FactoryTalk® Linx v6.30, FactoryTalk® Linx Gateway v6.30, FactoryTalk® Live Data v6.30, FactoryTalk® Data Bridge v6.30, RSLinx® Classic v4.30 (CPR9 SR13)

What's NEW in Communication Software at Rockwell Automation

Rockwell Automation

expanding **human possibility**™

PUBLIC

Significant v6.30 Capabilities Planned for Q1 CY2022

FT Linx

- CIP Security to CompactLogix™ and redundant ControlLogix®, standard and Safety
- Multiple IP addresses / NIC (co-exist with FactoryTalk® Logix Echo)
- Network browser 5015 duplex presentation and GuardLink®
- Options to close CIP Security port for devices and Linx
- Live Data subscriptions at 600 msec to 900 msec

FT Linx OPC UA Connector

- New base types supported
- Access UA server structures / complex types
- Option to include unsupported types as strings
- Deliver OPC UA Server alarms to FactoryTalk® Alarms and Events

FT Linx Gateway

- Array element access / enumeration
- Configuration backup / restore
- Limit Professional to 500K tags
- Namespace index per data source (shortcut / endpoint)
- Data Bridge – Option to limit destination updates to trigger tag changes

Linx v6.30 CPR9-SR13.0

Shared services

- Microsoft Windows
  - Validation with Windows 10 20H2, 21H1 and Windows 11
  - Stop supporting Win 7 and Win 10 32bit
  - Elevated DCOM Authorization level
- FactoryTalk® Linx
  - Released with Logix version 34 / FactoryTalk® View 13
  - CIP Security to redundant ControlLogix® and CompactLogix™ L3z (standard and safety)
  - CIP Security user option to disable port 2221
  - Multiple NIC IP addresses
  - Connect to device not previously browsed
  - New @TrackedState, @RedundancyEnabled and @RedundancyState pre-defined tags
  - Permit communications with L8 controllers containing new Time data types
- FactoryTalk® Linx Network Browser
  - 5015 single view for redundant modules
  - GuardLink® browsing
  - Browse through CompactLogix™ 1769-L36ERM networks
  - Display offline devices and options to remove
  - Option to disable device CIP Security
  - Option to disable LLDP detection
  - Improved local IP address and CIP port (44818) management
- FactoryTalk® Live Data
  - FactoryTalk® View SE client workstation local tags browse, read & write
  - FactoryTalk® View SE simultaneous writes to redundant HMI tag servers
  - Added 600,700,800,900 msec data subscription rate
  - Tag Browser leading zeros to sort array elements properly
  - OPC-DA client changed default authentication level to packet integrity

Linx v6.30 CPR9-SR13.0 Cont.

OPC UA and Tools

- FactoryTalk® Linx Gateway
  - Option for local and/or remote OPC-DA clients
  - Add Individual array elements into tag groups
  - Option to enumerate array elements in namespace
  - Configuration Backup / Restore
  - Configuration file hardening
  - Controlled access to certificate management
  - Professional edition limited to 500K tags (vs. unlimited)
  - Invalid scope configuration and workstation renamed warnings
  - Tag browser performance improvements
  - Individual names index for each shortcut / data source
  - OPC-DA server changed default authentication level to packet integrity
  - Chinese and French local language editions
- FactoryTalk® Linx OPC UA Connector
  - Access to data in structures
  - Additional OPC UA Types (option to convert some to strings)
  - OPC UA Server Alarms merged into FactoryTalk® Alarms and Events
  - Controlled access to certificate management
- FactoryTalk® Linx Data Bridge
  - Option to only refresh destination tags when trigger tag changes
- EtherNet/IP Address Commissioning tool v2.00
  - Many usability and productivity enhancements (for example, merge new MAC address into configuration list and check if port 67 is blocked by firewall)

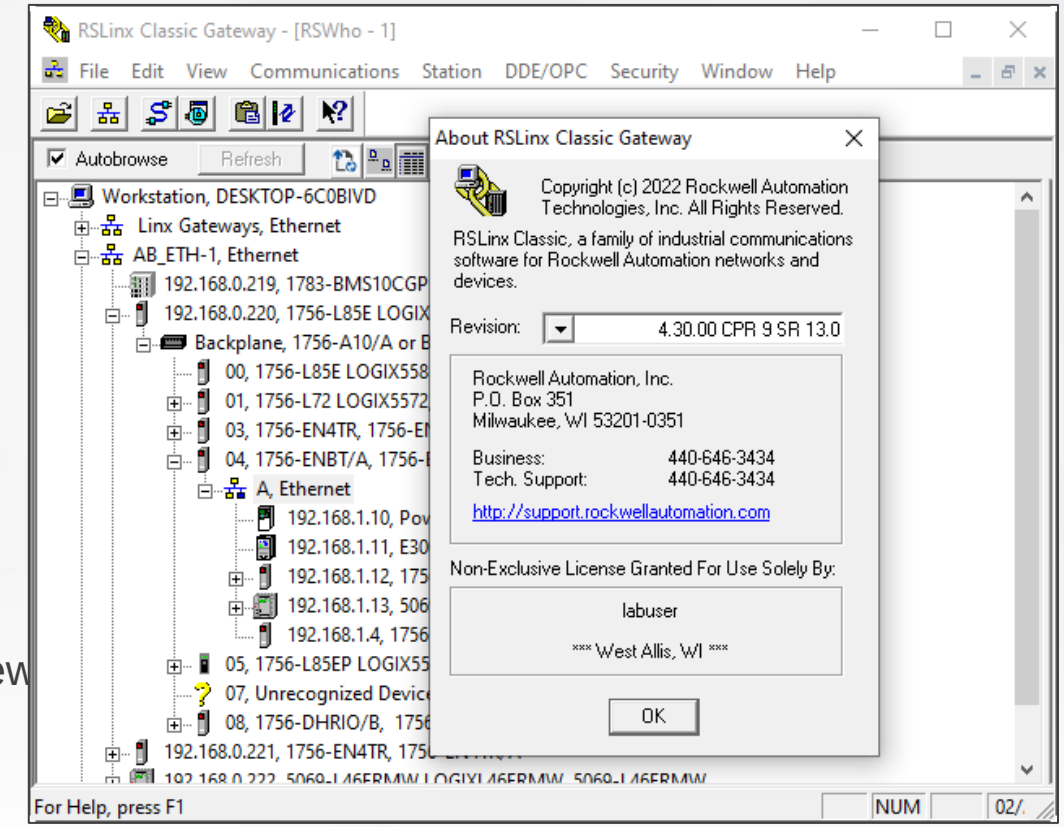
RSLC ≥ v4.30

RSLinx® Classic

Maintenance update

Maintaining connectivity for legacy configurations

- Includes EDS files to support new hardware and firmware
- Improved resiliency
  - Incorporates changes from patches to previous release
  - Completed security ingress testing and resolutions
  - Updates for latest Rockwell Automation security requirements
- Elevated DCOM authorization level to support Microsoft change
- Enable communications with L8 version 34 controllers containing new time data types
  - Also patches to earlier version
  - New types not accessible to OPC Clients



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FT Linx & RSLinx® Classic

Changes to Supported Windows operating systems

Maintaining support for actively maintained Windows versions

- The FactoryTalk® Linx software portfolio v6.30 and RSLinx® Classic v4.30
  - Supporting the latest Windows 10 builds 20H2, 21H1
  - Added support for Windows 11

- Blocking installation on Windows 7 and all Windows 10 32bit editions
  - Consistent with FactoryTalk® Service Platform and other Rockwell Automation software

Staying current with Microsoft's lead, improving security and performance

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FTSP/FTL/FTLGW ≥ v6.30,RSLC v4.30

Microsoft Creates a More Secure Operating System Environment

Microsoft raising minimum DCOM Authentication Level

Microsoft change in minimum DCOM Authentication Level affects many Rockwell Automation software products in distributed systems

Please review Rockwell Automation Product Notice PN-1581 to learn about **directly** and **indirectly** affected products

- Microsoft delivering DCOM patch in three phases Jun2021, Jun2022, Mar2023
- Deploying Microsoft's June 2022 or March 2023 cumulative update helps prevent Rockwell Automation products from establishing DCOM connections; systems will no longer function properly
  - Products using FactoryTalk® Services or FactoryTalk® Live Data are affected
  - Products with OPC-DA communications between computers are affected
  - Products using Windows DCOM APIs to establish connections are affected

Microsoft is addressing a vulnerability (*CVE-2021-26414*) as described in Microsoft KB 5004442

Microsoft's DCOM Hardening change effect is industry wide Any application attempting to establish DCOM connection not using the new minimum authentication level will experience failures

FactoryTalk® Service Platform, FactoryTalk® Linx Gateway v6.30 and RSLinx® Classic v4.30 default to DCOM Packet Integrity

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FTL ≥ v6.30, FTV ≥ v13, Logix version 34, FTPM ≥ v6.30

FT Linx

System release

Enabling the latest system capabilities

- FactoryTalk® Linx v6.30 tested and released with Logix version 34 and FactoryTalk® View v13
- FactoryTalk® View V13 notable features
  - Client local tags
  - Duplicate writes to redundant HMI tag server
  - Access to OPC UA Server Alarms
  - Elevated DCOM Authorization level
- Logix version 34 notable features
  - New time data types
  - CIP Security for ControlLogix® L5580S, CompactLogix™ 5380, 5380P, 5380S2, 5380S3 families
  - CIP Security to ControlLogix® redundant controllers

Rockwell Automation

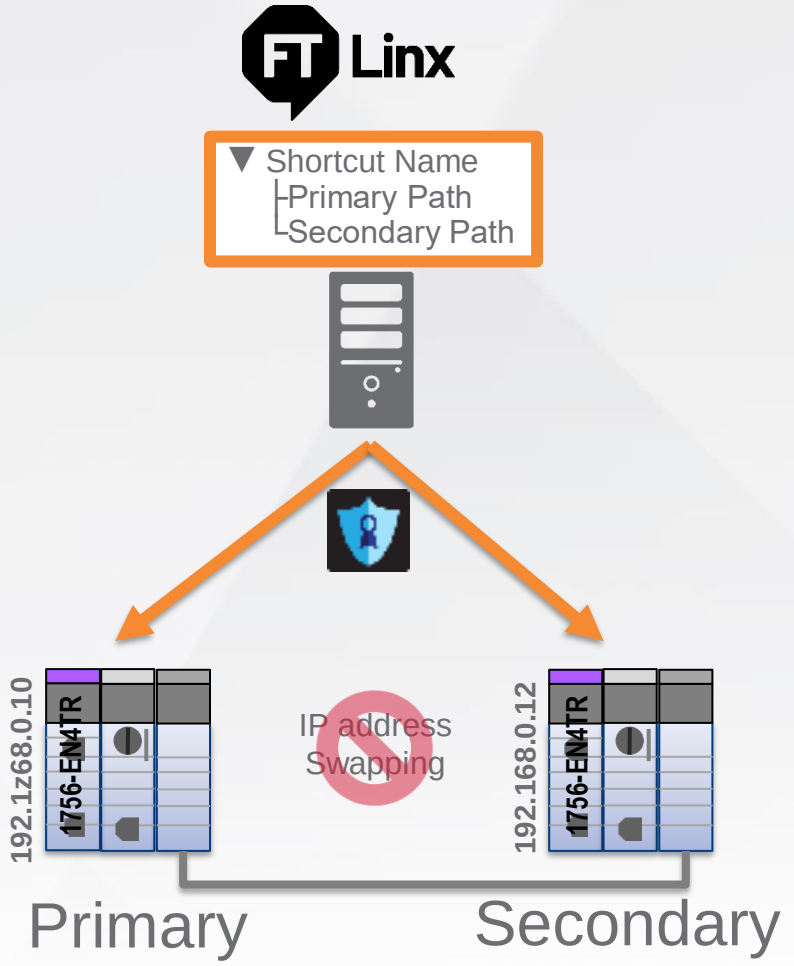
FTL ≥ v6.30, Logix ≥ version 34, 1756- EN4TR ≥ v4.001, FTPM ≥ v6.30

FT Linx

CIP Security to redundant ControlLogix® controllers

Enhances system security in high availability systems

- FactoryTalk® Linx v6.11 and Logix version 32 added support for CIP Security
  - Limited to single controller configurations
- ControlLogix® version 33 added support for ControlLogix L8 controllers in redundant configurations, but excluded CIP Security
- FactoryTalk® Linx v6.30, FactoryTalk® Policy Manager v6.30 and version 34 redundant ControlLogix L8 controllers add the ability to utilize CIP Security
  - Must utilize 1756-EN4TR v4.001 for communications
  - Supports Studio 5000® Logix Designer communications
  - Supports acquisition of Logix controller data
  - Utilize the FactoryTalk® Linx “Redundant ControlLogix®” shortcut to provide fast switchover recovery



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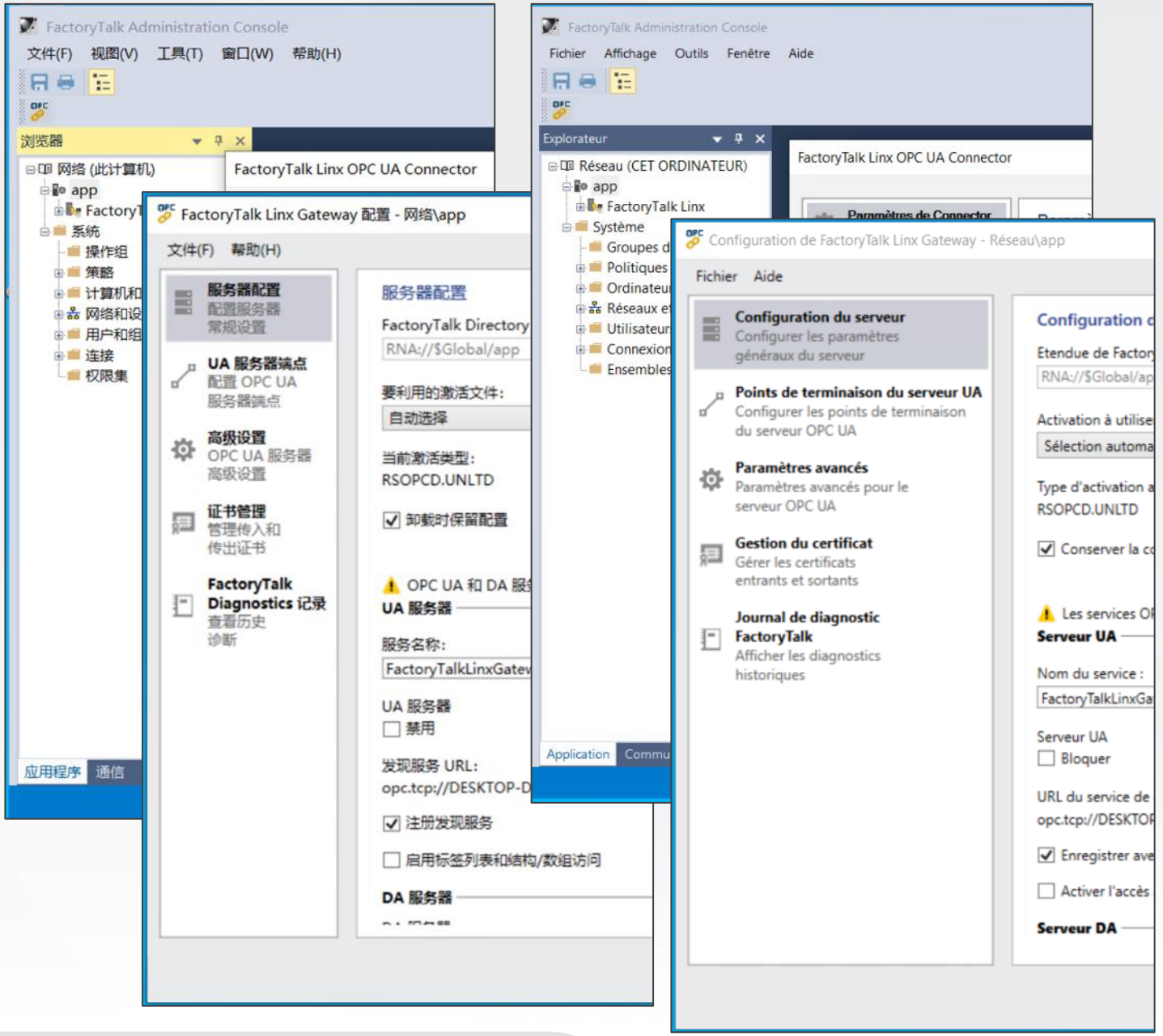
FT Linx

Localized languages

Increased productivity by working in local language

- Previous the FactoryTalk® Linx communications portfolio was limited to English user interface and documentation
- V6.30 adds Chinese and French localized versions
  - Catalog number references English (EN)
  - The Rockwell Automation software download site (PCDC) provides option for alternate languages
    - No additional cost
    - Uses same activation
  - One language installed per workstation
  - GUI, Help, Release notes
- Other languages planned TBD



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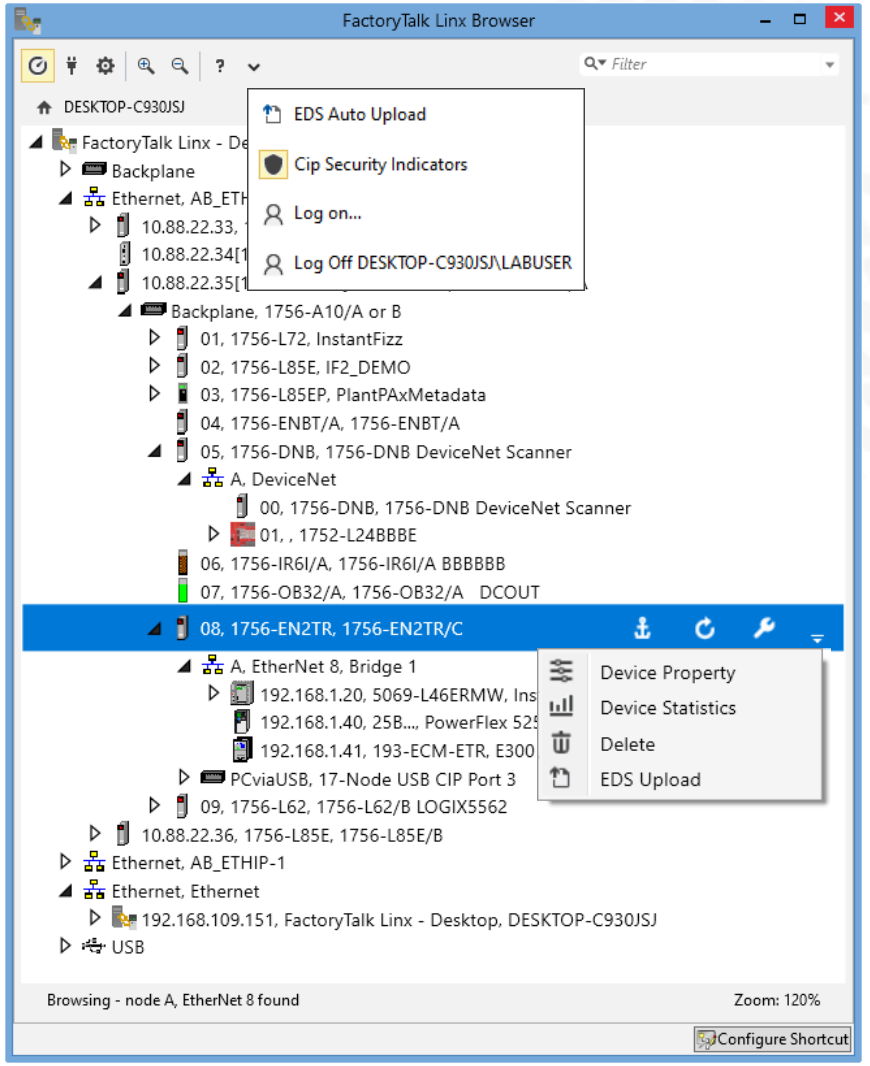
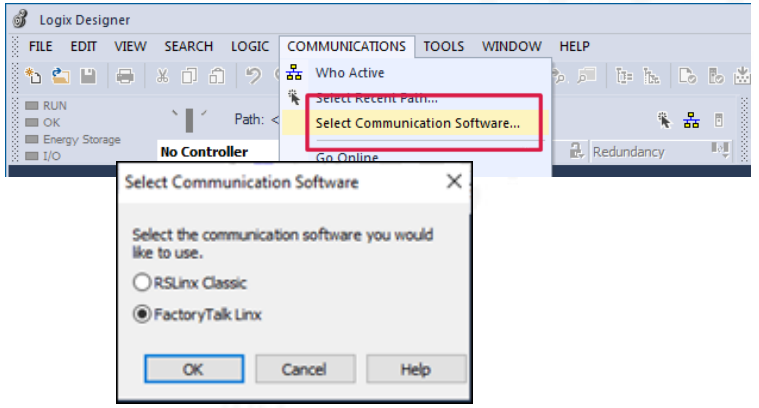
Linx Network Browser

More productive alternative to RSLinx® Classic browser





Enhanced Capabilities

- Configure Ethernet drivers in the browser
- Improved driver address management
- View topology and modify config while running
- Topology view ~200 more devices
- Tree zoom (60% to 200%)
- Filter
- Anchor view
- Automatic discovery of bridged devices
- Windows standalone Network Browser v6.10
- CIP Security state indicator v6.11
- Device commissioning v6.20
- Security authorization, audit logging v6.20
- Web user interface component v6.20
- Locate device (Blink LED) v6.21
- Faster Logix 5000™ ControlFLASH™ transfers v6.21
- Config import/export & backup/restore v6.21
- Communicate to device not browsed v6.30
- Option to disable CIP Security & LLDP v6.30
- New platforms: 5015, GuardLink® v6.30

Supported by

- Studio 5000® Launcher version 31
- Studio 5000® Logix Designer version 31
  (version 33 defaults to FactoryTalk® Linx, version 34 faster download)
- PlantPAx® Process Object Config. tool v4.10.01
- PlantPAx® MPC v2.0
- ControlFLASH™ v14
- ControlFLASH™+ v1
- CCW v12
- FactoryTalk® AssetCentre v9
- FactoryTalk® Policy Manager v1.0
- FactoryTalk® Linx CommDTM v1
  (v1.04.00 support for RSLinx® Classic removed)
- PowerFlex® eHIM v1.0
- Studio 5000 View Designer® v7
- FactoryTalk® Batch v14
- RMC Tool (v9.00)
- FactoryTalk® Logix Echo v1
- More to come…

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FTL≥ v6.30

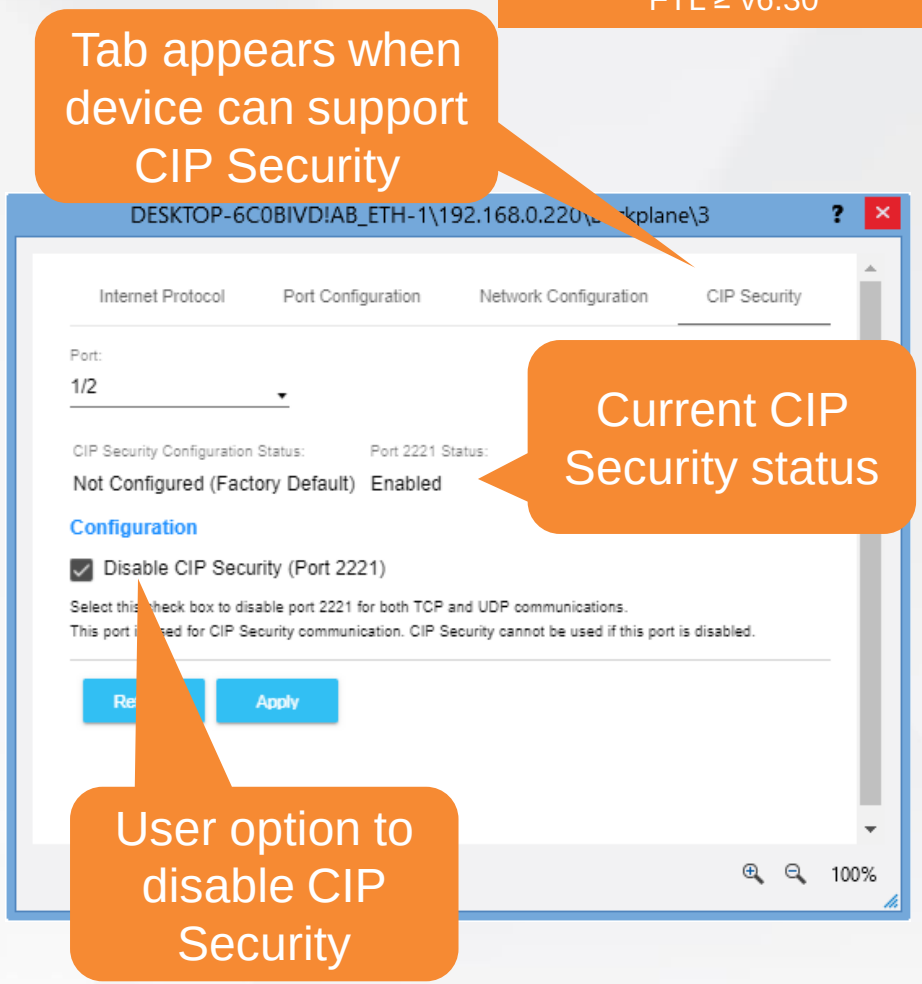
FT Linx Network Browser

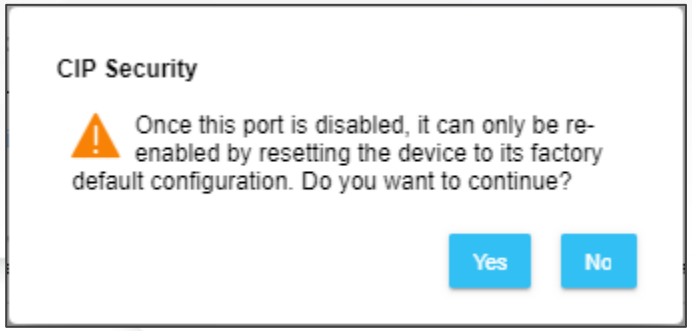
Device Configuration for CIP Secure capable devices

FTL ≥ v6.30

Helps prevent use of CIP Security for DoS attack and avoids IT network scans detection of open port when CIP Security is not being utilized

- Port 2221 is enabled on all CIP Security capable devices
  - IT Network scans detect open port and cypher suites
  - If not using CIP Security, a user could enable it and lock down a portion of the system
  - Explicit messages to devices could be used to disable CIP Security and port 2221
- FactoryTalk® Linx Network Browser v6.30 provides a user interface option to disable CIP Security on devices
  - Device configuration tab provides new option for devices that support CIP Security
  - Security authorization and generates audit message
  - Closes CIP Security port 2221
  - Device requires factory reset to re-enable





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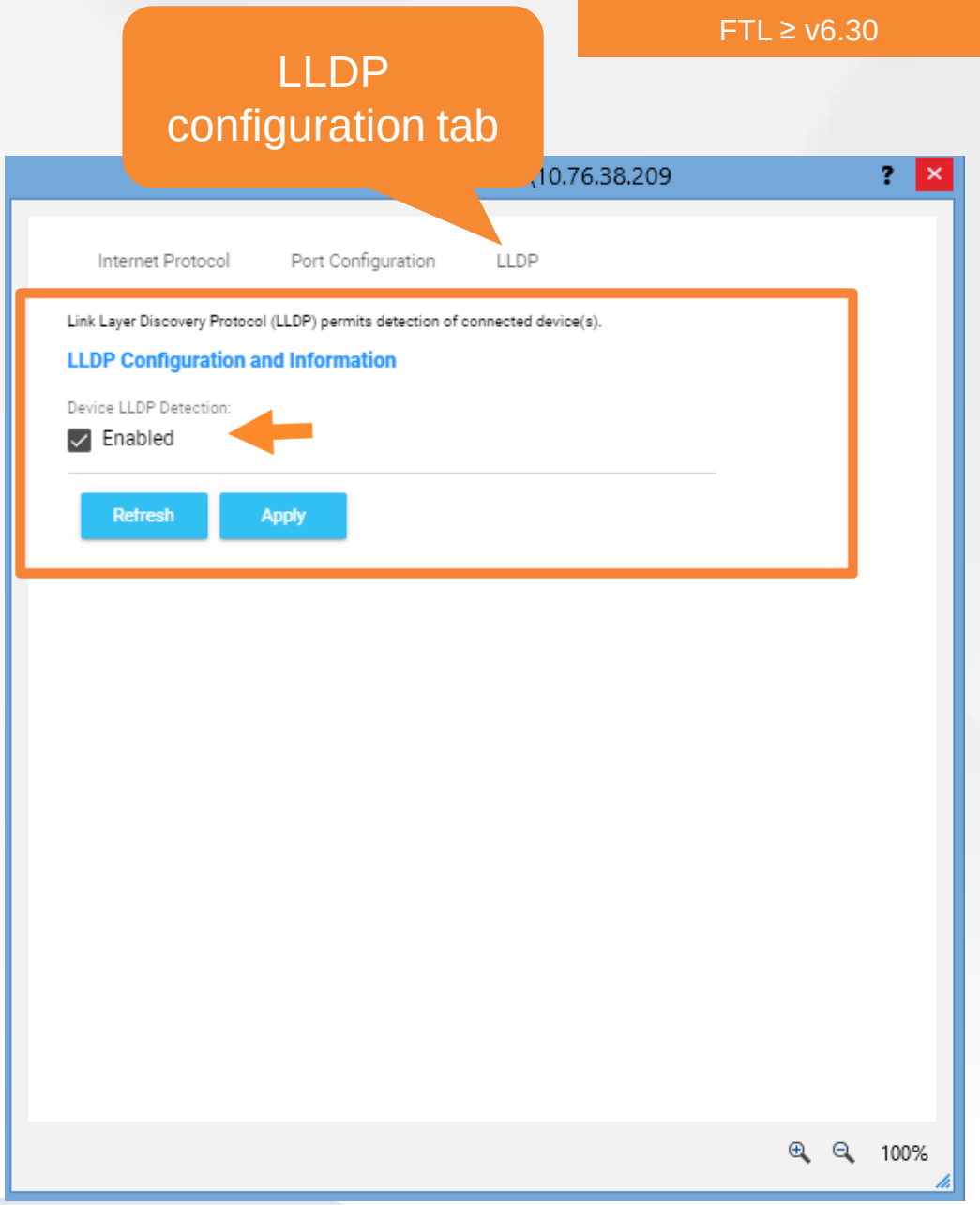
FactoryTalk Linx Network Browser

User option to disable LLDP

FTL ≥ v6.30

Reduce network traffic and help prevent protocol detection by IT network scans

- Link Layer Discovery Protocol (LLDP) added to ODVA EtherNet/IP specification v1.25 effective 12/2021
  - Permits a device to detect connected neighbor devices
  - EtherNet/IP products required to support starting March 2022
- FactoryTalk® Linx v6.30 Network Browser adds an LLDP option
  - When detected in a device a new tab appears in the device configuration dialog
  - Provides option to enable/disable a device's LLDP discovery service



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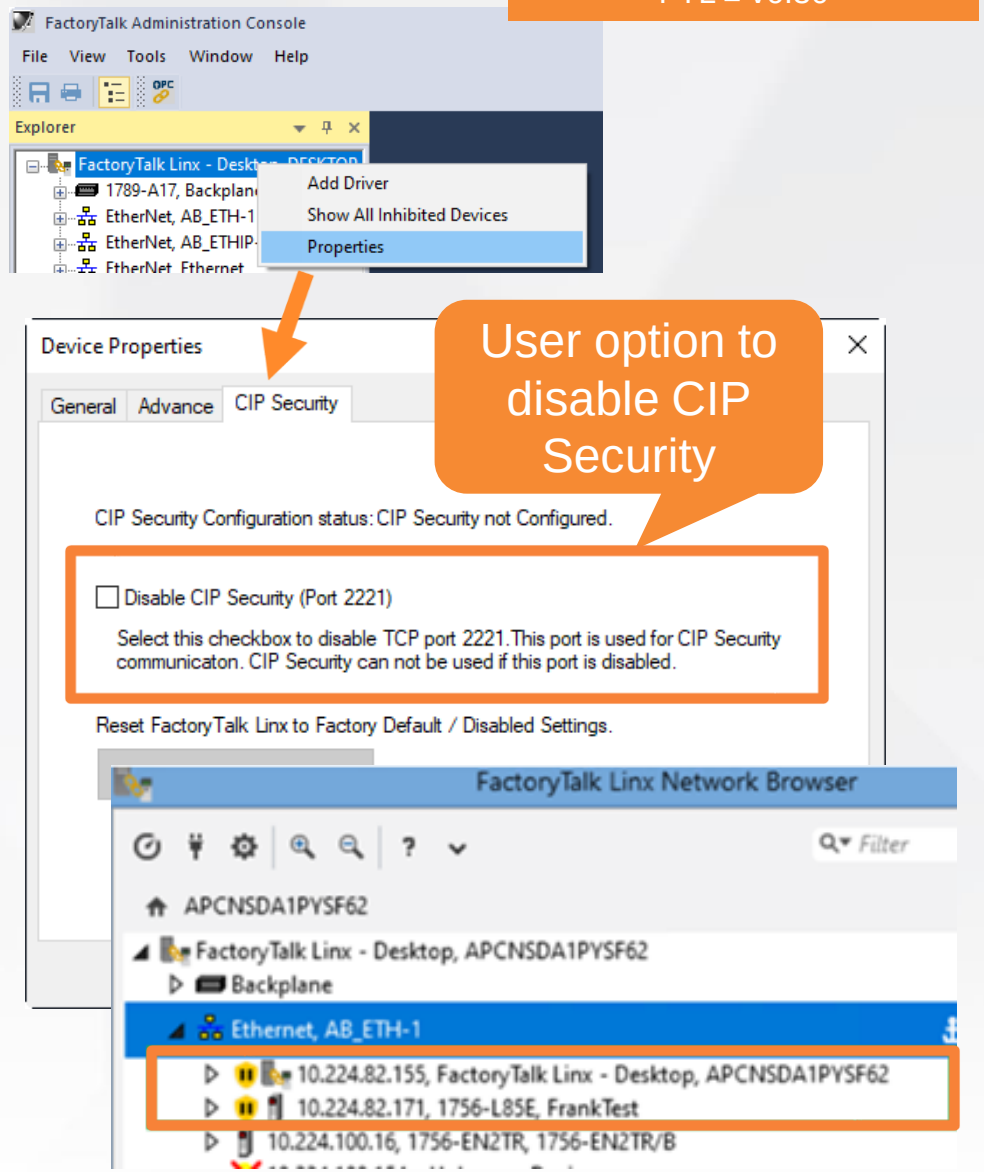
FTL ≥ v6.30

FT Linx

User option to disable CIP Security

Helps prevent use of CIP Security for DoS attack and avoids IT computer network security scan issues when CIP Security is not being utilized

- FactoryTalk® Linx added CIP Security with v6.11
  - Utilized a new port (2221) and incorporated cypher suites
  - The open port / suites can be detected by IT network and computer scans leading to erroneous vulnerability reports
- FactoryTalk® Linx v6.30 adds an option to disable CIP Security
  - Releases the port, help prevent open port detection
  - Device must be reset to factory defaults to re-enable
  - Network Browser displays disabled shield icon
- Patch for v6.21 available
  - Rockwell Automation support Knowledgebase ID TBD



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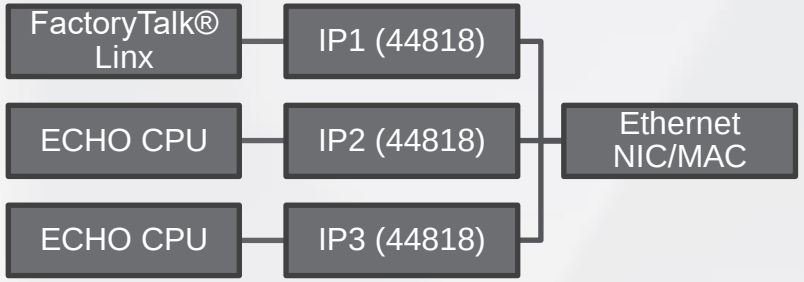
FTL ≥ v6.30

FT Linx

Improved local IP address and CIP port (44818) management

Enables multiple FactoryTalk® Logix Echo controllers to operate on the same workstation with fully functioning FactoryTalk® Linx

- Previously FactoryTalk® Linx experienced conflicts when working with FactoryTalk® Logix Echo
  - Limited to one local IP address per NIC/MAC
  - Network Browser inconsistent CIP port (44818) enables / disable
  - FactoryTalk® Linx Unsolicited messaging or CIP Security could not be used with FactoryTalk® Logix Echo on same workstation
- FactoryTalk® Linx v6.30 enhanced to work with FactoryTalk® Logix Echo
  - Driver configuration option to support multiple local IP addresses
  - CIP Port enable/disable managed on individual IP addresses
  - Consistent CIP Port configuration in FactoryTalk® Admin Console and Network Browser driver configuration
- Note: use Windows Ethernet adapter configuration to support multiple local IP addresses

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Windows IP Configuration


Ethernet adapter Ethernet0:

   Connection-specific DNS Suffix  . :
   Link-local IPv6 Address . . . . . : fe80::f5ce:f520:b8a4:9a58%4
   IPv4 Address. . . . . . . . . . . : 192.168.21.184
   Subnet Mask . . . . . . . . . . . : 255.255.255.0
   IPv4 Address. . . . . . . . . . . : 192.168.21.185
   Subnet Mask . . . . . . . . . . . : 255.255.255.0
   IPv4 Address. . . . . . . . . . . : 192.168.21.186
   Subnet Mask . . . . . . . . . . . : 255.255.255.0
   Default Gateway . . . . . . . . . : 192.168.21.2
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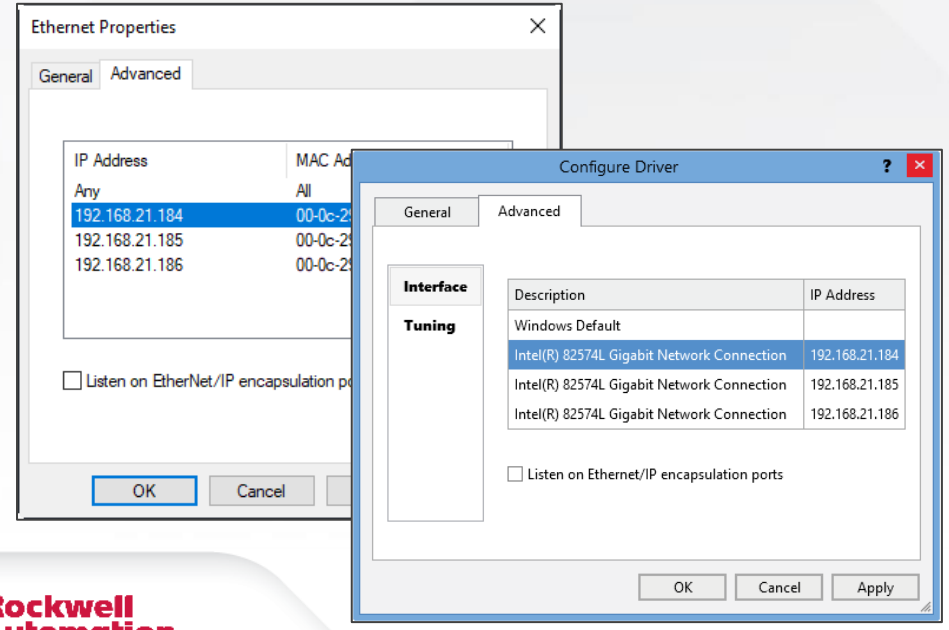

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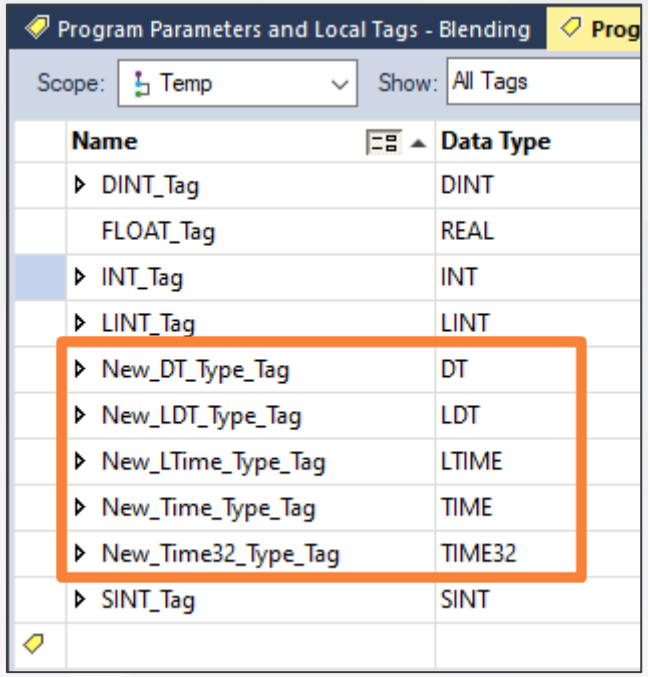
FTL ≥ v5.90, RSLC v3.90.01

Logix ≥ version 34

Permit communications with L8 controllers containing new Time data types

- Logix L8 series controller version 34 firmware adds five new time data types
  - TIME, LTIME, TIME32, LDT, DT
- FactoryTalk® Linx v6.30 and RSLinx® Classic v4.30 updated to recognize the new types
  - Initially tags using the new types are hidden from the namespace
  - Support to use the types is TBD
- Patches to earlier versions released
  - FactoryTalk® Linx v6.21, 6.11, 6.10, 6.00 and 5.90
    https://rockwellautomation.custhelp.com/app/answers/answer_view/a_id/1132822
  - RSLinx® Classic v4.21, 4.12, 4.11, 4.10, 4.00.01, 3.90.01
    https://rockwellautomation.custhelp.com/app/answers/answer_view/a_id/1133799
- Without these updates FactoryTalk® Linx and RSLinx® Classic are not able to connect to the controller if the new types are used in a Logix application



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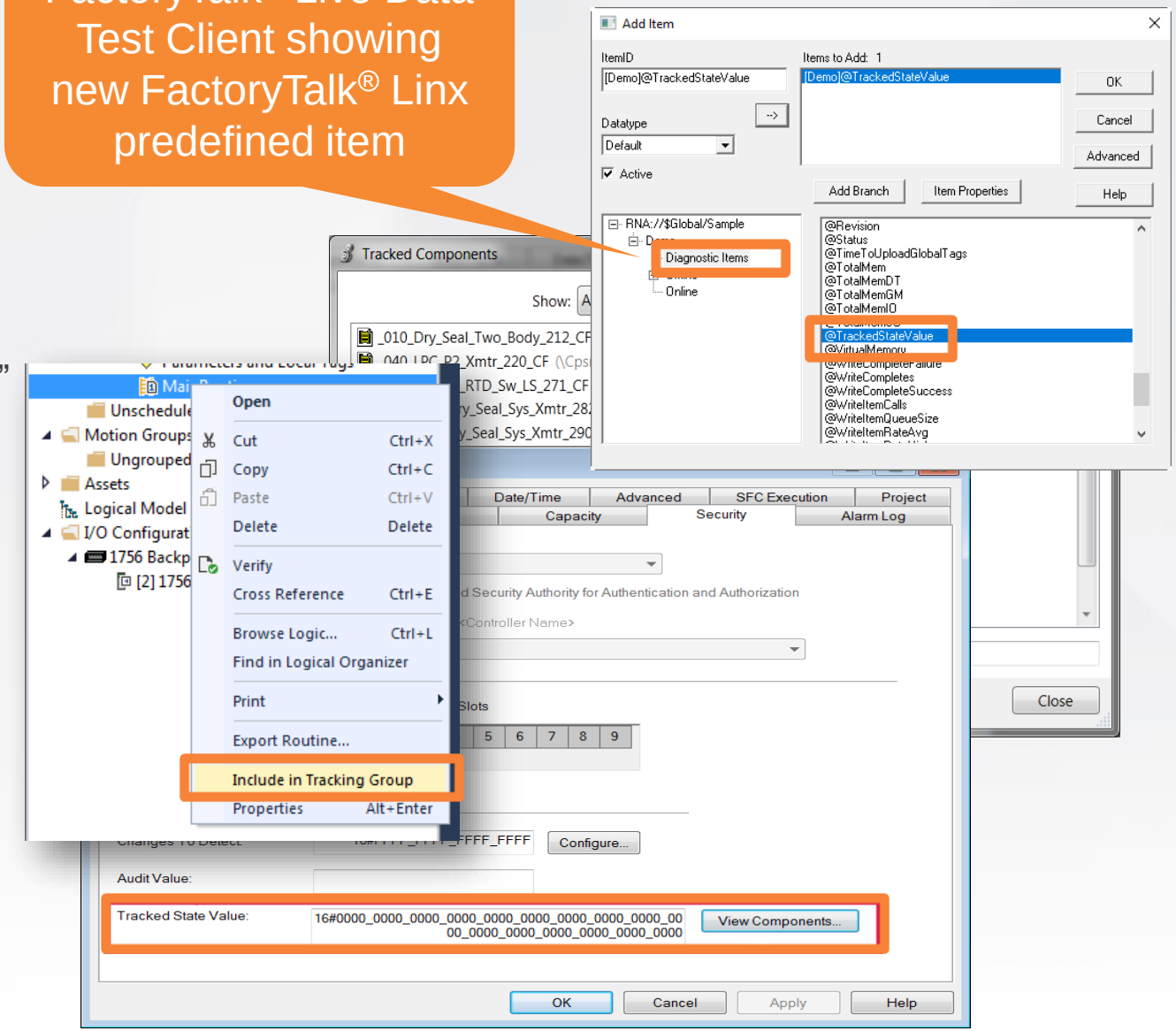
FTL ≥ v6.30

@TrackedState predefined tag

Determine if the state of key components in a Logix application has changed

- Logix 5000™ L7 controllers added “Tracked State Value” with version 30
  - Scans user-selected portion of the application to generate a unique code
  - Routine logic changes
  - Add-On Instruction changes
  - I/O module configuration
  - Constant tag value changes
- Eliminates application code to read the value
- Utilize the value in displays or for historical change tracking

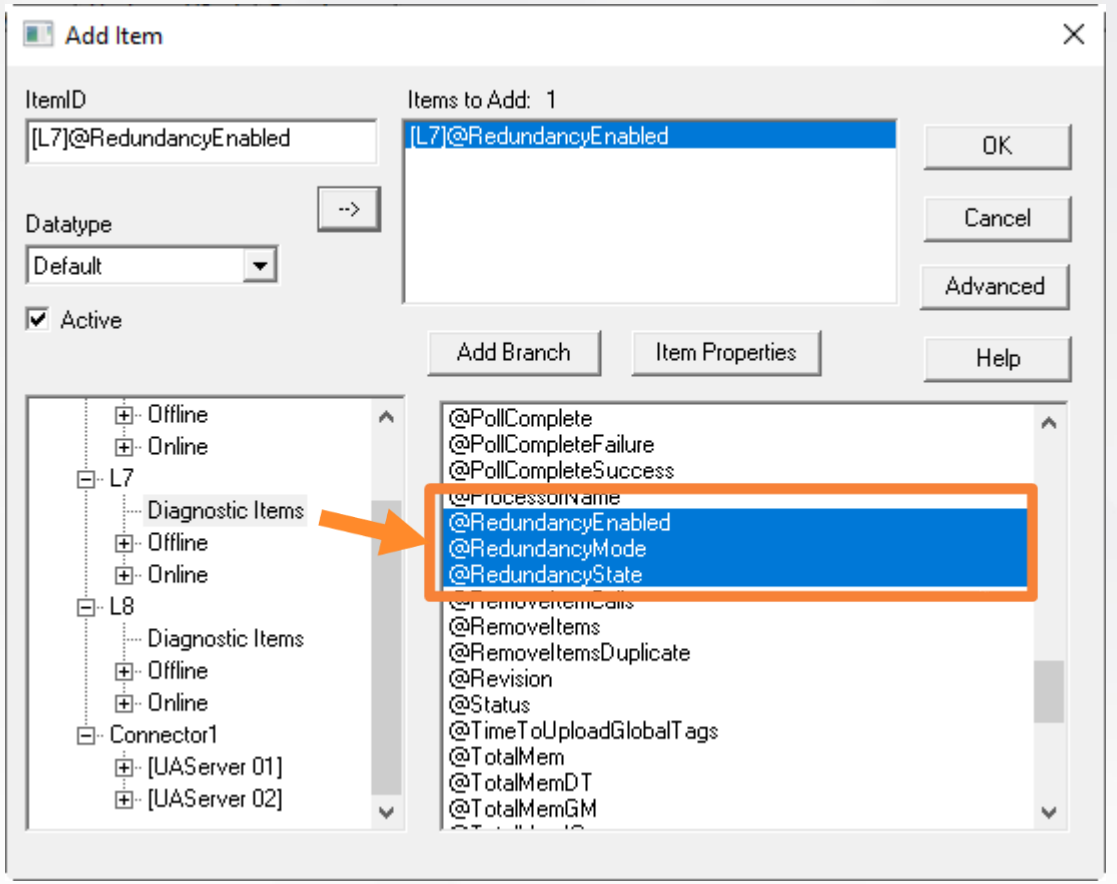
FactoryTalk® Live Data Test Client showing new FactoryTalk® Linx predefined item



New ControlLogix® Redundancy predefined diagnostic tag

Permits PlantPAx® and FactoryTalk® View faceplate users to know the current redundancy-operational state

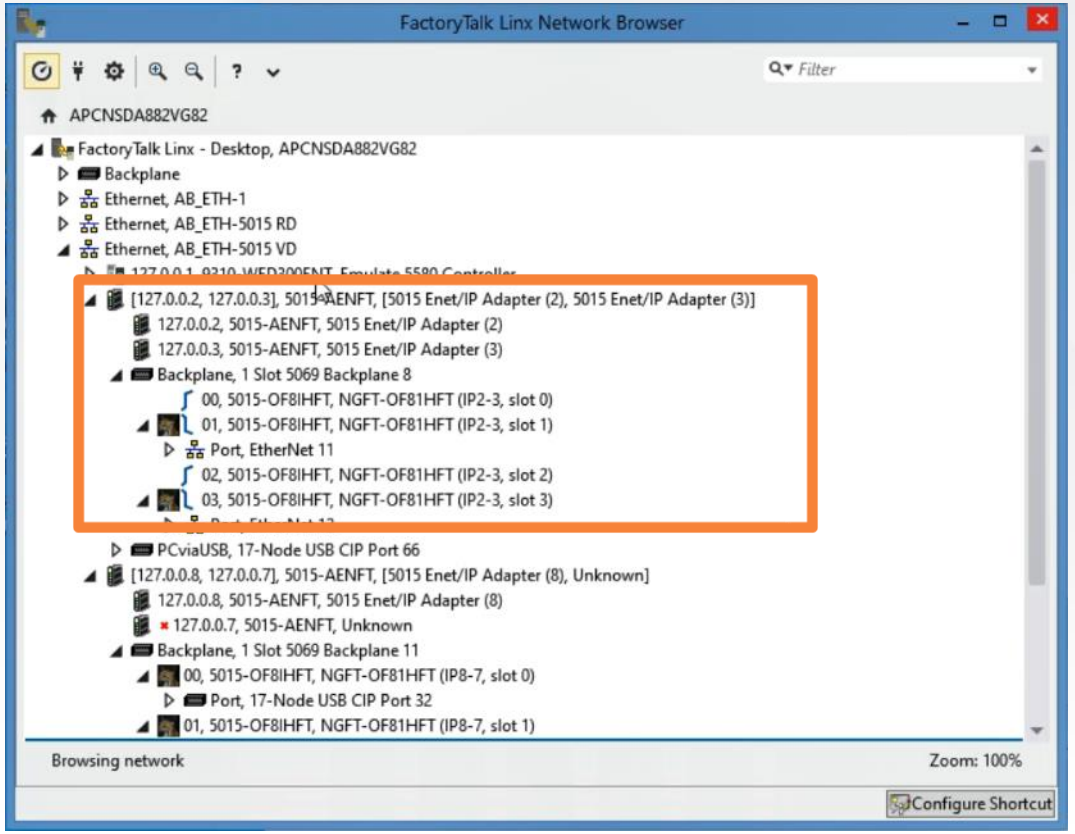
- Previously FactoryTalk® Linx provide @RedundancyMode
  - Limited to ControlLogix5555 controllers
  - Always returned zero for L6,L7 and L8 controllers
- FactoryTalk® Linx v6.30 adds two new redundancy predefined tags
  - @RedundancyEnabled (same as Logix GSV results)
  - @RedundancyState value representing the current operation
  - Available as a @Diagnostic item associated with shortcuts



Network Browser 5015 Fault Tolerant Platform Presentation

Avoid confusion from double appearance and detect issues faster

- The new 5015 Fault Tolerant hardware platform supports redundant network adapters and I/O modules
  - Maintain communications and system operation via multiple routes to I/O devices
- FactoryTalk® Linx v6.30 Network Browser enhanced to present redundant hardware
  - Adjacent adapters and I/O module
  - Topology shows chassis once
- Offline module appears with red X to indicate a failure

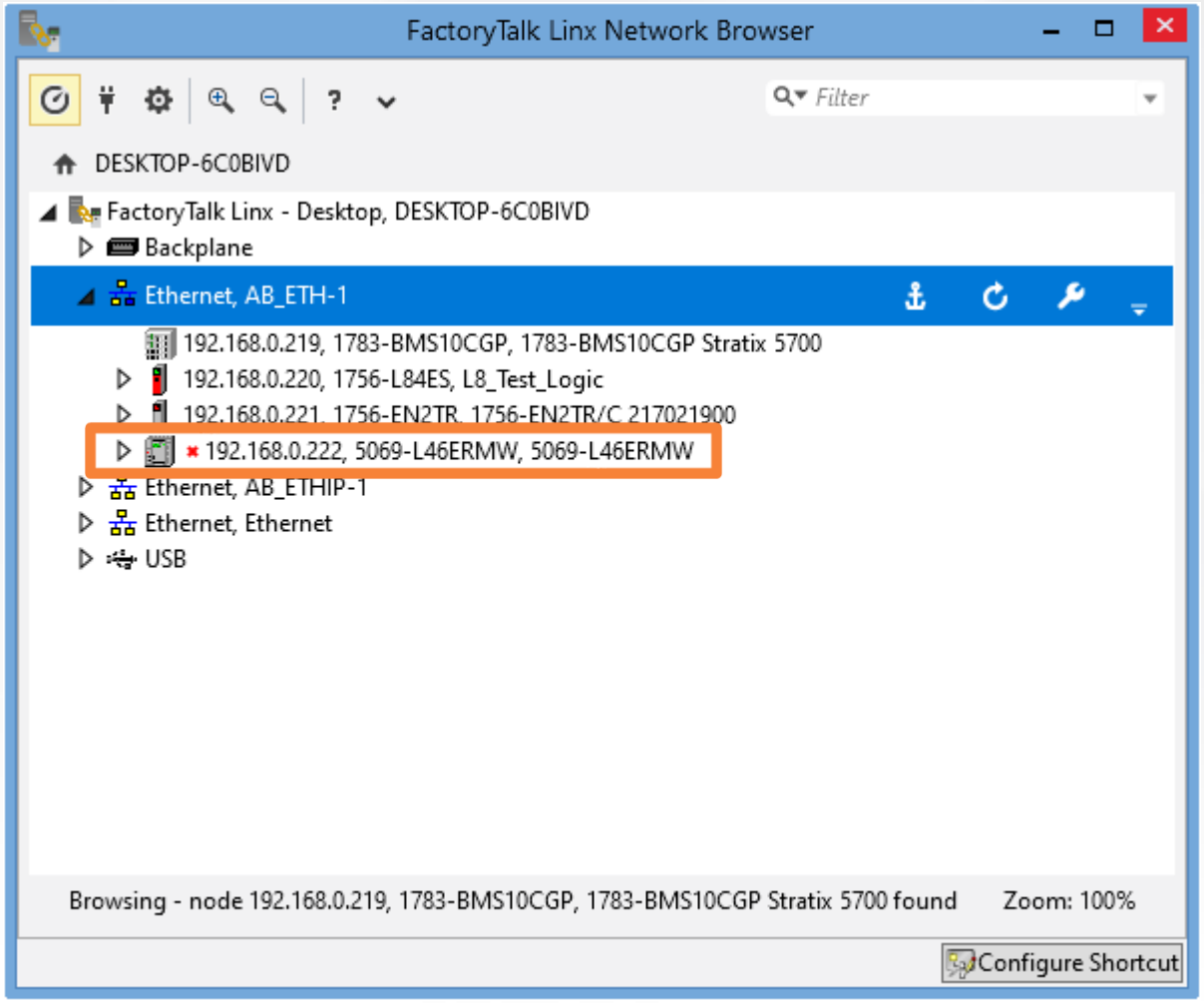


FT Linx

Display offline devices and option to hide / remove offline devices

Locate offline or reconfigured devices more quickly for faster system recovery

- When previously detected failed to respond, FactoryTalk® Linx would remove it from the topology tree
  - Difficult to detect / locate failed device
  - By contrast RSLinx® Classic would present the device with a red “X”
- V6.30 now retains the device and incorporates the red “X” in front of the device to indicate it's not communicating
  - Visual indication a device is not communicating



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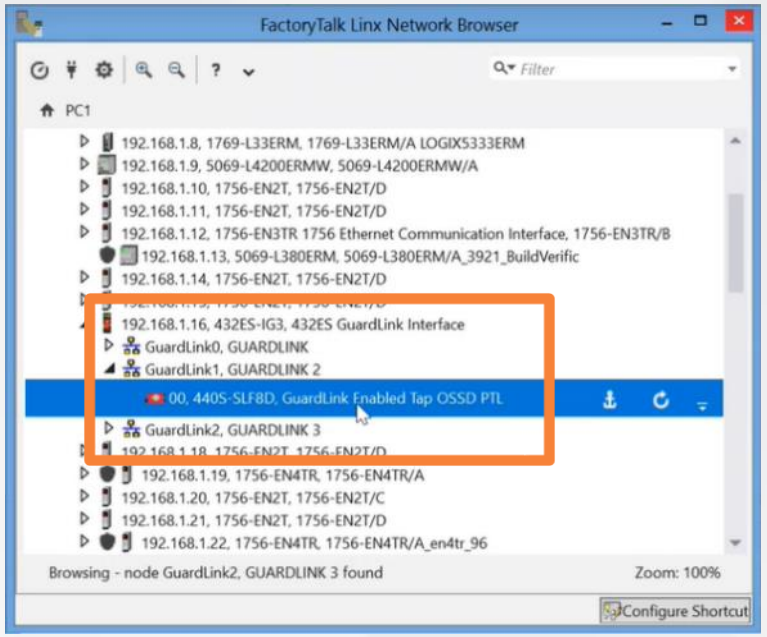
FT Linx Network Browser

GuardLink® device support



Enables management of GuardLink® interface and devices in FactoryTalk® Linx and access by Studio 5000®

- GuardLink® provides on-machine solution for connecting SIL 3 safety input devices to a Logix Safety controller
  - 440R-ENETR panel mount and 432ES-IG3 on-machine adapter connect EtherNet/IP™ to GuardLink®
  - Up to 32 GuardLink® taps per link
  - 1000m link distance, max 30m between taps and 10m tap to device
  - Full diagnostic information from smart devices
  - Also connects generic contact devices
- In v6.30, the Network Browser added support for GuardLink®
  - New 432-ES-IG3 GuardLink® Interface / bridge and devices
- Discover and presentation of GuardLink® bus and devices in topology
- Includes device properties, statistics and configuration

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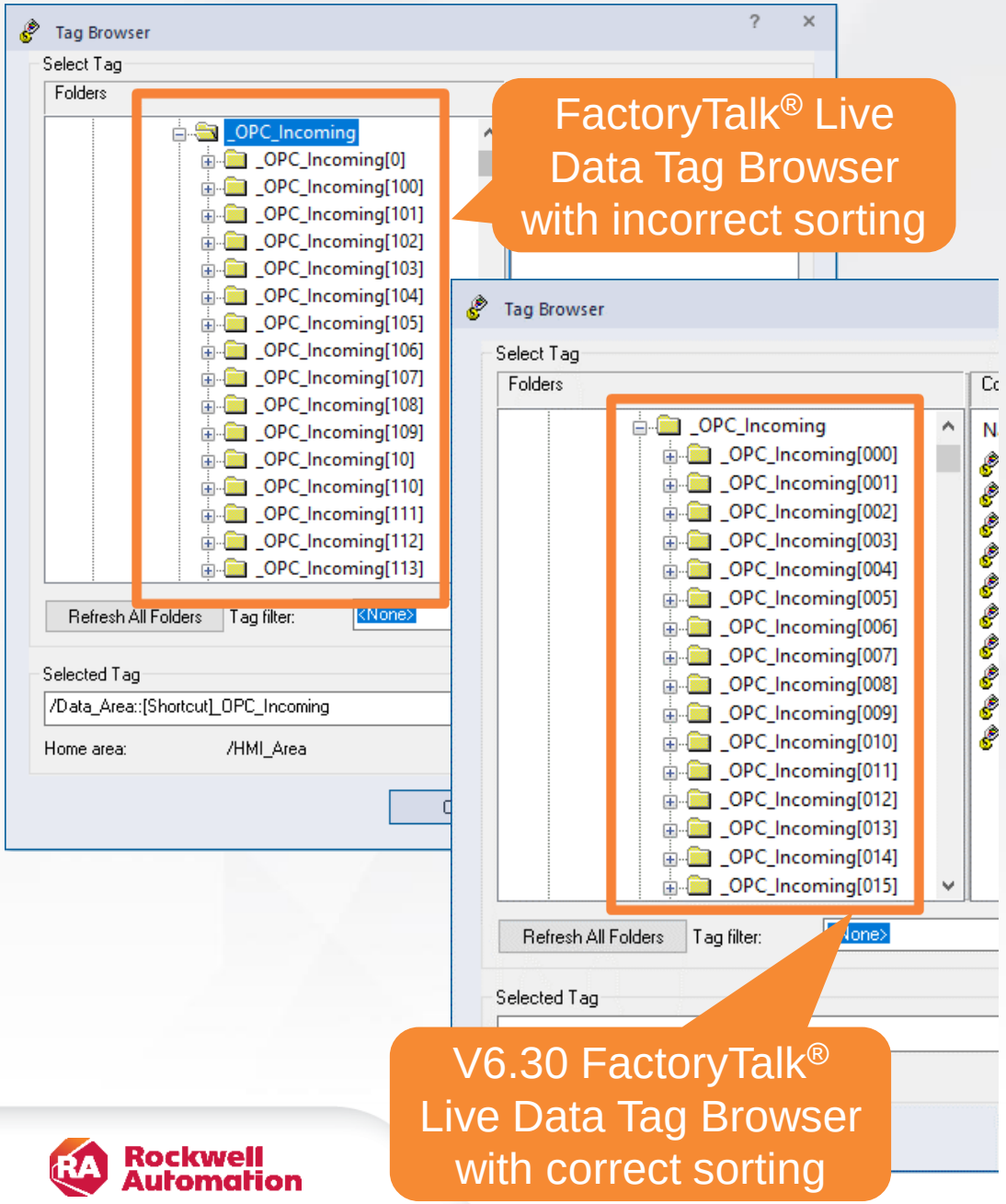
FTL ≥ v6.30

Linx

Leading zeros added to array elements

Enhanced productivity because array elements listed in the correct order

- Previously array element numbers were per listed based first digit
  - Sorting was out of order for anything large then 10 elements
  - Difficult locating array elements when browsing for tags
- FactoryTalk® Linx 6.30 places leading zero(s) in the element numbers
  - All array indexes have the same number of digits
  - Confirms that array elements are listed in numerical order
    - 00,01,02,03…09,10,11,12… Versus 0,1,10,11…19,2,3,4…
    - FactoryTalk® Live Data clients like View Studio SE/ME v13 and Test Client
    - FactoryTalk® Linx Gateway v6.30
      - OPC UA tag list selection
      - OPC-DA and UA data model



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FTL ≥ v6.30

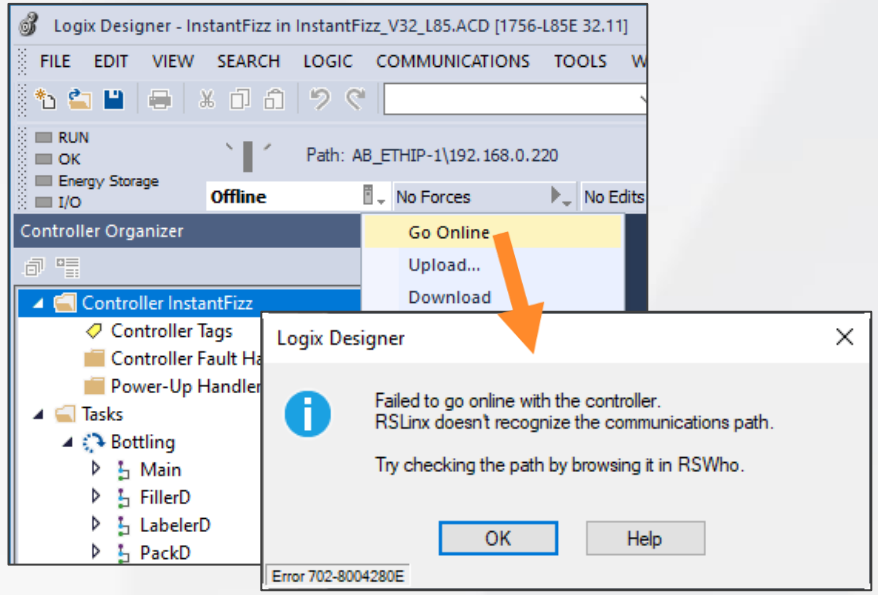
FT Linx

Communications to device not previously browsed

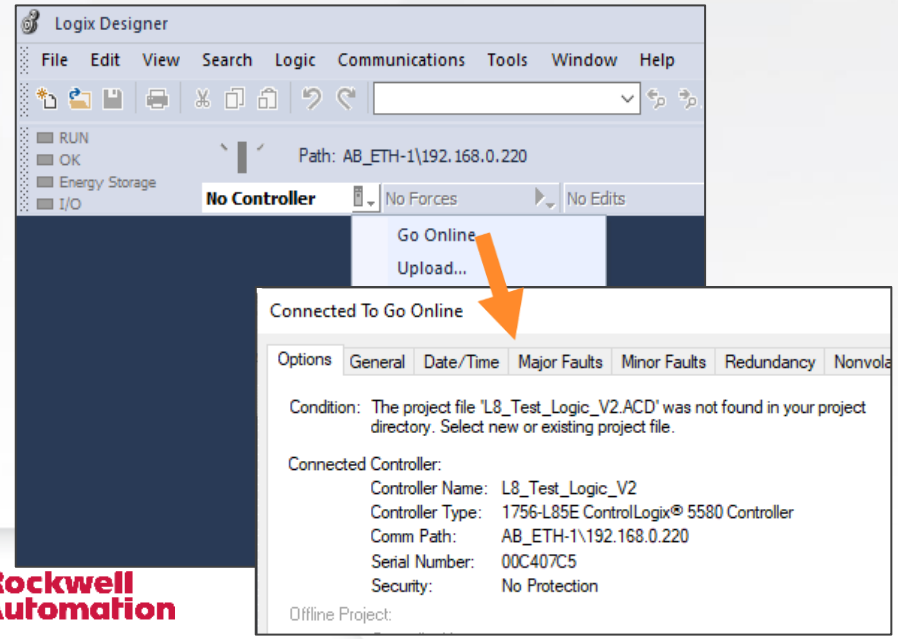
Enhanced productivity by eliminated must manually locate a device in the network to enable communications; reduced downtime by going online quicker

- Previously both RSLinx® Classic and FactoryTalk® Linx must discover devices on the network before it could communicate to them
  - Loads topology information must route messages
  - Manual process to find one or more required devices
  - Impacted new computers in a system or when moving applications to another computer
- FactoryTalk® Linx v6.30 enhanced to automatically locate the device with the provided path
  - Avoids manual browsing delays
  - Go-online more quickly
  - Helps prevent nuisance errors

Before v6.30



With v6.30



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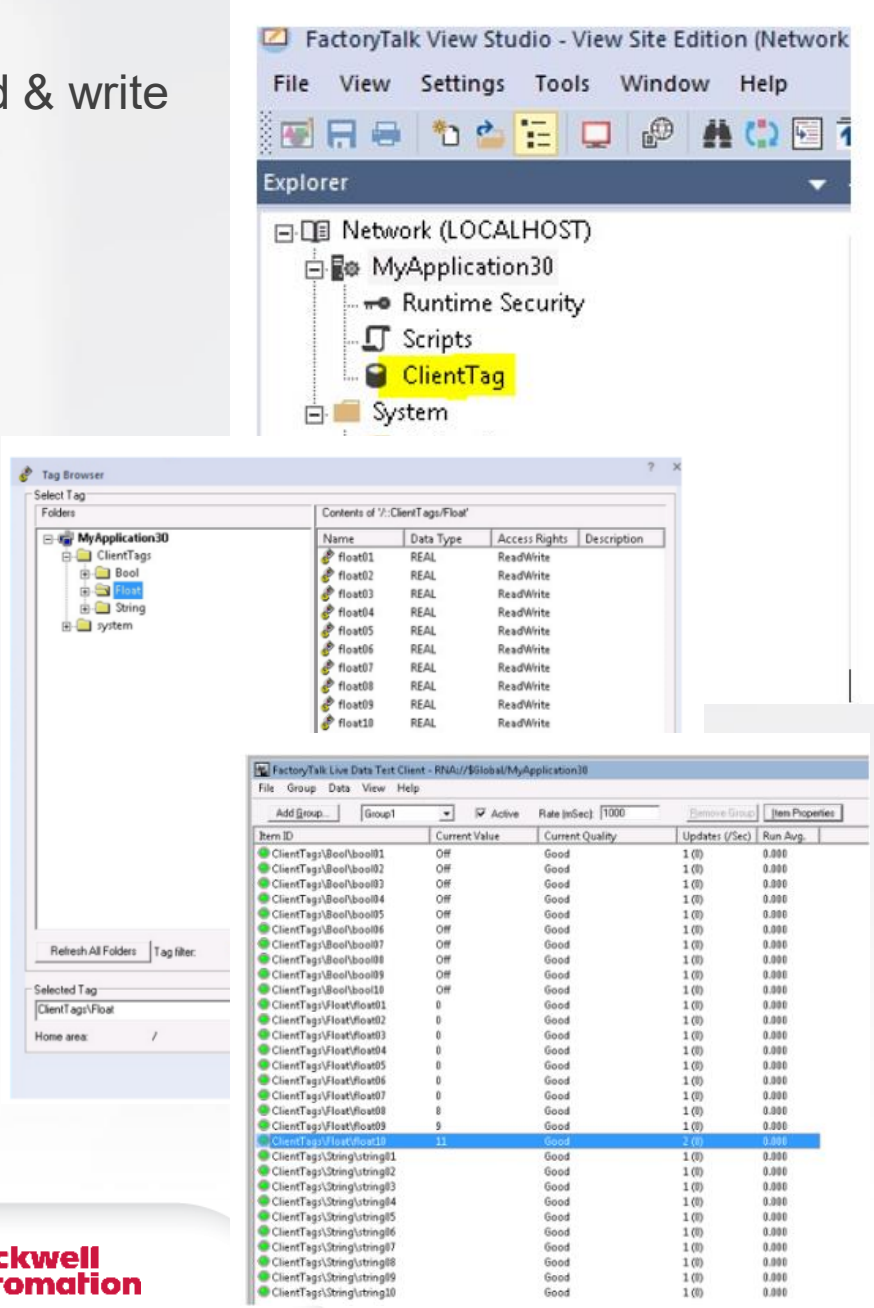
FTLD ≥ v6.30

Live Data

FactoryTalk® View SE client workstation local tags browse, read & write

Improves screen design by isolating object data specific to each client workstation

- FactoryTalk® View SE Distributed V13 adds a client workstation tag server
  - Predefined sets of tags
- FactoryTalk® Live Data v6.30 enhanced to support the new data source
  - Tag Browser includes the local data serve as an option
  - Runtime screen communications to read/write values
  - Test Client able to access local tags from same workstation



Rockwell Automation

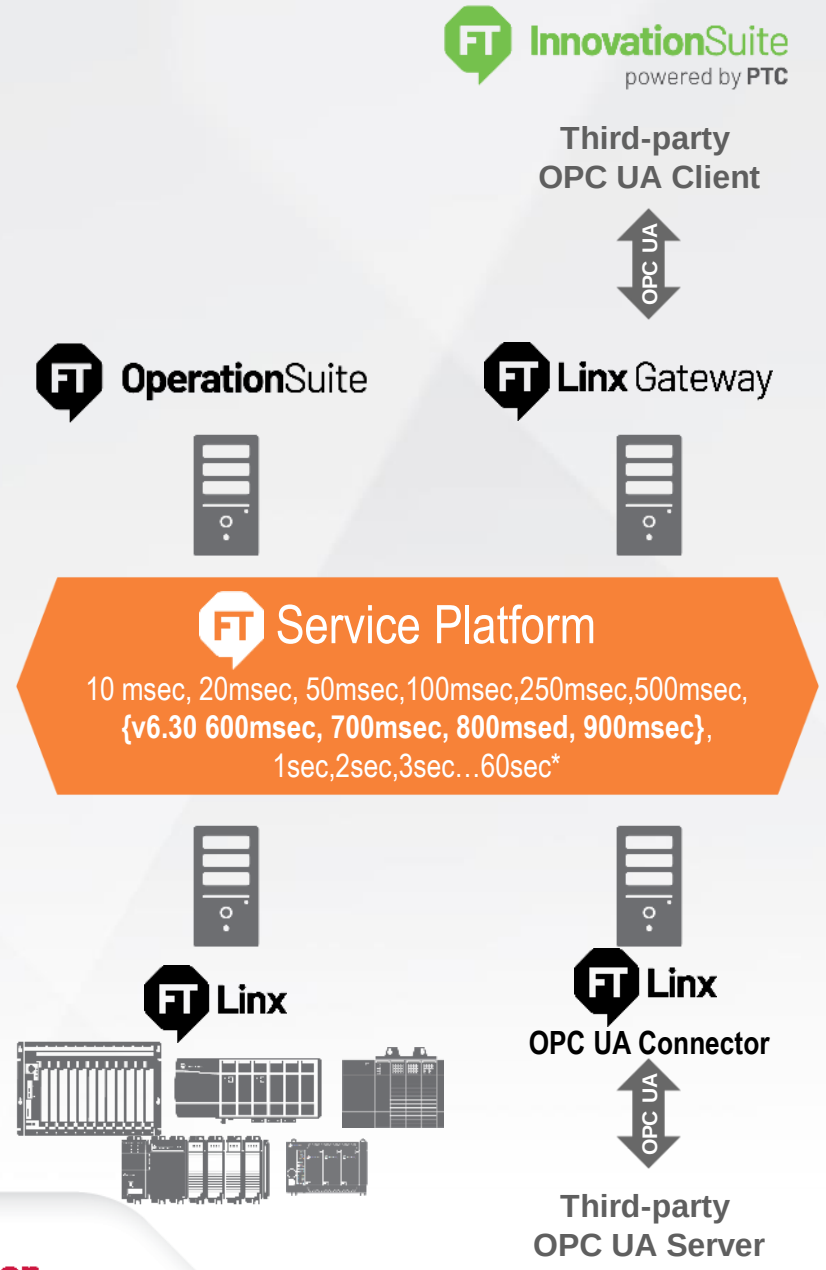
Live Data

Added 600 msec to 900 msec data subscription rates

FTLD ≥ v6.30

Permits more options for data delivery for mid-range applications

- FactoryTalk® Live Data aligns all data requests to a set of pre-defined rates
  - Requests are adjusted to a matching or the next slower rate
  - Before v6.30 this support jumped from 500msec to 1Sec
    - 10msec, 20msec, 50msec, 100msec, 250msec, 500msec, 1sec, 2sec, 3sec…60sec*
- Starting with v6.30 four new rates are supported
  - 600, 700, 800 ms and 900 ms*



*actual rate will vary based on operating system, network or controller performance

Rockwell Automation

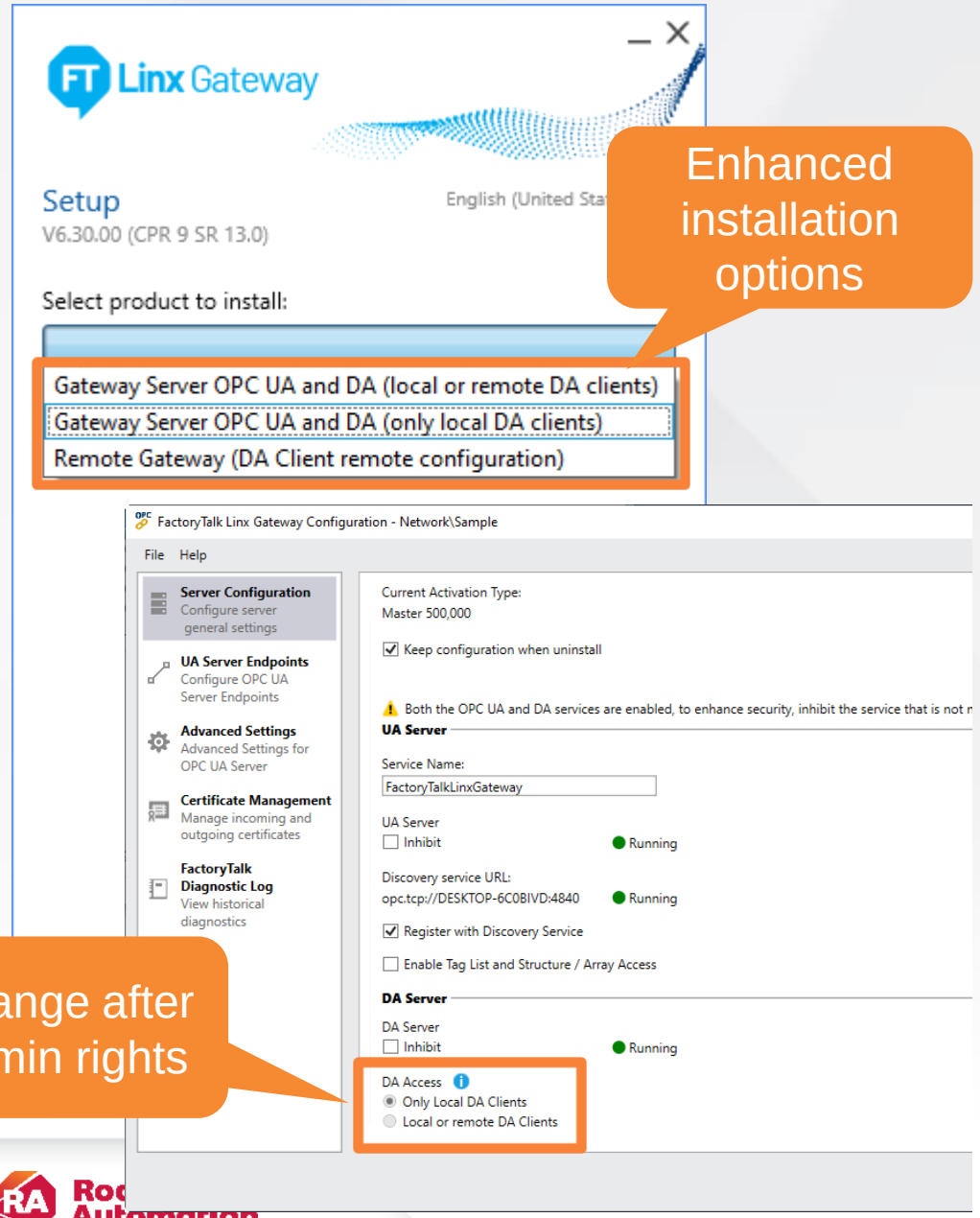
Linx Gateway

Option for local and/or remote OPC-DA clients

FTLGW ≥ v6.30

Enhance workstation security

- Before v6.30 FactoryTalk® Linx Gateway modified windows settings to permit remote OPC-DA clients to access the OPC-DA service
  - Unnecessary when clients were operating on same PC
- V6.30 adds a new option when clients are on the same computer
  - Available in installation and in FactoryTalk® Linx Gateway Configuration user interface
  - Enhances computers security
  - More descriptive text for the all install options
  - Does not affect OPC UA connectivity

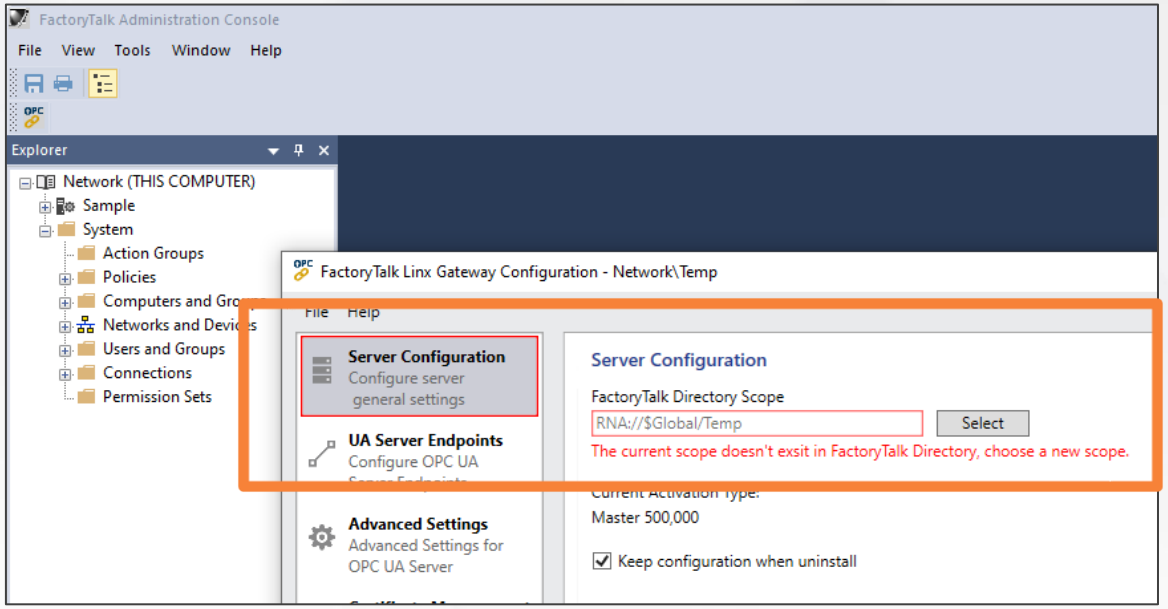


Linx Gateway

Warning when FactoryTalk® Application does not exist

Enhanced productivity by delivering configuration is completed

- V6.00 provided a warning when FactoryTalk® application was not configured
- V6.21 added several configuration checks / warnings
  - UA service enabled but no endpoints are configured
  - UA Tag list selected but no tag groups or tags configured
  - UA security enabled but no Trusted® certificate and there is a rejected certificate present
- V6.30 adds a warning when the selected FactoryTalk® application does not exist in the directory
  - Application was removed / deleted
  - Red line on tab and display warning text



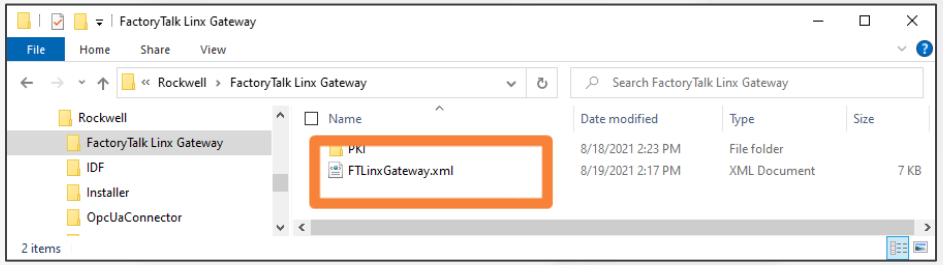
Rockwell Automation

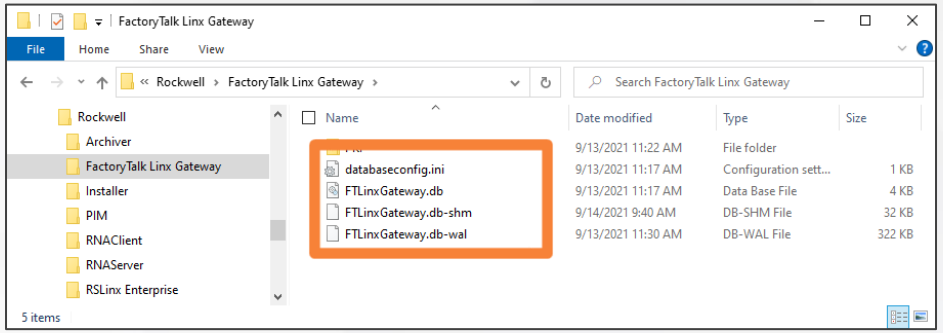
Linx Gateway

Configuration file hardening

Enhance security and meets IEC62443 requirement

- Before v6.21 FactoryTalk® Linx Gateway configuration was saved in an XML formatted text file
- V6.21 moved to a database file
  - Required to support tag group / list definitions
- V6.30 encrypted the database file
  - Enhances security by limiting changes to the FactoryTalk® Linx Gateway user interface
  - Files from earlier versions converted automatically
  - Utilize backup/restore in the FactoryTalk® Admin Console to save or recover the configuration (new with v6.30)
  - Utilize tag list import/export to perform mass edits of the configuration





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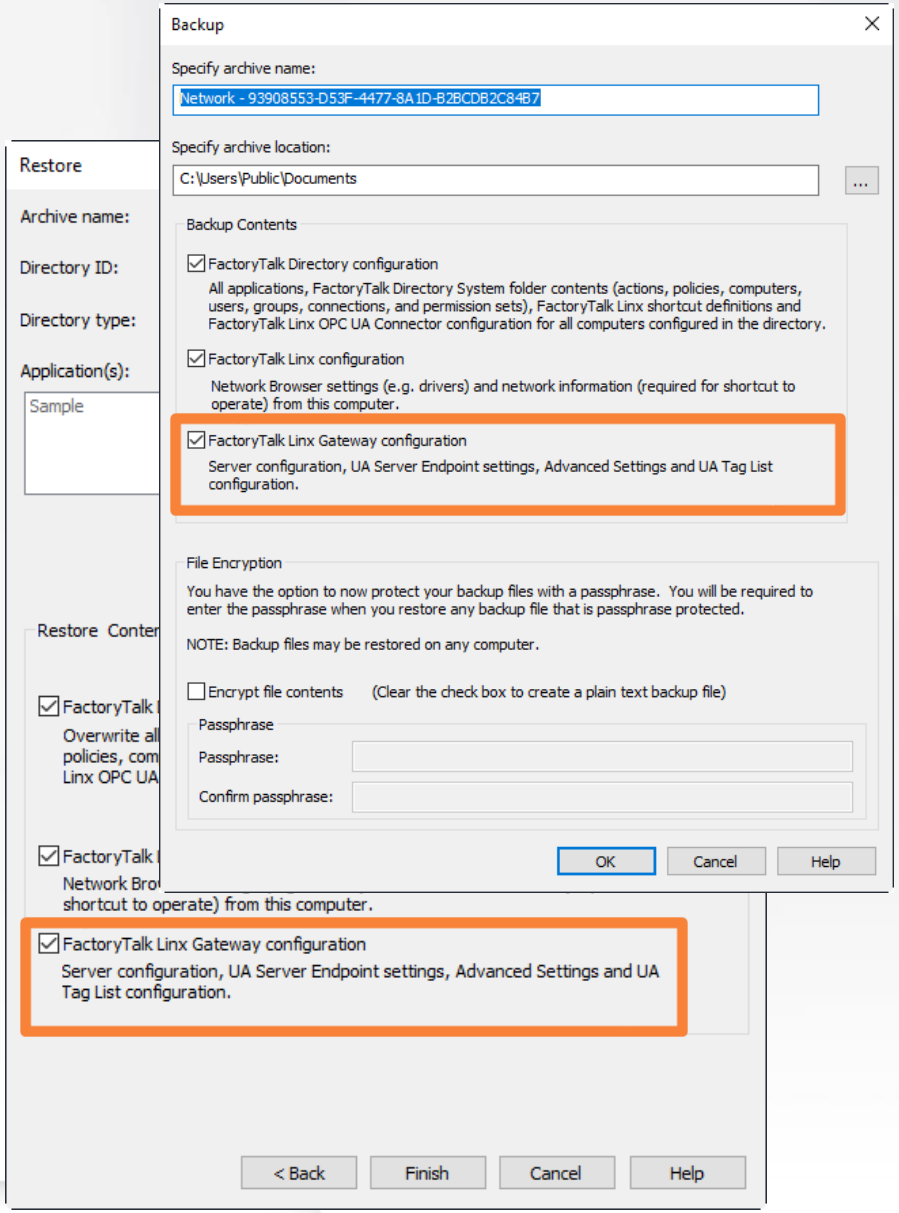
Linx Gateway

Configuration Backup / Restore

FTLGW ≥ v6.30

Greatly reduces the time / effort to restore system operation after a workstation failure or startup of a duplicate system

- The FactoryTalk® Service Platform v6.30 adds FactoryTalk® Linx Gateway into the application Backup / Restore
  - User option to password protect the backup file
  - Includes most (but not all) settings required to restore the running system
  - Includes other FactoryTalk® data server configuration in the application
    - FactoryTalk® Linx drivers and shortcuts
    - FactoryTalk® Linx OPC UA Connector endpoints
    - OPC-DA client interface settings
  - OPC UA certificates, private keys and passwords must be regenerated and Trusted® after a restore
- Meets IEC62443 requirement for system recovery



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Linx Gateway

Professional edition limited to 500K tags (vs unlimited)

FTLGW ≥ v6.30

Enhance security and meets IEC62443 requirement by reducing attack surface

- Previously the FactoryTalk® Linx Gateway Professional edition did not limit the tag quantity
  - Functioned until computer resource fully utilized
- FactoryTalk® Linx Gateway Professional v6.30 imposes a limit of 500,000 tags for both the DA and UA interface
  - Operational testing performed
- Applications migrated from earlier editions must operate under the new threshold
  - Use the FactoryTalk® Diagnostic Counter monitor to determine current tag volumes

FactoryTalk® Linx	Tag Quantity	Supported Architecture
Embedded	DA 500 UA 500	CompactLogix™ 5480 Windows Core
Basic	DA 1000 UA 1000	Station[1]
Standard	DA 5000 UA 5000	Station[1]
Extended	DA 15,000 UA 15,000	Station[1]
Distributed	DA 32,000 UA 32,000	Station or Distributed[2]
Professional	DA 500,000 UA 500,000	Station or Distributed[2]

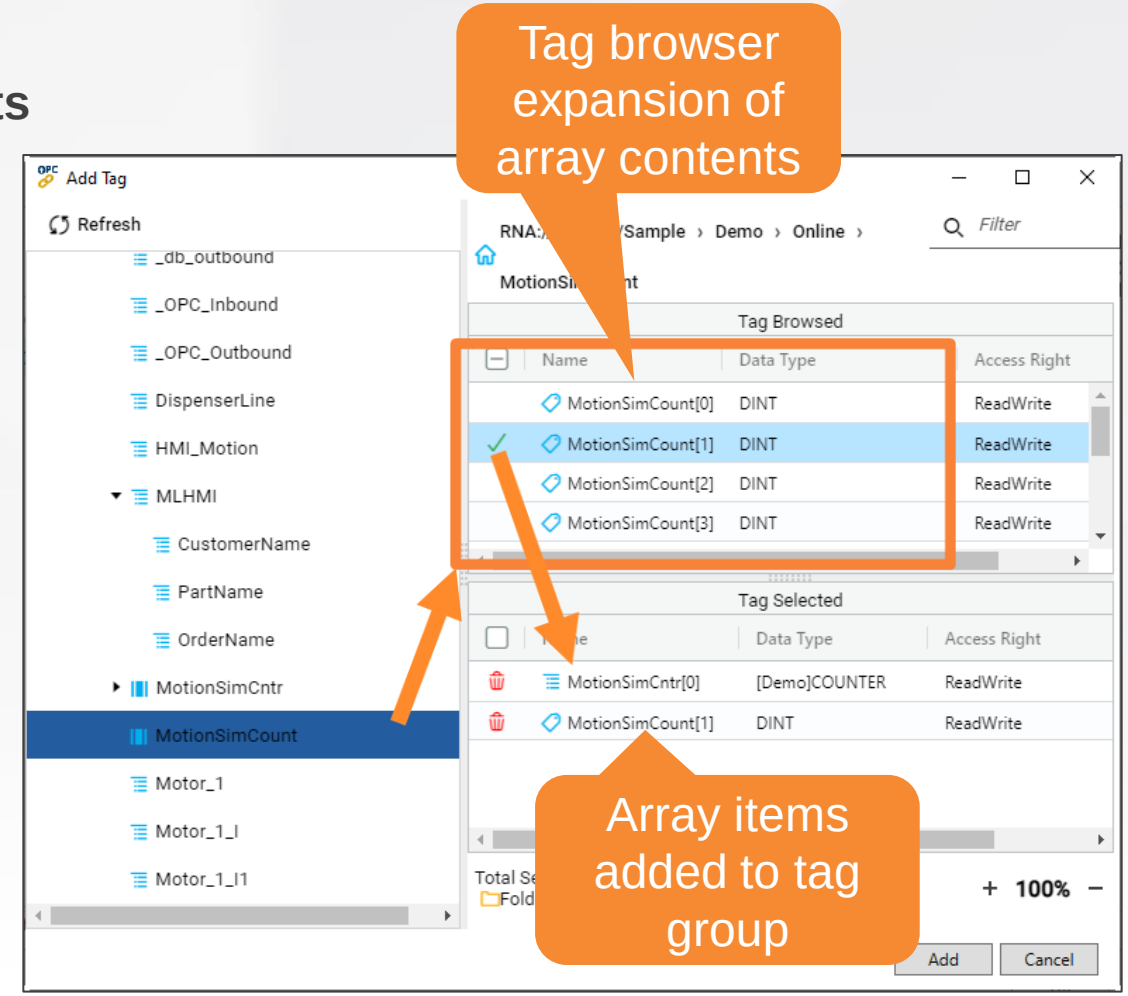
Rockwell Automation

FT Linx Gateway

Add array elements into tag groups

Enables access to array data for less sophisticated clients

- Before v6.21 all array elements were accessible as scalar items
- The V6.21 tag list feature only permitted full arrays to be included in a tag group
- V6.30 was enhanced to permit individual array contents directly into tag groups
  - Scalar elements
  - Structure elements
  - Scalar items from within a structure element



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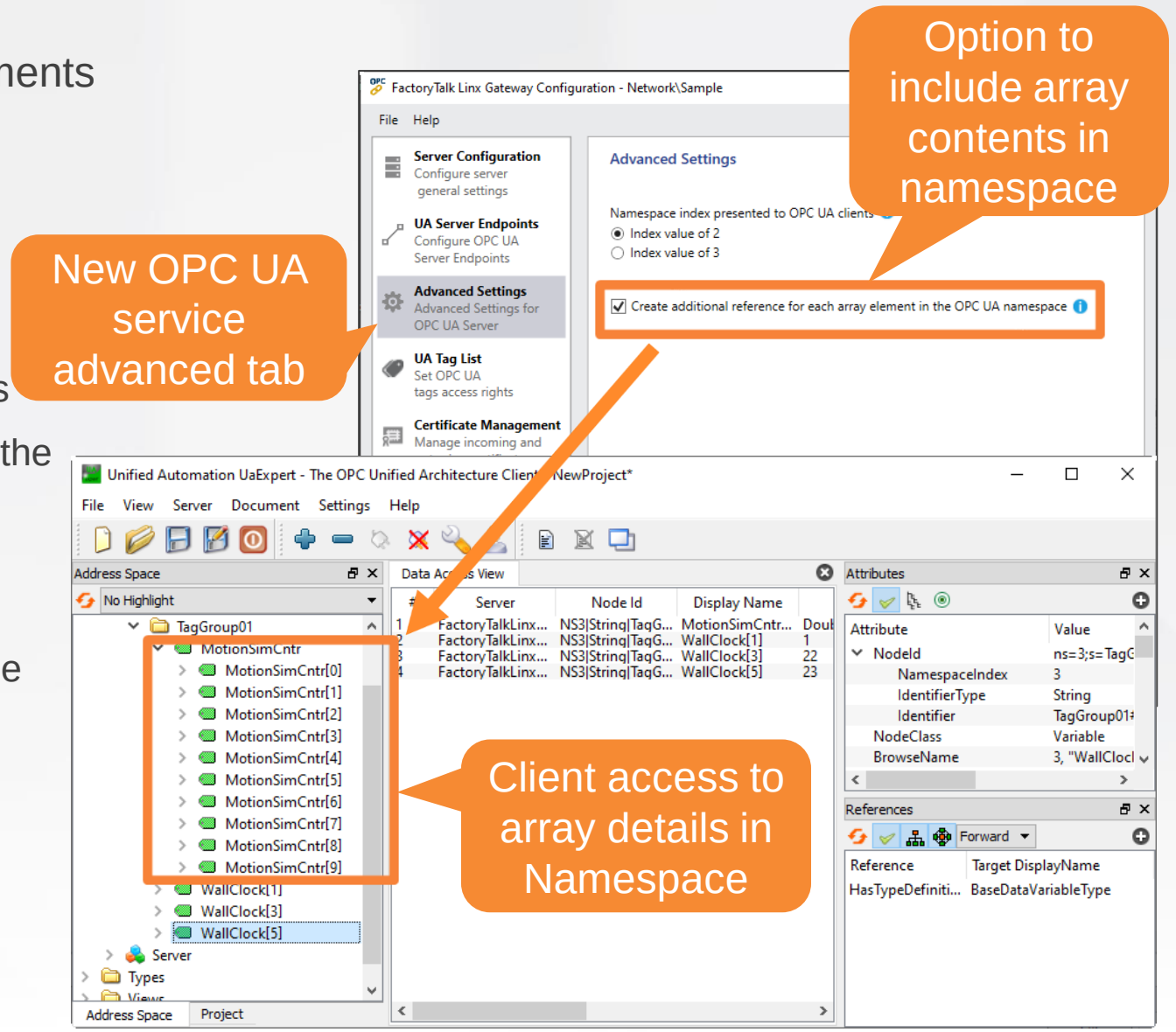
FTLGW ≥ v6.30

Linx Gateway

Namespace expansion to include array elements

Enables access to array data for less sophisticated clients

- V6.21 permitted addition of full array tags in tag list
  - Clients needed indexed reads to request elements
  - Namespace could not expand an array to browse the items
  - Clients limited to scalar items unable to access arrays data
- V6.30 adds an option to include all array elements in the namespace
  - Increases the namespace transfer duration
  - Enhances data access capabilities



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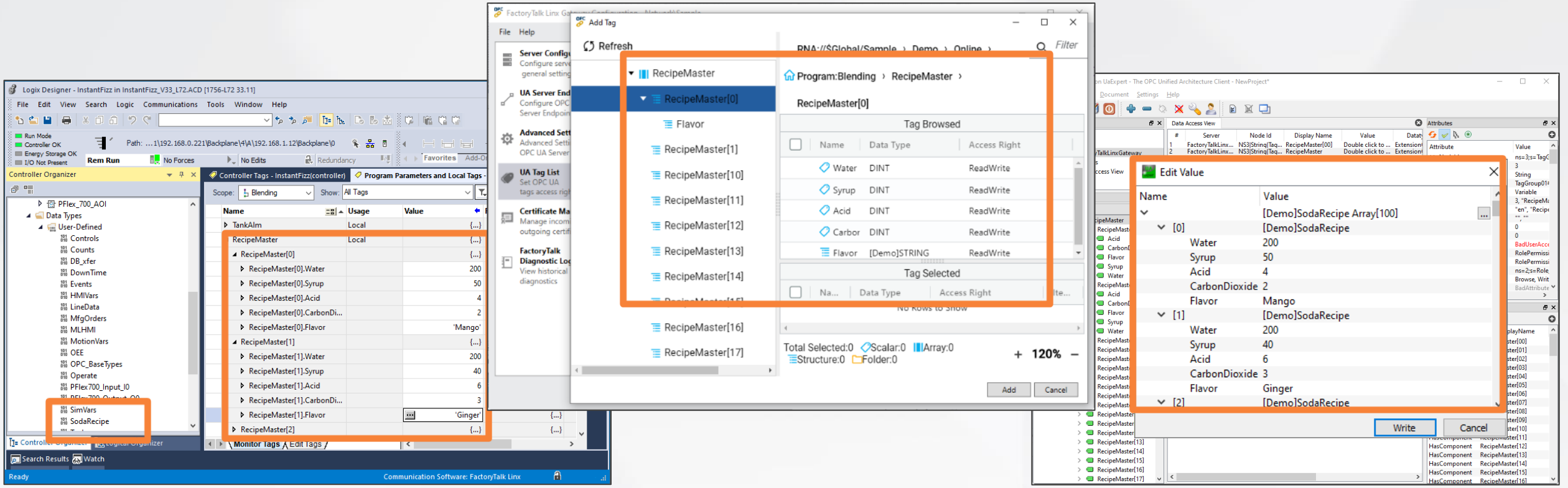
FTLGW ≥ v6.30

Linx Gateway

The only OPC UA server in the market to deliver Logix UDTs



Rockwell Automation

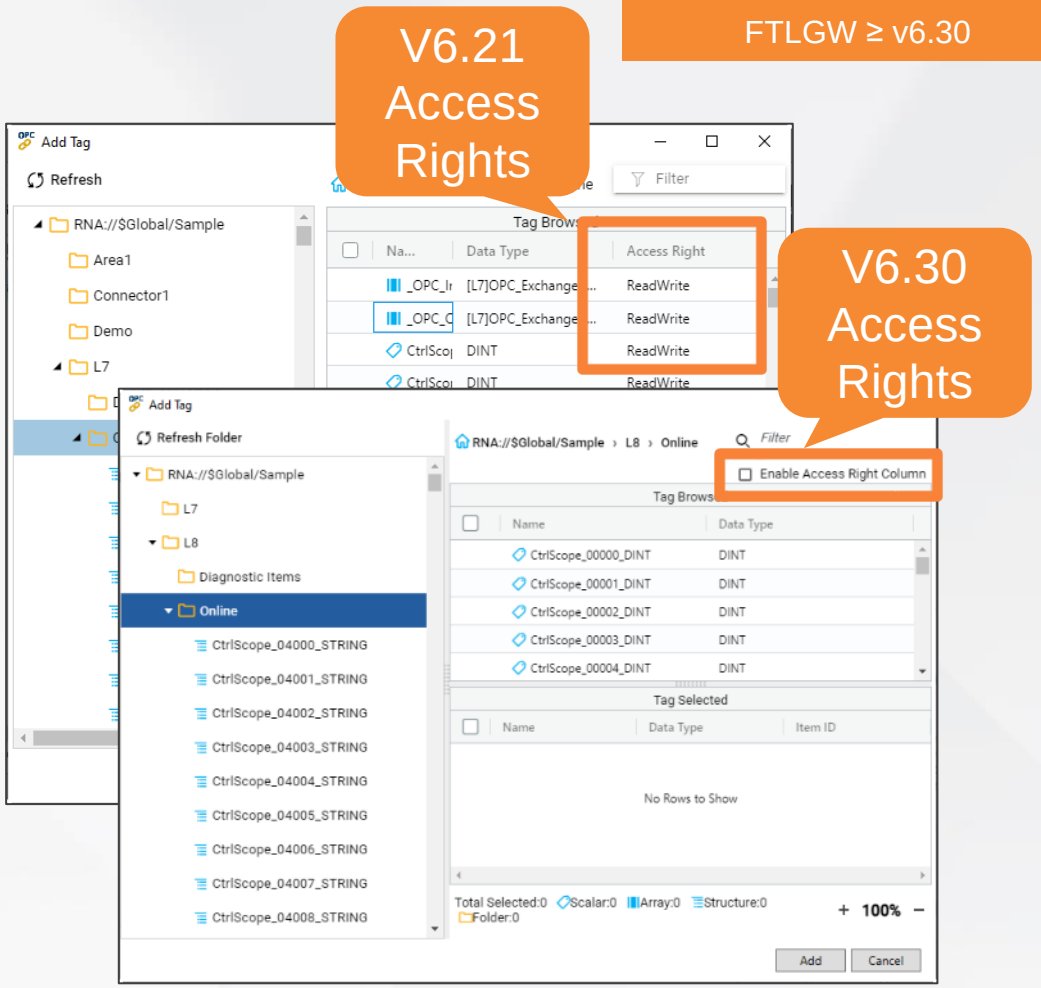
Linx Gateway

Tag group tag browser performance improvements

FTLGW ≥ v6.30

Enhanced system development productivity

- V6.30 enhances the tag browser to improve data load performance
  - Background load the FactoryTalk® application and data server content
  - Added a user option to show / hide tag read/write access
    - Performance significantly improved by hiding this field
  - Cached namespace to reduce browse communications
    - Manual refresh available
- Up to 93% reduction in wait times when launching and navigating the system namespace



Operation*	v6.21	v6.30
Launch -> shortcut -> online	~45 Sec	~15 Sec
Select different complex tag	~3 Sec	~3 Sec
Select another scope	~97 Sec	~16 Sec
Switch to different controller	~88 sec	~6 Sec

Logix L85 project with 5K controller + 5K program tags, results may vary

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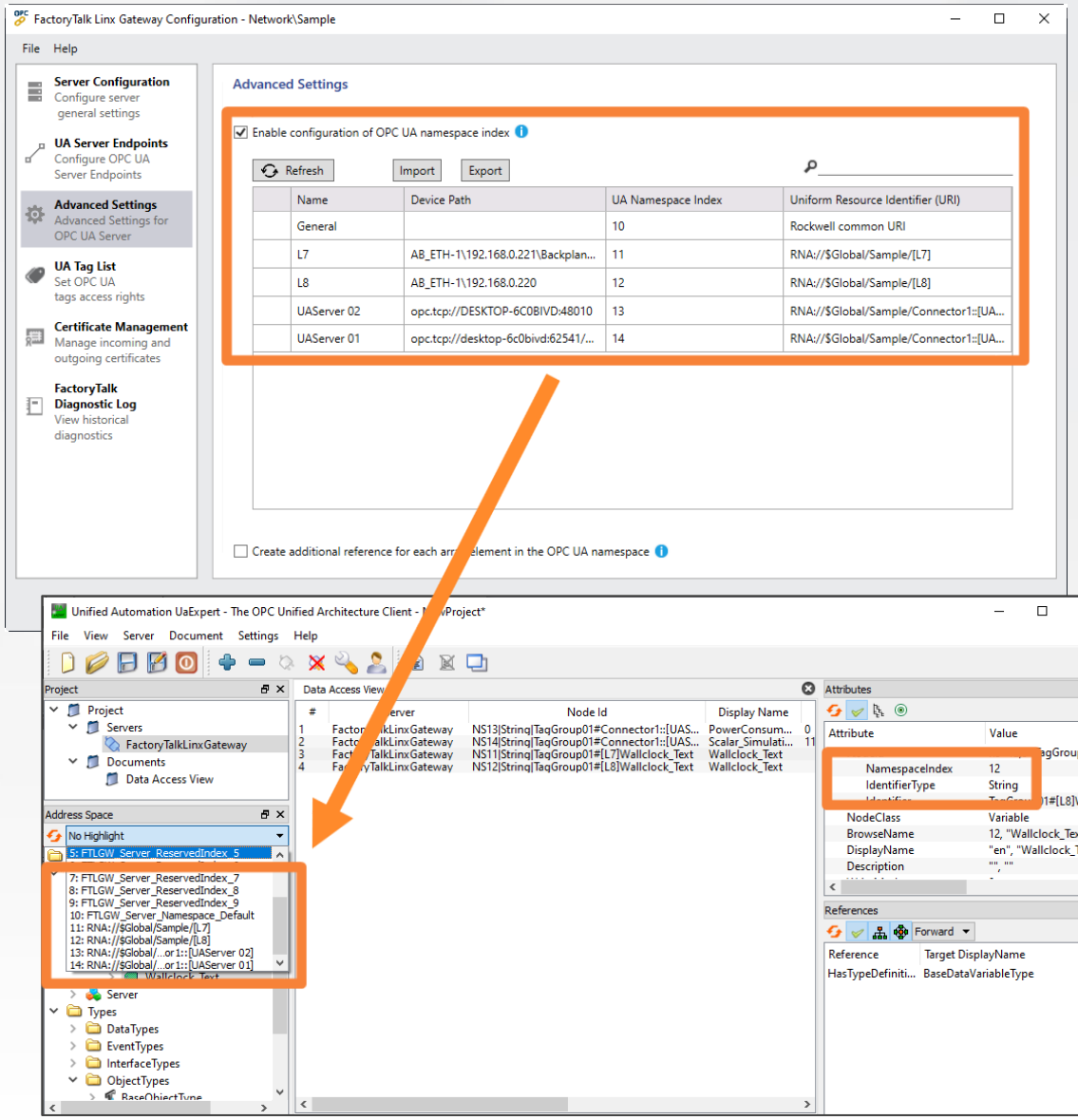
Linx Gateway

Namespace Index per data source

Enhanced system development productivity

- V6.21 added the ability to create tag access lists and included structured type information
  - Type names were generated by including source information in the name to help prevent issues when one was used for multiple types
- V6.30 adds an option to use individual namespace indexes for each FactoryTalk® Linx shortcut and FactoryTalk® Linx OPC UA Connector endpoint
  - Avoids name / type definition collisions
  - Provides more concise data type names
  - More closely aligned with OPC specification
  - Clients can utilize the index to sort/filter data by source
  - New Advance Configuration option to adjust namespace indexes to deliver system change consistency



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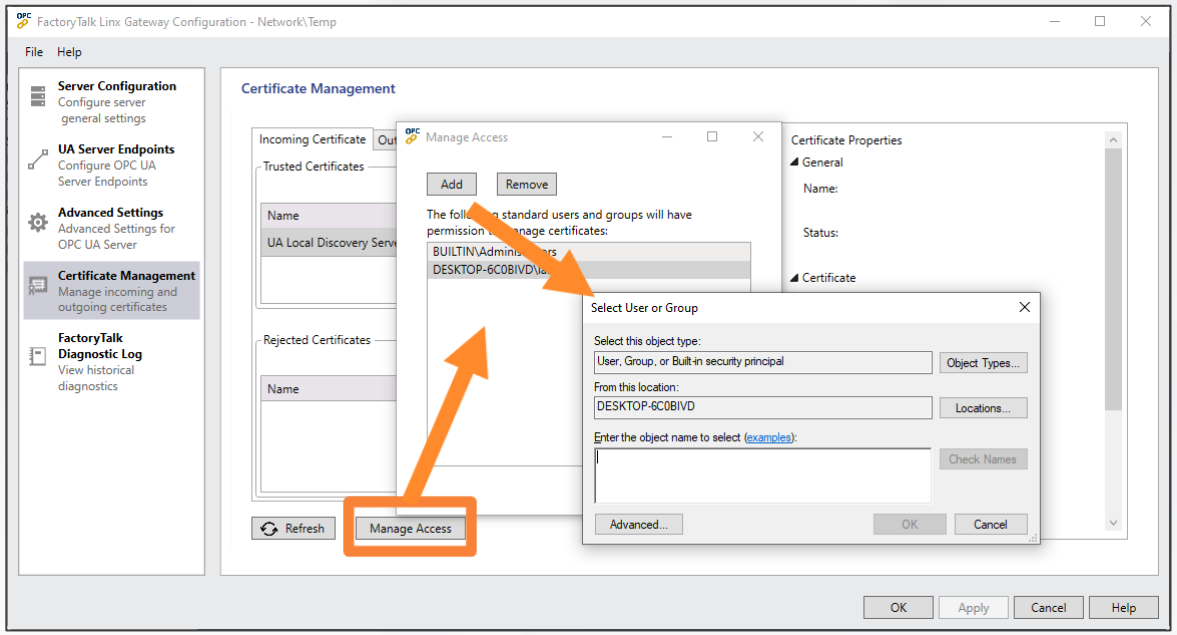
Linx Gateway & Linx OPC UA Connector

Managed certificate access

Enhanced system security

- Previously all user could manage the FactoryTalk® Linx Gateway and FactoryTalk® Linx OPC UA Connector's OPC UA security certificates
  - Trust / Reject
  - Regenerate / replace
- Most IT departments require strict control over certificates
- FactoryTalk® Linx Gateway and FactoryTalk® Linx OPC UA Connector v6.30 changed the interface to control
  - Initially limited to administrators
  - Administrators can approve / authorize other users



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Linx OPC UA Connector

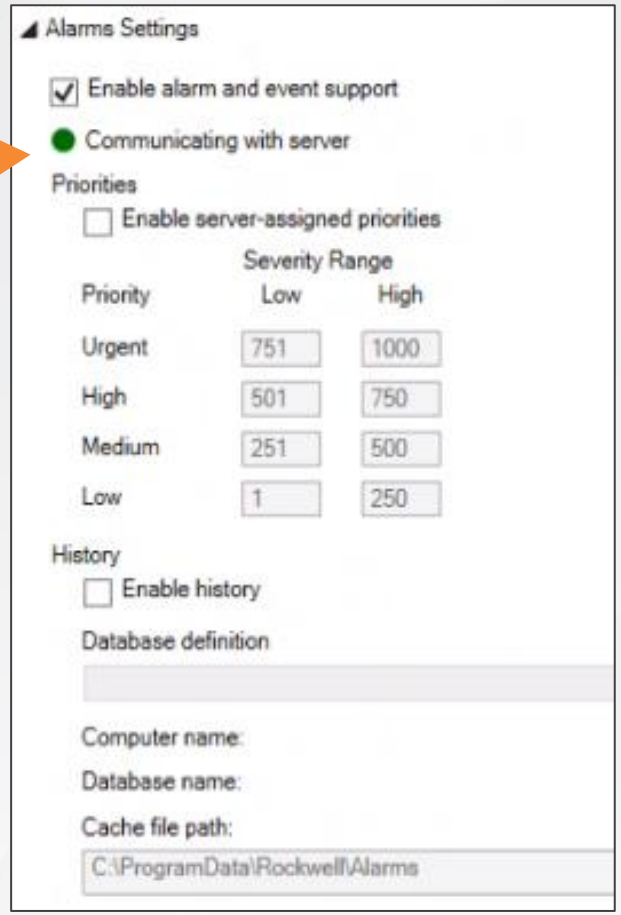
OPC UA Alarms integrated with FactoryTalk® Alarms and Events

FTL ≥ v6.30, FTAE ≥ v6.30 and FTVSE ≥ v13,

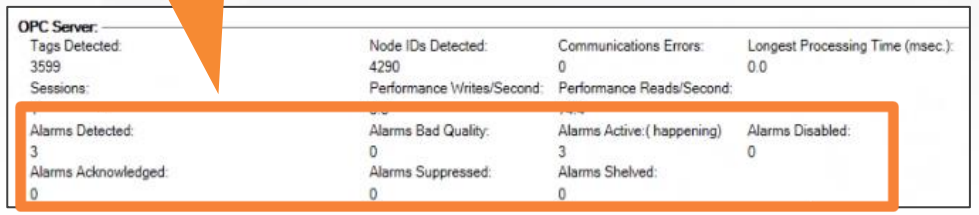
Simplifies integration of FactoryTalk® View SE with other systems and vendors

- Previously linking alarms from third-party systems with FactoryTalk® Alarms required configuration of HMI alarms
  - Additional effort to recreate alarms
  - By contrast Logix alarms are automatically added
- The FactoryTalk® Linx OPC UA Connector and FactoryTalk® Alarms and Events v6.30 added support for OPC UA Alarms
  - Enabled / configured in the OPC UA Connector
  - FactoryTalk® Alarms and Events will retrieve alarm definitions from the OPC UA Server, receive alarm state change messages and return operator feedback
  - FactoryTalk® View SE v13 Alarm Summery screen includes OPC UA alarms and provides consistent operator interactions

Endpoint alarm settings



Alarm diagnostic counters



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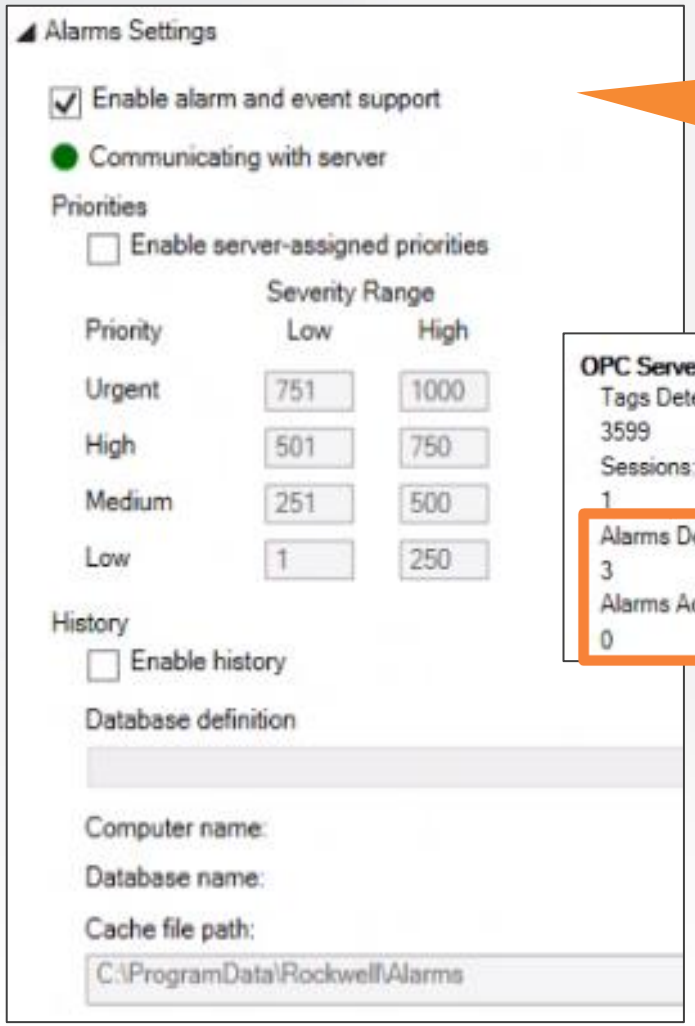
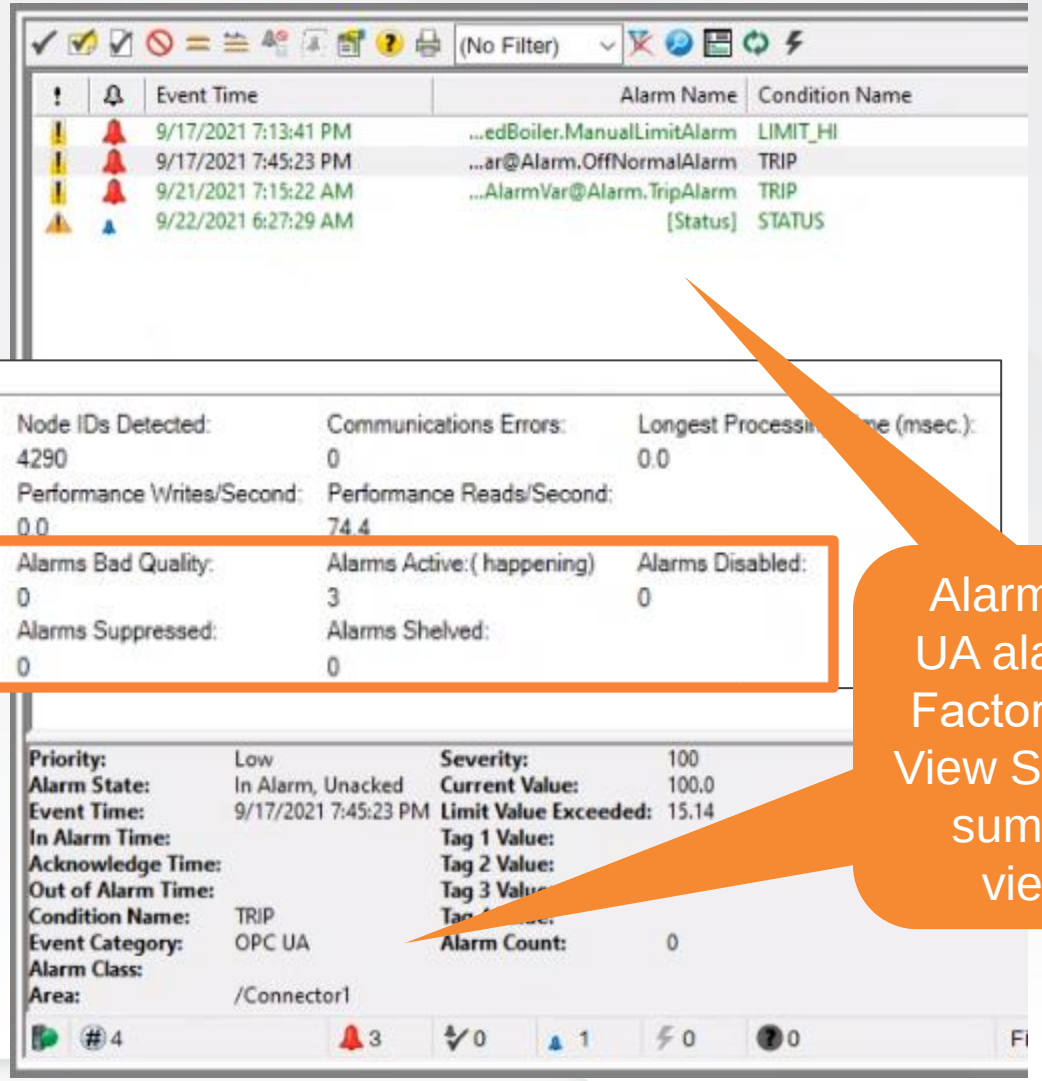
FT Linx OPC UA Connector

OPC UA Alarms integrated with FactoryTalk® Alarms and Events configuration and display



Endpoint alarm settings



Alarm diagnostic counters

Alarm OPC UA alarms in FactoryTalk® View SE alarm summary viewer

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FactoryTalk Linx OPC UA Connector

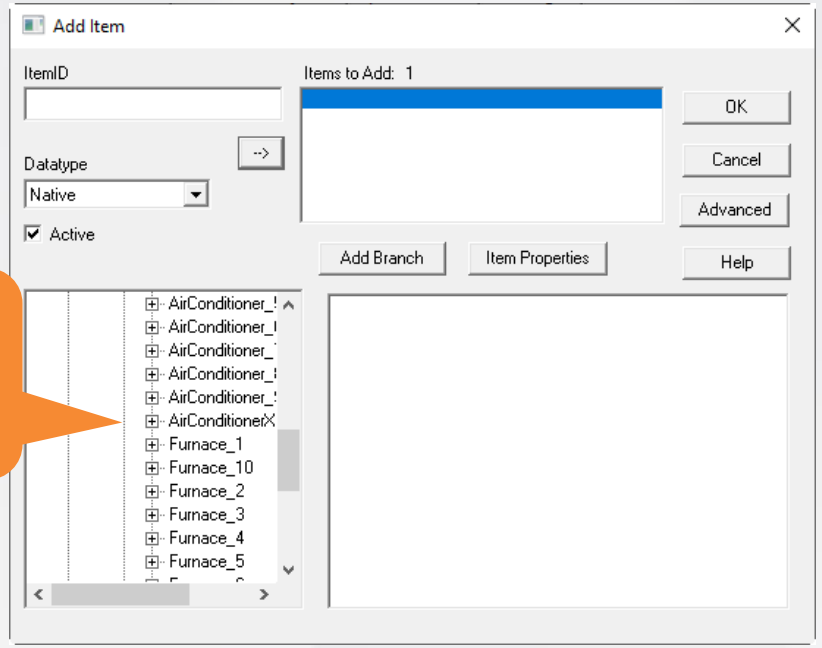
Access structures and other OPC UA data types

FTLUAC ≥ v6.30

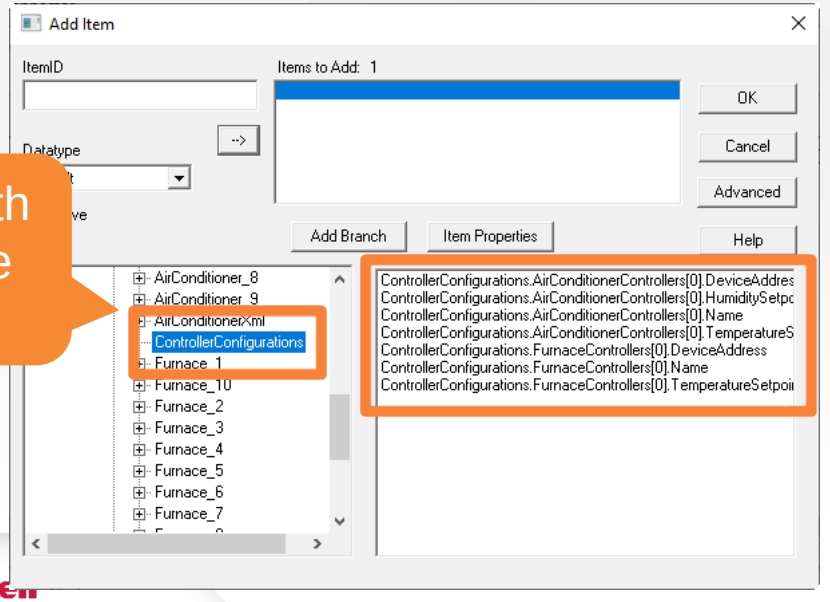
Confirms that FactoryTalk® software can access OPC UA data require to monitor and control most applications

- The FactoryTalk® Linx UA Connector expands it data access capabilities with each release
  - V6.00 Scalars
  - V6.11 Scalar arrays
  - V6.20 Tags defined in tags
  - V6.21 Subtypes
- V6.30 now provides access most data constructs from OPC UA Servers
  - Structures and complex types
  - Additional OPC defined types
  - Option to convert unsupported base types to strings
  - Tag meta / extended properties

V6.21no structures available



V6.30 with structure support



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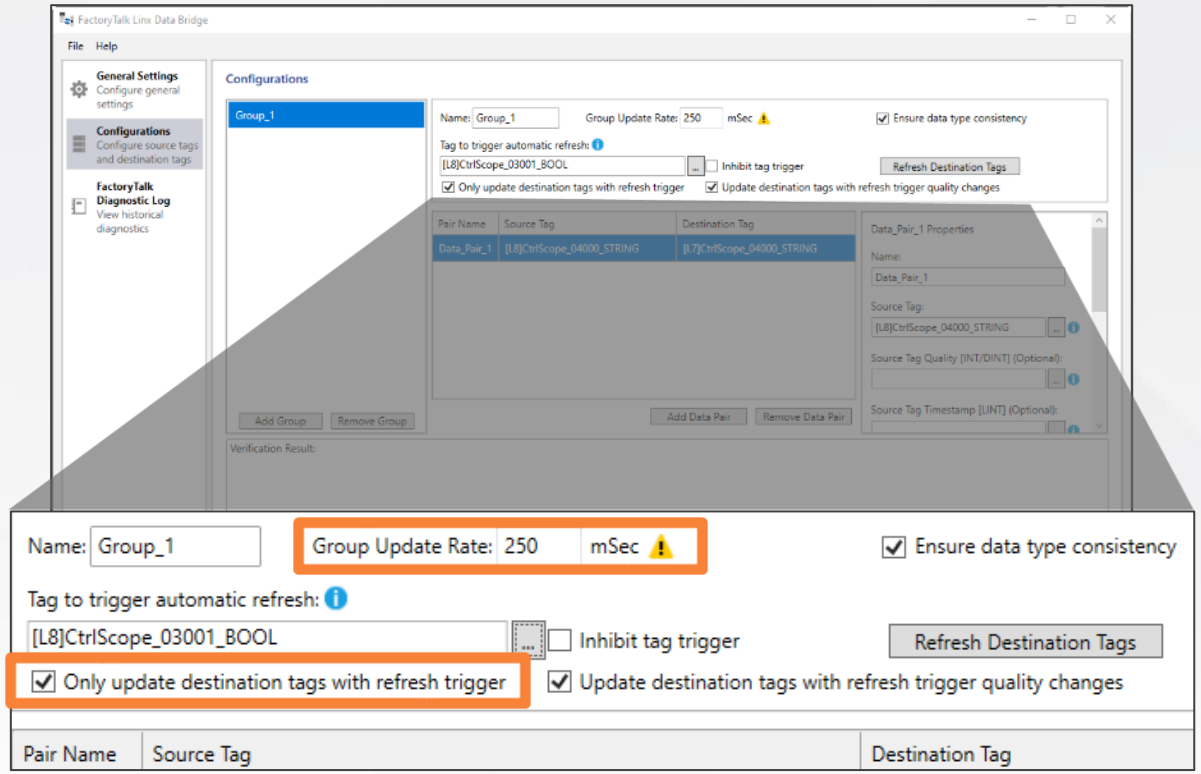
Linx Data Bridge

Option to only refresh destination tags when trigger tag changes

Supports a broader set of applications by permitting controller to determine when data is delivered

- V6.21.01 added the ability for destination value to be updated when linked tag value changes state
  - Enables a controller to force a refresh
- V6.30 extends this feature to provide an option to disable automatic updates and only update the destination when commanded by the tag trigger
  - Useful for collection of data at a preset interval for reporting or analysis
- Also changes Group Update Rate to actual rate used by FactoryTalk® Live Data

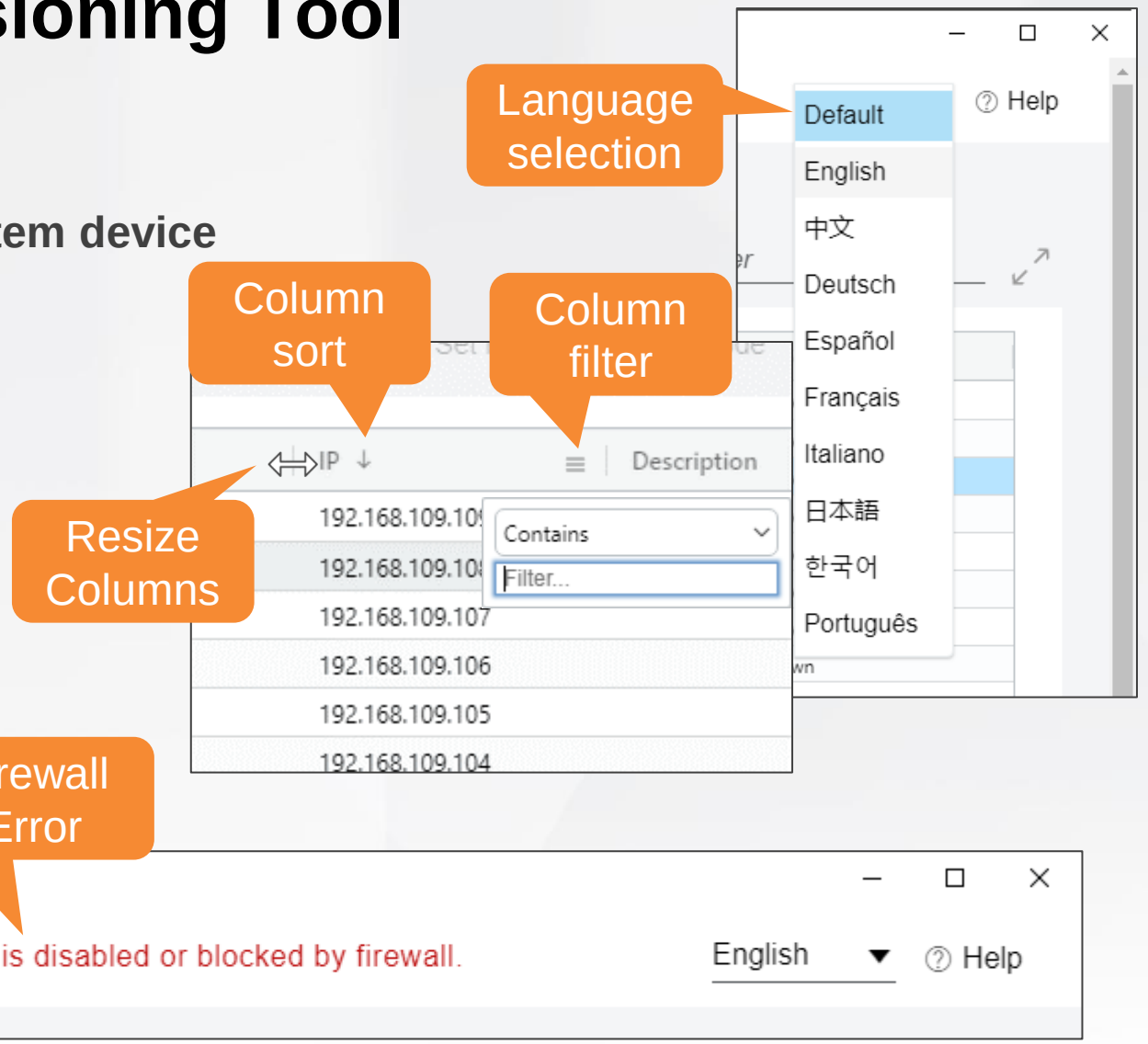


EtherNet/IP Address Commissioning Tool

Usability and Productivity enhancements

Reduce the time required to bring automation system device online

- V2.00.00 adds many improvements to the user interface
  - Link received MAC to config list item
  - Table column whitespace reduction, adjustable width and filter
  - Confirm / warn port 67 access in Windows firewall
  - User selection to move to different item in commission from list
  - Localized user interface

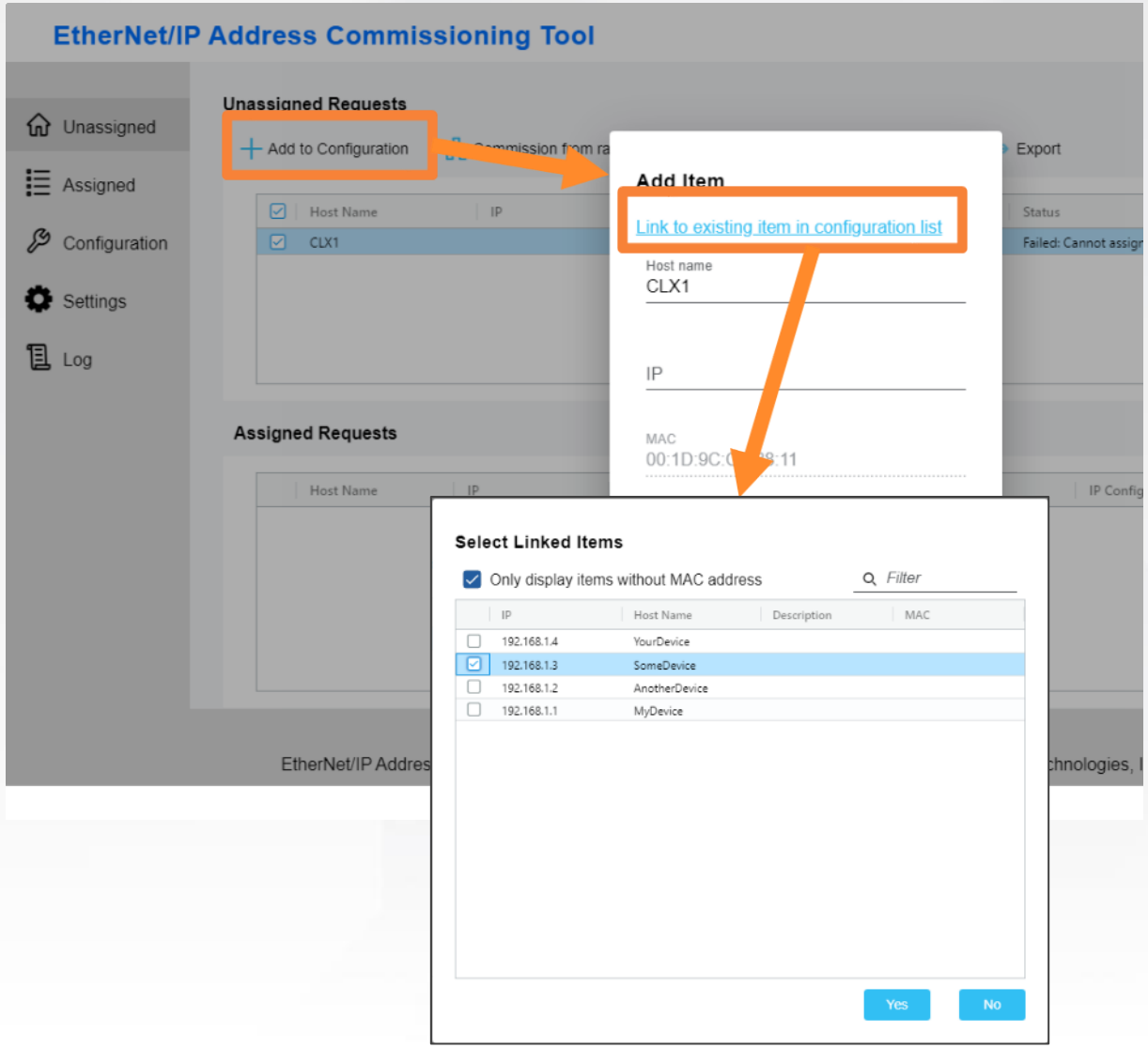


EtherNet/IP Address Commissioning Tool

Merge new MAC to item in configuration

Enhanced productivity for predefined configurations and device replacement

- Originally if a MAC address was not in the user's configuration, they had to manually enter an IP address for the device
  - Slower error-prone process
- v2.00 provides an option to link a new MAC to an existing item in the configuration
  - Merge device MAC address into predefined configuration
  - Replaces a MAC if one was already captured, making device replacement easier
  - Saving time and reducing errors



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Thank You!

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