

Studio 5000 View Designer[®] and PanelView[™] 5000 V9

Shipped June 2023 as part of Studio 5000[®] V35.00.02



expanding human possibility[®]



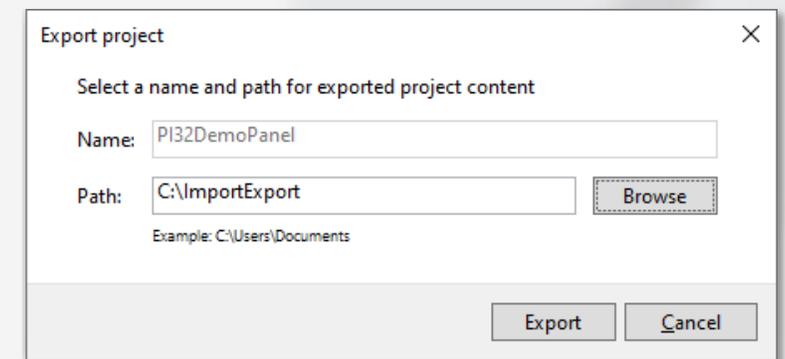
PUBLIC

V9 provides new features to support development outside of Studio 5000 View Designer® and more security options

- Major new features
 - Import/export
 - Enables FactoryTalk® View ME to Studio 5000 View Designer® conversion tool
 - Network-based security (Active Directory authentication)
 - Improved controller synchronization
- Other improvements
 - Custom folder icons for the Navigation Menu
 - Side or bottom location option for the Navigation Menu
 - Support for new Studio 5000 Logix Designer® date/time data types
 - Support for P-instructions and PlantPAX® faceplates
 - New LeadingZerosFill property for numeric displays and numeric inputs
 - Support for CIP identity object attributes of Series and Warranty
 - Support for keypad presses while web browser has focus
 - Use the UDT instance .@Name and .@Description in alarm messages
 - PanelView™ 5510 support for LLDP (Link Layer Discovery Protocol)

Import/Export

- Export Studio 5000 View Designer® project contents into a textual format
- Create content in a defined textual format and import it into your Studio 5000 View Designer® project
- Screens, popups, and add-on graphics export as separate text files in a folder structure.
 - Folder structure matches the folders that you define under User-Defined Screens in Project Explorer
- Most project content is exported:
 - Screens and popups
 - Add-on graphics
 - PDF files and images
 - Controller references
 - Navigation menu shortcuts
 - Data log configurations



```
namespace hmi_viewdesigner;

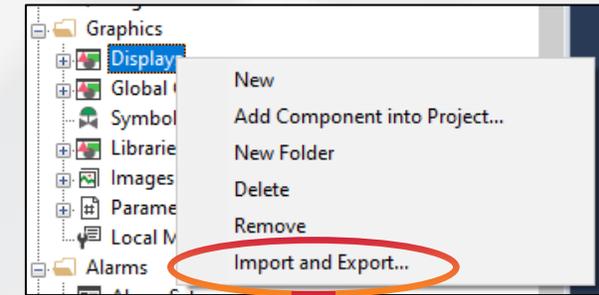
using viewdesigner;
using HMICatalog;

Screen Welcome {
    ShowDefaultBanner := true;
    FillColor := "#ffffff";
    UpdateRate := EnumUpdateRate._500_ms;
    TextDisplay TextDisplay_001 {
        Text := "Welcome to the PI32 Demo!";
        FontName := "Arial Unicode MS";
        FontSize := 31.8;
        Bold := true;
        Underline := false;
        FontColor := "#000000";
        TextAlignment := EnumAlignment.HLEFT_VCENTER;
        Padding := 0;
        CornerRadius := 0;
        Border {
            Color := "#000000";
            BorderStyle {
                Line := PenStyle.NoPen;
                Cap := CapStyle.SquareCap;
                Join := JoinStyle.MiterJoin;
            }
            Width := 0.89;
        }
        FillColor := "#00000000";
        X := 146.34;
        Y := 9.54;
        Width := 418.99;
        Height := 44.48;
        Angle := 0;
        Enabled := true;
        ^Visible := true;
        Opacity := 100;
    }
}
```

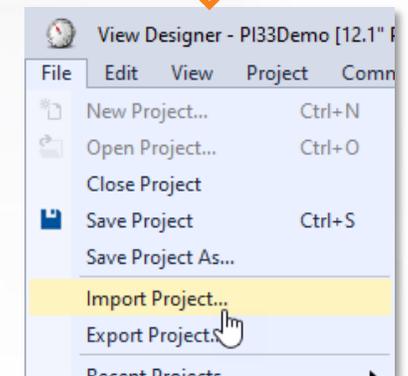
FactoryTalk® View ME to Studio 5000 View Designer® conversion tool

- The new Import/Export feature will be used as an enabler for a FactoryTalk® View ME to Studio 5000 View Designer® conversion tool – **availability planned for Q3CY2023**
- Workflow:
 - Export your FactoryTalk® View ME displays using the “Import and Export...” option on the Displays folder in FactoryTalk® View ME.
 - Run the FactoryTalk® View ME to View Designer conversion tool.
 - Import the screens into Studio 5000 View Designer® using the “Import Project” option on the File menu in Studio 5000 View Designer®.
- The converter is not expected to be a 100% conversion
 - Simple screen objects such as numeric inputs, numeric displays, string inputs, string displays, simple buttons, etc. should largely convert
 - More complex elements such as a multistate button may not completely convert
 - The converter is expected to focus on-screen content. Other content must be manually created or transferred to your Studio 5000 View Designer® project (data logs, images, etc.).

View ME



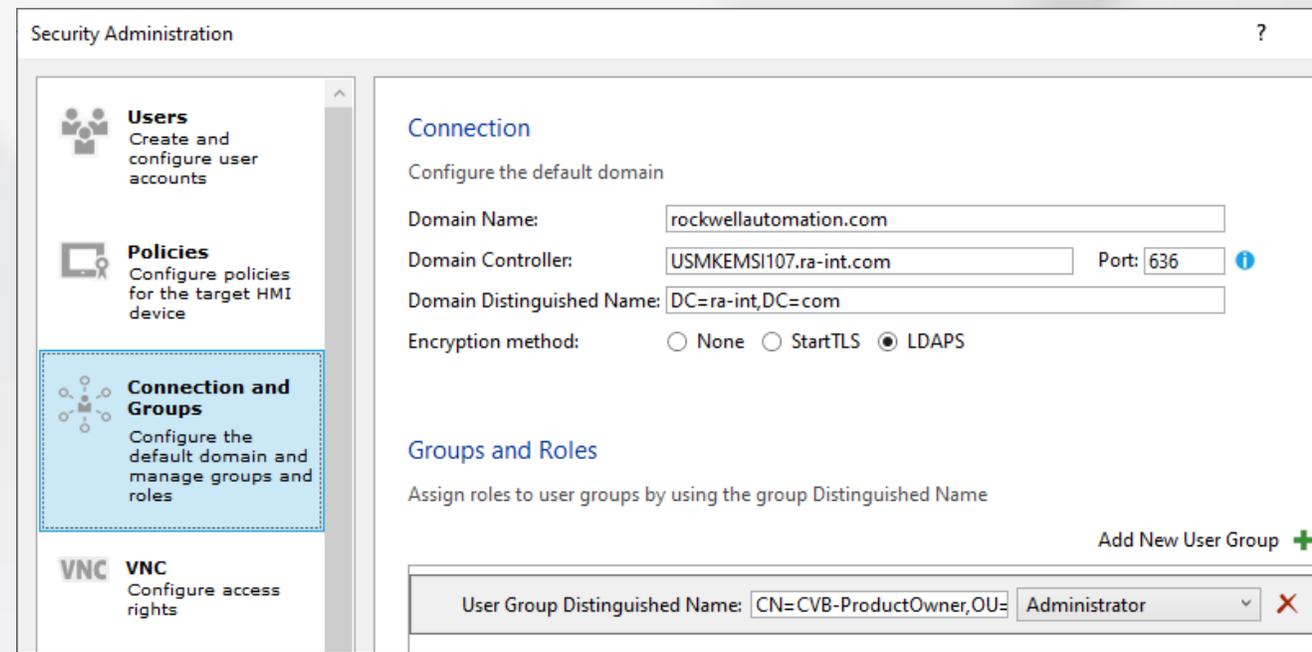
Conversion Tool



Studio 5000 View Designer®

Network-based security

- Authenticate users using Active Directory
 - Provides better support for PanelView™ 5000 terminals used in a larger manufacturing facility where operators often change.
 - Prior releases could only authenticate users defined as part of the project, so changing an operator sign in required downloading an updated project.
- In Studio 5000View Designer:
 - Define a connection to the Active Directory server.
 - Map Active Directory user groups to roles.
 - This information is downloaded as part of your project and is used by the PanelView™ 5000 at runtime.
- When a user signs in a PanelView™ 5000, they are prompted for their Active Directory user name and password.
 - Once logged on, they get the access defined for their role.
- The latest ten logons are cached for 24 hours in case connection to the Active Directory server is lost.
- Option to sign in as a local user if local users are defined in the project
 - Defaults to local users if no Active Directory server connection is configured.
- Certificates for StartTLS or LDAPS encryption can be loaded on the PanelView™ 5000 using the pre-defined Certificates settings screen.



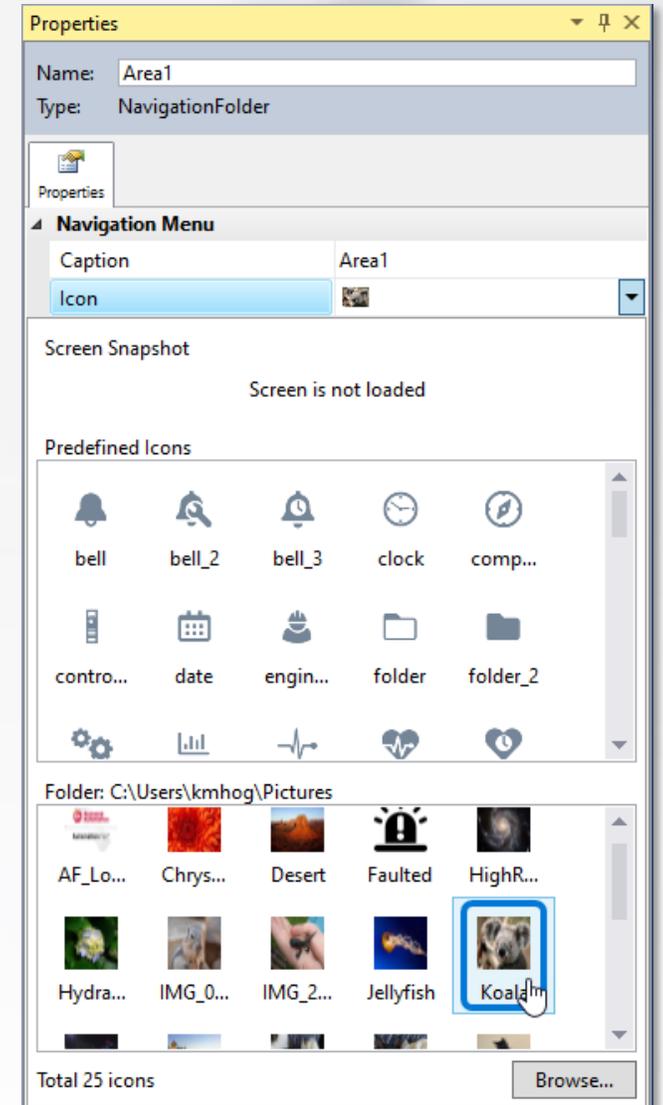
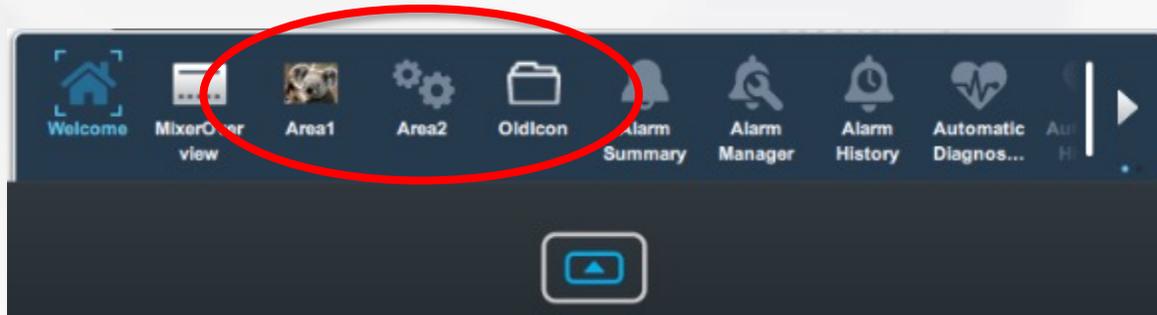
Improved controller synchronization

Synchronization: the reading of the controller tag and data type information when connecting to a new controller project – online and offline

- Better support for large controller projects.
- Online – Display data on the PanelView™ 5000 more quickly after you download a new project to the controller. Depending on project contents:
 - Typically, 15% to 45% faster synchronization for one controller project (almost 2X faster in some cases)
 - Up to 66% faster synchronization for a four-controller project (almost 3X faster in some cases)
- Offline – Browse tags more quickly In Studio 5000 View Designer after linking an acd file in a controller reference
 - Typically, 5% to 10% faster offline synchronization depending on project contents

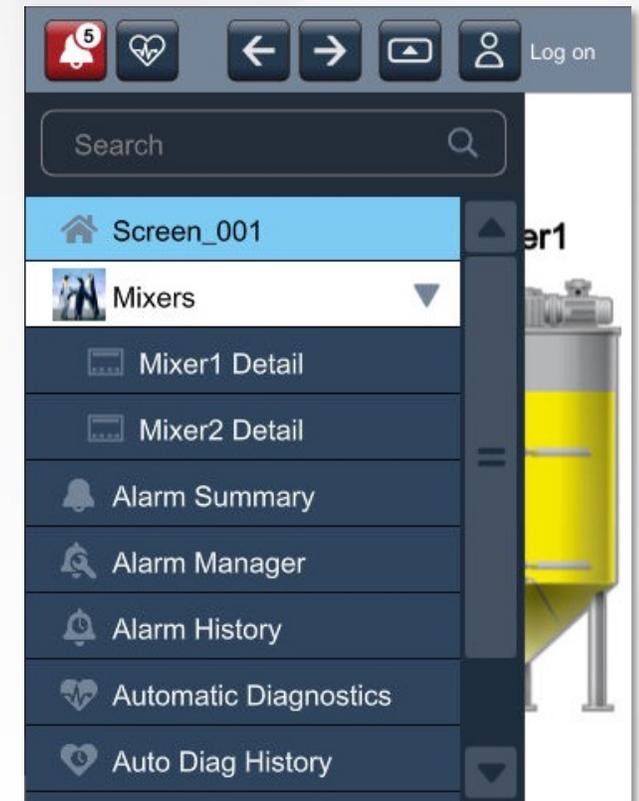
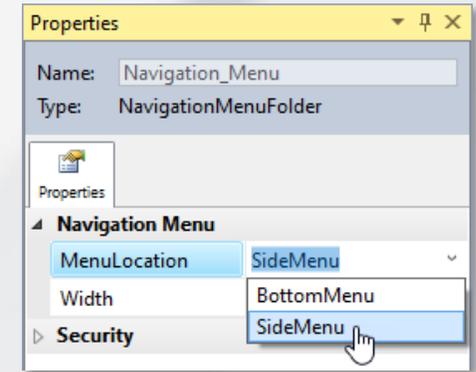
Custom folder icons for the Navigation Menu

- Customize folder icons on the navigation menu with icons or your own images
- Make hierarchical navigation more visually appropriate for your specific application



Side or bottom location option for the Navigation Menu

- New option to locate the Navigation Menu on the side of the PanelView™ 5000 instead of the bottom.
- Use the Width property to define how wide the navigation menu will be when open
 - Allows for longer shortcut captions
- New Search field helps operators find a specific screen shortcut in large projects
- Carriage return in a shortcut caption is automatically interpreted as a space in the side menu
 - Helps you to switch from a bottom navigation menu to a side navigation menu
 - Side menu captions always appear as one line



Support for new Logix date/time data types

- Support for the new Logix date/time data types introduced in Studio 5000® Logix version 34:
 - Duration types: TIME, TIME32, LTIME
 - Time types: DT, LDT
- Supports displaying values of these tags and their associated extended tag properties



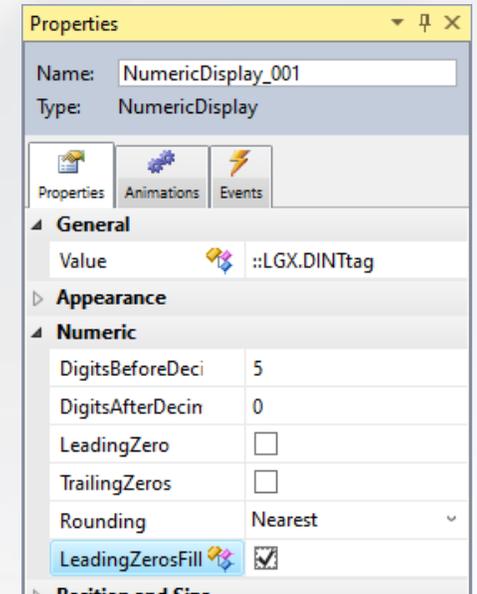
Support for P-instructions and PlantPax® faceplates

- The P-controller process instructions (P-instructions) are now supported.
- Data from these instructions can be read and written, including all extended tag properties.
- PlantPax® faceplates for PanelView™ 5000 under development
 - Planned for a PlantPax® 5.10.01 minor release in September
- Allows the PanelView™ 5000 to be a local HMI panel as part of a larger PlantPax® system.



Leading Zero fill for numeric inputs and displays

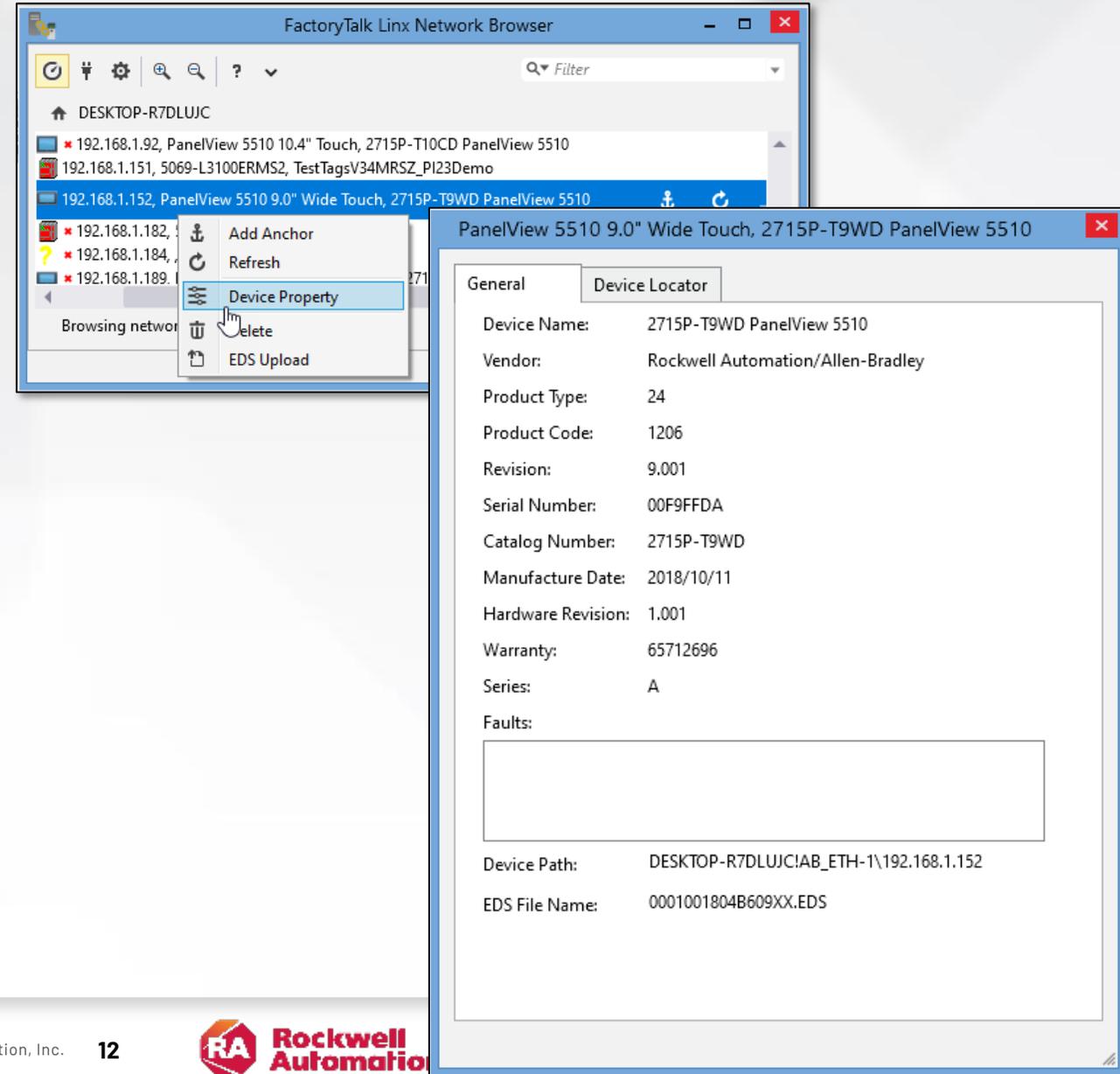
- You can now configure numeric inputs and numeric displays to fill all empty DigitsBeforeDecimal places with zeros.
- Useful to align columns of numbers.



00001
00007
00126
02400
00003

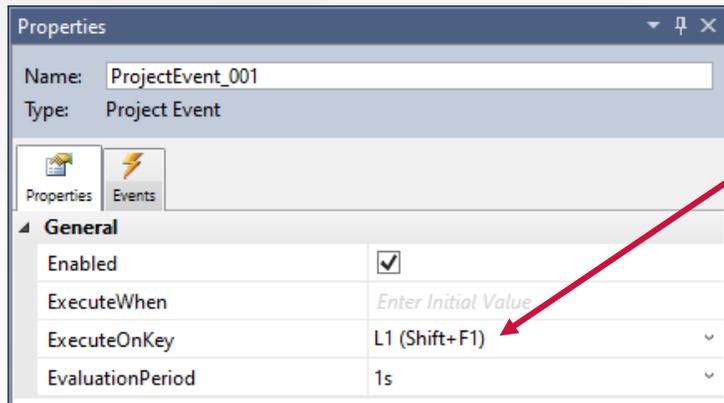
Support for CIP identity object attributes of Series and Warranty

- Tools such as FactoryTalk® Linx can now read all identity attributes previously only available on the manufacturing label of the PanelView™ 5000.
- Easier to maintain field-mounted equipment without physically accessing the back of a PanelView™ 5000.



Support for keypad presses while web browser has focus

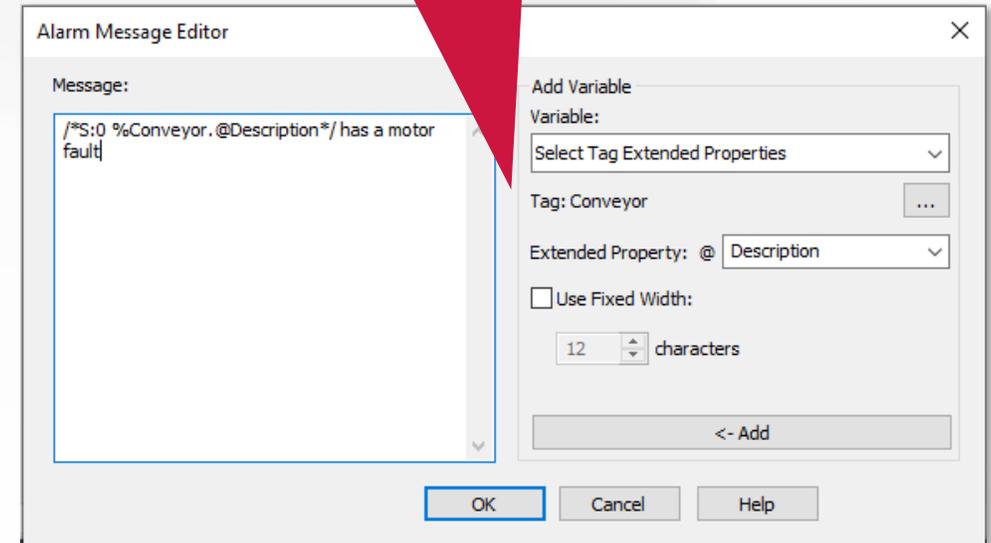
- A keypad PanelView™ 5510 can now use the Ln and Rn keys to trigger project events even if the web browser is open and has focus.



Use UDT instance `.@Name` and `.@Description` in alarm messages

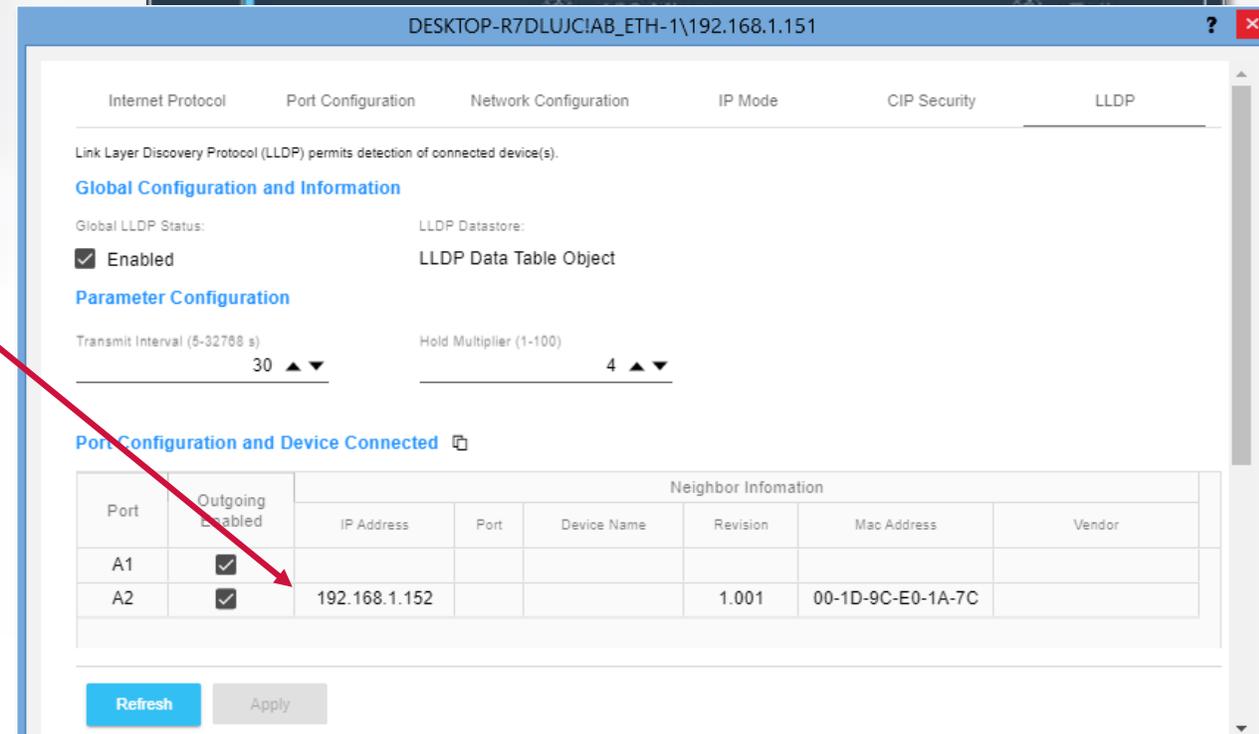
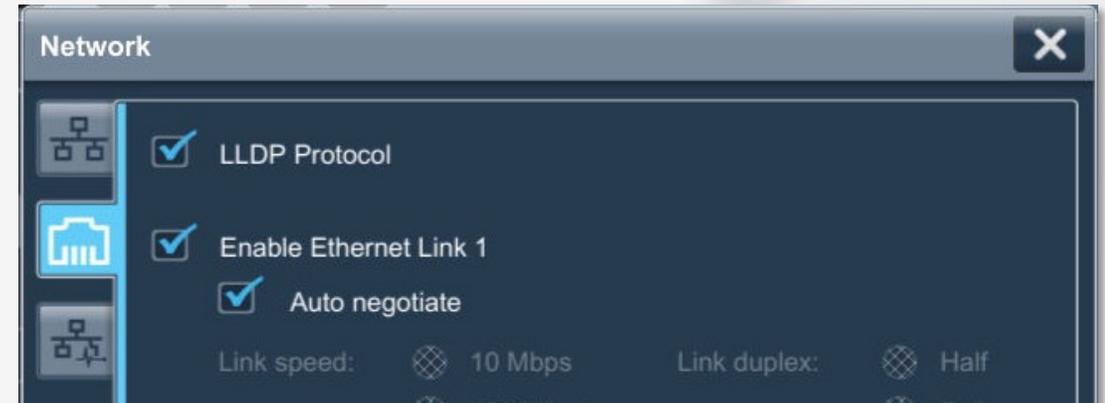
- V9 can now display the name or description of a UDT tag within an alarm message.
- In prior releases, an alarm message could only display the name or description of a member of a UDT.
- Useful for creating alarm messages containing a description related to an Add-On Instruction instance, for example.

The data type "Conveyor" has its Description used in the alarm message



Support for LLDP (Link Layer Discovery Protocol)

- A PanelView™ 5510 can now support LLDP to report its connection information to a neighboring network node.
- New checkbox on the pre-defined network configuration screen to enable/disable LLDP.
- The PanelView™ 5510 will now appear in the neighbor information on the controller's configuration page in FactoryTalk® Linx.



Notable anomaly fixes

- Screen navigates or popup open commands with a missing target now given a warning on verification.
- Element added to a group in the Graphic Explorer now added in the correct z order instead of always on top.
- A V6 project missing an Alarm Summary shortcut can now convert to V9.
- Gradient fill color on a popup background working again in V9. Stopped working in V8.
- Improved error indication when popup caption has a binding error.
- Improved error message when using invalid characters for a project name.
- Fixed conversion failures for projects originally created with early versions of View Designer.
- Fixed cases where “find/replace” results could have additional scripting text.



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