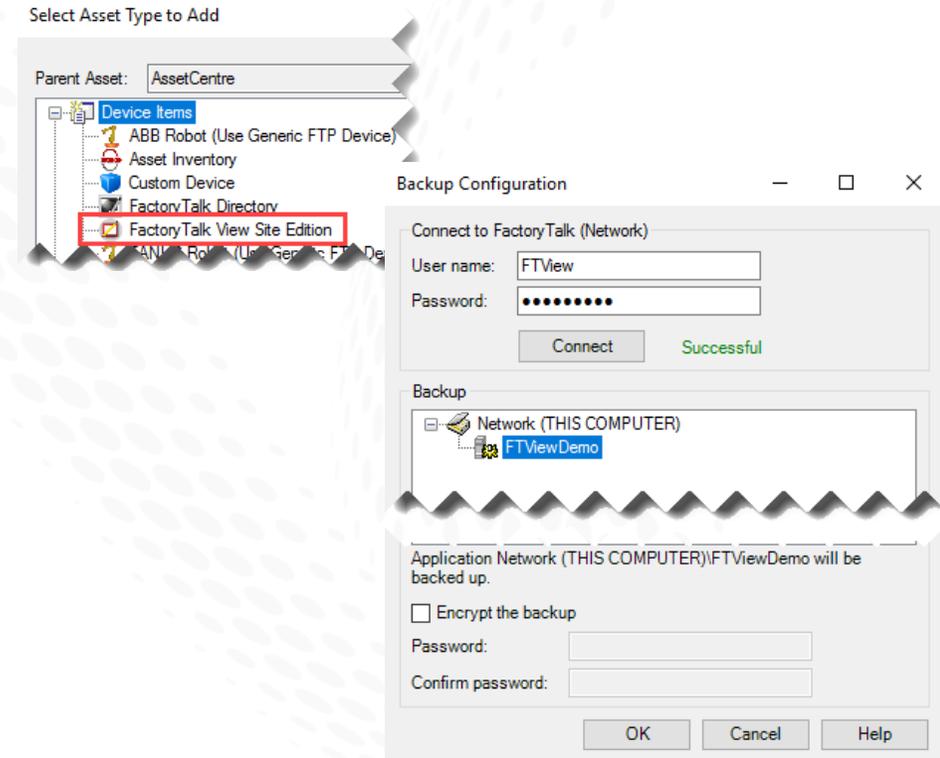
# FactoryTalk AssetCentre Audit Log - TrendPro Integration

FactoryTalk View SE v11.0 and FactoryTalk AssetCentre v9.0

In v11.0, TrendPro can display operator actions alongside production data and alarm events – creating a comprehensive tool that puts context around changing set point data, alarms that were triggered, and what operator actions were taken

- Overlay operator audits, system diagnostics with control system data on the trend

- Support for display of operator actions from FactoryTalk AssetCentre Audit log

- TrendPro pulls FactoryTalk AssetCentre log information through the FactoryTalk interface; no additional software is required

- Events for system events (Info, Warning, and Error) are also supported

- Filter and sort content displayed in the Event list
    - Show events that match certain criteria

- Create ad hoc trends by dragging and dropping data items on TrendPro at runtime (without FactoryTalk View Studio)

- Tag can be selected to define the minimum and maximum values

- Audit and Event details displayed in table format; select which events to display at runtime
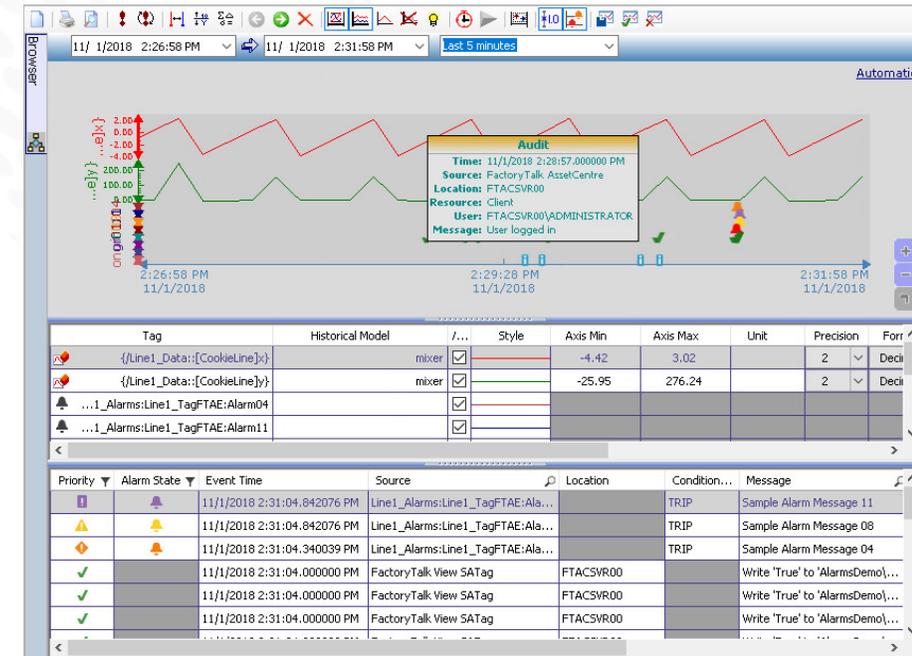
Runtime Enhancements

Scalability and Extended System Sizing Recommendations

FactoryTalk View SE v11.0

Deploy a successful system architecture for large systems using tested extended sizing recommendations and design considerations

- FactoryTalk View SE systems scale from small to very large systems

V11.0 supports in a single application:
- Up to 120 FactoryTalk View SE clients
- Up to 200* FactoryTalk ViewPoint mobile clients
- Up to 1,000,000 tags
- Up to 100,000 alarms
- Up to 10 HMI, Alarm, and Data servers per application (redundant or non-redundant)

- Simpler approach to system sizing using specific architecture/design considerations

* When configured with 4 FactoryTalk ViewPoint servers, 50 FactoryTalk ViewPoint clients per server

Refer to *Design Considerations – FactoryTalk View Site Edition* for detailed system architecture best practices

FactoryTalk View SE HMI Clients   **FactoryTalk** ViewPoint Clients
(Web/Mobile)

= 120   = 200*

FactoryTalk View SE HMI Servers   **FactoryTalk** ViewPoint Servers
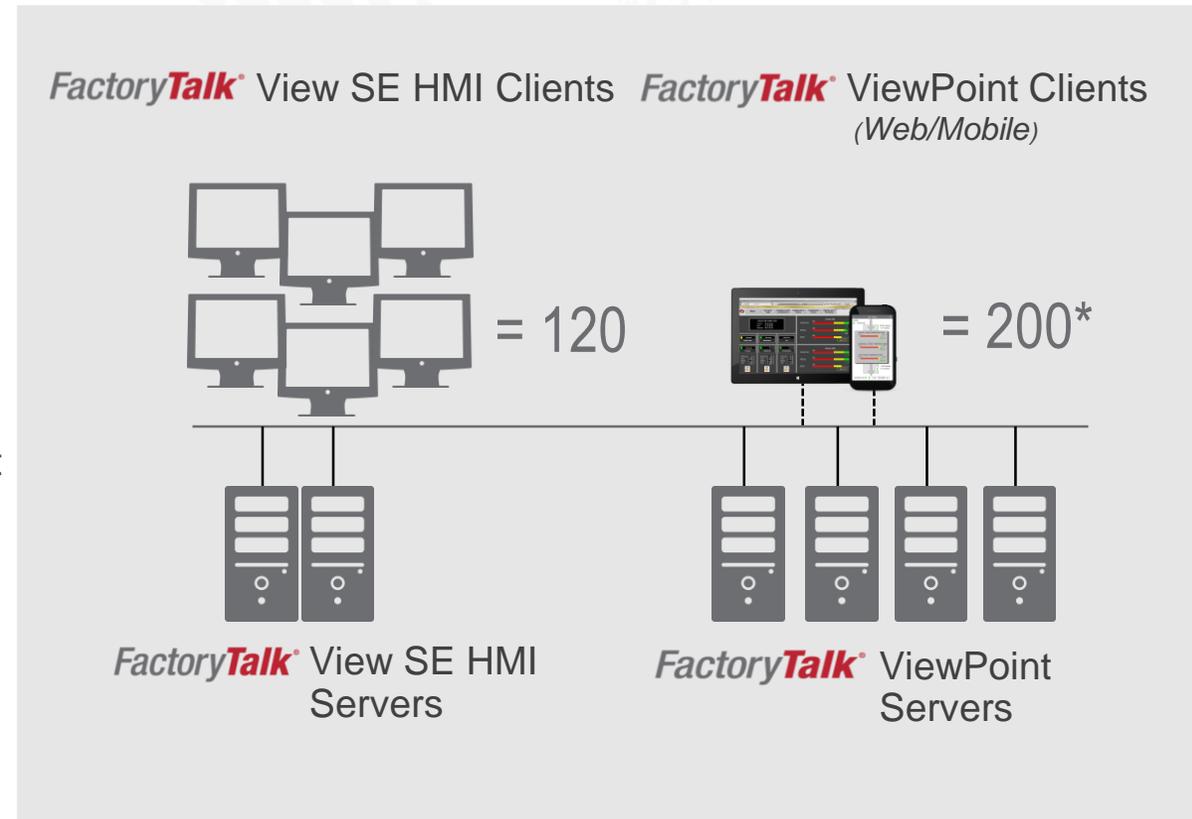
Pinned Popups

FactoryTalk View SE v11.0

Pinned popups allow you to open a popup display in an application, and keep it open while you navigate to different displays in the background

- Pin a popup to the display canvas and navigate to other displays without losing the popup

- Drag the popup around the canvas like a window

- Control the "pin" from the toolbar

- Control the "pin" from a button command

- Show information on a popup display – such as a faceplate – while working with other information on the main display

- Navigate to other areas of the application without losing the context of that popup data
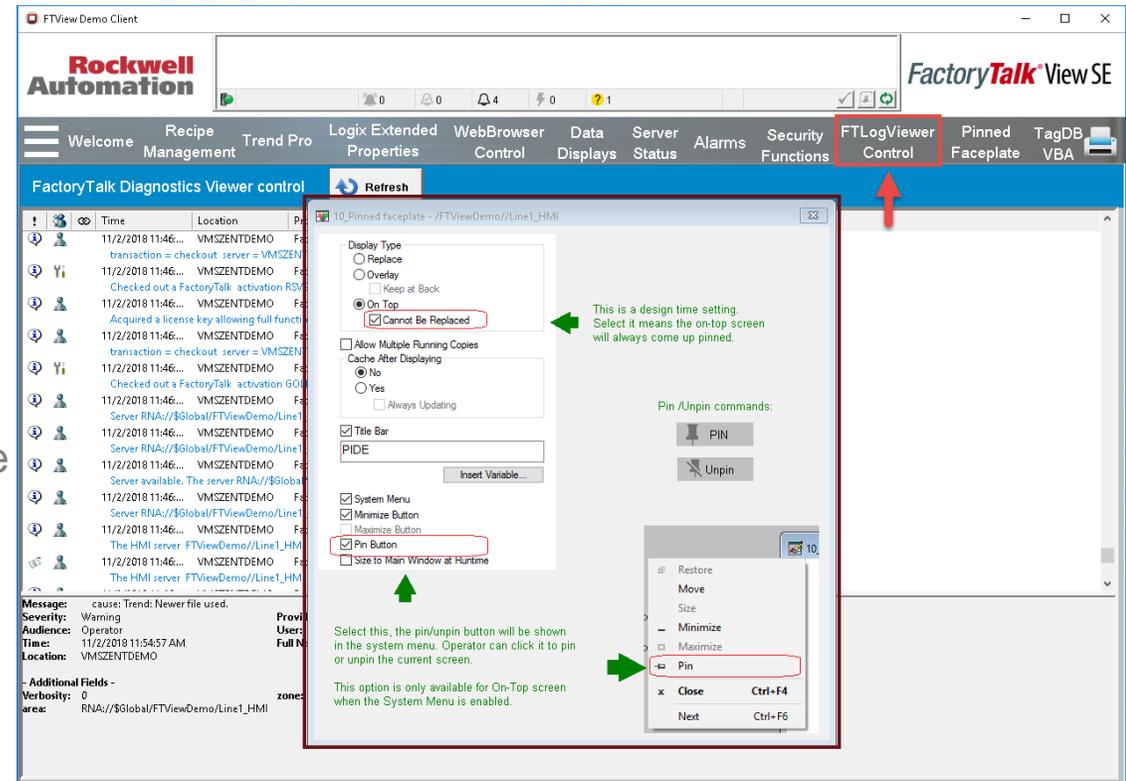
TrendPro Enhancements

FactoryTalk View SE v11.0

TrendPro now enables plotting of operator actions and runtime comments (FactoryTalk Alarms & Events Remarks) along with time-series data, system events, and alarms - and supports configuration for ISA-101 style displays

- Associate data points on the trend with related actions and information to drive decisions visually

- Troubleshoot production anomalies quickly and visually, right in the HMI

- Plot time-series data along with related actions on trend

    Plot alarms on trend canvas (introduced in v10)

    System events

    Operator actions from FactoryTalk AssetCentre

    Runtime comments (FactoryTalkAlarms & Events Remarks)

- Save TrendPro configuration and traces as centralized templates (introduced in v10.0)

- Filter time-series data directly on the trend at runtime

- Drag and drop traces from multiple sources at runtime

- Configure TrendPro look and feel to align with ISA-101 style
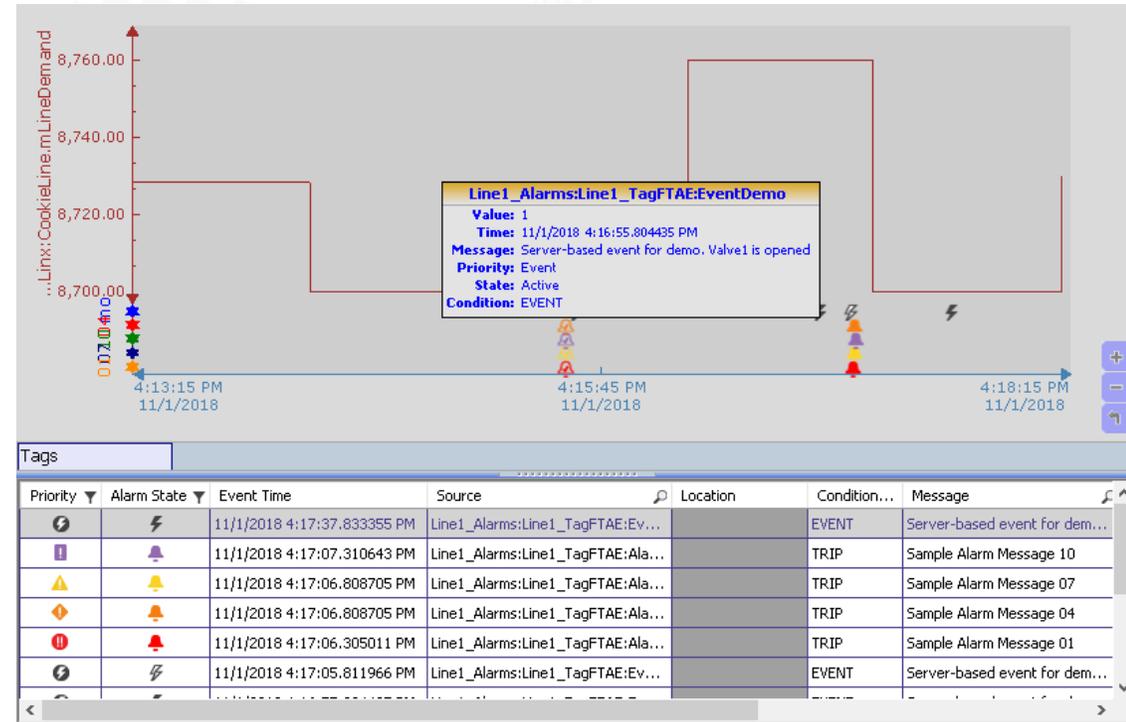
OSI PI Data Source for TrendPro

FactoryTalk View SE v11.0

New database connector for OSI PI makes it a TrendPro data source – users with an existing Enterprise OSI PI system can now display data from OSI PI on TrendPro, with no additional license required

- Utilize existing Enterprise PI System data to trend in an FactoryTalk View SE or PlantPAx application

- Configure OSI PI server as a native data source in TrendPro

- No additional license required
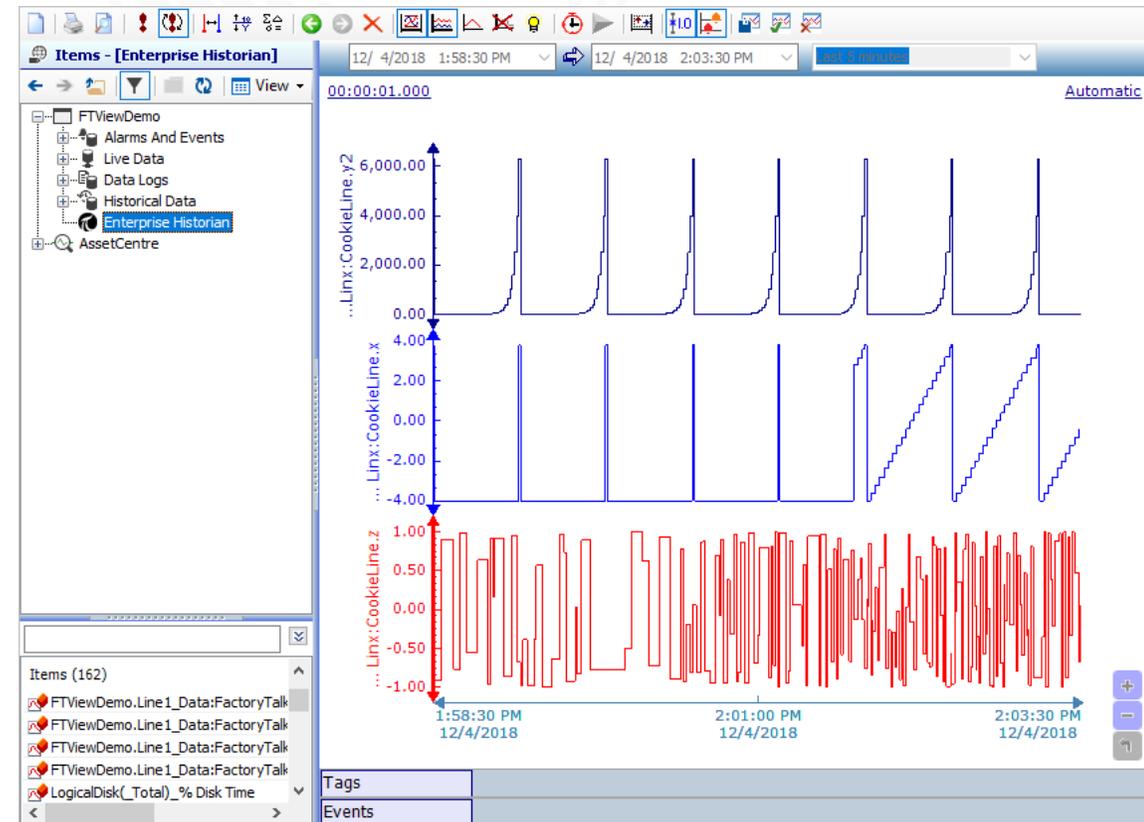
RecipePro+ Enhancements

FactoryTalk View SE v11.0

Recipe functionality continues to be enhanced in V11.0. Operators can be notified when a complete recipe download was interrupted, and a reduced number of messages logged when a recipe is downloaded reduces Audit log 'clutter'

- Partial download detection gives users assurance that they'll know when a recipe was partially deployed due to a failed communication event

- Audit message optimization for recipe operations reduces 'clutter' in the Audit log: a single Information type message is now logged when a RecipePro+ download is initiated

  > Previously, a separate Audit message was logged for each ingredient value in the recipe

- RecipePro+ can now provide operators with the currently executing recipe without requiring that value to be stored as a tag – currently selected recipe can be populated from a system value

FactoryTalk Diagnostics Viewer Control

FactoryTalk View SE v11.0

A new Diagnostics Log Viewer control allows operators to view FactoryTalk Diagnostic messages from within the HMI – no more need to launch a separate viewer

- Show FactoryTalk Diagnostics on displays – no need to launch the separate FactoryTalk Diagnostics Viewer

- New native control can show FactoryTalk Diagnostics on HMI displays

- One default filter can be defined at design time to display diagnostics that match a certain criteria for operators

- 'Ad-hoc' message filter can customize messages displayed at runtime

Design Enhancements

Enhanced E-Signature Options

FactoryTalk View SE v11.0

Enhanced E-Signature functionality is now added to a number of FactoryTalk View SE input objects – making E-Signature authentication and approvals more flexible to implement in regulated environments

- Enhanced native E-Signature functionality (for 21 CFR Part 11) is added to FactoryTalk View SE input controls

- Built-in to common objects used on displays

  Command button

  Numeric input

  String input

- Supports both single and counter/approver signatures

- Re-authentication can be required before changes are applied

- Optional (or required) operator comments can be entered and tracked with the Audit message and E-Signature records

- Use instead of - or in conjunction with - E-Signature ActiveX control
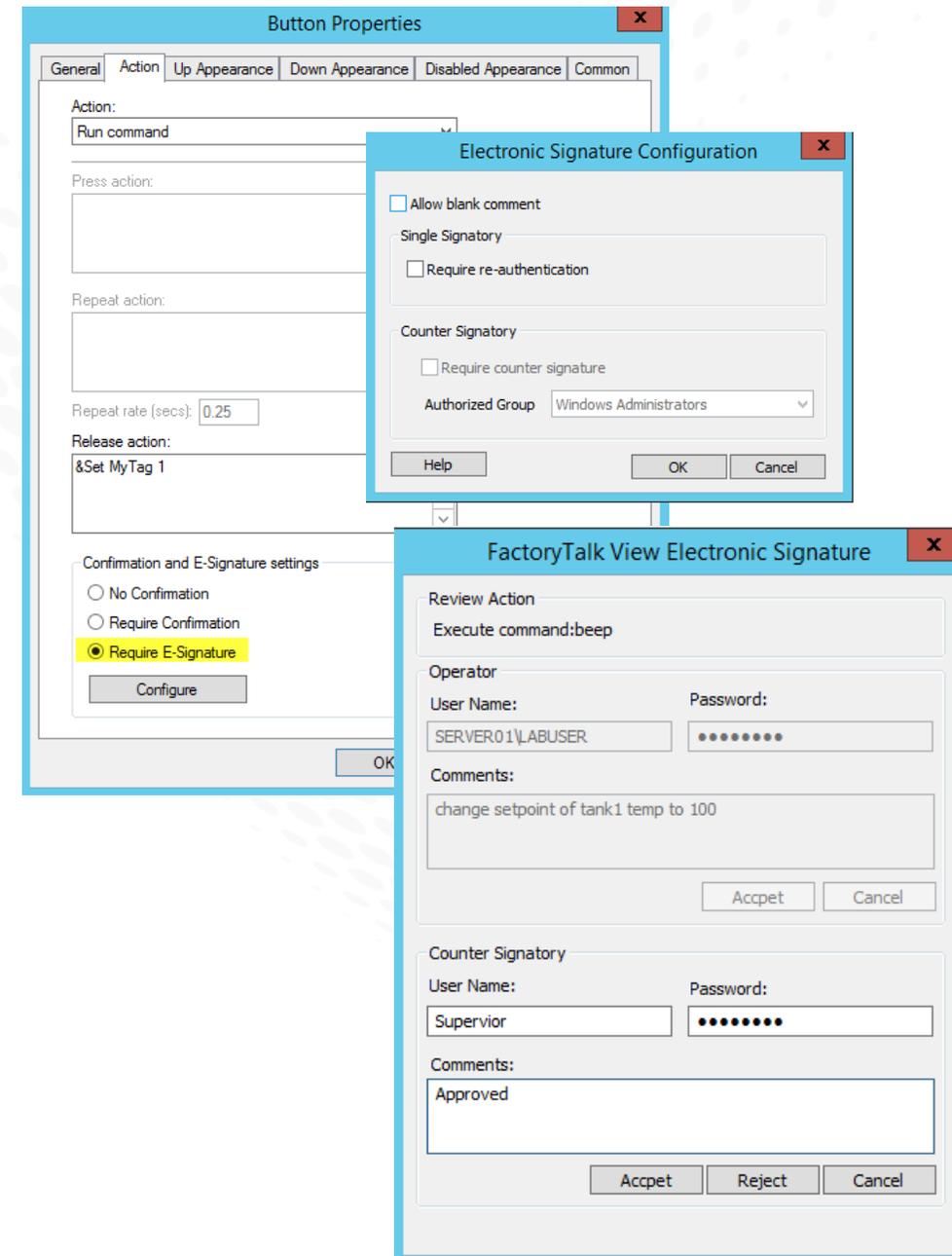
Enhanced FactoryTalk View SE Application Manager

FactoryTalk View SE v11.0

The Distributed Application Manager is enhanced in v11.0 to support all FactoryTalk View SE application types - now manage all application types with the updated and renamed *FactoryTalk View SE Application Manager*

- Manage all FactoryTalk View SE application types with a single tool

- Backup and restore functions for network and local station application types in addition to network distributed

- Delete, rename, and copy applications

- Improved performance to perform application management functions without rebooting systems

- Perform renames and deletes without having to reboot systems

- Enables FactoryTalk AssetCentre to leverage Application Manager interfaces to automatically back up network station and distributed applications
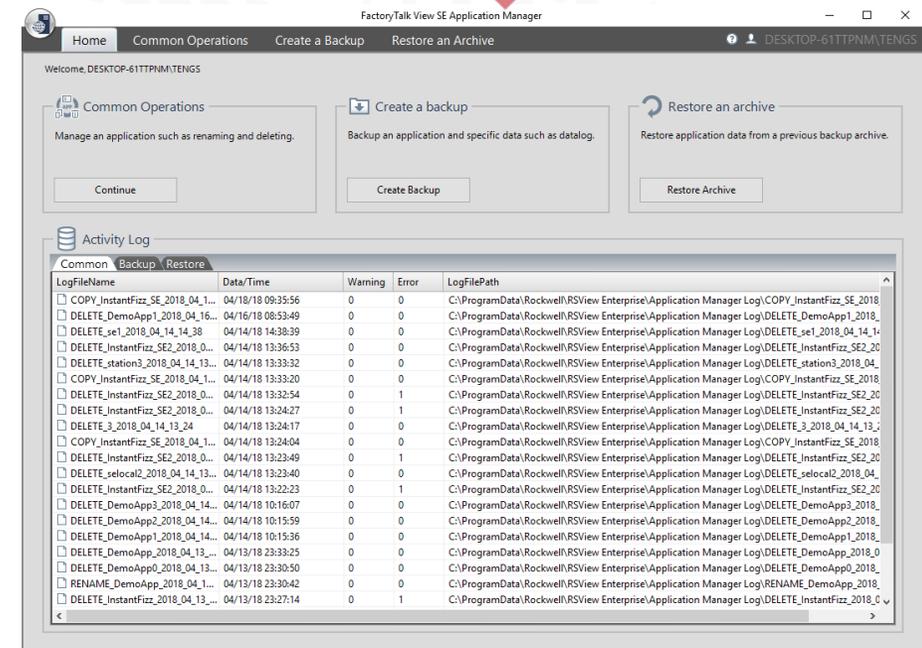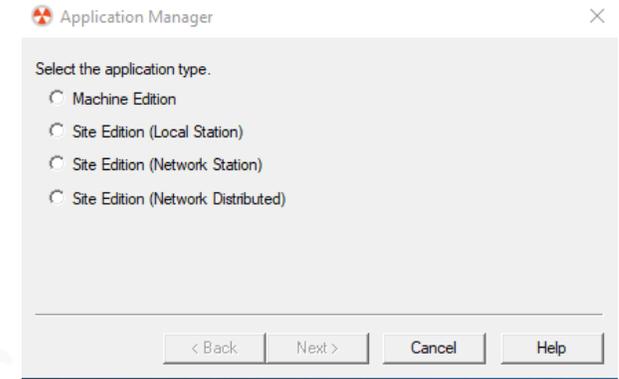
VBA Interface for HMI TagDB

FactoryTalk View SE v11.0

In v11.0, the HMI tag database is now exposed to VBA – this means you can manipulate tags using VBA scripts, and allows for more reuse of RSView32 project VBA. This enables more applications to migrate from RSView32 to FactoryTalk View SE

- Create/Edit/Delete tags through VBA scripts

- Read/Write tag values through VBA scripts

- Access HMI TagDB through VBA code

- New TagDB module in VBA is similar to RSView32 project VBA

- Reuse more RSView32 project level VBA code when migrating RSView32 projects to FactoryTalk View SE

- VBA still runs in FactoryTalk View SE display code, but allows RSView32 project code for the TagDB to be converted
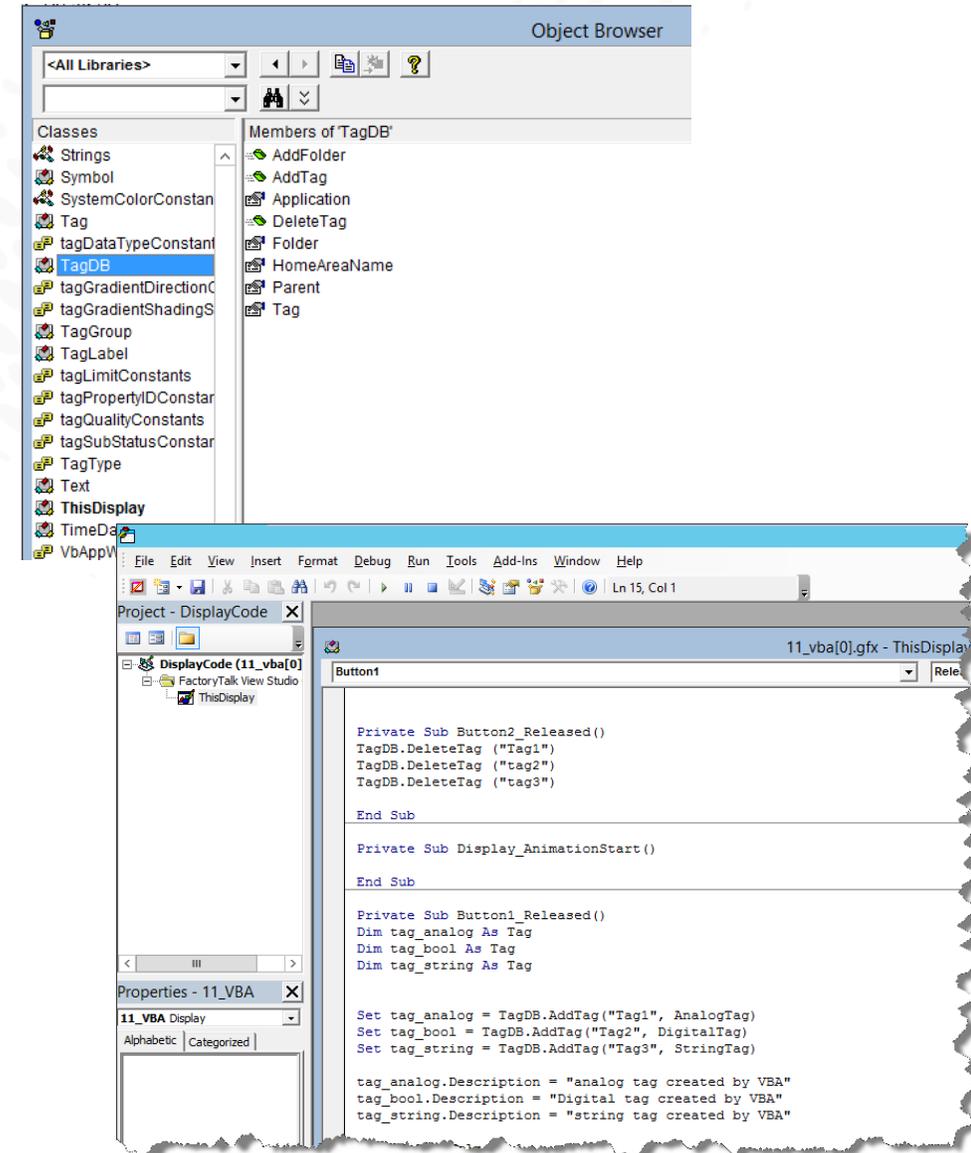
Licensing Enhancements

ThinManager / FactoryTalk View SE License Integration

FactoryTalk View SE v11.0 & ThinManager v11

With v11.0, integration with ThinManager software means a single FactoryTalk View SE Client license enables as many Clients as needed on a single ThinManager terminal

- In a remote desktop-type configuration, each FactoryTalk View SE client requires its own license; this has applied to ThinManager configurations as well

- Each ThinManager client now consumes a single FactoryTalk View SE Client license, regardless of the number of monitors connected

- Supported with v11 of ThinManager software and FactoryTalk View SE v11.0

- Requires FactoryTalk Activation migration for ThinManager software

- ThinManager standard failover is supported without requiring additional licenses

- ThinManager instant failover requires two FactoryTalk View SE Client licenses

- Consistent deployment whether traditional FactoryTalk View SE Client or ThinManager Thin Client deployment
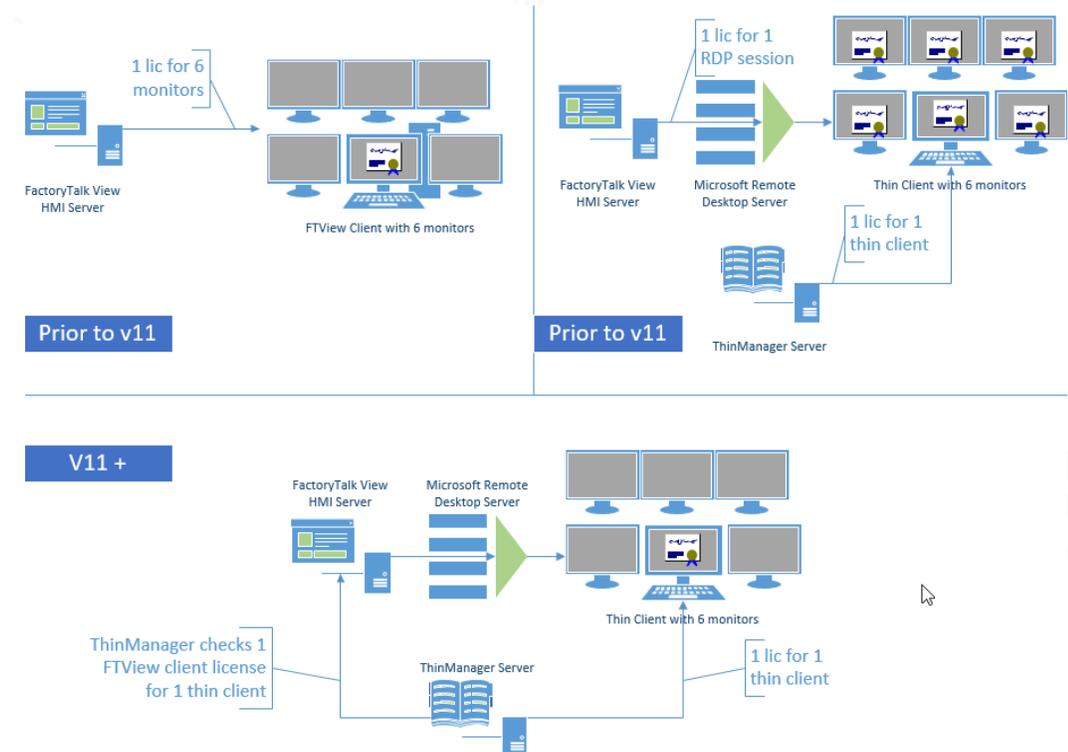
Alarming

Production Events for Server-Based FactoryTalk Alarms and Events

FactoryTalk View SE v11.0

New event type option in FactoryTalk Alarms and Events for capturing production events that aren't classified as "alarms" – Events appear on the summary and are logged to the database, but have severity of zero and have no acknowledgement

- Event type now added to the list of FactoryTalk Alarm and Event types

- Capture production events in the HMI natively as part of the alarming solution

- Separate events from alarms for operators

- Event severity = 0 to differentiate from alarms

- Digital condition (= 0 | <> 0) tag

- Supports four additional associated tags for sampling of related data at time of event

- Event states are Active, InActive, Suppressed, Disabled

  > When Active, events are shown on the alarm summary; clear when state changes to InActive

- Supports historization as new class of message (Event) in FactoryTalk Alarms & Events history database

- Leverage the same tools and reporting tools for both Alarms and Events – including overlay on TrendPro
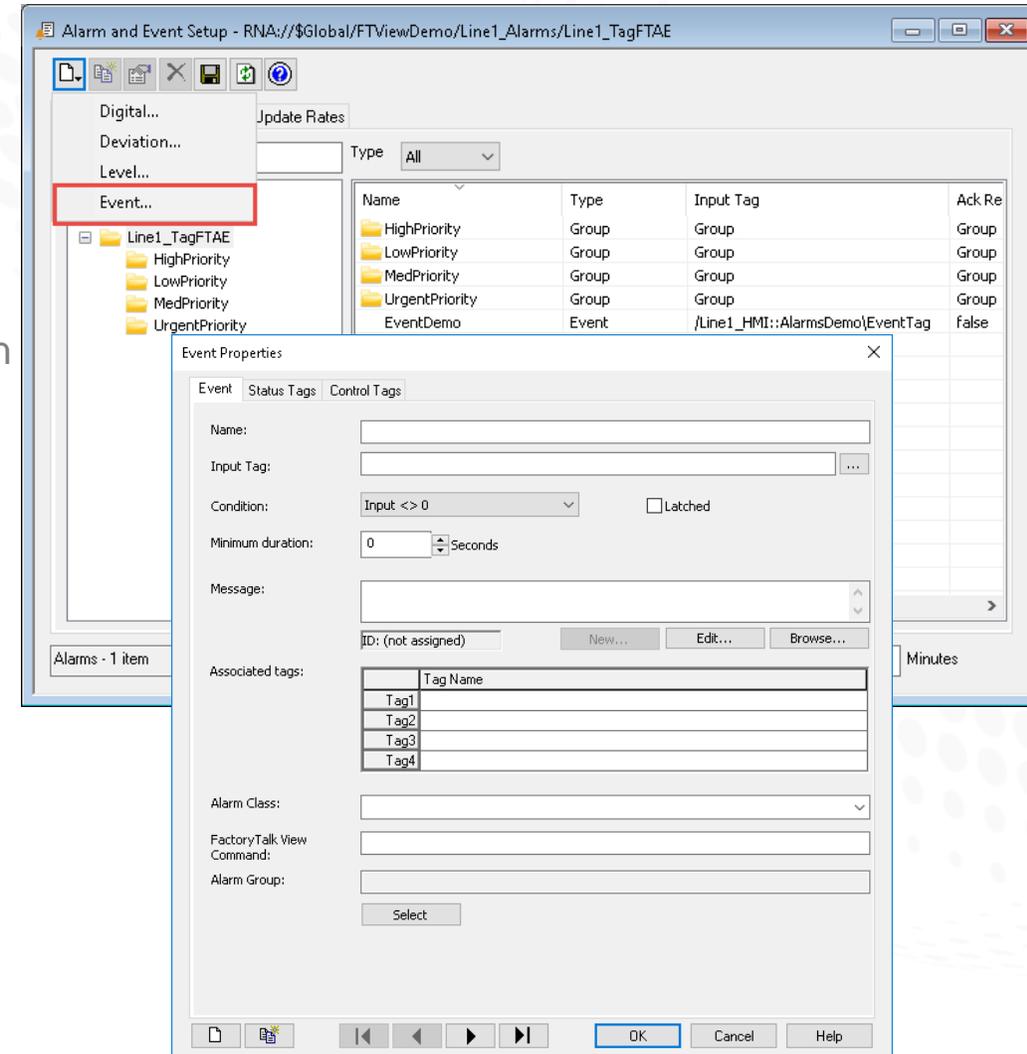
Alarm Management Enhancements

FactoryTalk View SE v11.0

Alarm Import process optimized to avoid errors during bulk imports for Tag-based Alarms & Events

- Users that apply large volumes of changes to tag-based Alarms and Events from an Import file will no longer see "Import Failed" messages requiring multiple re-imports

- Alarm imports are optimized and queued into groups automatically to avoid import failure cases

- Redundancy during alarm imports is improved to avoid false-positive failovers that could occur during an alarm import operation

- Tag-based Alarm and Events message ID's can be edited directly in the Alarm & Events Setup

Retirement of Legacy HMI Alarms

FactoryTalk View SE v11.0

Legacy HMI tag alarming is no longer supported in FactoryTalk View SE v11.0 – HMI alarm functionality is disabled in favor of FactoryTalk Alarms & Events

- FactoryTalk Alarms & Events provides more granular control, better UI components, and integrated alarm history

- FactoryTalk Alarms & Events will continue to be supported and enhanced

- Automatic alarm migration tool is installed with FactoryTalk View SE v11.0; prior to v10, this tool was available in Knowledgebase AID 45583

- Disabled legacy HMI alarms means:

  Entry to create new legacy HMI alarms is removed

  Items from Studio to configure legacy HMI alarms are removed

  Legacy alarm definitions in an existing HMI project remain when project is upgraded to v11.0, but are disabled

  Legacy HMI alarm functions are hidden in expression editor

  Legacy HMI commands are hidden in the Command wizard

  Legacy alarm commands are prevented from executing at runtime
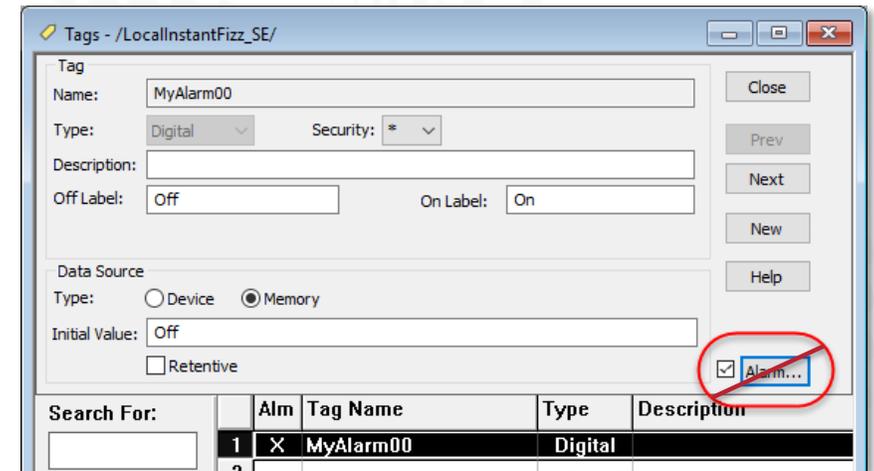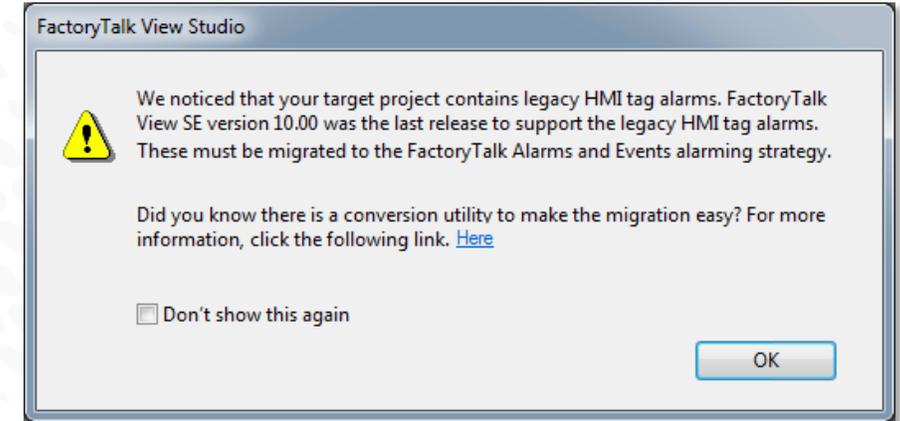
FactoryTalk View v10.0 was the last release to support legacy HMI tag alarming

History Database Improvement for Alarm Reporting

FactoryTalk View SE v11.0

Improvements were made to the FactoryTalkAlarms & Events History Database to enhance FactoryTalk VantagePoint Alarm Reports

- New database entries for user actions on alarms (ack, shelve, suppress, etc.) will leverage an AssociatedEventID field to link the user action to an alarm condition event
- This change allows reports build from the Alarm database to easily link user action to alarm event instances.
- **No more complicated SQL join statements needed to learn which alarm event was acted on by which user**

...ed	PersonID	ChangeMask	InputValue	LimitValue	Quality	EventAssociationID
	NULL	131	0	0	192	6A0BD681-B4C0-4163-98E7-4A99AB4B6094
	NULL	130	0	0	192	6B85671D-3787-4437-A6EC-34E2CE0E82F9
	NULL	130	0	0	192	B04F15A9-4434-48F2-AC4D-D5B8AF6A444A
	NULL	130	0	0	192	8A574937-B600-40D8-ACEB-A68A5C5F201E
	NULL	130	0	0	192	0D98A28A-B990-4E21-A690-8CC6F9EBDA68

	EventID	EventType	SourceName	SourcePath
1	6A0BD681-B4C0-4163-98E7-4A99AB4B6094	3	[CookieLine]	RNA://$Global/FTViewDemo/Line1_Data

- This change will ONLY take effect for new alarm events occurring after upgrading FactoryTalk Alarms and Events software - existing alarm events and user tracking events cannot be linked in the database

Rockwell Automation
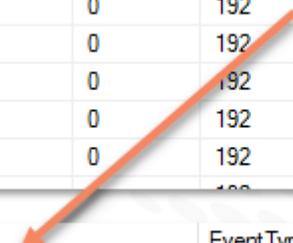
Mobility

FactoryTalk ViewPoint – Mobile FactoryTalk Alarms & Events Commands and Remark

FactoryTalk View SE v11.0

With v11.0, FactoryTalk ViewPoint mobile users now have the same alarm functionality as users on a full FactoryTalk View SE Client

- Allows mobile device users to capture operator comments when an alarm is resolved

- Easy to specify which alarms to display in the mobile alarm history by setting filtering conditions

- Support for Alarms & Events_Remark command

- Support for FactoryTalk Alarms & Events Commands

- New alarm filtering capabilities for mobile alarm history

FactoryTalk ViewPoint – Mobile Trend with Alarm Events

FactoryTalk View SE v11.0

In v11.0, FactoryTalk ViewPoint trend object now supports overlay of FactoryTalk Alarms & Events with production data, similar to TrendPro – view Alarms in relation to changing production data values from a mobile device

- Allow mobile device users to view alarms on the trend
- Support for FactoryTalk Alarms & Events server-based Alarms and Events on FactoryTalk ViewPoint mobile alarm summary
- Will automatically query alarm history and display both Alarms and Events on trend
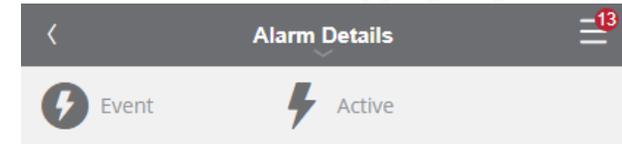
New FactoryTalk ViewPoint Server Setting Options

FactoryTalk View SE v11.0

New options for FactoryTalk ViewPoint Server make it easier to manage global server settings

- Configurable server settings

    Enable inactivity timeout

    Set automatic synchronization of displays

    Set maximum tag update rate

- Simplify steps to configure and optimize the server settings

▶ Server Settings

Application Type:	Site Edition (Network Distributed)
Application Name:	FTViewDemo
Web server name:	localhost
Web client port:	80
Base URL:	http://localhost/FTVP

FactoryTalk ViewPoint Server

☑ Enable inactivity time

Inactivity period: [20]   Minutes (Valid Range: 1-99)

☑ Enable automatic displays synchronization

Automatic change detection rate: [600]   Seconds (Valid Range: 300-3600)

Tag update rate: [750]   Milliseconds (Valid Range: 250-120000)

[Apply]   [Discard]

FactoryTalk View Machine Edition

What's new in v11.0

Runtime File and Application Backup Version ID

FactoryTalk View ME v11.0

To assist developers working with different versions of FactoryTalk View ME, tools will now show the version of an .MER or .APA

- Application Manager for FactoryTalk View ME shows the version of an .MER or .APA file being worked with

- When restoring an ME runtime .MER or .APA archive file to a Studio project, users can see the version of the runtime / archive file prior to restoring the entire application

- File Transfer Utility shows runtime file version, letting you verify that the proper version of PanelView Plus firmware is installed on a PanelView Plus prior to download

- New FactoryTalk View ME Version Reader tool used separately from FactoryTalk View Studio can quickly check the version of .MER and .APA files

    No FactoryTalk View Studio dependencies – Studio install is not required to run Version Reader tool
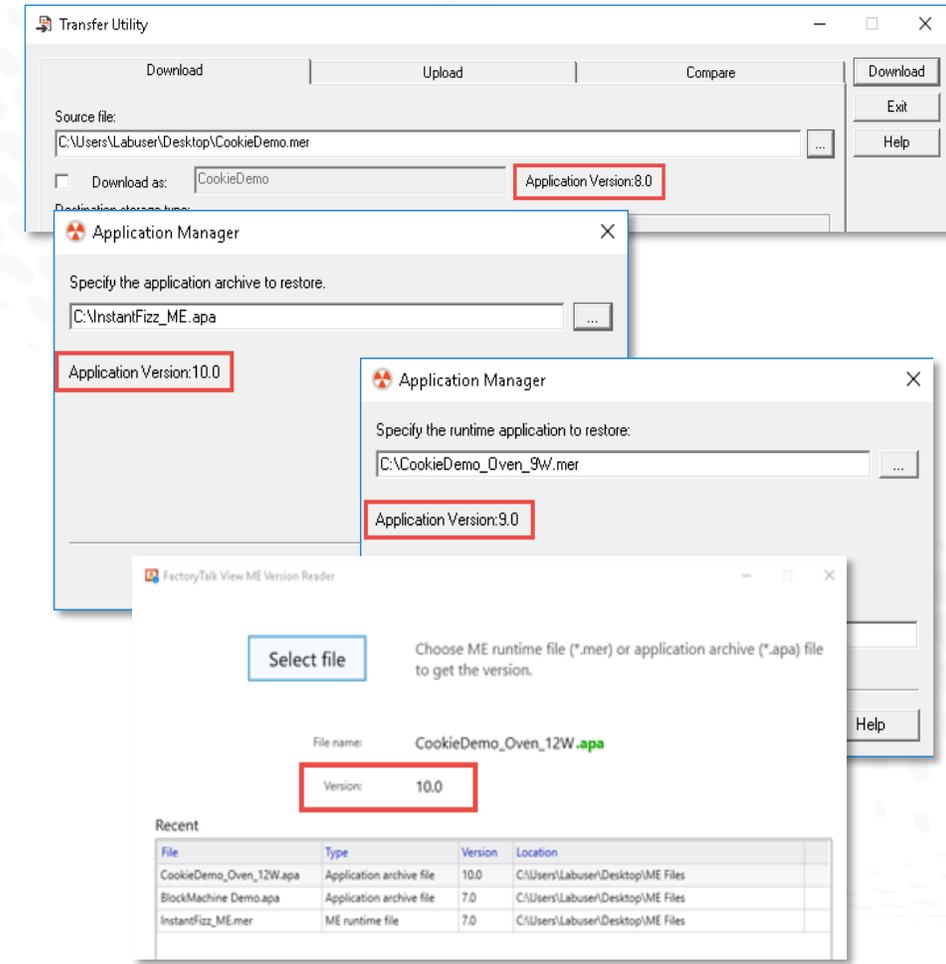
Optimized Audit Log Messages

FactoryTalk View ME v11.0

The number of Audit messages logged for operator actions is optimized in v11.0, reducing message overload and 'clutter' in the Audit log

- Reduction of duplicate audit messages for operator actions such as:

  Tag writes

  Recipe downloads

- Creates a more readable operator action audit log

- When using the onboard audit log on a PanelView Plus, this optimization reduces the frequency of on board audit log management

Occurred Time	Source	Location	Resource	Username	Message
04/21/2017 09:43:20	FactoryTalk View SATag			Mike	Write '100' to '::[VZ02]Program:MainProgram.Tank1.Pump.Flow_HMI_Entry'. Previous value was '234'.
04/21/2017 09:43:16	FactoryTalk View SATag			Mike	Write '234' to '::[VZ02]Program:MainProgram.Tank1.Pump.Flow_HMI_Entry'. Previous value was '120'.
04/21/2017 09:43:10	FactoryTalk View SATag			Mike	Write '120' to '::[VZ02]Program:MainProgram.Tank1.Pump.Flow_HMI_Entry'. Previous value was '88'.
04/21/2017 09:43:02	FactoryTalk View SATag			Mike	Write '88' to '::[VZ02]Program:MainProgram.Tank1.Pump.Flow_HMI_Entry'. Previous value was '78'.
04/21/2017 09:42:56	FactoryTalk View ME Station			Mike	Successful login of user 'mike'.

Home

Occurred Time	08/23/2017 10:59:12
Source	FactoryTalk View SATag
Location	DESKTOP-OJV4MMU
Username	DEFAULT
Message	Write '' to '::[VZ02]Program:MainProgram.ExportLogx.DiagErr.Msg'.

Graphic Performance Improvement for PanelView Plus 7 Performance

Patch for FactoryTalk View ME v8.0-v11.0

Graphic rendering optimization can result in improved display load speed on PanelView Plus 7 Performance

- Graphic rendering speed improvement for PanelView Plus 7 Performance HMI

- Does not impact PanelView Plus 7 Standard HMI – applies to PanelView Plus 7 Performance HMI only

- Included in v11.0, with patch for FactoryTalk View ME/PanelView Plus 7 Performance v8.20-v10.0 available now in Knowledgebase AID 1073963

     May 2018 Patch Rollup must be installed before Sept 2018 patch

- Display rendering time can be improved by 10% – 20%

Operating System Support & Technical References

OS Platform Support

FactoryTalk View SE / ME v11.0

FactoryTalk View v11.0 continues support for Microsoft operating systems and updates

OS Support

Windows Server 2016 (64 bit)

Windows Server 2012 R2 (64 bit)

Windows Server 2008 R2 (64 bit)

Windows 10 (32 / 64 bit)

Windows 7 SP 1 (32 / 64 bit)

SQL Server Support

(for datalog and FactoryTalk Alarms & Events)

MSSQL 2017 (64 bit)

MSSQL 2016 (64 bit)

MSSQL 2014 (32 / 64 bit)

MSSQL 2012 (32 / 64 bit)

MSSQL 2008 R2 (32 / 64 bit)

MSSQL 2008 (32 bit)

No Longer Support

Windows XP (8.10)

Windows Vista (8.00)

Windows Server 2003 (8.00)

Windows Server 2012 (10.00)

Windows 8 (10.00)

Windows 8.10 (10.00)

Latest operating system info can be found at the Rockwell Automation Compatibility and Download Center

Demo Application: FactoryTalk View SE Distributed

FactoryTalk View SE v11.0

FactoryTalkViewDemo application included with FactoryTalk View Studio Enterprise is updated to include new features in v11.0

- Walks a user through features delivered in v9.0-v11.0

- Setup instructions included via PDF in HMI Project folder

  How to link controller

  How to find .cli file

  How to set up ViewPoint, etc.

- .ACD file also included in HMI Project folder

- Installed with FactoryTalk View SE v11.0

- Demo set up guide also found in Knowledgebase AID 959305
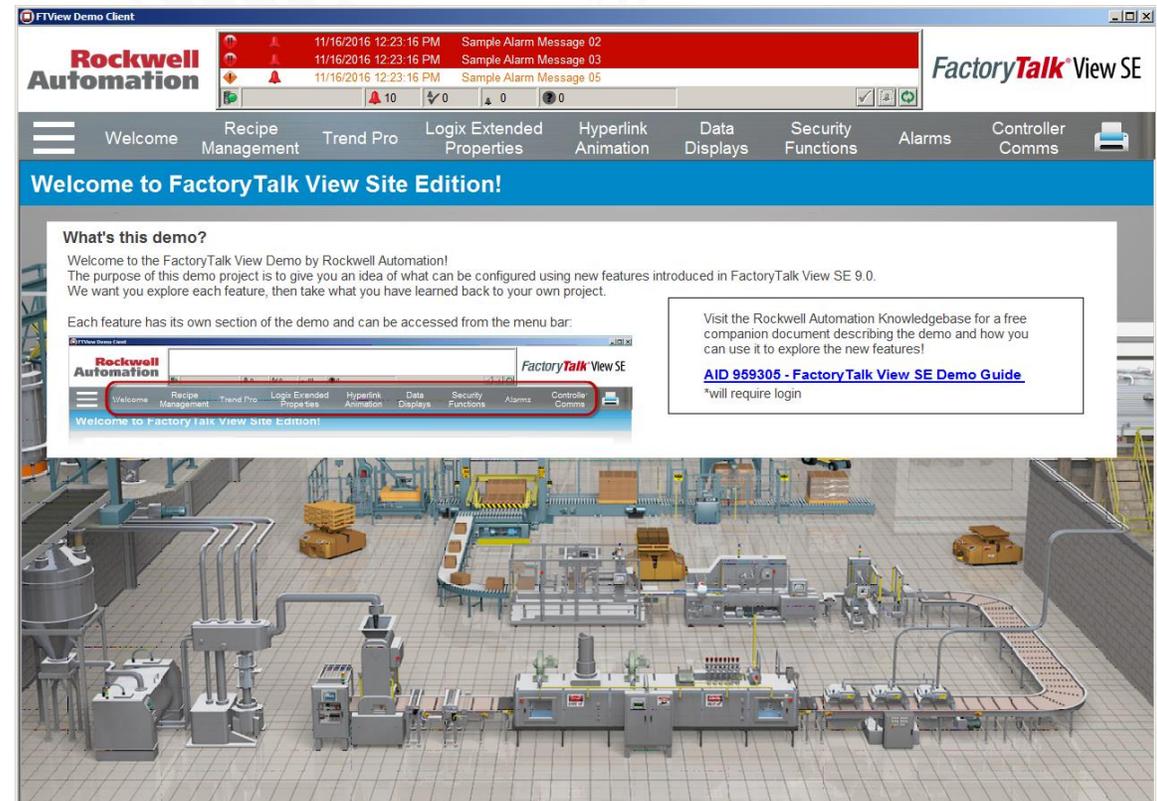
YouTube Video Playlists

FactoryTalk View SE / ME, FactoryTalk AssetCentre, and Studio 5000 View Designer Software

Rockwell Automation provides "how to" videos for various features in FactoryTalk View SE Software, FactoryTalk View ME Software with PanelView Plus 7 HMI, View Designer Software with PanelView 5000 HMI, and other Rockwell Automation products

- Created by Commercial Engineering to demonstrate product features and how they are configured

- New content added monthly

- FactoryTalk View Site Edition Playlist

- PanelView Plus and FactoryTalk View Machine Edition Playlist

- FactoryTalk AssetCentre Playlist

- PanelView 5000 & Studio 5000 View Designer Playlist
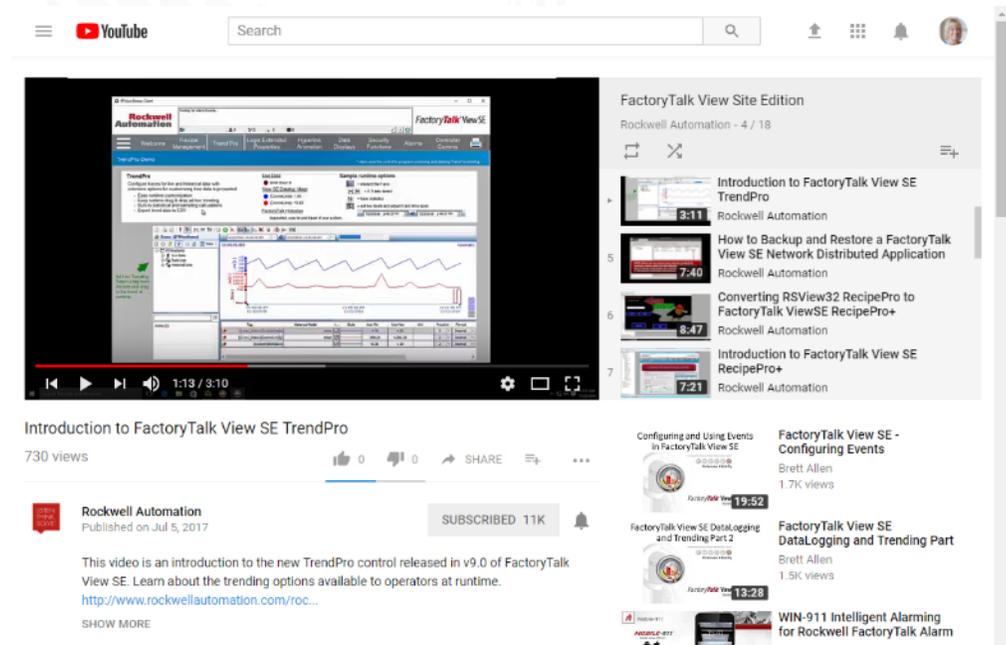
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