

FactoryTalk® Optix™ v1.7

January 2026



| FactoryTalk® Optix™ Program Priorities



Core Capabilities

- Core product capabilities that create a **strong** and **sustainable** platform for core automation **visualization** and **edge applications**.



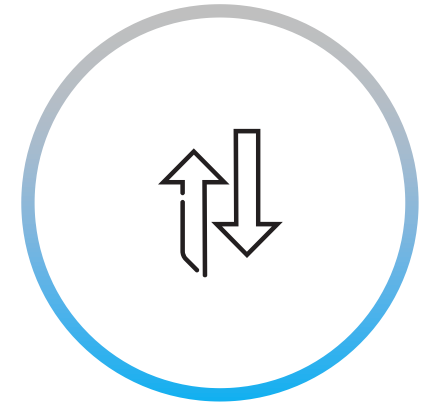
Expanded Architectures

- Support for **integrated hardware**, larger distributed **architectures**, process **systems**, remote control, and **cloud-based operations**.



Digital Design Experience

- **FactoryTalk® Hub™** integrated workflows for a cohesive customer experience when building a system using **SaaS-based design tools**.



Data Connectivity

- Robust **edge connectivity** and application platform to enable data and **analytics** with core **operations data**.

FT | FactoryTalk® Optix™ v1.7



Core Capabilities

- Recipe Enhancements
- ListView data control
- UI / DPI scaling property for responsive design
- Unresolved and broken dynamic links view
- Optimizations for improved alarms, dynamic links and web client performance
- Library Enhancements
- "Tile" fill mode for SVG images
- Text box option for text trimming
- Report generation on EEC / OptixEdge
- Virtual Keyboard Enhancements
- Alarm Widgets enhancements, layouts for smaller screens and pre-configured filters
- User-defined project templates enhancements



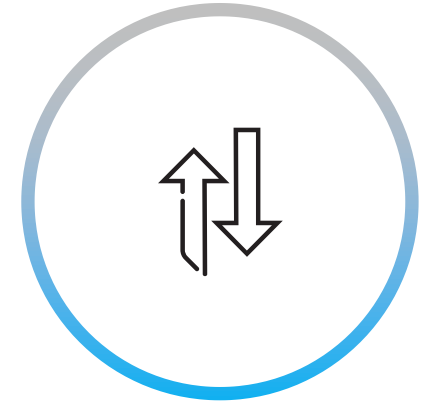
Expanded Architectures

- Enhanced security policies - password complexity for secrets encryption
- OAuth2.0 support for Web UI
- LDAPS - secure LDAP support
- Beckhoff tag import using design-time NetLogic
- Siemens password-protected communication
- Codesys Protected communication with users, passwords and certificates
- FactoryTalk® AssetCentre integration - disaster recovery
- PlantPAx® Process Library 5.20 support



Digital Design Experience

- FactoryTalk® Design Studio™ integration
 - Online tag import
 - Runtime communications
- Tag Importer auto-refresh enable/disable
- Git enhancements



Data Connectivity

- Logix extended tag properties - pass-through support
- MQTT Enhancements
 - Data Logger publishing
 - MQTT client store & forward
 - Azure connector (publish & subscribe)
- Last will & testament



Core Capabilities

FT | New Recipe Module: Architecture

Core Capabilities

Scalable
parameter
management

Handle an **unlimited number of recipe parameters** thanks to an optimized database structure.

Object-
aware
modeling

Manage recipe parameters either as individual discrete variables or **as variables within an object**.

Extended &
simplified
methods

Access a **broader, more intuitive set of OPC UA methods** for recipe management through Studio and APIs

Concurrent
runtime
editing

Enable multiple users to **edit recipes simultaneously** without interrupting the configuration workflow.

Custom
metadata
support

Add **user-defined metadata** to enrich recipes with context.

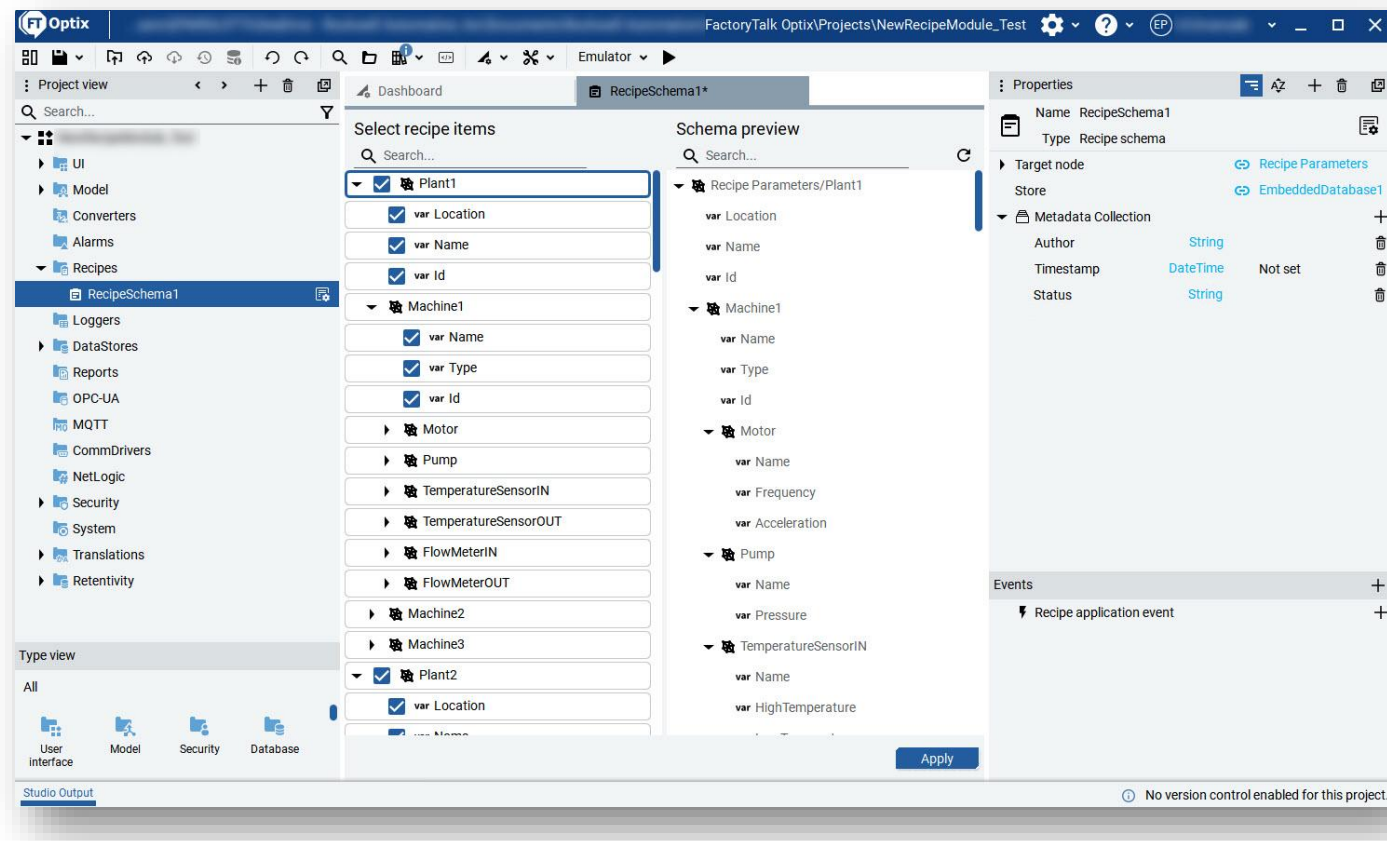


New Recipe Module: Schema

Core Capabilities

Enhanced Recipe Schema configurator

- Leverage the improved configurator with preview for faster and easier setup.





| New Recipe Module: Widget

Core Capabilities

Modern UI integration

- Redesigned widget for an intuitive configuration based on the new ListView data control.

Recipe editor

	Name	Version	Created At	Modified At	Edit
⋮	Recipe1	1.0	Dec 15, 2025, 11:29:59 AM	Dec 15, 2025, 11:29:59 AM	↗
⋮	Recipe1	1.1	Dec 15, 2025, 11:30:36 AM	Dec 15, 2025, 11:30:36 AM	↗
Activate		1.5	Dec 15, 2025, 11:30:56 AM	Dec 15, 2025, 11:30:56 AM	↗
Rename		1.0	Dec 15, 2025, 11:33:11 AM	Dec 15, 2025, 11:33:11 AM	↗
Duplicate		1.0	Dec 15, 2025, 11:30:21 AM	Dec 15, 2025, 11:30:21 AM	↗
Delete		1.0	Dec 15, 2025, 11:31:33 AM	Dec 15, 2025, 11:31:33 AM	↗

Refresh List Create new recipe Create new recipe from target



ListView and ListViewRow

Core Capabilities

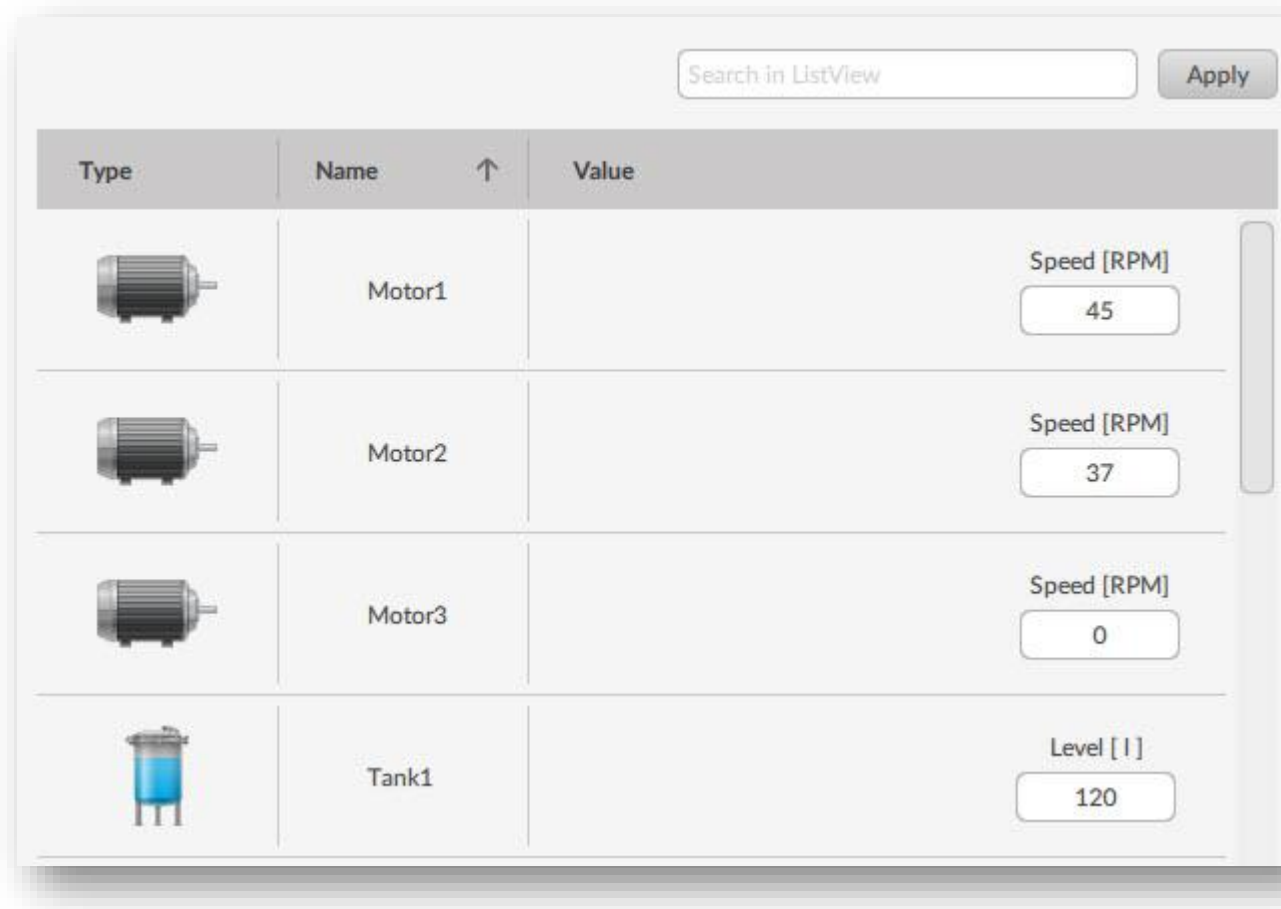
ListView is a DataControl that dynamically generates multiple **ListViewRow** Containers at **runtime**.

It represents data with maximum UI flexibility from **heterogeneous sources**:





- Model
- Database
- Recipe Schema

It enables:

- **Sorting** and **filtering** widgets using queries
- **Efficient handling** of large datasets through virtualization



The screenshot shows a ListView widget with a search bar labeled "Search in ListView" and an "Apply" button. The table has three columns: "Type", "Name", and "Value". The "Value" column is further divided into a label and a numeric input field. The data rows are as follows:

Type	Name	Value
	Motor1	Speed [RPM] 45
	Motor2	Speed [RPM] 37
	Motor3	Speed [RPM] 0
	Tank1	Level [I] 120

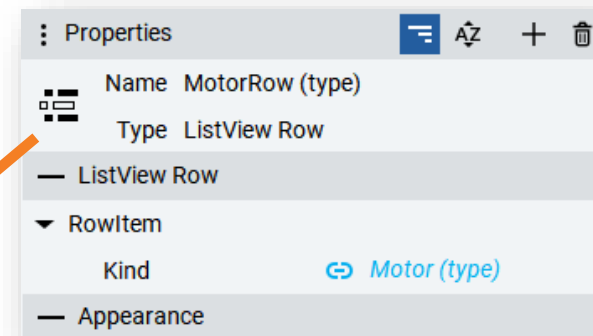
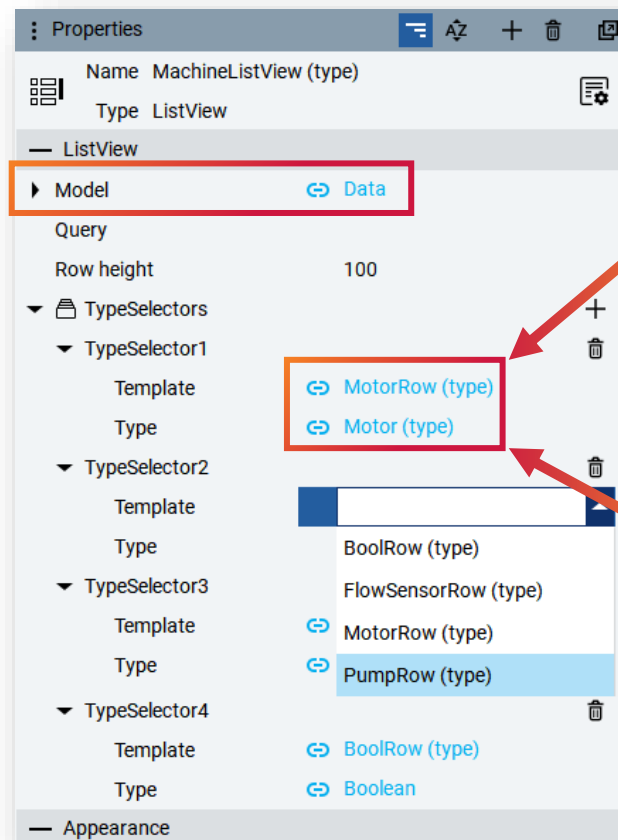
FT | ListView and ListViewRow: Details

Core Capabilities

- Configure the **Model** data source
- Set up a list of **pairs**:
 - Row Template
 - Type
- Configure the **query**
- At **runtime**, rows will match the Model content.

Suitable for:

- Listing machines in a plant
- Listing machine components
- Recipe parameters
- Alarms



The screenshot shows the Properties window for 'Motor (type)'. The 'Type' is set to 'Object'. The table below shows the properties of the Motor object.

Name	Motor (type)	
Type	Object	
Status	Boolean	False
Speed	Float	0
Acceleration	Float	0



Unresolved and Broken DynamicLink View

Core Capabilities

Added new tool Find broken dynamic links.

Check in a dedicated Studio section if your project contains:

- Broken DynamicLinks
- Broken Node Pointers
- Unresolved DynamicLinks
- Invalid DynamicLinks

Select one of the results and navigate to the location of the issue.

The screenshot shows the FT Optix Studio interface. The 'Find broken dynamic links' tool has been executed, and the results are displayed in a table at the bottom. The table has three columns: 'Parent path', 'Link value', and 'Result kind'. The results are as follows:

Parent path	Link value	Result kind
/UI/MainWindow/Label1/Text	/Objects/NewHMIProject12/Model/Variable1	Broken dynamic link
/UI/MainWindow/Panel1/NodePointer1	115/63b8a126a8c1873b5344f2cb2873f07e	Broken node pointer
/UI/MainWindow/Panel2/Label1/LeftMargin	.././Variable(0)	Unresolved dynamic link
/UI/MainWindow/Panel2/Label1/Width	.././Variable2	Invalid dynamic link
/UI/MainWindow/Panel3/Label1/LeftMargin	.././Variable(0)	Unresolved dynamic link

The 'Find broken dynamic links' tool has finished: 6 results found. The results are categorized as: 2 Unresolved links, 1 Broken link, 2 Invalid links, and 1 Broken pointer. The 'Find broken dynamic links' tool is highlighted in the top toolbar, and an orange arrow points from it to the results table. The 'Width' property of 'Label1' in 'Panel2' is highlighted in the Properties panel, showing a value of '<Unresolved>'. The 'Find broken dynamic links' tool is also highlighted in the bottom toolbar.

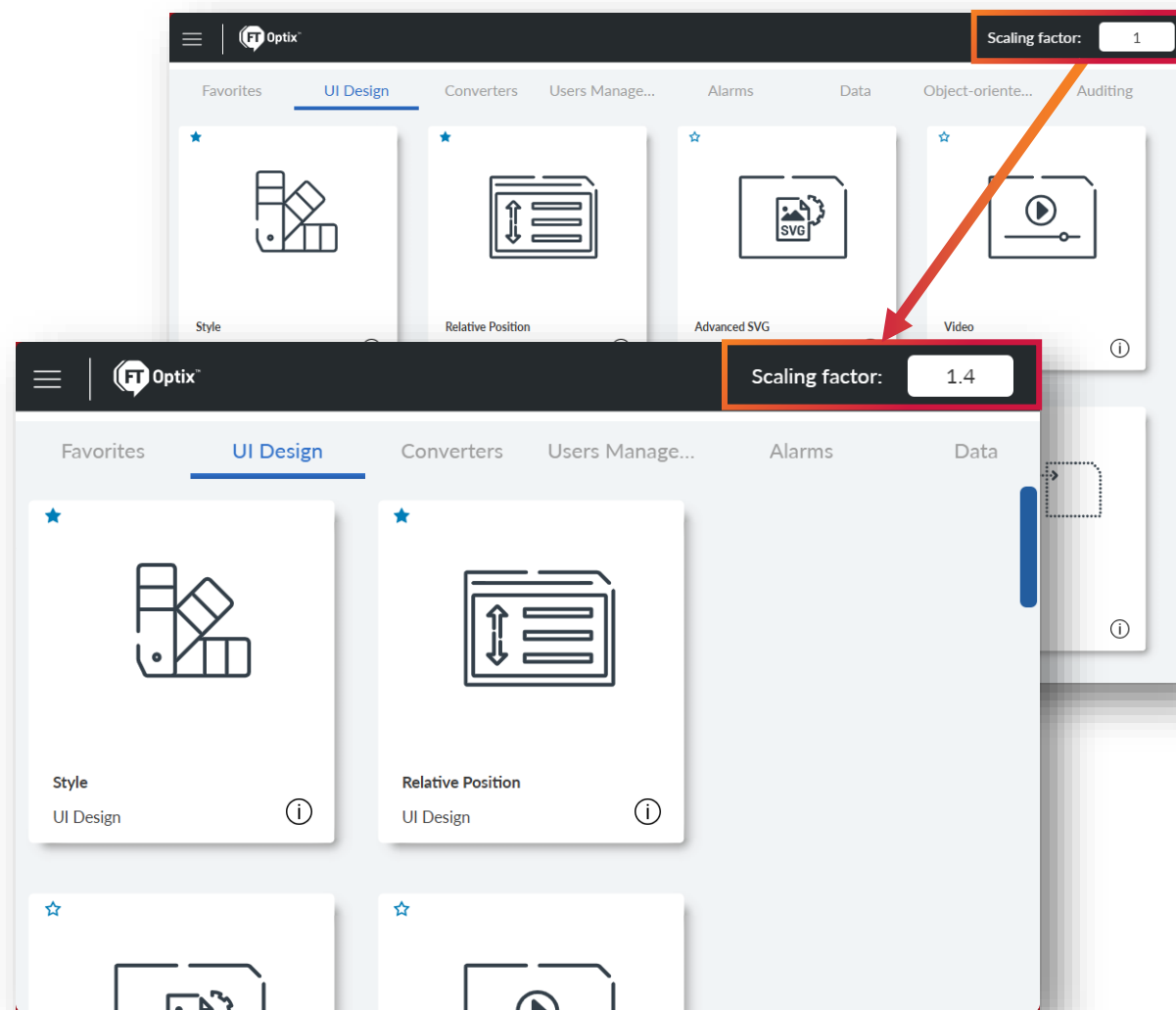


UI Scaling Factor

Core Capabilities

Allow the **UI content scaling** to be adjusted at runtime with a single parameter:

- The **Scaling factor** can be accessed from the **UI session**
 - Default value is "1", indicating "no scaling"
 - The value is **saved** and **persists** for each target device or origin



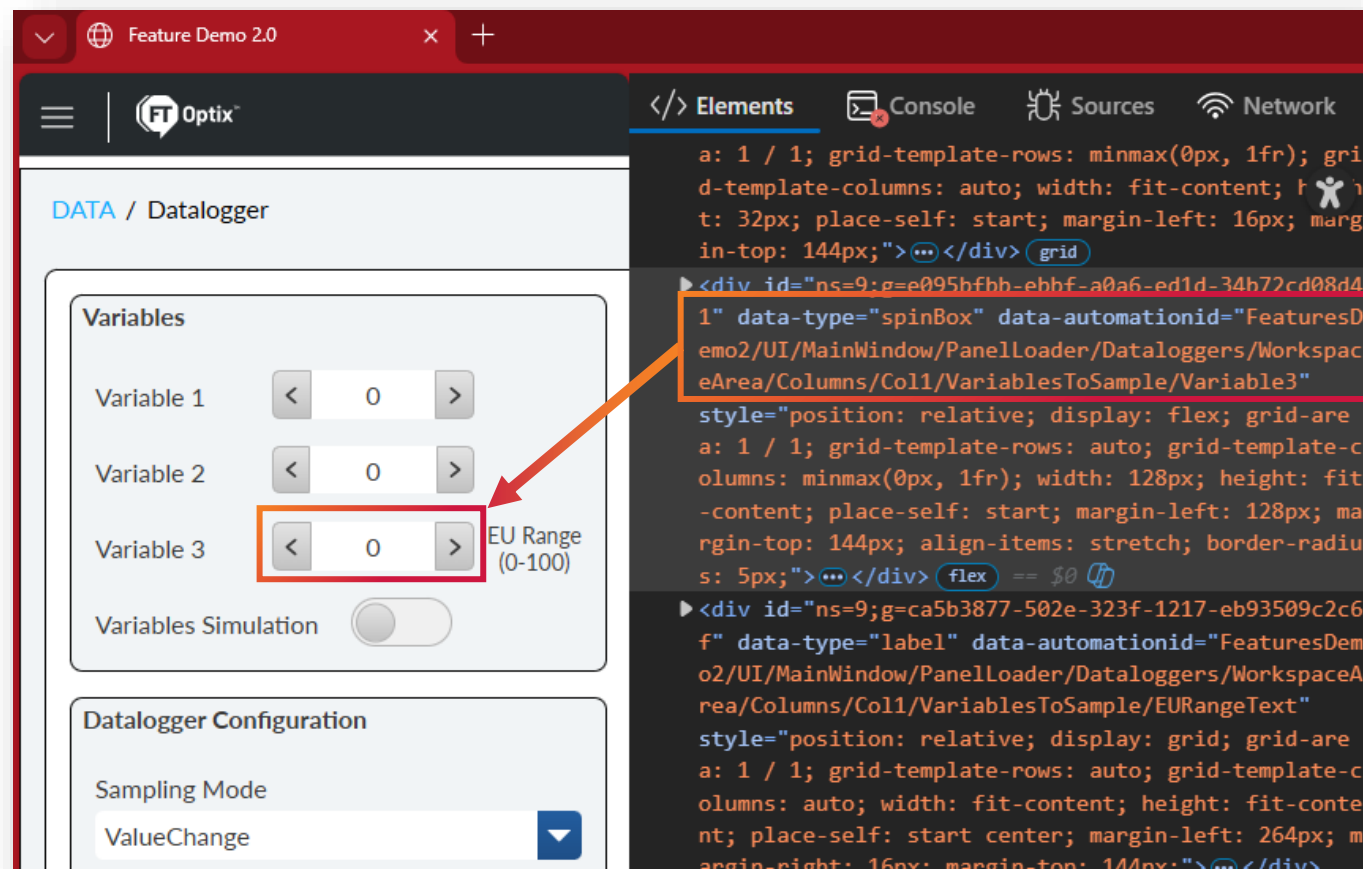


WebUI Testing

Core Capabilities

A unique **data-automationid** can be automatically assigned to each WebUI object for testing purposes.

- The option to **enable automation IDs** is available only when FactoryTalk® Optix Studio™ Advanced mode is enabled.





Library Enhancements

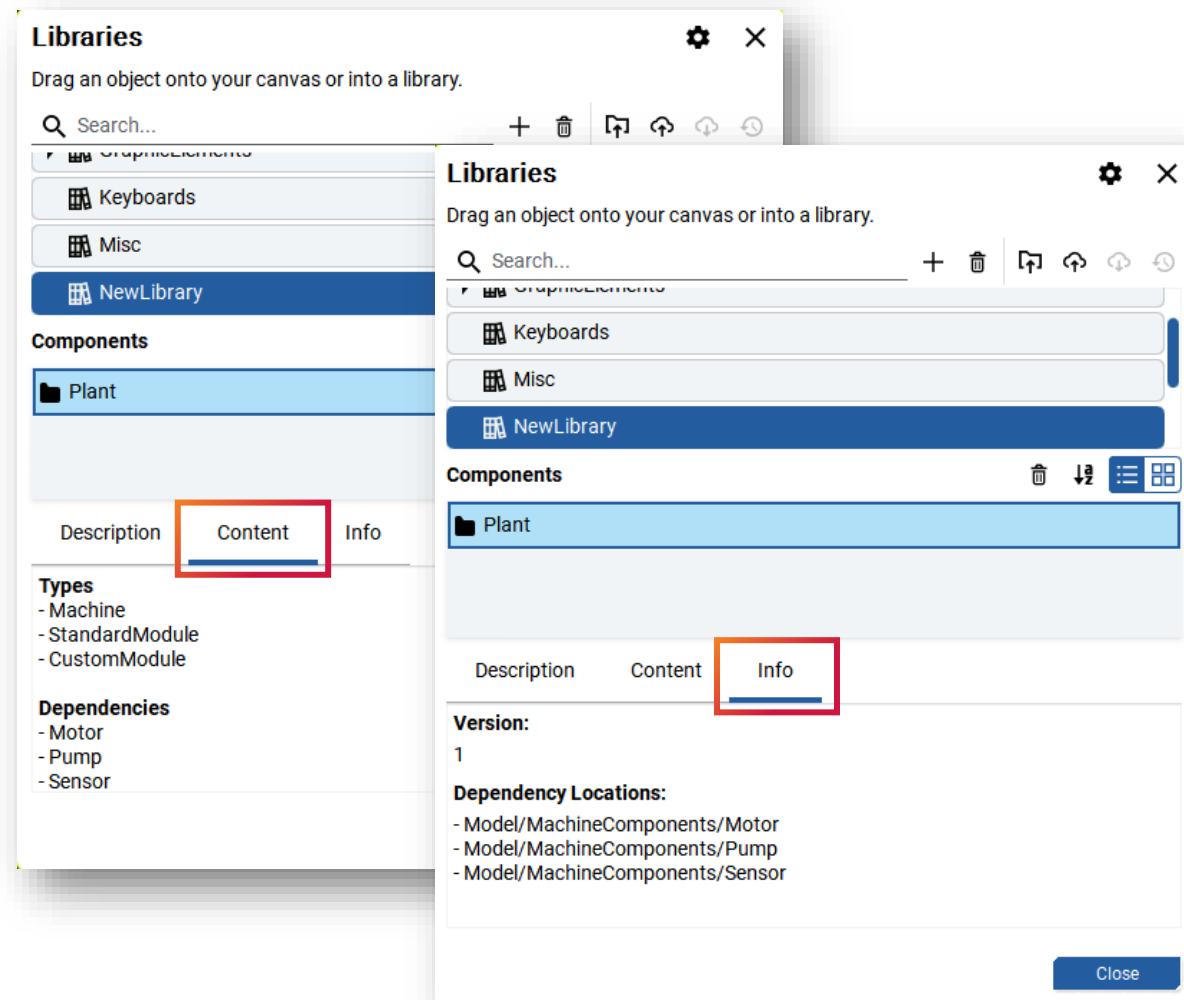
Core Capabilities

More details are now shown to provide clarity on the **content** and **metadata** of each Library item:

- Added **Content** tab
- Added **Info** tab

Additional improvements

- **Type management:** when adding a folder to the Library, types already present in the Library are automatically detected.
- **Dependencies management**
- **Dialogs:** reduced the number of user interactions required





Report on Headless Devices

Core Capabilities

Reports can now be generated on headless devices such as 1756-CMEE and OptixEdge™.

This feature ensures that even without a graphical interface, reports are correctly rendered and printed using an offscreen platform.

NOTE: A firmware update to version 6.0.3.x is required

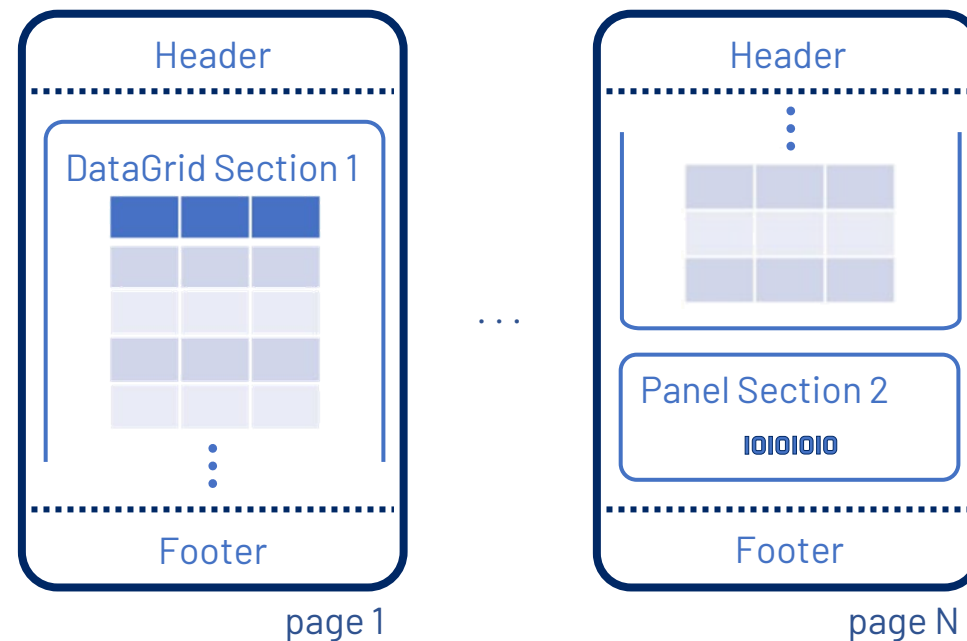


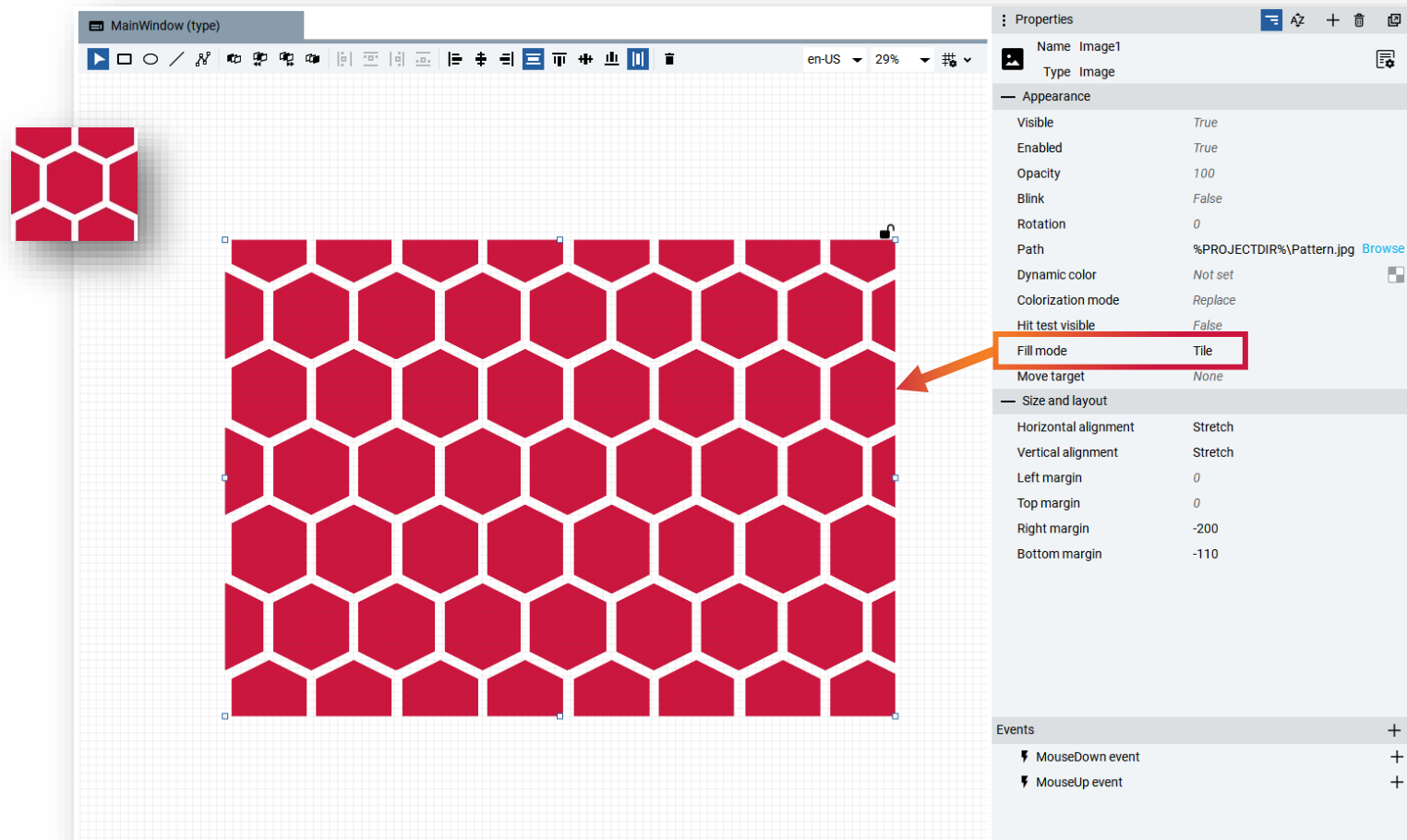


Image Tiling

Core Capabilities

Added new **Tile** fill mode for:

- Images
- Multistate image
- Advanced SVG image





Virtual Keyboard Enhancements

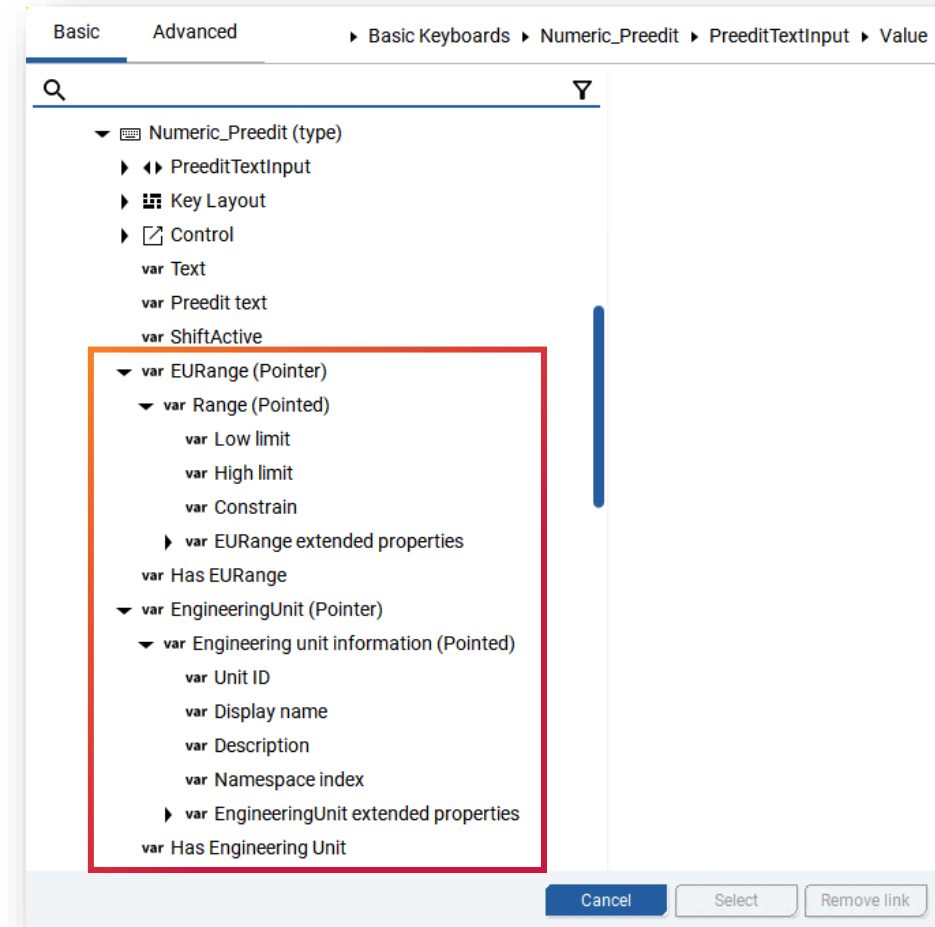
Core Capabilities

Custom virtual keyboard can now display **target variable** properties:

- EURange
- EngineeringUnit

Added new “**Open virtual keyboard**” method to open a keyboard from non-text-input controls

Added new “**NumberSign**” symbol button function to toggle the number sign (+/-)





Performance Enhancements

Core Capabilities

Static links

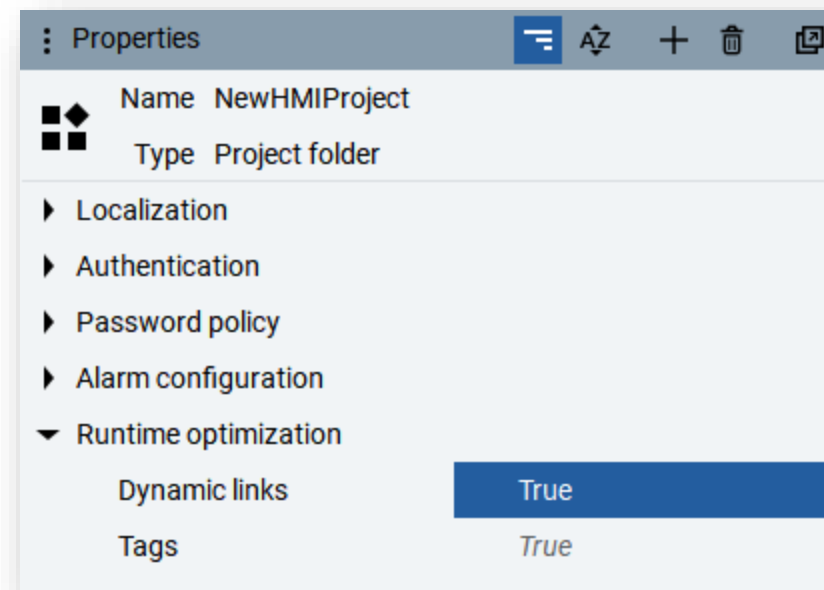
- Introduced an option to **optimize DynamicLinks** during the deployment phase

All alarm collection

- Lower memory usage thanks to converting **alarms into structures**

Web Presentation Engine

- Redesign** of Web UI **components** for better performance
- Major performance improvement on-page change time thanks to **architectural optimizations**





Security Enhancements

Core Capabilities

Project secrets encryption:

- Introduced **password complexity**

The image shows a screenshot of the 'FactoryTalk Optix Studio Options' dialog box. The 'Security policies' tab is selected. Under the heading 'New project secrets encryption', there are five settings: 'Encryption mode' is set to 'None'; 'Minimum password length' is set to '8'; 'Lowercase and uppercase characters' is an unchecked checkbox; 'Minimum number of digits' is set to 'Not set'; and 'Minimum number of symbols' is set to 'Not set'. At the bottom right, there are 'Save' and 'Cancel' buttons.

Option	Value
Encryption mode	None
Minimum password length	8
Lowercase and uppercase characters	<input type="checkbox"/>
Minimum number of digits	Not set
Minimum number of symbols	Not set



Security Enhancements

Core Capabilities

OAuth 2.0:

- OAuth 2.0 is now supported in Web UI

LDAPS:

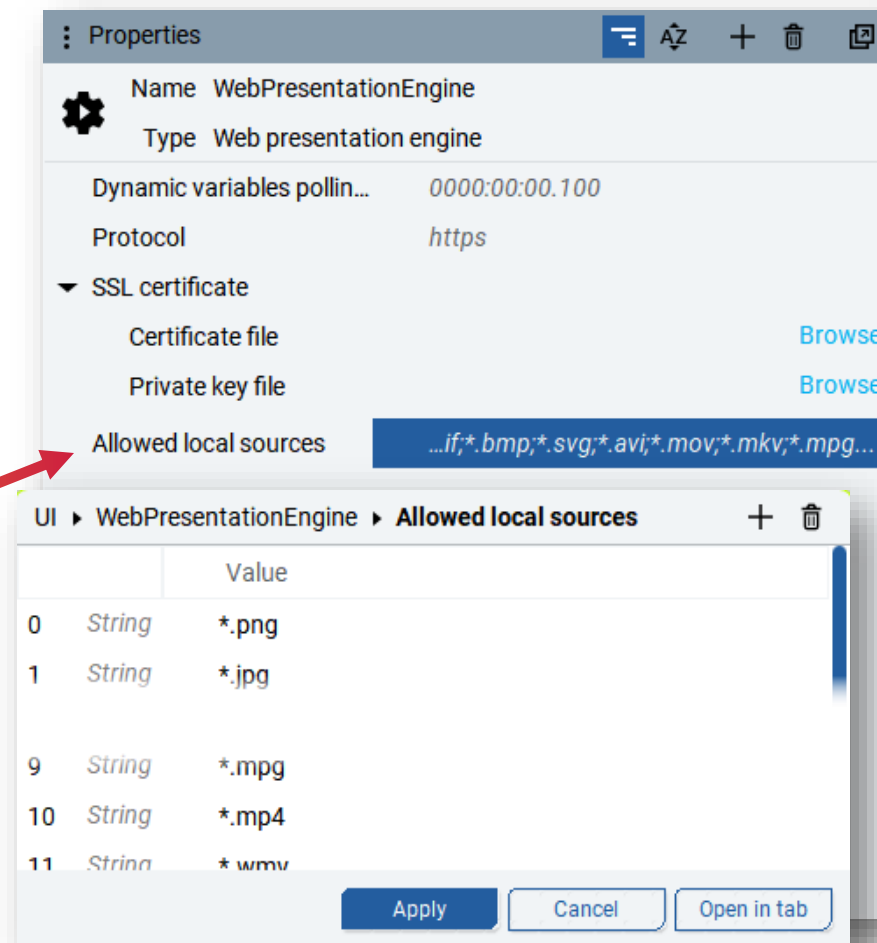
- Secure LDAP is now supported

Web Presentation Engine:

- It is now possible to specify the **allowed local sources** for Web Presentation Engine

Project secrets encryption:

- Introduced **password complexity**



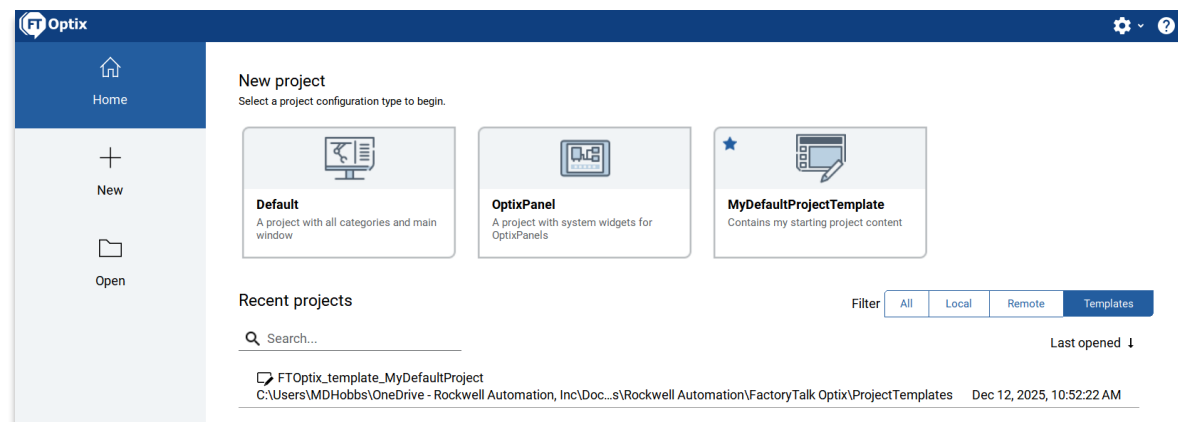


User-defined Project Template Enhancements

Core Capabilities

Project template usability enhancements:

- Support for “favorites” provides quick access to commonly used templates
- Added Display Name and Description properties to templates for easier template identification
- Recent project list now supports filtering on template projects
- New information banner provides visual indication that a project template is opened for editing





SD Card Support

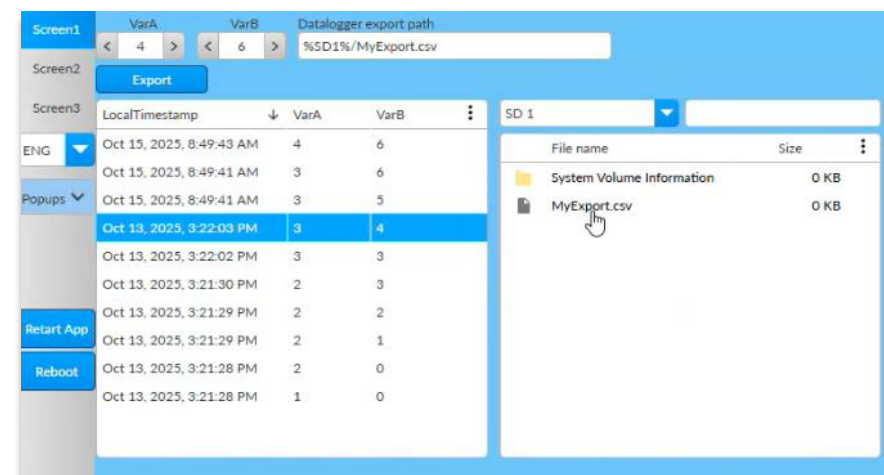
Core Capabilities

Library widgets have been updated to support SD cards as a runtime file storage device

- File System Browser
- Select File DialogBox
- FTP Server

Enables the ability to read from / write to SD cards

Reference the SD card using the %SD<n>% syntax





Expanded Architectures

FT | Communication Driver Enhancements

Expanded Architectures

Beckhoff

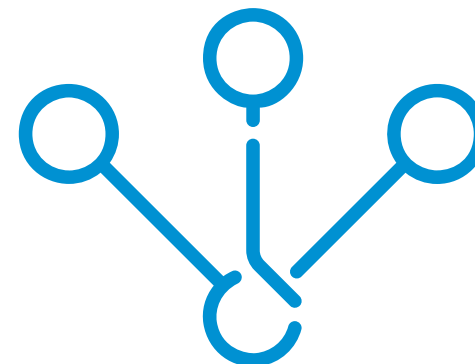
- It is now possible to **import TwinCAT tags** with a design-time **NetLogic**

Siemens TIA Profinet

- Protected communication with **passwords and certificates**

Codesys

- Protected communication with **users, passwords and certificates**



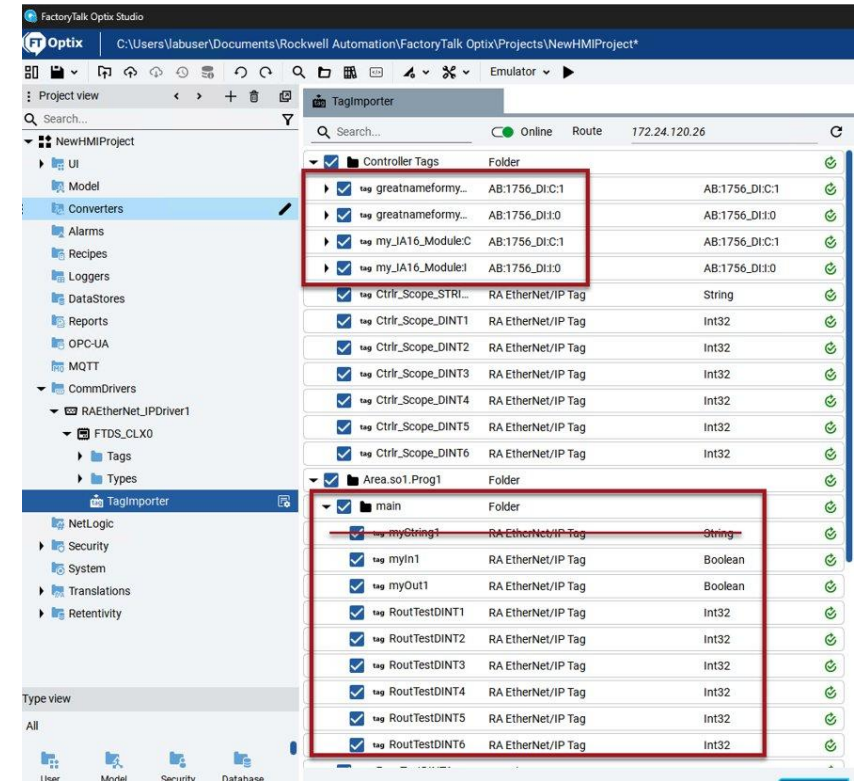


Digital Design Experience

FactoryTalk® Design Studio™ Support

Digital Design Experience

- Runtime communications with Logix controllers containing an FTDS deployed application
- Online tag import from Logix controllers containing an FTDS deployed application
- Utilizes existing Logix Designer application process:
 - Rockwell Automation Ethernet/IP driver
 - Rockwell Automation Ethernet/IP Station
 - Input IP address / backplane
- Support for FTDS device names and routine-scoped tags
- Offline tag import capability targeted for Optix v1.8

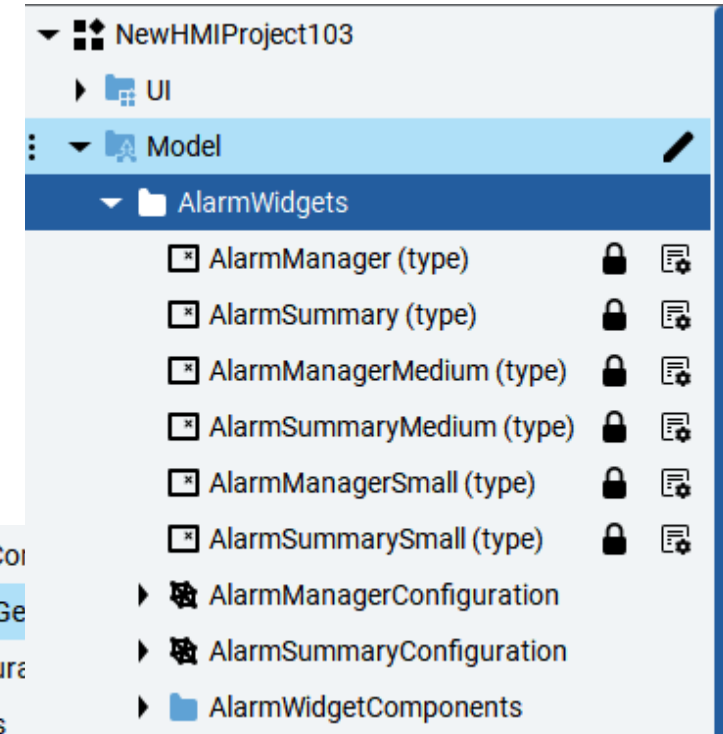
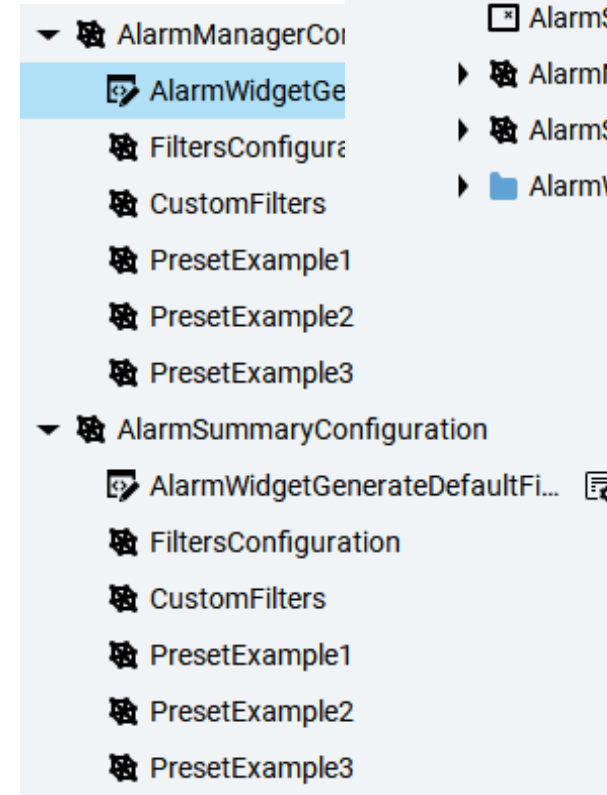




Alarm Widgets Enhancements

Digital Design Experience

- Alarm Widgets library collection, integrated with Logix controller alarms has been updated with few enhancements:
 - Predefined layouts dedicated for smaller screen sizes
 - Filters configuration for using predefined and custom filtering of alarm list
 - Enhanced widget configuration element to set main properties of the widget in simpler way



FT | Version Control Git Enhancements

Digital Design Experience

Version control usability enhancements:

- Improved asynchronous project retrieval
- Push and create repo operation supports navigation to repository with URL direct link or copy
- Improved git provider identity management
- New version control details dialog shows git provider and repository associated with a project
- Support for GitLab provider subgroups

Push to remote ✕

In order to push, a remote repository is required for your project. To create a repository or use an existing repository that is empty, choose an identity and configure the remote repository settings.

Identity
GitHub - mdhobbsgvf

Owner/Group
OptixMonsters

☒ Private ☐ Public

URL
https://github.com/OptixMonsters/MyMixerProject.git Copy

[Configure provider identity](#) Push to remote Cancel

Version control details ✕

Provider
GitHub

URL
<https://github.com/OptixMonsters/MyMixerProject.git>

Close



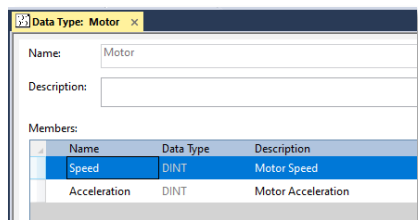
Data Connectivity



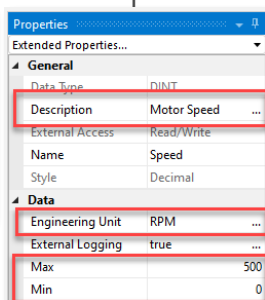
Extended Tag Property Pass-Through Support

Data Connectivity

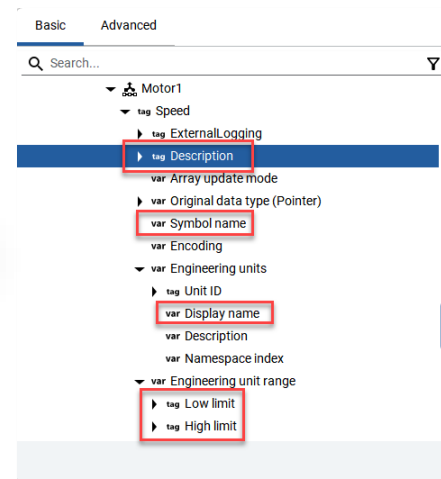
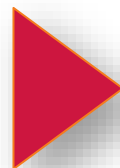
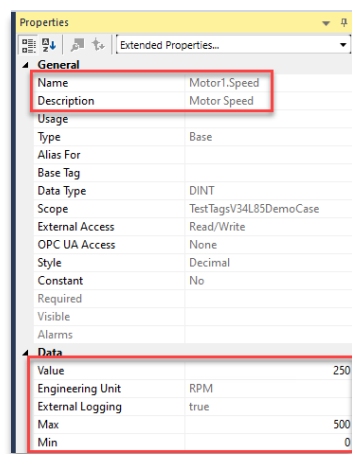
- Support for Logix Designer application extended tag properties configured with pass-through values
 - Extended tag property values defined on tag definitions are passed-through to instances in Logix
- References to Logix Designer application extended tag properties with pass-through values contained within Optix are now shown at runtime



Logix Designer application
Motor Speed Tag Definition



Logix Designer application
Motor 1 Speed Tag Instance
with pass-through values



Optix Studio Motor 1 Speed
Extended Tag Property References



Name: Motor1.Speed
Description: Motor Speed
Value: 250
Units: RPM
Range: 0
500

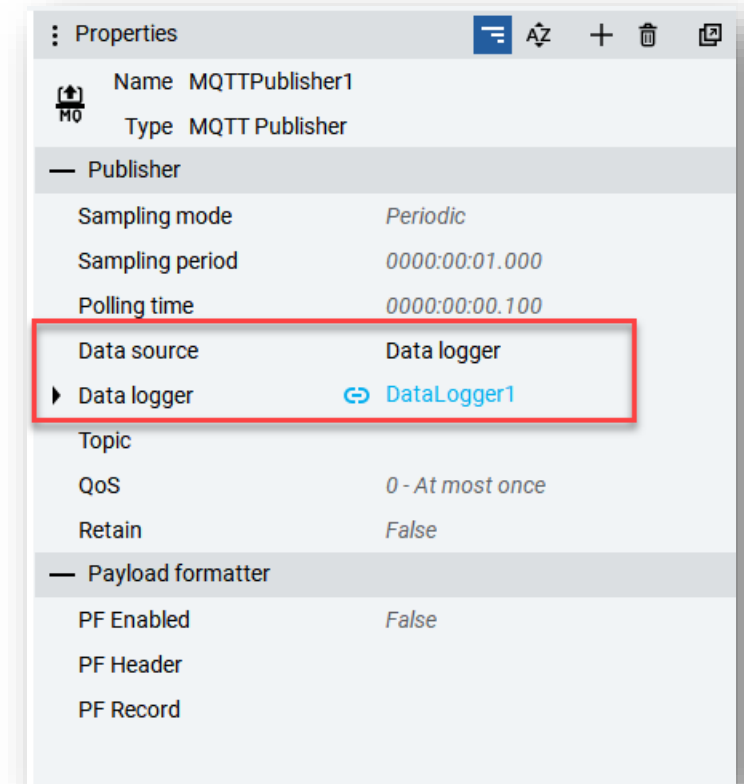
Optix Runtime Motor 1 Speed Widget
with extended tag property references
showing pass-through values



| MQTT Client – Datalog Publishing

Data Connectivity

- Users can now **publish data loggers** to an MQTT broker
- MQTT publisher uses its own sampling mode and period
- Users can log data (e.g., local storage) at a different rate than publishing data via MQTT (e.g., Azure cloud services)
- Note:
 - Time stamps between data logger and MQTT publisher may differ when the datalog sampling mode is set to “On Value Change” with deadband filtering due to MQTT publisher data collection process being independent from data logger





| MQTT Client – Last Will & Testament (LWT) Message

Data Connectivity

- User can set a **Last Will and Testament (LWT)** message so the broker can **notify other clients** if a device disconnects **unexpectedly**.
 - Clients know immediately when a device goes offline without a proper shutdown.
 - The broker sends the LWT when:
 - *Network connection fails*
 - *Client fails to communicate past its “keep alive” time*
 - *Client drops the connection without sending DISCONNECT*
 - *The broker closes the connection due to an error*
- Control timing before the LWT is published to help prevent false alarms in unstable networks.

The screenshot shows the 'Properties' dialog box for an MQTT client named 'MQTTClient1'. The 'Will message' section is highlighted with a red box. The properties are as follows:

Properties	
Name	MQTTClient1
Type	MQTT Client
— Client	
Broker address	localhost
Port	8883
Client Id	FTOptix-1
— Security	
SSL/TLS enabled	True
Validate broker certificate	True
CA certificate file	Browse
Client certificate file	Browse
Client private key file	Browse
— User identity	
User identity type	Anonymous
— Will message	
Will message enabled	False
Will topic	
Will message	
Will QoS	0 - At most once
Will retain	False
Will delay interval	0000:00:00.000



MQTT Client – Store & Forward Support

Data Connectivity

- Store & Forward (SF) lets MQTT clients **save messages locally** when it cannot reach the broker.
- The client **forwards saved messages** once the connection is restored.
- SF helps **prevent message loss** during network outages and devices with intermittent connectivity.
- User can set:
 - How many messages to store (1 – 100,000)
 - Overwrite oldest messages when the buffer is full

The screenshot shows the 'Properties' dialog box for an MQTT Publisher named 'MQTTPublisher1'. The 'Store and Forward' section is highlighted with a red box, showing the following settings:

Property	Value
SF Enabled	False
SF Buffer max size	20
SF Buffer overwrite	False

Other visible settings include:

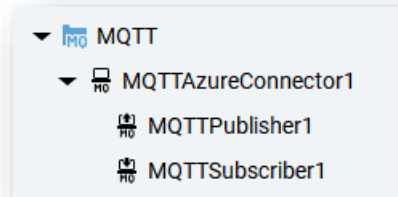
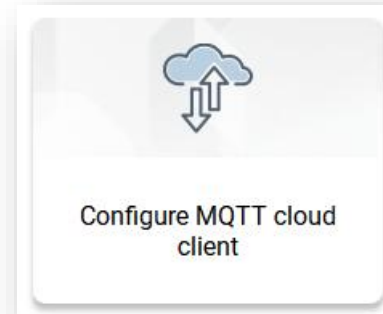
- Sampling mode: None
- Data source: Folder
- Folder: MQTT_SF
- Topic: sf
- QoS: 0 - At most once
- Retain: False
- PF Enabled: False
- PF Header: (empty)
- PF Record: (empty)



MQTT Client – Azure Connector

Data Connectivity

- Publish and subscribe to Azure
 - IoT Hub (pub only)
 - Event Grid (pub and sub)
- Supports MQTT version 3.1.1 and 5.0
 - IoT Hub requires v3.1.1
- Supports datalog publishing
- Supports “Last Will & Testament”
- Ease of configuration via wizard



Properties	
Name	MQTTAzureConnector1
Type	MQTT Azure Connector
— Client	
Broker address	localhost
Port	8883
Client Id	FTOptix-1
MQTT version	5.0
— Security	
SSL/TLS enabled	True
Validate broker certificate	True
CA certificate file	Browse
Client certificate file	Browse
Client private key file	Browse
— User identity	
User identity type	Anonymous
— Will message	
Will message enabled	False
Will topic	
Will message	
Will QoS	0 - At most once
Will retain	False
Will delay interval	0000:00:00.000




Webinars




FactoryTalk® Optix™ Continuous Webinar Series

On-demand to fit your schedule


Revitalize Your HMI 3-Part Webinar Series ON DEMAND



WEBINAR
Part One: Design & Collaborate Webinar
Today's digital landscape is evolving rapidly. HMI design engineers need new tools to quickly create intuitive visualization so operators can leverage plant floor data to enable the enterprise. This is where a modern HMI software platform with collaboration tools comes into play. These tools offer comprehensive project visibility within a collaborative design environment so designers can work in teams to maximize productivity.
Speakers:
Paul Halikal - Commercial Portfolio Manager, Rockwell Automation
Chad Dale - Technology Consultant, Rockwell Automation
Date & Time: On Demand - Register and watch it now



WEBINAR
Part Two: Deploy Applications at Scale
Once FactoryTalk Optix users have leveraged its powerful features to build their applications, the next step is to deploy them out to the field devices. This can be done locally via USB drive or through a LAN, but with FactoryTalk Remote Access you can also connect to Rockwell Automation's cloud infrastructure to remotely and securely deploy your application via VPN anywhere in the world. In this webinar we'll provide you with a detailed coverage of FactoryTalk Remote Access and our seamless continuum of deployment options, including ASEM 6300 Industrial PCs, OptixPanel HMI terminals and Embedded Edge Compute modules. We'll also talk about how FactoryTalk Optix flexible runtime licensing containerized deployment gives you a real competitive advantage.
Speakers:
Al Letourneau - Product and Marketing Manager, Rockwell Automation
Jessica Morell - Remote Access Product Manager, Rockwell Automation
Date & Time:
May 8, 2024 - 10:00:00 AM CT (5:00:00 PM CET)



WEBINAR
Part Three: Operators Empowered

- Remote access tools allow the timely flagging of issues and the notification of maintenance.
- Out-of-box standardized content ensures consistency across machines and supports simplified operator training, safety, and troubleshooting and maintenance.
- Collect, contextualize and deliver relevant data to operators to enable faster decision-making, minimize downtime, and maximize machine efficiency.

Speakers:
Paul Halikal - Commercial Portfolio Manager, Rockwell Automation
Mark Hobbs - Software Senior Product Manager, Rockwell Automation
Date & Time:
August 14, 2024 - 10:00:00 AM CT (5:00:00 PM CET)

Maximize Your HMI Potential 3-Part Webinar Series ON DEMAND

Modernization Strategies for Success

- Elevate Operations with Cutting-edge HMI Features
- Operational Efficiency through Machine Equipment Data
- Supplement your DCS

Digital transformation, edge-to-cloud and modernization are important concepts to recognize when developing a forward-looking strategy for your automation system.



Maximize Your HMI Potential: Modernization Strategies for Success





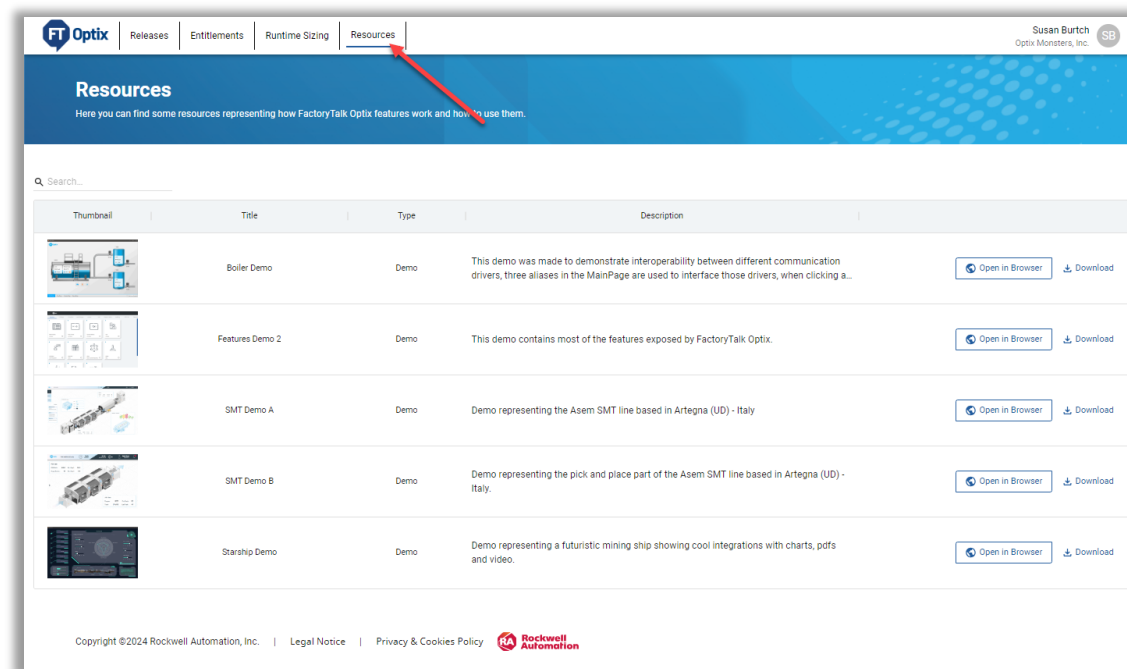
Online Demos



FactoryTalk® Optix™ Instant Online Customer Demos!

Online demos

- Resources tab provides access to many FactoryTalk® Optix™ demo applications
 - These demo applications can be viewed using your browser
 - A description for each demo is also available
 - Use the Search bar to look for a specific demo
- Available to anyone with a FactoryTalk® Hub™ account, including customers!
- Click **Open in Browser** to run each demo application in your web browser
 - Boiler demo
 - Features demo
 - ASEM™ factory machines demo
 - Trade show and event demo applications
 - More coming soon!



Now available: Preview demo application in browser, then download demo application files from GitHub on the Resources tab



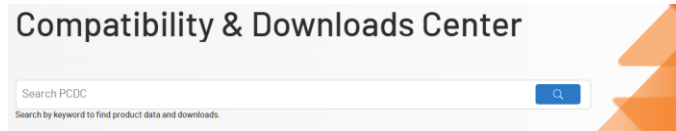
PCDC Release Notifications



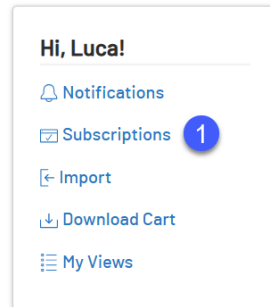
How to get notification of a new release on PCDC

PCDC allows you to subscribe to new releases

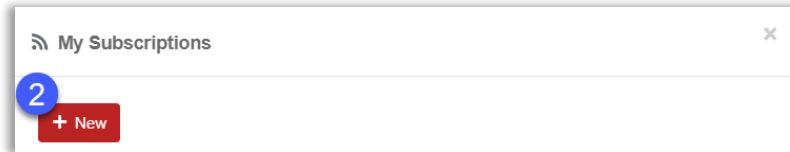
1. Log in to [PCDC](#)



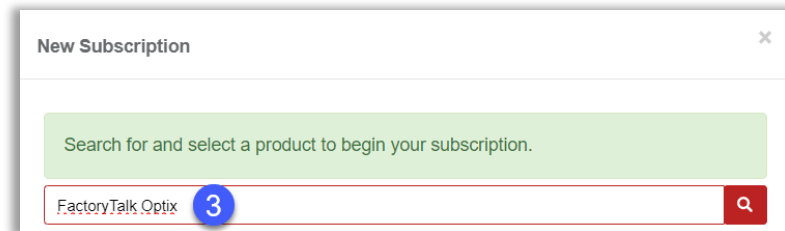
and on the right pane
select "Subscriptions"



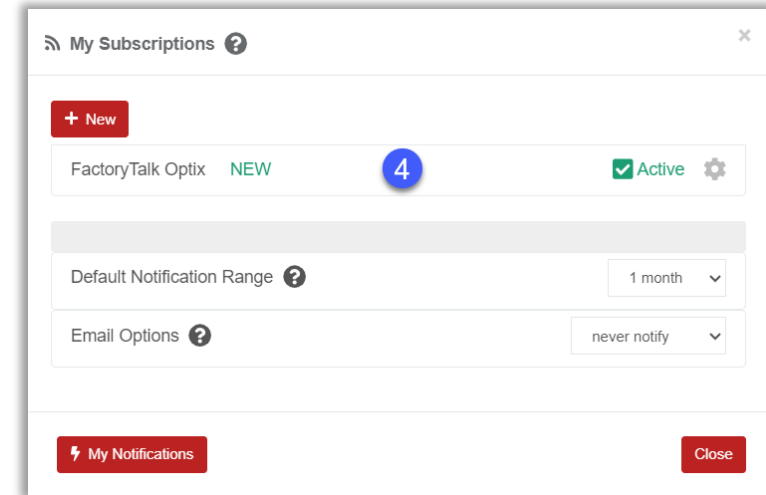
2. Click on **+ New** button




3. Search for "FactoryTalk® Optix™" and select it



4. FactoryTalk® Optix™
is added to your subscription list



5. With the settings button  you can select the notification types that interest you, and with the Email Options you can be notified via email when you have new notifications



Thank you

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