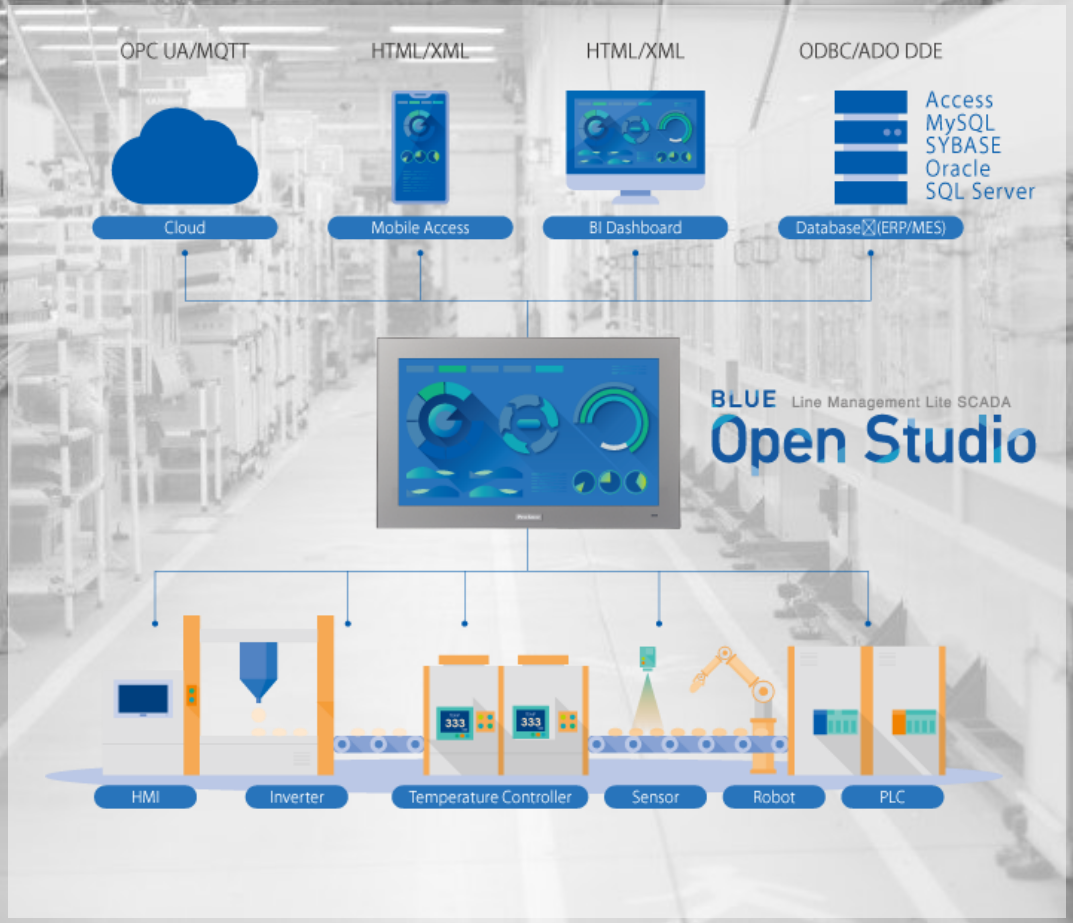
Pro-face America Learning Center

What is new in BLUE Open Studio



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BLUE Open Studio

Version 8.1 + Service Pack 4 (v81.4.0)

SMA – Mobility

Mobile Access Thin Client (HTML5) Enhancements

Benefits

- Support for Localization on HTML5
  - Dynamically switching languages.
  - Allows more flexibility for projects installed in different areas.
- Additional Improvements:
  - Support for Sorting the columns on Alarm Control object.
  - "Push-like" style on Check-boxes and Radio Buttons.
  - Improved Performance, Scalability and Stability.

Studio Mobile Access (SMA) Thin Clients

Platforms: Agnostic

Host: Web Browser agnostic

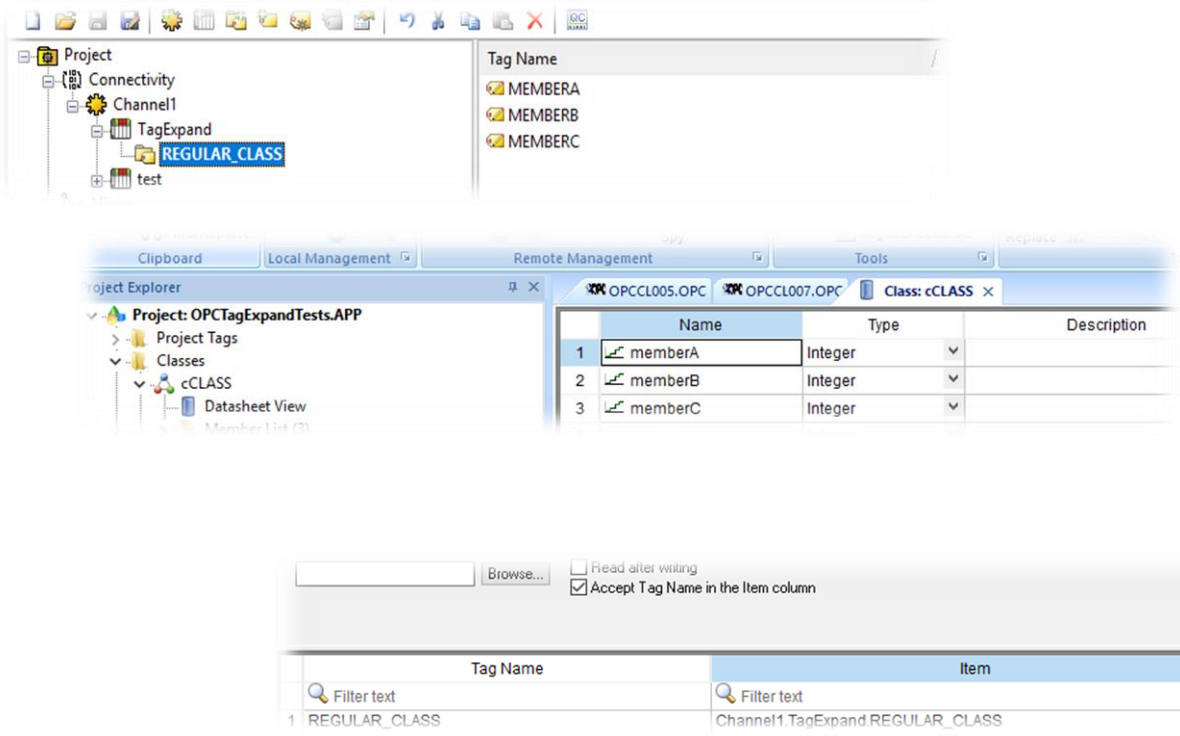
Technology: HTML5

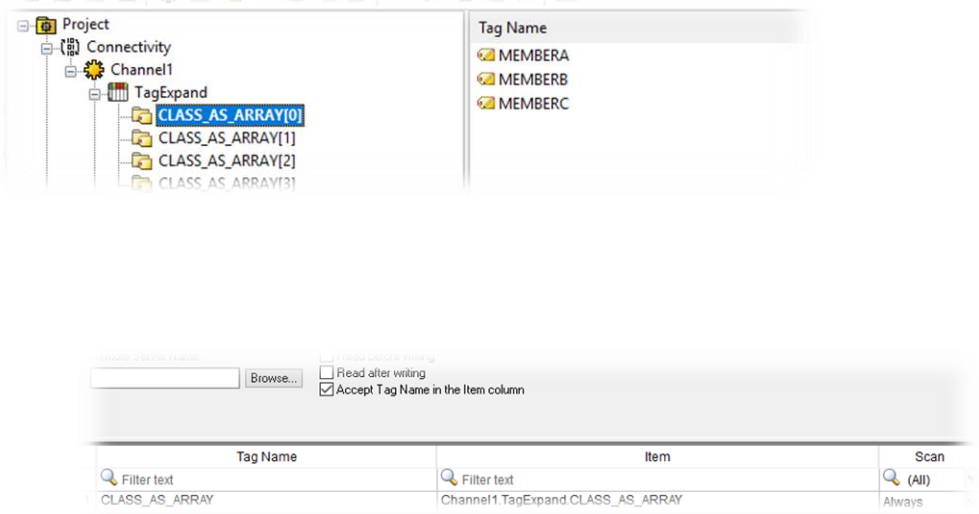
Interoperability

Tag Expansion for OPC UA and OPC XML/DA Clients

Benefits

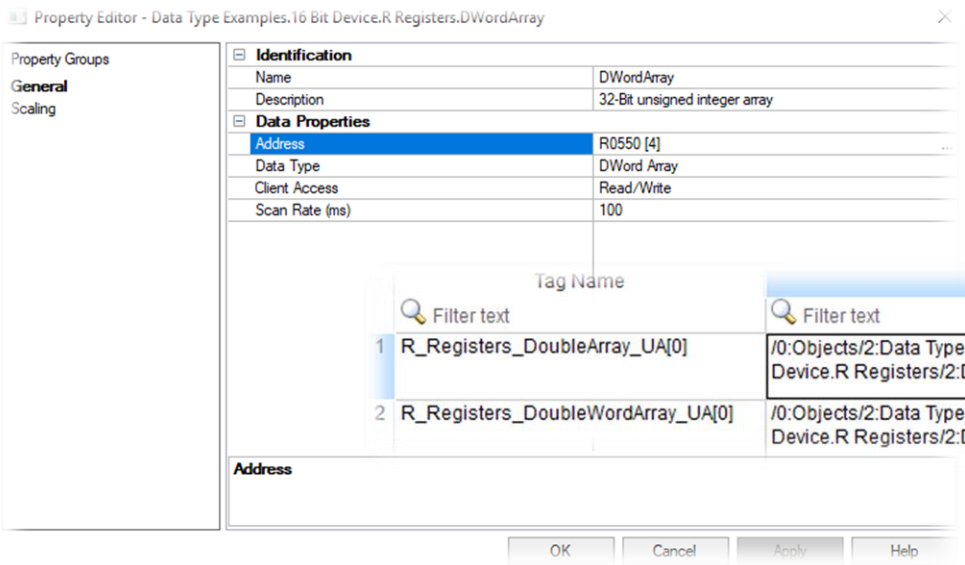
- Easily associate a Class Tag with a Structure from the third-party OPC Servers, using only one line on the OPC Client worksheets.

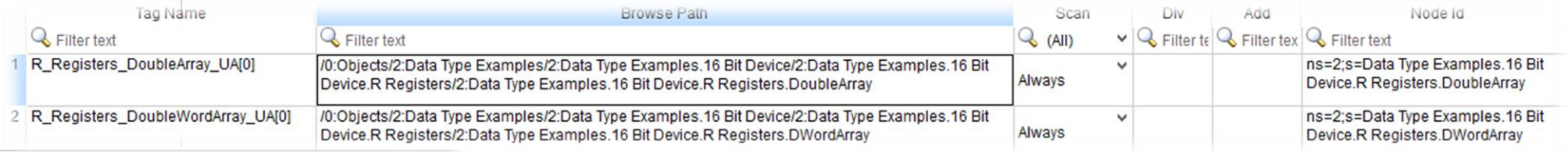




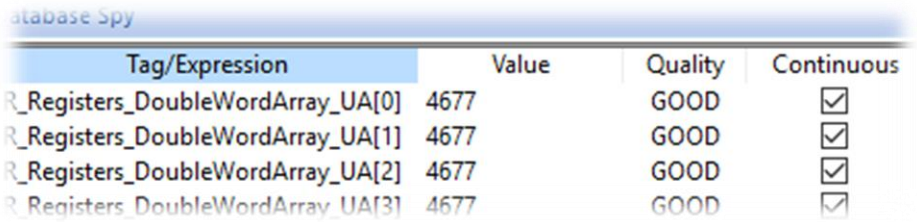
Interoperability

Array Distribution for OPC UA and OPC XML/DA Clients





	Tag Name	Browse Path	Scan	Div	Add	Node Id
	Filter text	Filter text	(All)	Filter te	Filter tex	Filter text
1	R_Registers_DoubleArray_UA[0]	/0:Objects/2:Data Type Examples/2:Data Type Examples.16 Bit Device/2:Data Type Examples.16 Bit Device.R Registers/2:Data Type Examples.16 Bit Device.R Registers.DoubleArray	Always			ns=2;s=Data Type Examples.16 Bit Device.R Registers.DoubleArray
2	R_Registers_DoubleWordArray_UA[0]	/0:Objects/2:Data Type Examples/2:Data Type Examples.16 Bit Device/2:Data Type Examples.16 Bit Device.R Registers/2:Data Type Examples.16 Bit Device.R Registers.DWordArray	Always			ns=2;s=Data Type Examples.16 Bit Device.R Registers.DWordArray



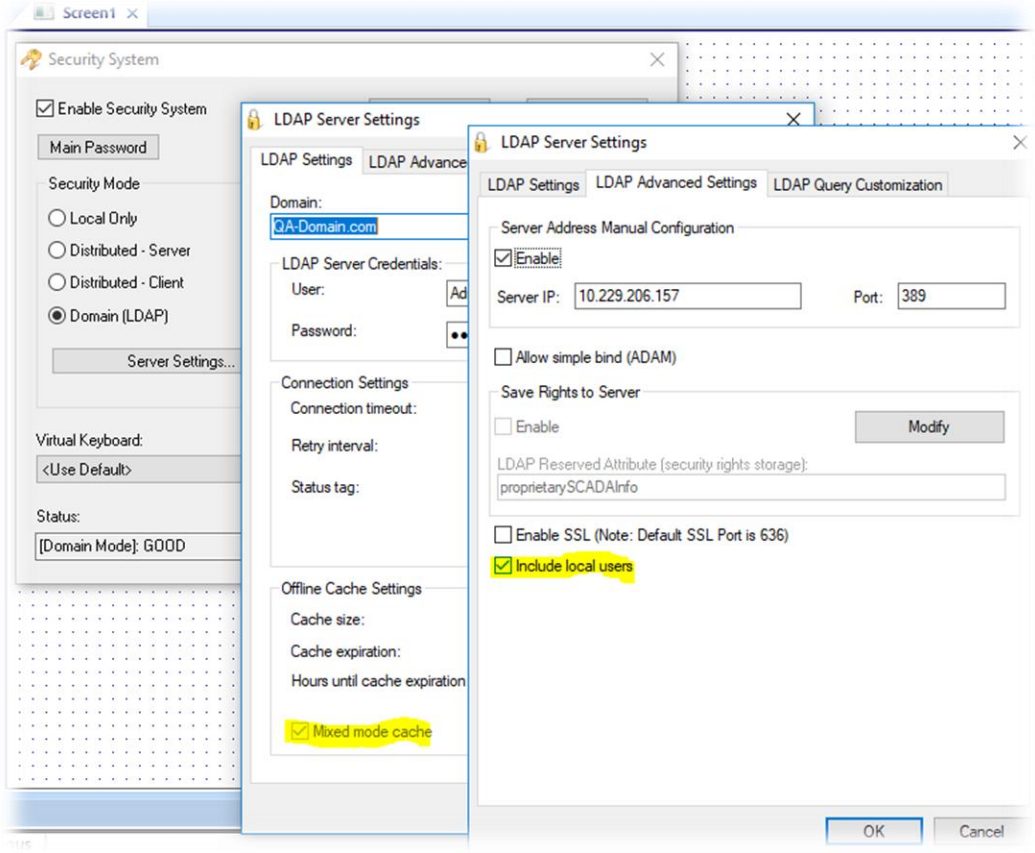
Tag/Expression	Value	Quality	Continuous
_Registers_DoubleWordArray_UA[0]	4677	GOOD	☑
_Registers_DoubleWordArray_UA[1]	4677	GOOD	☑
_Registers_DoubleWordArray_UA[2]	4677	GOOD	☑
_Registers_DoubleWordArray_UA[3]	4677	GOOD	☑

Benefits

- Easily associate an Array Tag with an Array Item from the third-party OPC Servers, using only one line on the OPC Client worksheets.

Security

Enhanced Security System Enabling Mixed Mode for Domain & Local Modes



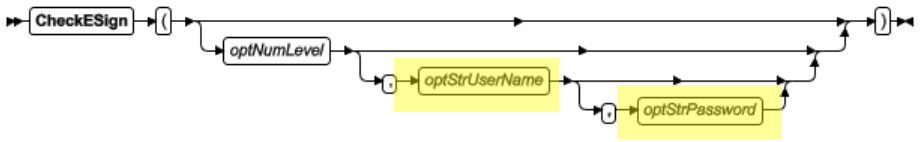
Benefits

- Users created using Local Mode can be used when the Security Mode is Domain (LDAP), even when connection with the Active Directory is available.
- Enhancement on existing Mixed Mode feature with the option to Include local users.
- Flexibility on OEM projects.
- Flexibility for Generic Templates.

Security

Enhanced CheckESign() built-in function

```
CheckESign(optNumLevel,optStrUserName,optStrPassword)
```



21 CFR Part 11

Benefits

- New Optional Parameters for optUserName and optPassword.
- Script level check.
- Verification control for sophisticated specifications, including FDA 21 CFR Part 11.
- Enable custom authentication (e.g., double authentication).

Additional Demo Projects

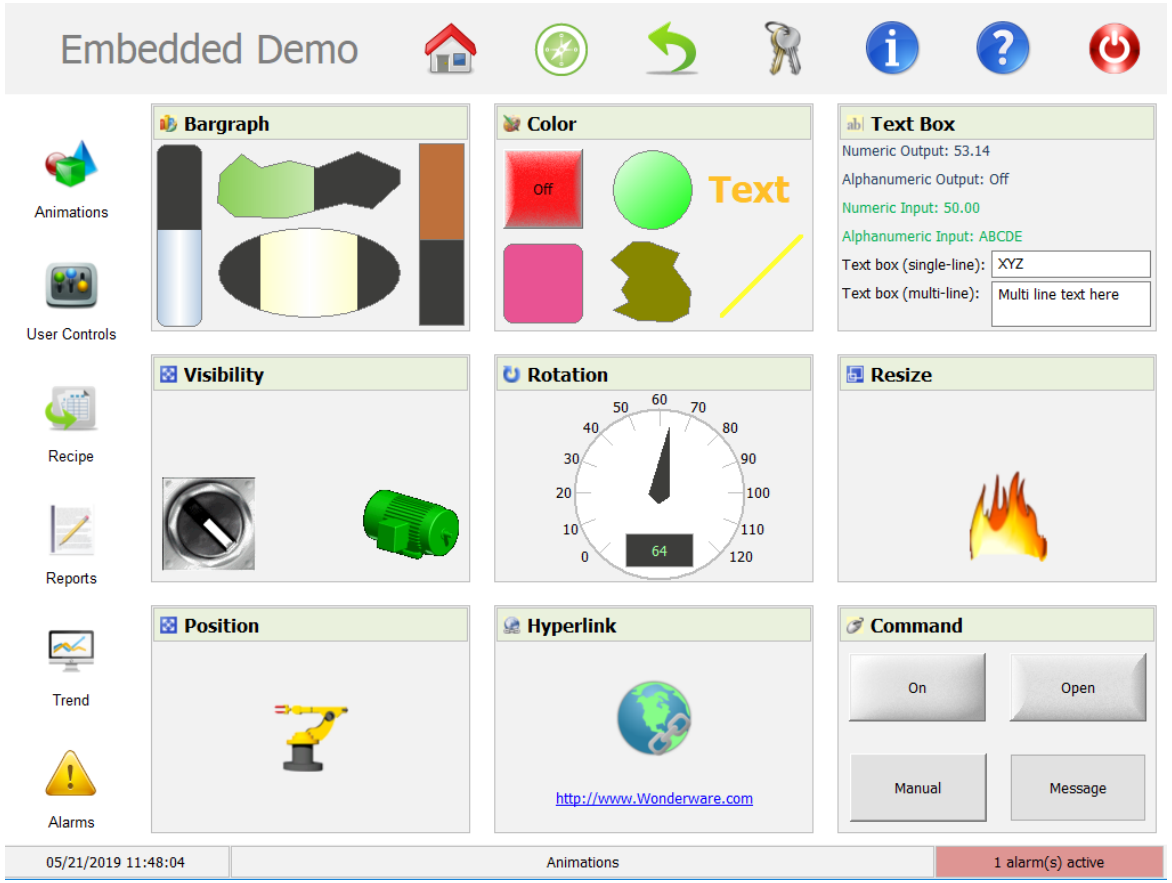
Embedded Demo

Windows IoT

Windows Embedded 8 Standard

Windows Embedded Standard 7

Windows Embedded Compact



Benefits

- New demo Project.
- Installed as part of the Setup process.
- Same folder as the traditional PCDemo (C:\Users\Public\Public Documents\<Product Name and Version> Demo\).
- Allows demonstrations for EmbeddedView.

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BLUE Open Studio

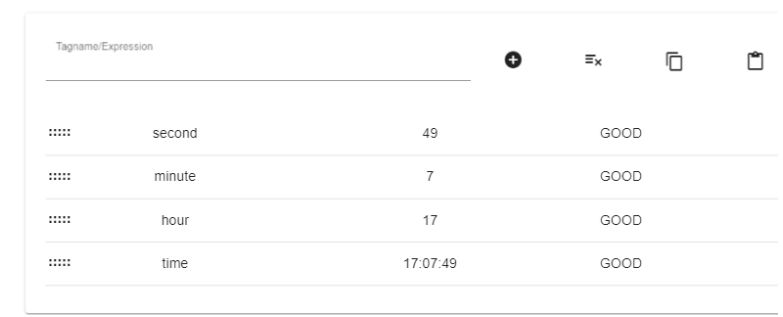
Version 8.1 + Service Pack 3 (v81.3.0)

Enhanced Support

HTML5 Remote Database Spy

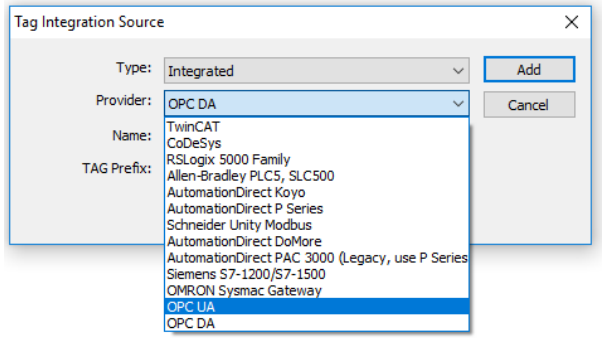
Benefits

- The HTML5-based Remote Database Spy allows the user to monitor/set tags, execute expressions to troubleshoot projects remotely.
  - Set/Monitor tags remotely.
  - Execute expressions remotely.
  - Access Database Spy from any HTML5-compatible browser from PCs, Tablets, or Smart Phones (plug-in free).
  - Secure (TLS) connection with the server (firewall friendly) and built-in authentication.



Interoperability

Tag Integration for third-party OPC UA and DA Servers



Benefits

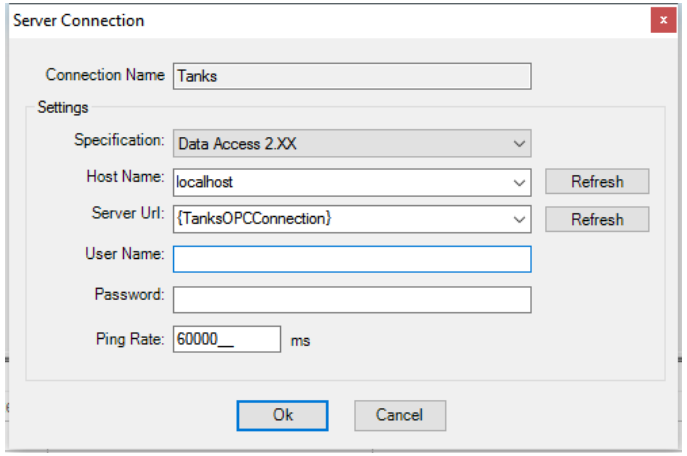
- Tag Integration drastically improves productivity and prevents typing errors allowing the user to browse remote tags instead of typing them when configuring the screens and other application tasks.
  - Browse items from external OPC UA Servers while designing project interfaces.
  - Automatically set up tag communications in the background.
  - No need to open up worksheet and manually set tag communications.
  - Includes tag integration for Schneider-Electric OPC. Factory Server (OFS), which supports tag-based PLCs.

Interoperability

Support for {TagName} in the OPC XML/DA Configuration Interface

Benefits

- Allows the user to change the connection settings for the OPC Server(s) dynamically during runtime.



SMA – Mobility

Enhanced support for Animations on Mobile Access Thin Clients (HTML5)

Studio Mobile Access (SMA) Thin Clients

Platforms: Agnostic

Host: Web Browser agnostic

Technology: HTML5

Benefits

- Continuous improvements in the HTML5 graphical interface (Mobile Access Thin Clients) provides a high level of portability and mobility to InTouch Edge HMI users.
  - Support for suitable Animations (e.g., Visibility/Position, Resize) on the following objects: Alarm/Event Control, Grid Control, Trend Control, Push-button, List-Box, Smart Message.
  - Support for rotated linked pictures.
  - Support for button styles (Standard, 3D Sharp, 3D Soft), in addition to the OS Like style.

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BLUE Open Studio

Version 8.1 + Service Pack 2 (v81.2.0)

Expanded OS Support

Two modern operating systems added to software support

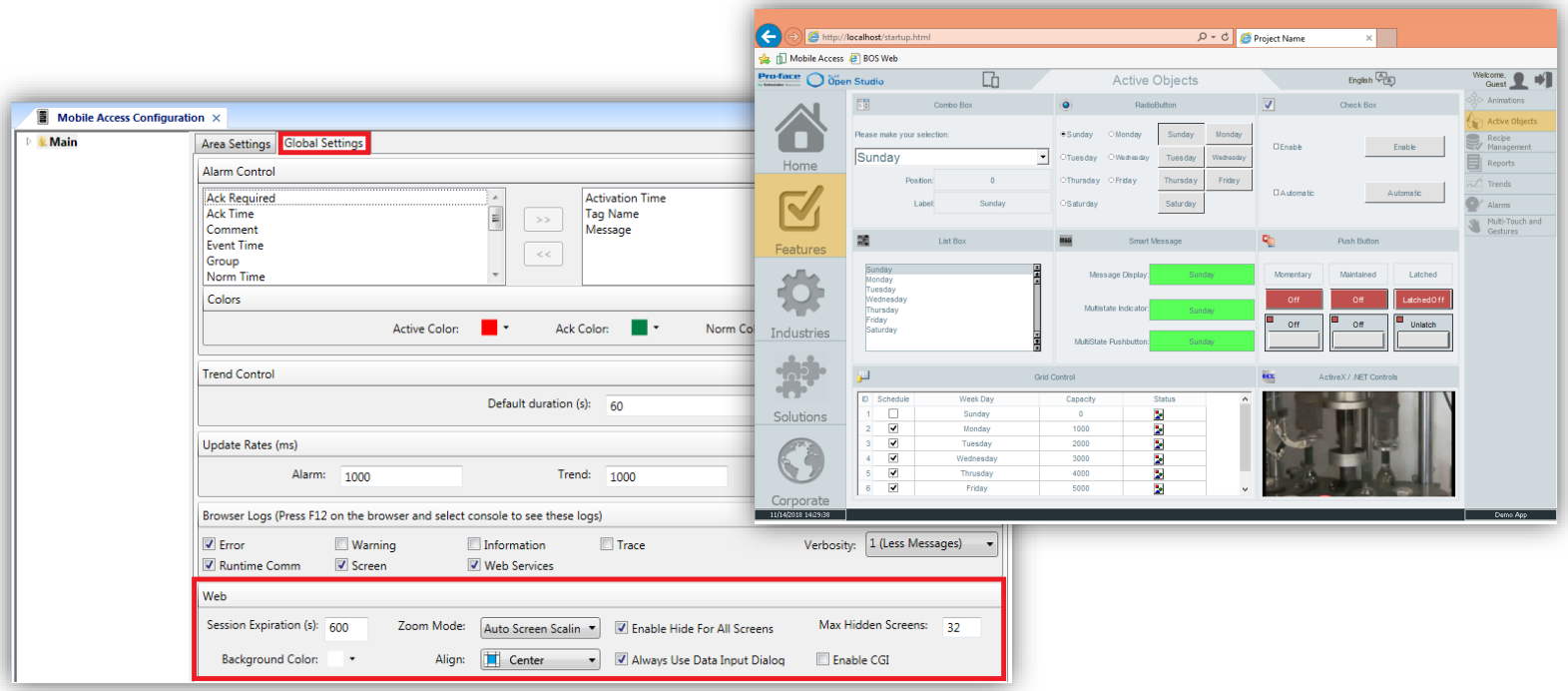
Windows Embedded 8.1 Industry

Benefits

- Support of major operating systems used on PFA hardware & 3rd-party PCs.
- Both Runtime & Buildtime supported.

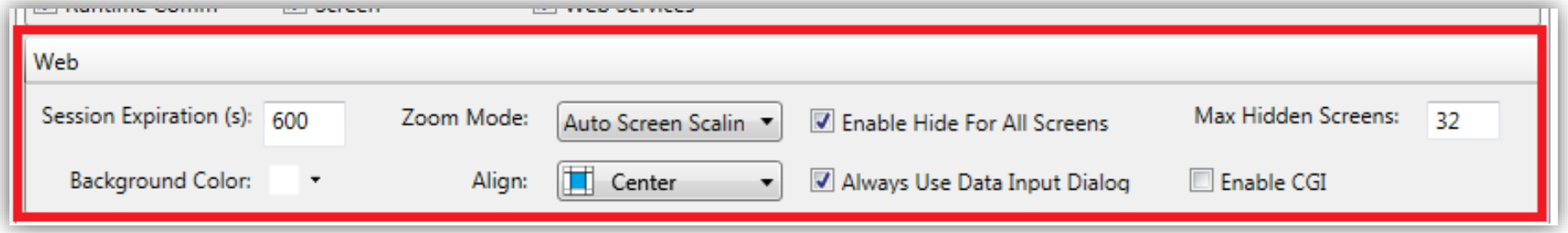
SMA – Mobility

Substantial Performance Enhancement



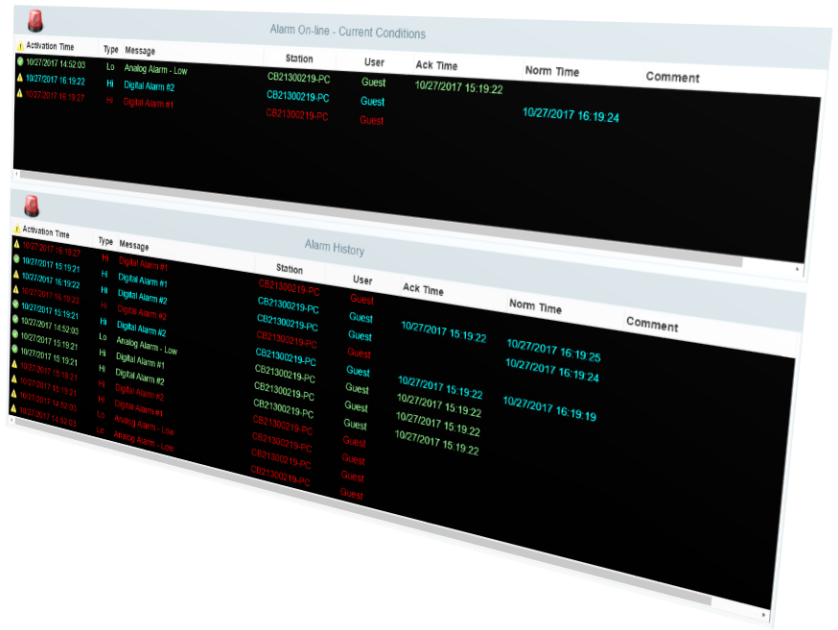
Benefits

- The new “Hide screen” feature allows for faster switching among screens by saving the screen graphics in memory.



SMA – Mobility

Support for Alarm/Event Control on Studio Mobile Access Thin Clients (HTML5)

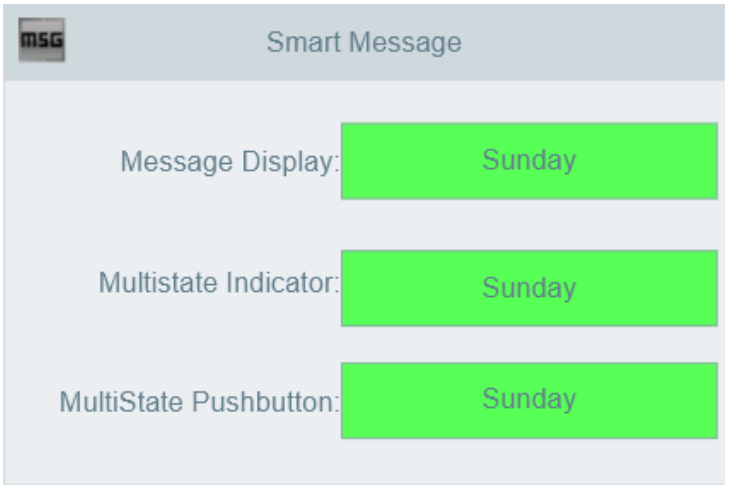


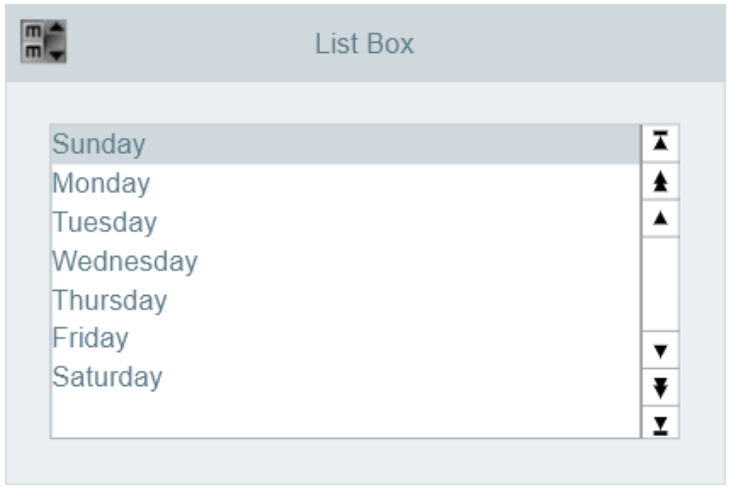
Benefits

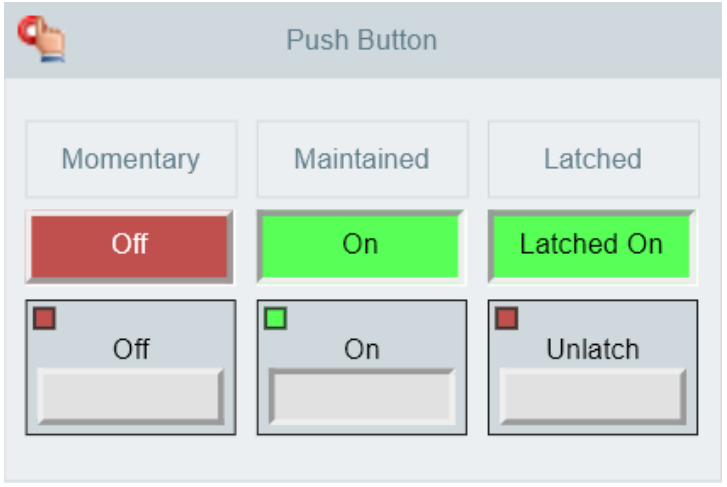
- Ability to visualize and interact (e.g.: acknowledge, filter, etc) with online and history alarms from devices based on different platforms and web browsers (HTML5), using a modern and intuitive user interface.
- Support for Proprietary Database format allows the user to not need an external relational database when saving Alarm and Event history and displaying it on Mobile Access thin clients.
- Enhanced filtering capabilities, allows user to have a better visibility of the alarms and events that are being presented.

SMA – Mobility

Support for Additional Active Objects on Studio Mobile Access Thin Clients (HTML5)





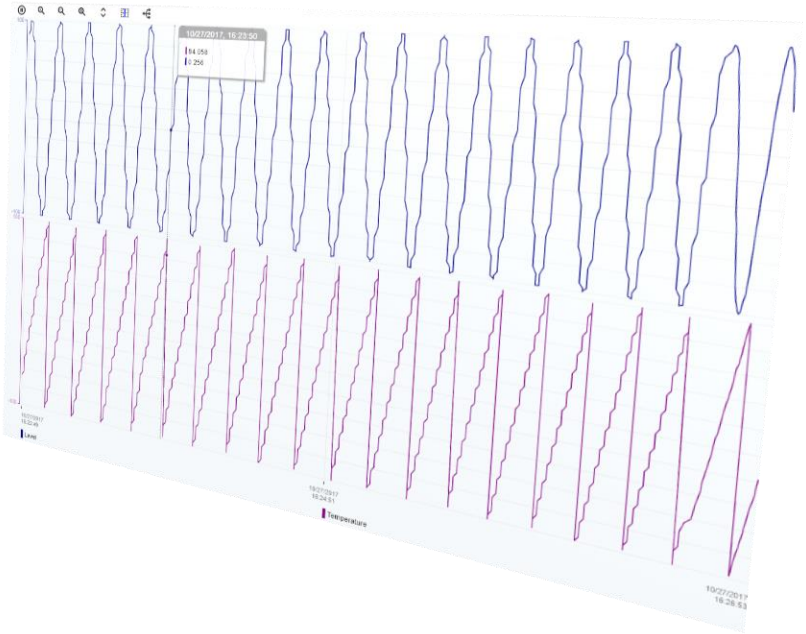


Benefits

- Ability to visualize and interact with additional native objects from Mobile Access Thin Client stations (HTML5).

SMA – Mobility

Support for Multiple Section for Trend on Studio Mobile Access Thin Clients (HTML5)

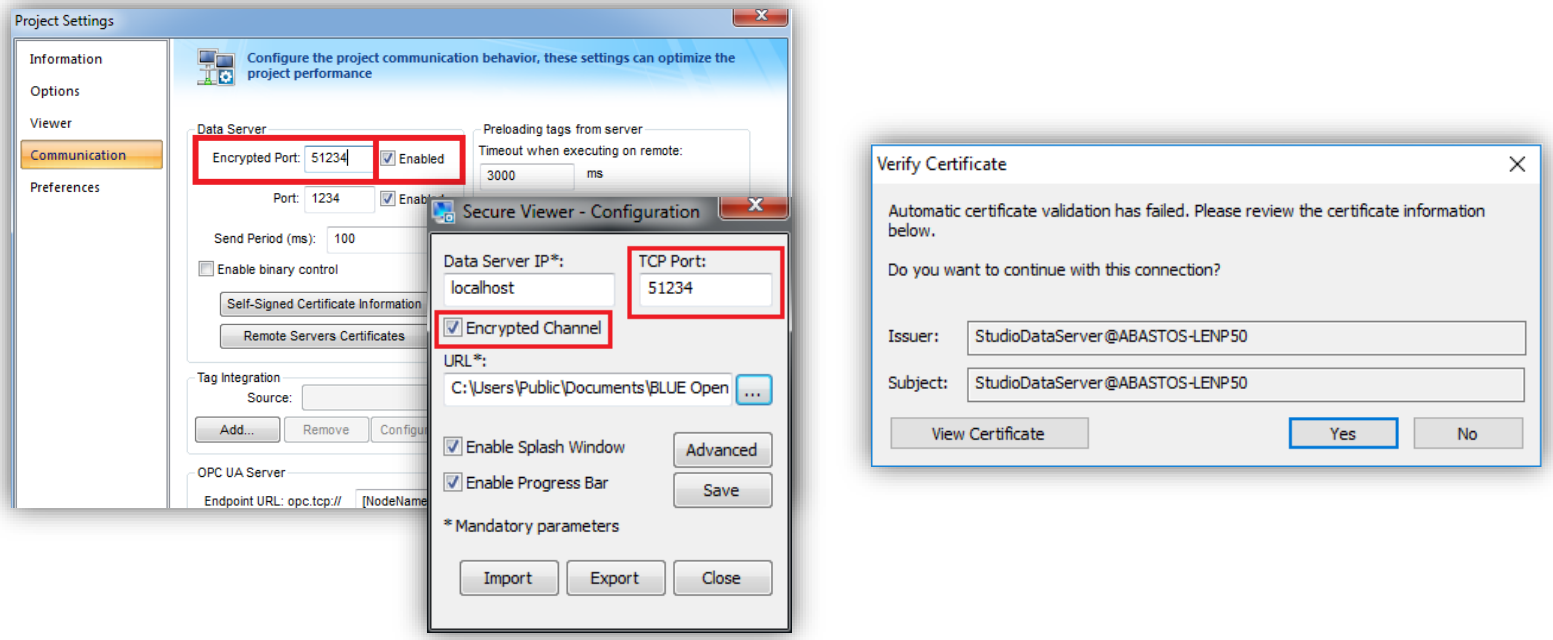


Benefits

- Ability to enable or disable dynamically multiple sections to stack the pens automatically in independent Y axis.

Secure Viewer – Security

Enhanced Cybersecurity – Encrypted TLS 1.2 TCP Port

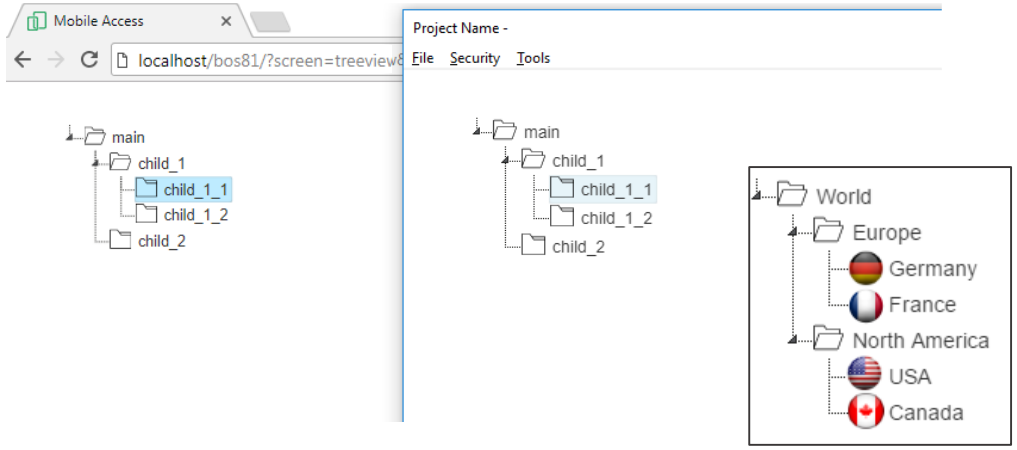


Benefits

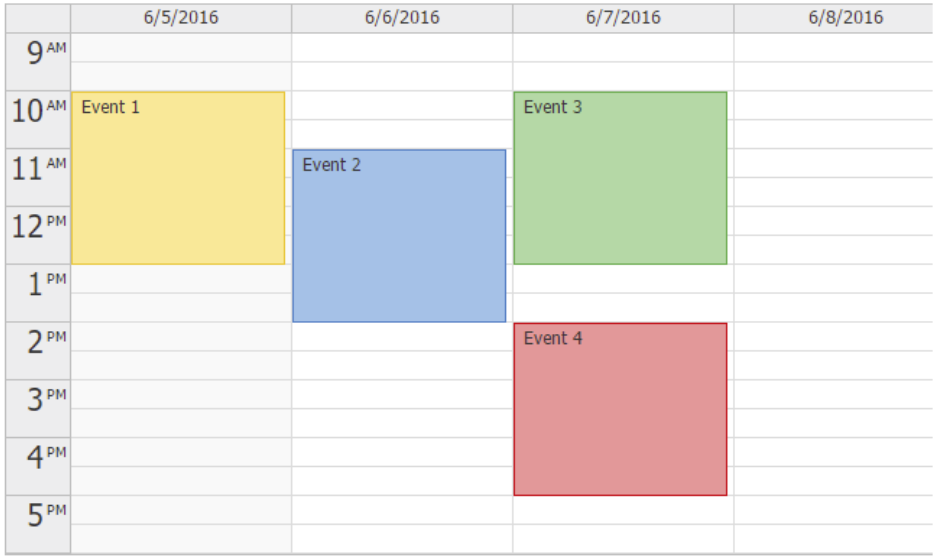
- All messages are encrypted using TLS 1.2.
- Certificate management help the decision making process on which clients can connect to the Servers.
- Easy to configure, yet powerful protection.

Custom Widgets – Additions

Tree View



Full Calendar



Benefits

- The Tree View custom widget allows the user to build and manipulate different nodes through a hierarchical graphical interface, with full support for both Viewer and Mobile Access.

- The Calendar custom widget allows the user to build and manipulate events on a calendar with the precision of minutes.

Custom Widgets – Additions

Pie Chart

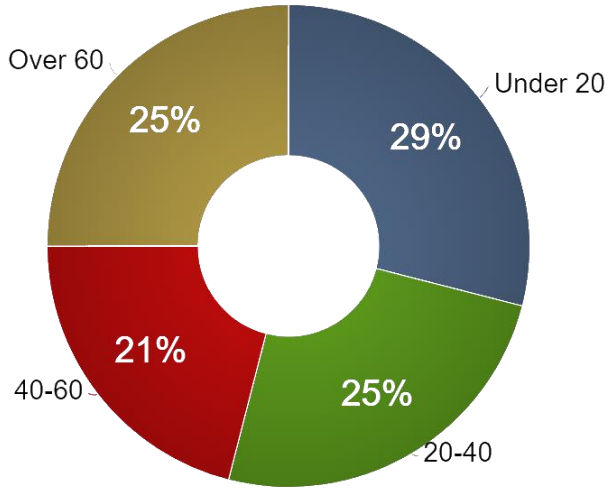
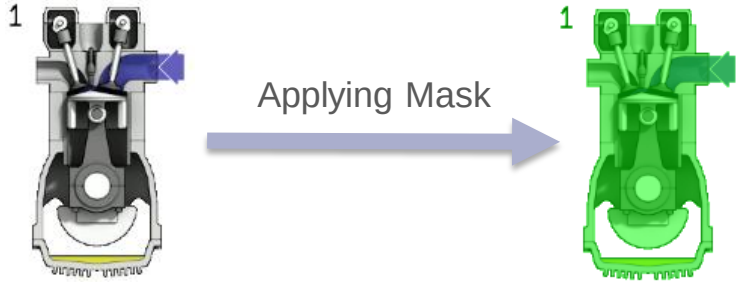


Image List



Benefits

- Allows users to show their data in a Pie chart or Donut charts.

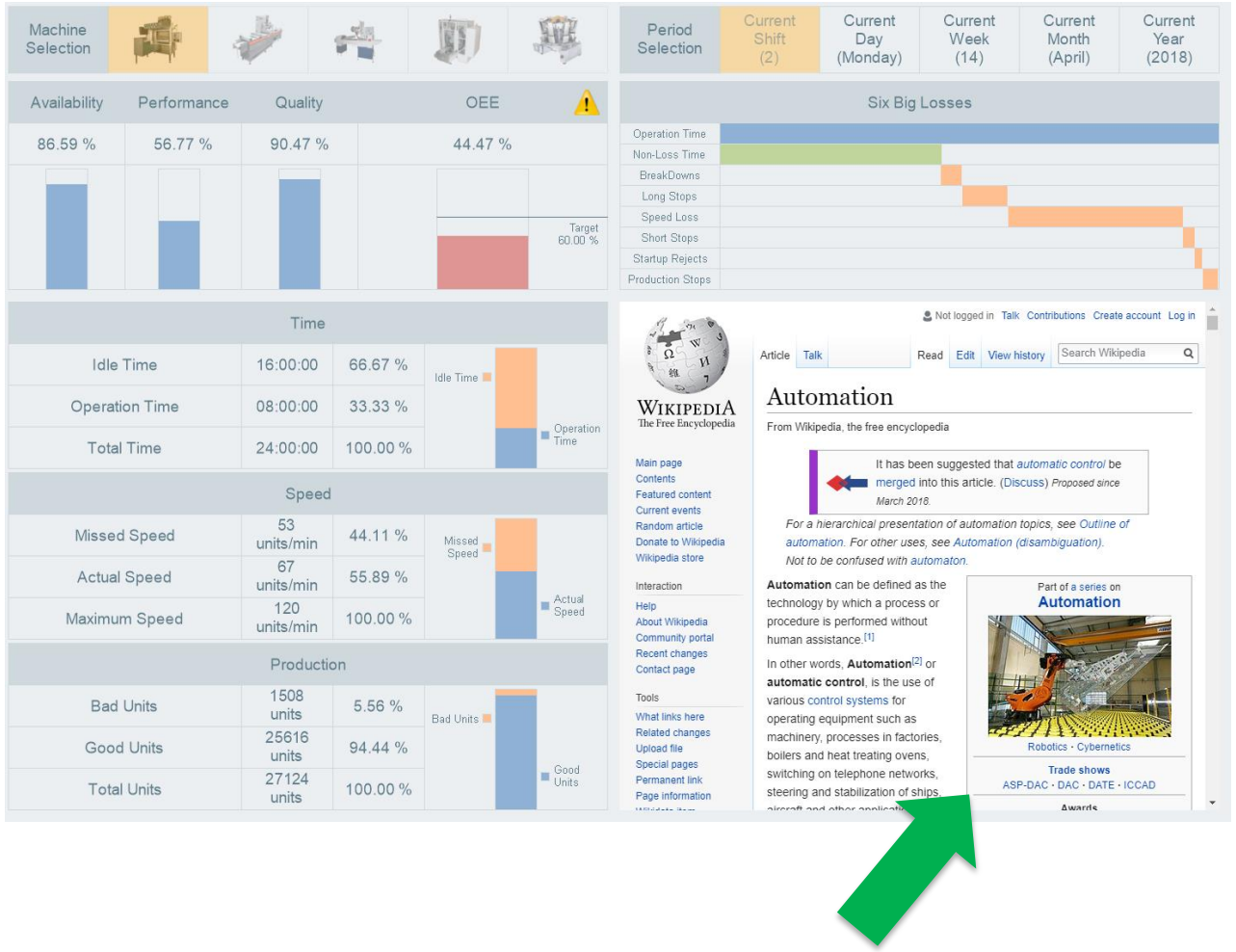
- Image List custom widgets allows users to display a images from different formats, including animated GIFs, animated PNGs, SVG, among many others.
- Allows the user to set a list of images and control the frequency used to switch them, creating advanced animations and effects.
- Allows creating color masks that will be applied dynamically on top of the original image.

Custom Widgets – Additions

Web Browser

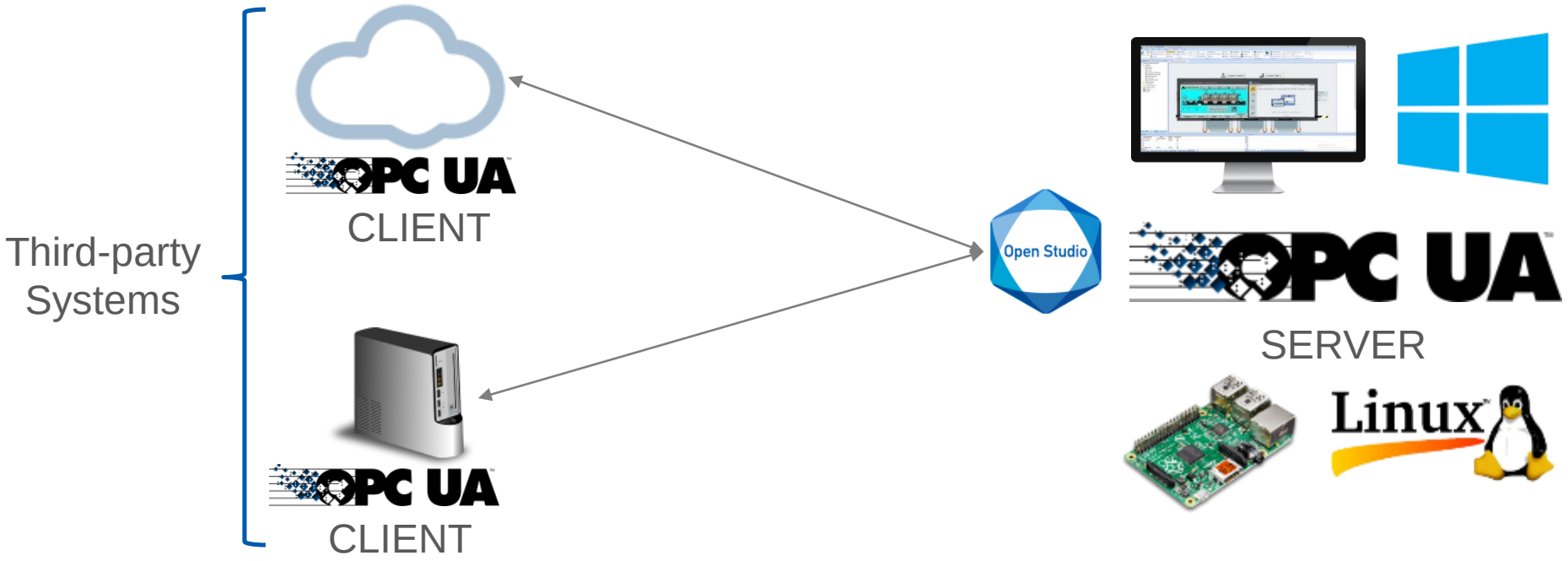
Benefits

- The WebBrowser is a simple Custom Widget that allows the user to host external content inside of their applications.
- It can be used to load:
  - Webpages
  - PDF files
  - MP4 videos
  - Any other content supported by the web browsers.



Interoperability

Native OPC UA Server for Windows and Linux



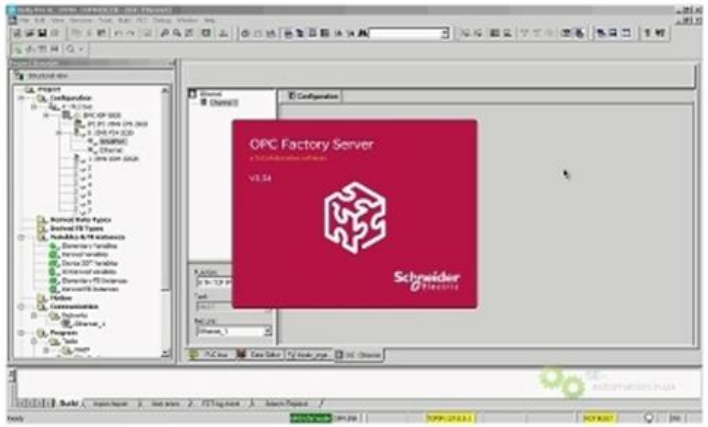
Benefits

- Native OPC UA Server allows the Full Runtime to exchange data directly with external systems, such as ERPs, third-party HMI/SCADA systems, or Cloud-based systems, which provide a native OPC UA Client.

Interoperability

Schneider-Electric OPC Factory Server (OFS) Native Integration

BLUE Line Management Lite SCADA
Open Studio

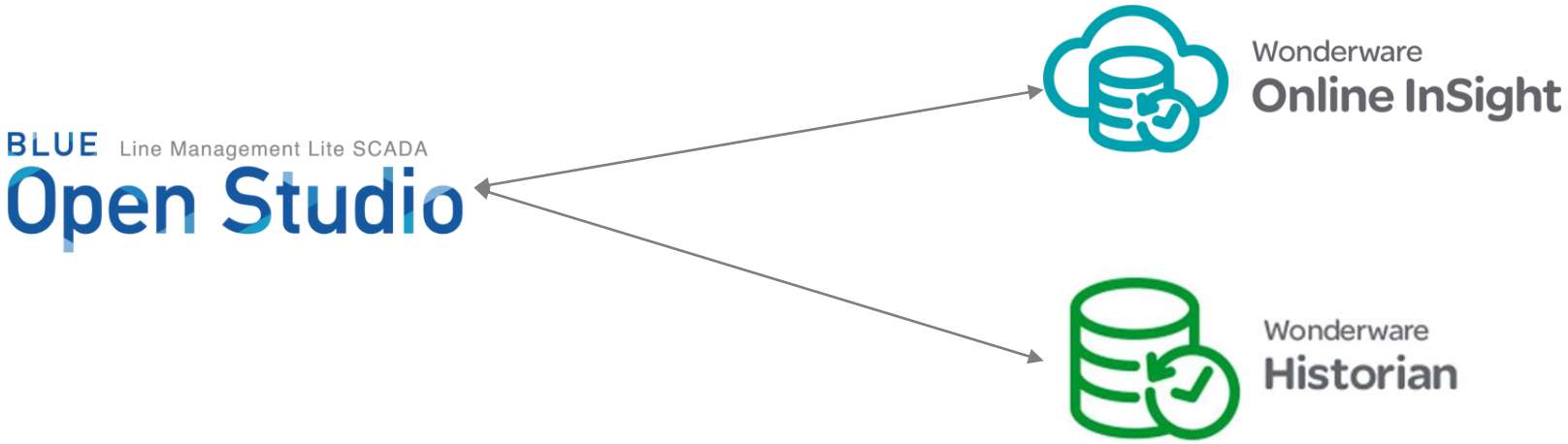


Benefits

- Ability to communicate with Tag-based Schneider-Electric PLCs through the OFS (OPC Factory Server).

Interoperability

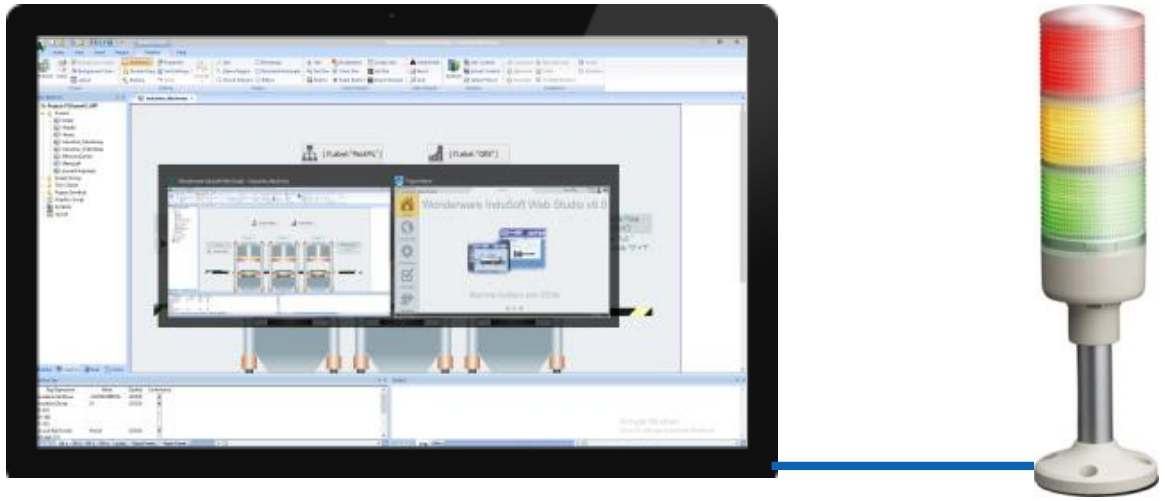
Native interface for Wonderware Historian and Wonderware Online Insight

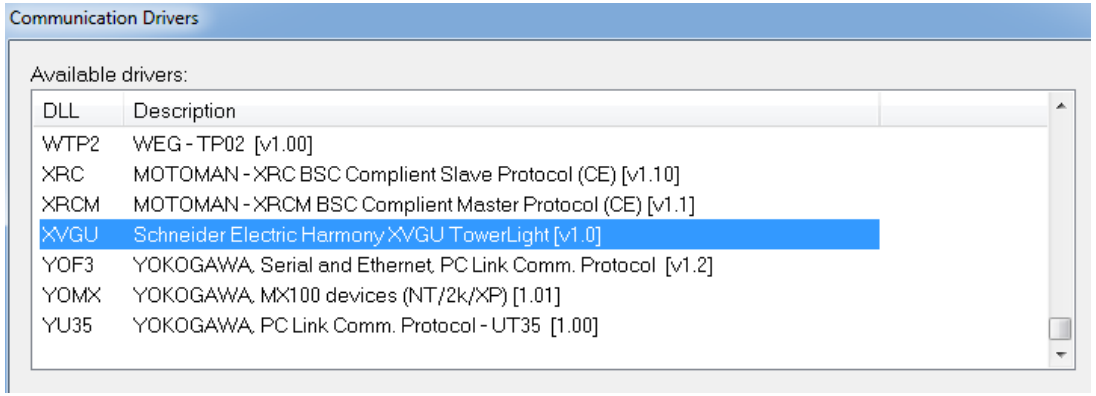


- Benefits
  - Ability to communicate with Wonderware Historian & Online Insight without any additional driver(s) required.

Interoperability

Support for EZ Series USB Tower Light (Driver: XVGU)





Benefits

- Allows direct (integrated) communication with the USB tower light (USB driver still required).
- Provides detailed instructions on how to configure & address the USB stacklight.

Interoperability

Support for Electrical Protocols

Distributed Network Protocol

BLUE Line Management Lite SCADA Open Studio

IEC

Benefits

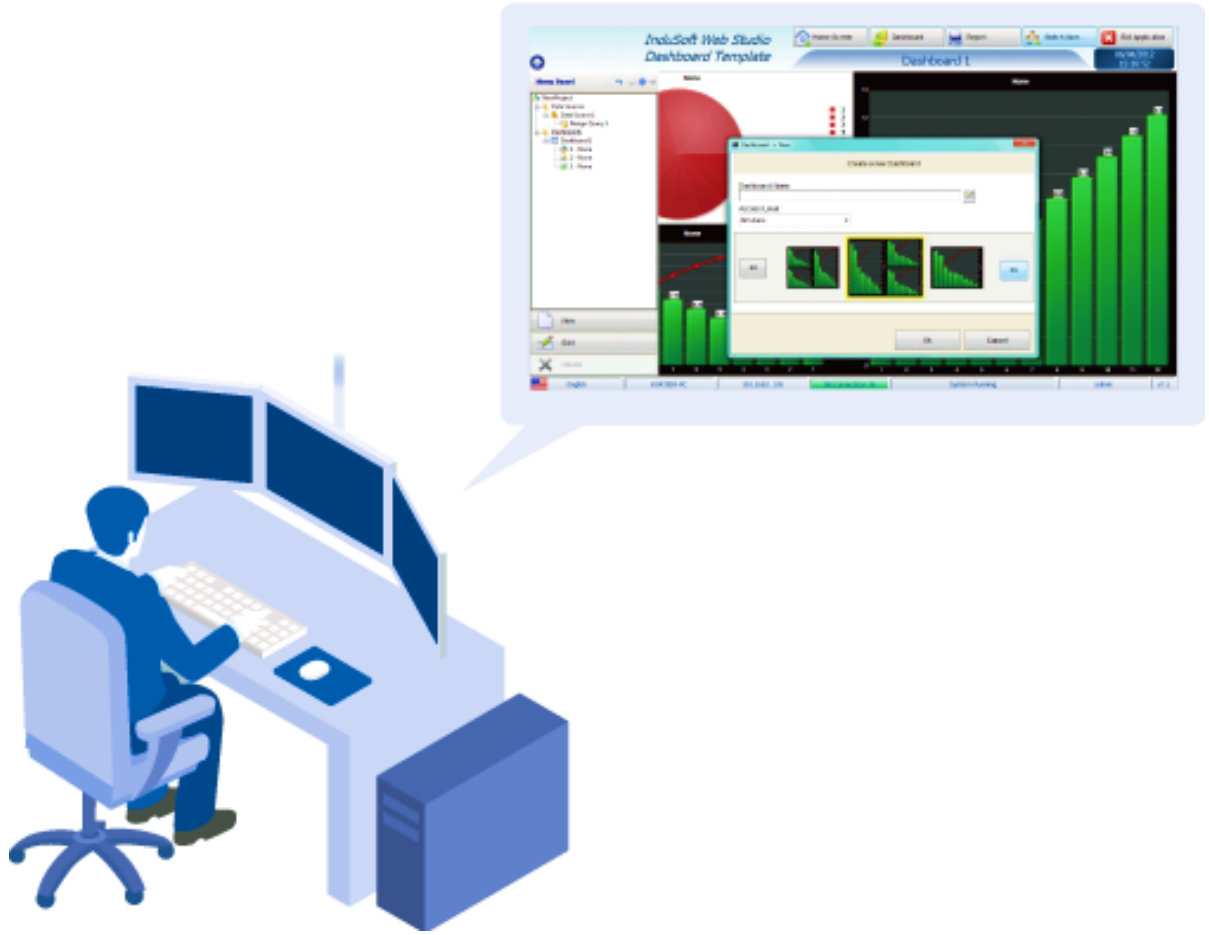
- Native communication drivers for the electrical protocols (DNP/IEC) available for all licenses, no longer an add-on.

Interoperability

BI-Dashboard (Business Intelligence Dashboard) Template

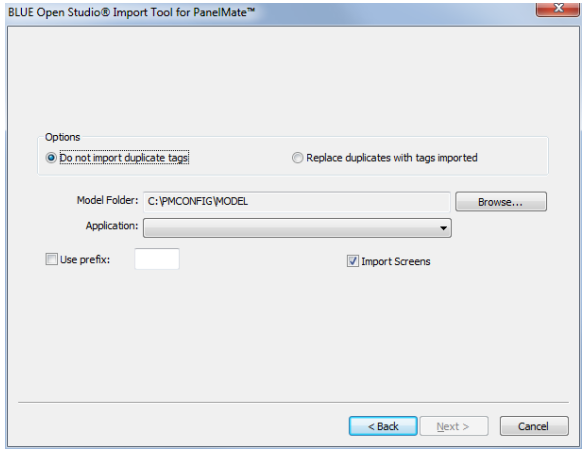
Benefits

- Through intuitive and customizable configurations, the Business Intelligence Dashboard Template allows retrieving information from Microsoft Access or SQL Server and displays it in meaningful easy-to-understand dashboards.
- This add-on product is built as a BOS application. Users can use this project as a stand-alone tool or merge it with another project.



Migration Tools

Improvements to the PanelMate© Import Wizard



BLUE Line Management Lite SCADA
Open Studio

Benefits

- Uses more suitable font sizes when converting projects.

Expanded Part Numbers

New dedicated part numbers for SP5000 series

Open Studio

Benefits

- Quickly & easily order a SP5000 with BLUE Open Studio preloaded.

- Part Numbers:
  - SP Open Box with BLUE Open Studio v8.0 + SP2 = **PFXSP5B41S8A**
  - SP Open Box with BLUE Open Studio v8.1 + SP2 = **PFXSP5B41S8B**

Expanded Licensing

New Software Upgrade Part Numbers Added

PFXBOSVU64KRT	Version Upgrade License for Supervision (Runtime)
PFXBOSVU32KRT	Version Upgrade License for Line Management Plus (Runtime)
PFXBOSVU4KRT	Version Upgrade License for Line Management (Runtime)
PFXBOSVU1KRT	Version Upgrade License for Machine Control (Runtime)
PFXBOSVU64KBT	Version Upgrade License for Supervision (Buildtime)
PFXBOSVU32KBT	Version Upgrade License for Line Management Plus (Buildtime)
PFXBOSVU4KBT	Version Upgrade License for Line Management (Buildtime)
PFXBOSVU1KBT	Version Upgrade License for Machine Control (Buildtime)
PFXBOS3PVU64KRT	Version Upgrade License for Supervision For 3rd-Party PC (Runtime)
PFXBOS3PVU32KRT	Version Upgrade License for Line Management Plus For 3rd-Party PC (Runtime)
PFXBOS3PVU4KRT	Version Upgrade License for Line Management For 3rd-Party PC (Runtime)
PFXBOS3PVU1KRT	Version Upgrade License for Machine Control For 3rd-Party PC (Runtime)

Benefits

- Faster upgrade process & execution via predefined processes & part numbers.
- Provides users with various options for both software & license upgrades.

Simplified Licensing

New Licensing Model Streamlines Add-Ons / Ordering

PFXBOSPBTK – BLUE Open Studio PanelBuilder32 Import Wizard
PFXBOSPMTK – BLUE Open Studio PanelMate Import Wizard
PFXBOSFTTK – BLUE Open Studio FactoryTalk ME/SE Import Wizard

→ PFXBOSTK – BLUE Open Studio Import Wizard License

PFXBOSMA4LV80 – BLUE Open Studio Mobile Access (4 Licenses)
PFXBOSMA8LV80 – BLUE Open Studio Mobile Access (8 Licenses)
PFXBOSSV4LV80 – BLUE Open Studio Secure Viewer (4 Licenses)

→ PFXBOSTC – BLUE Open Studio Thin Client License (1 License)

Benefits

- All Import Wizards (PanelBuilder™, PanelMate™, and FactoryTalk™) are enabled in the same add-on.
- License no longer restricts the type of Thin Clients, nor pre-defined packages of Thin Clients. The user can define the exact number of maximum Thin Clients that should be concurrently supported by the license.
- The maximum number of simultaneous Thin Client connections is 128.
- **All licenses will support an unlimited number of concurrent communication drivers (still limited by physical constraints).**
- **Native communication drivers for the electrical protocols (DNP/IEC) available for all licenses – no longer an add-on.**

Important Notes

- Major version update
  - This update is a paid upgrade, special pricing will be available for recently purchased versions of v8.0.
  - Version 8.0 will still be available for download, along with licenses.
  - The DVD option of the BOS Buildtime will only be available for version 8.1
  - The IPC recovery media will contain BOS v8.1.
- Licensing Procedures
  - BLUE Open Studio does not use the Schneider-Electric One Licensing system yet.
- Version Interactions
  - v8.1 runtime will need a v8.1 buildtime application.
  - v8.0 runtime will only be able to run a v8.0 application.

Pro-face 30th GP Series ANNIVERSARY
by Schneider Electric
Learning Center

BLUE Open Studio

Version 8.0 + Service Pack 2 (v80.2.0)

Additional Pro-face IPC Support

Expanding our software & hardware bundling offer to the SP5000 Open Box

Open Studio

Benefits

- Easily upgradable front end (display) seamlessly works with BLUE Open Studio’s scalability feature.
- Provides lower-cost model IPC with BLUE Open Studio included.

USB Hard Key

Benefits

- Easy to use.
- Portable license able to be used on multiple installations.
- Easily upgradeable, uses the same process as the soft keys.

Expanded Licensing

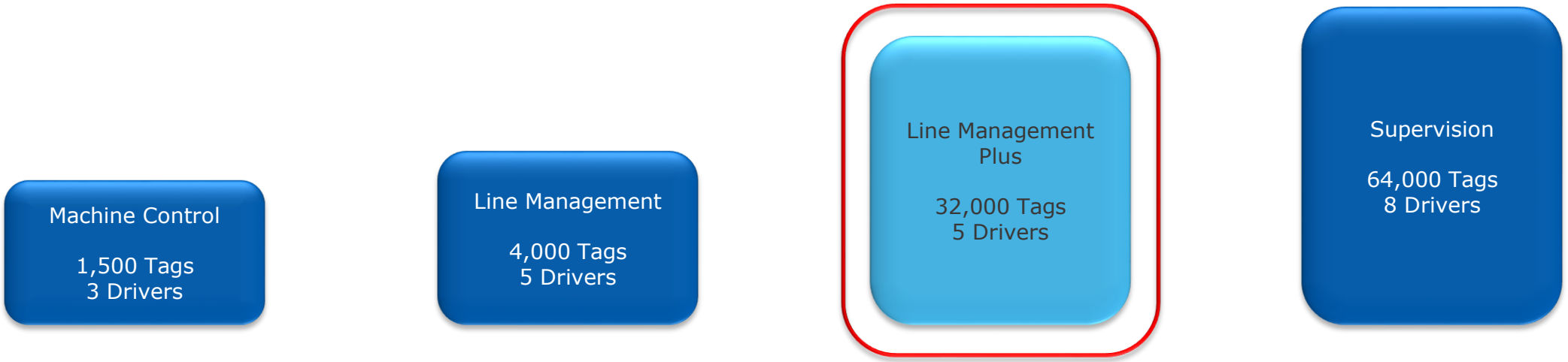
Support for 3rd-Party PCs with both Hardkeys & Softkeys

Benefits

- Easy to use.
- Portable license able to be used on multiple installations.
- Easily upgradeable, uses the same process as the soft keys.
- Able to combine both development & runtime on the same license.

Expanded Licensing

Line Management Plus (32,000 Tag) License Added



Benefits

- Additional license intended for mid-sized applications.
- Provides a fill for the license gap between Line Management (4K tags) & Supervision (64K tags).

Expanded Licensing

New License Upgrade Part Numbers Added

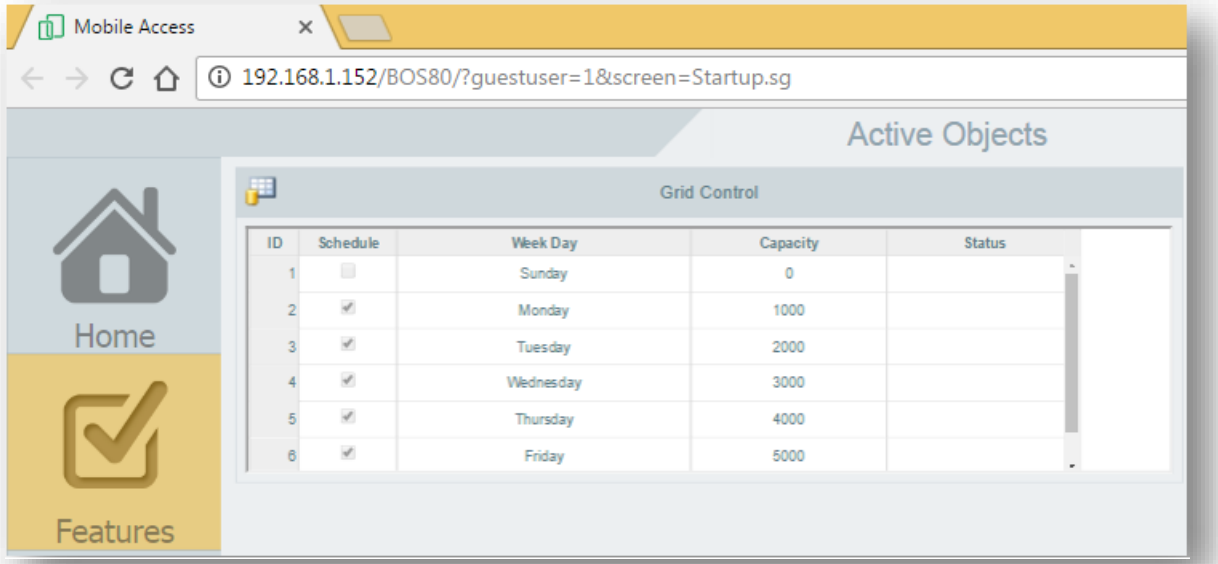
PFXBOS3PUG64KRT	Upgrade from Line Management Plus to Supervision for 3rd Party PC (Runtime)
PFXBOS3PUG32KRT	Upgrade from Line Management to Line Management Plus for 3rd Party PC (Runtime)
PFXBOS3PUG4KRT	Upgrade from Machine Control to Line Management for 3rd Party PC (Runtime)
PFXBOSUG64KBT	Upgrade License (Build time) from 32000 tags to 64000 tags
PFXBOSUG32KBT	Upgrade License (Build time) from 4000 tags to 32000 tags
PFXBOSUG4KBT	Upgrade License (Build time) from 1500 tags to 4000 tags
PFXBOSUG64KRT	Upgrade License (Runtime) from 32000 tags to 64000 tags
PFXBOSUG32KRT	Upgrade License (Runtime) from 4000 tags to 32000 tags
PFXBOSUG4KRT	Upgrade License (Runtime) from 1500 tags to 4000 tags
PFXBOSUG8MA	Upgrade License (Mobile Access) from 4 to 8 Licenses

Benefits

- Faster upgrade process & execution via predefined processes & part numbers.
- Provides users with various options for both software & license upgrades.

SMA – Mobility

Support for Grid Control on Studio Mobile Access Thin Clients (HTML5)



Benefits

- Display information from any SQL Relational database using Studio Mobile Access (SMA) Thin Clients, hosted on web browsers that support HTML5.
- Easily create dynamic web-based reports using the native Grid control.
- Publish screens from applications designed in previous version of the product and visualize the Grid control on SMA Thin Clients.

Interoperability

Support for MQTT Driver Encryption & Authentication

Benefits

- Layer to support encryption (SSL) and Authentication (User Name and Password) for native communication drivers that implement protocols where these interfaces are applicable, such as MQTT.
- Provides an easy configuration interface to improve the security of communication interfaces implemented by the product.

Security

Password Change via LDAP

Benefits

- Support to set/change the Active Directory's users passwords from the application, during runtime, using the built-in function $SetPassword().
- Support the Password Aging policy configured on Active Directory, prompting the user to change the password during runtime.
- Improved integration with Active Directory through the native LDAP interface.

Pro-face 30th GP Series ANNIVERSARY
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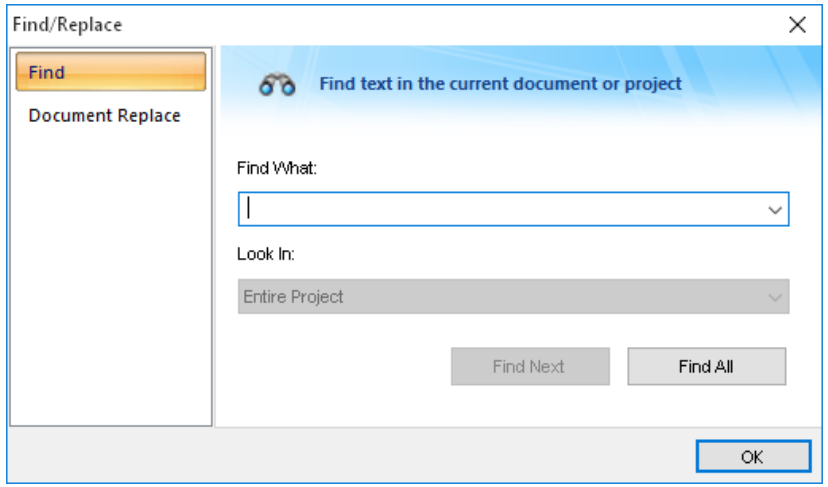
BLUE Open Studio

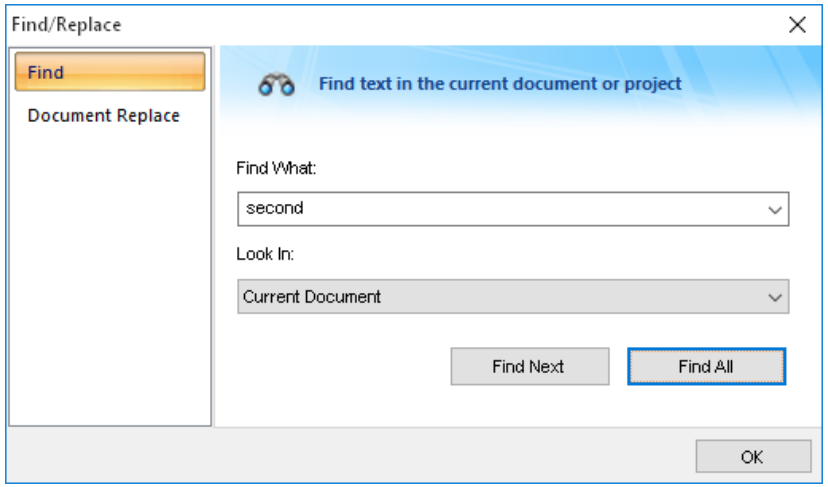
Version 8.0 + Service Pack 2 (v80.1.1)

Text Find – IDE Productivity

Global Text-Based



Document Text-Based Find/Replace

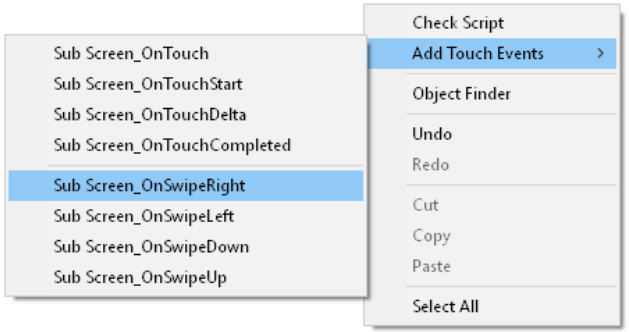


Benefits

- High performance when developing, maintaining, and troubleshooting applications. Results displayed immediately, even in large projects.
- Ability to look for any references throughout the project and replace terms efficiently and reliably.

Screen Gestures – Swiping

```
1  'Variables available on this screen can be declared and initialized here.
2
3
4  'Procedures available on this screen can be implemented here
5
6
7  'This procedure is executed just once when this screen is open.
8  Sub Screen_OnOpen()
9
10 End Sub
11
12 'This procedure is executed continuously while this screen is open.
13 Sub Screen_WhileOpen()
14
15 End Sub
16
17 'This procedure is executed just once when this screen is closed.
18 Sub Screen_OnClose()
19
20 End Sub
21
22 'This procedure is executed when swipe right on screen.
23 Sub Screen_OnSwipeRight()
24   $Open("Screen2")
25 End Sub
26
27 'This procedure is executed when swipe left on screen.
28 Sub Screen_OnSwipeLeft()
29   $OpenPrevious()
30 End Sub
```

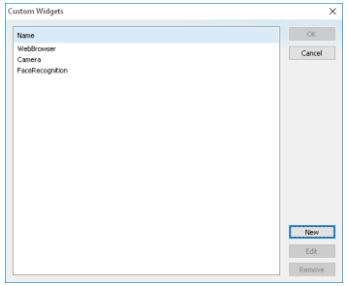


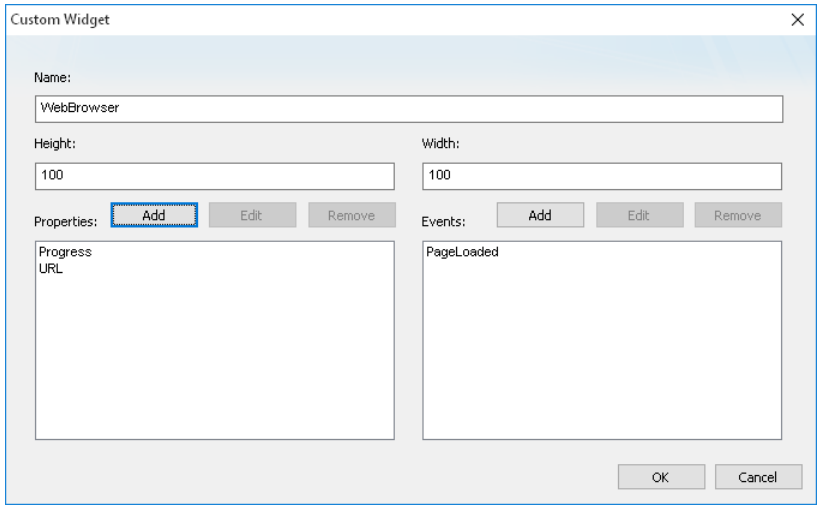
Benefits

- Easily identify swiping gestures on the screen and trigger actions accordingly. For example, navigate through screens swiping on the touch screen interface.

Custom Widgets

Openness and Flexibility



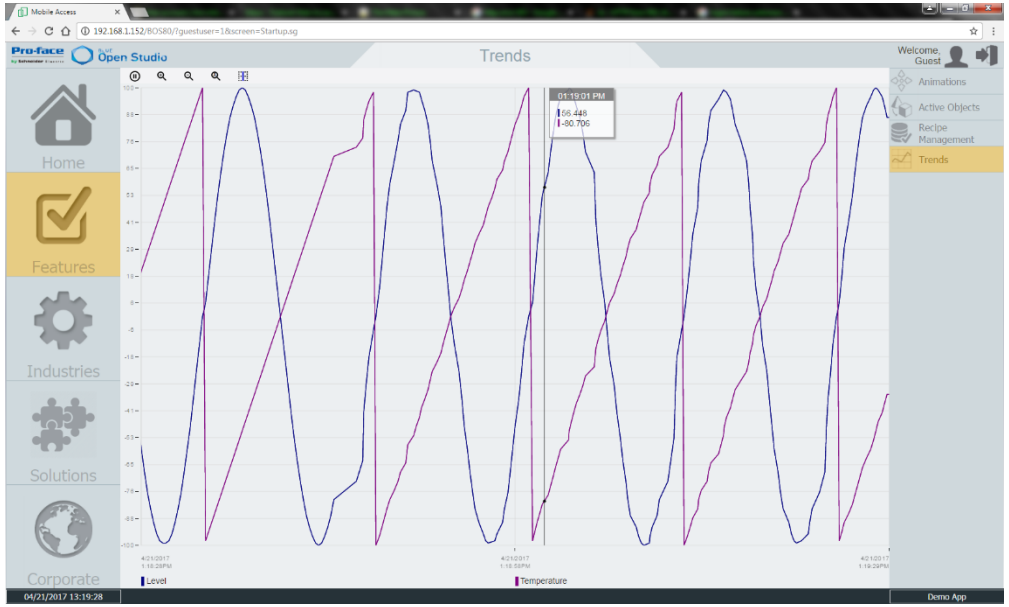


Benefits

- Ability to integrate third-party web-based controls into the HMI/SCADA project screens.
- Engineers with HTML/JScript can easily create Custom Widgets and define Properties/Events through the IDE. Users can use the Custom Widgets on the local Viewer and Thin Clients.
- Ability to create an ecosystem where different users build and share library of controls that can be easily integrated into application and accessible through multiple platforms.

SMA – Mobility

Support for Trend Control on Studio Mobile Access Thin Clients (HTML5)

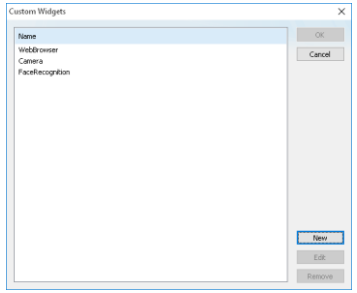


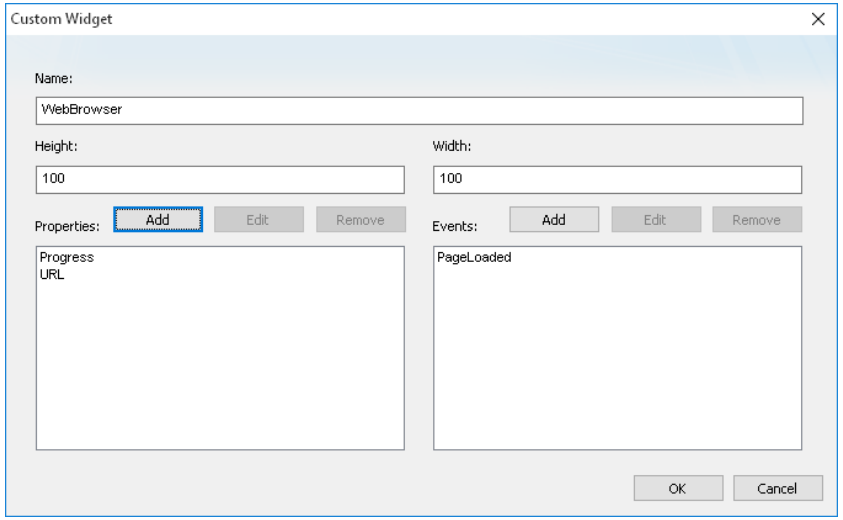
Benefits

- Ability to visualize online and history data from tag values on multiple devices based on different platforms and web browsers (HTML5), using a modern and intuitive user interface.

SMA – Mobility

Support for Custom Widgets





Benefits

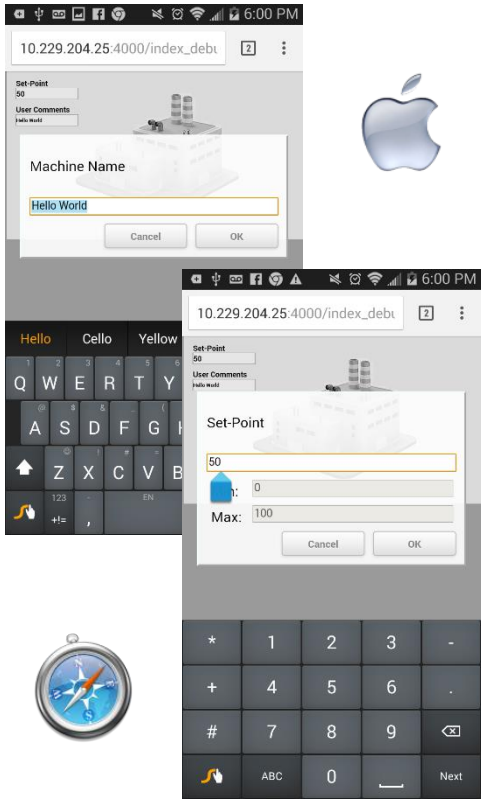
- Users can use the Custom Widgets on multiple devices based on different platforms and web browsers (HTML5), using a modern and intuitive user interface.

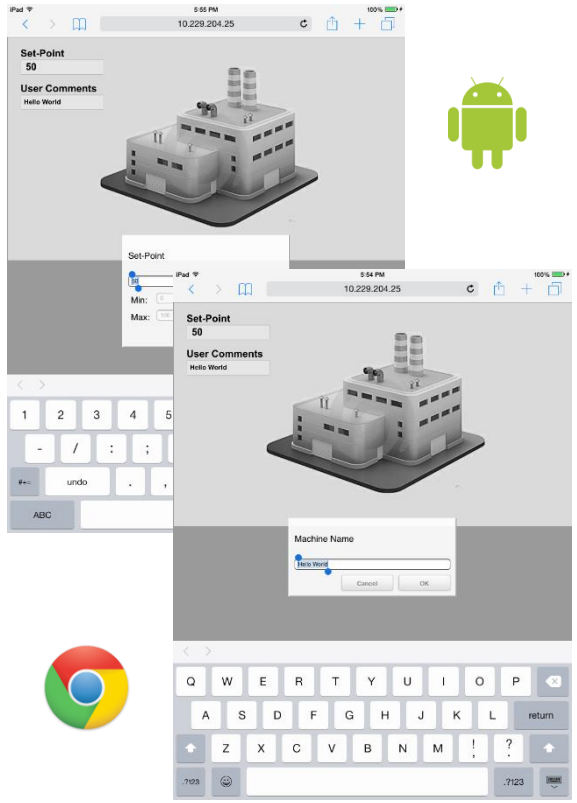
SMA – Mobility

Data Input with Native Virtual Keypad/Keyboard

Benefits

- Support the mobile device's language.
- Consistent with the native virtual keyboard provided by the mobile device's operating system.
- Support for both numeric and alphanumeric input.



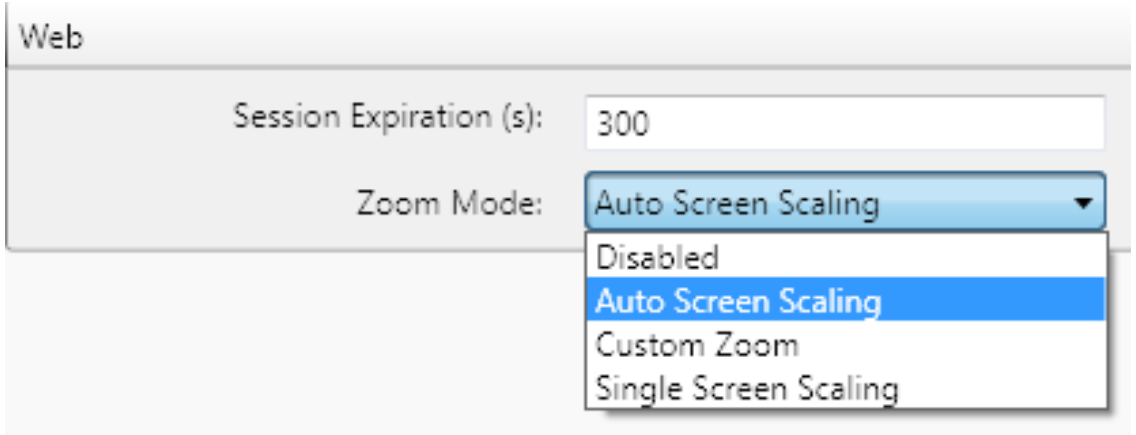


SMA – Mobility

Zoom Modes

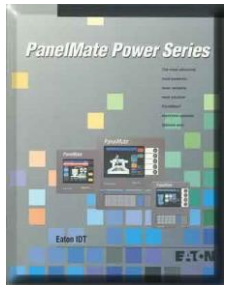
Benefits

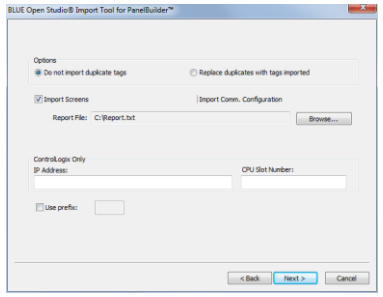
- Allow the user to select the zoom mode that best fits the project on different platforms and devices.
- Single Screen Scaling option provides backward compatibility to behavior available in previous versions.

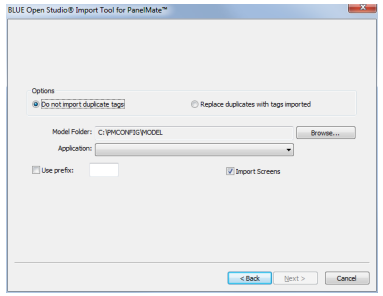


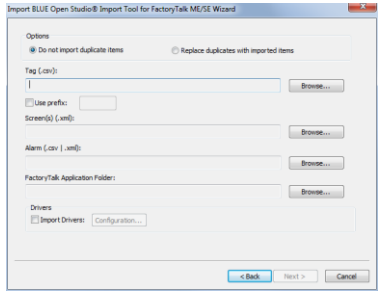
Migration Tools

Import Wizard for PanelBuilder32© / PanelMate© / FactoryTalk™ ME/SE (Add-Ons)









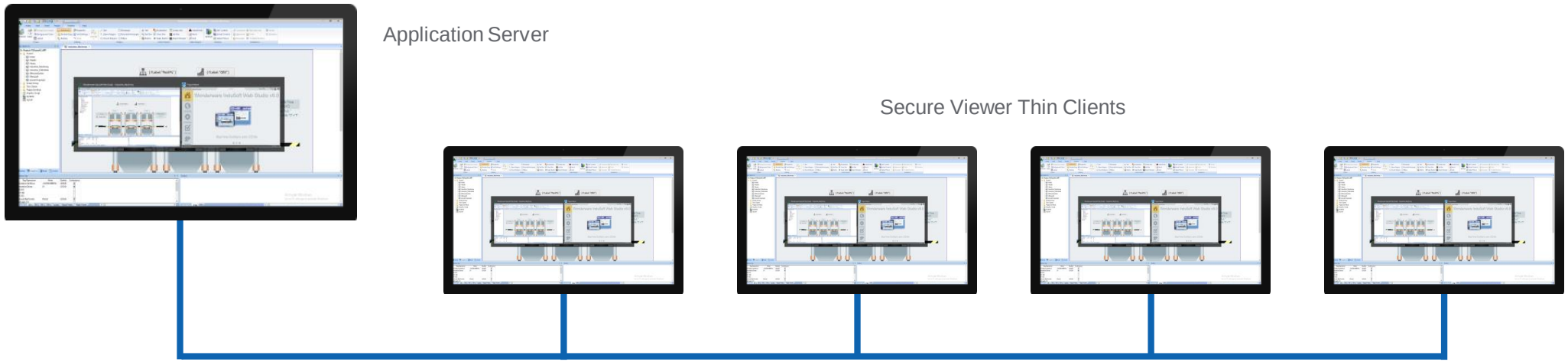
BLUE Line Management Lite SCADA
Open Studio

Minimize cost of migration from legacy applications to BLUE Open Studio by automatically converting applications to BOS (graphical interface, communication interface, tags, etc.).

Note: Manual adjustments can be done after executing the automatic conversion.

Secure Viewer Thin Client

Expandable Operation & Monitoring with a Native Viewer



Benefits

- Access the application from any computer with a small, standalone Thin Client.
- Operates as an extension of the runtime (Viewer).
- Span multiple screens/workstations with a single application.

Interoperability

New and Updated Communication Drivers and Tag Integration

MQTT → Industry 4.0

KAWR → Robotics

SNMP → IT

SITIA → PLC + Tag Integration

20+ Updated drivers

Benefits

- Enable integration of multiple devices and systems from the plant-floor to the ERP/Cloud in a seamless manner.
- Increase productivity and quality through native tag integration for tag-based devices.

Pro-face by Schneider Electric Learning Center

How to Contact Pro-face America

How to Contact Pro-face America

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- Product Lead Time
- Warranty and Repair

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Leadtime: leadtime@profaceamerica.com
Repair (RMA): rmasupport@profaceamerica.com

Application Technical Support*:

- Product Support
- Product Migrations
- Product Documentation Help

Phone: 800-289-9266 (option 2)
Fax: 734-864-7347
Support: support@profaceamerica.com
*Visit our technical support web site for manuals, drivers, and product FAQs.

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