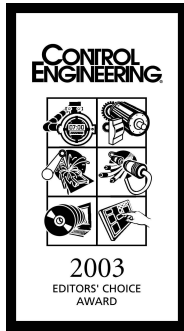# What's New in Release 1.90

The InteractX 1.90 Release is a no-charge update to the current version of InteractX. The release includes updates to the InteractX Designer, InteractX Runtime, Deployment Server and MachineShop Suite. The following is a list of the new features, enhancements, and fixes included in the InteractX 1.90 release.

Input List Tool – Updates for more "recipe" type functionality.

The Input List Tool has been updated to provide additional functionality to meet the needs of applications requiring simple recipe functionality. The enhancements include

- **List Grouping** – allows lists with common functionality to be managed in a group. An Input List tool can be assigned to each List Group so operators are shown only the lists they need.
- **Shared Lists Network Folder** – a group of lists can be stored and automatically updated on a network folder. Multiple InteractX systems can use the lists found in the networked folder to make changes to the list values or download them to a controller system.
- **Runtime List Save As** – provides the ability to create new lists in runtime. You can make changes to a list and save it with a new name without custom scripting or VBA code. Once saved, all systems sharing its List Group will automatically be able to use the new list.
- **String Variables** – support has been added to Lists. List items can now be defined to store string, discrete, or numeric data to be downloaded into a control system.

Tag Scaling on Tools – New features added for more flexibility in scaling data.

Input and Output references can now be defined with a tag name or a scaling expression. Any scaling expression can include one or more tag names, operators, and functions. Scaling expressions for data can now be performed in the tag editor, or anywhere that a tag name can be used. The ability to define scaling expression on objects includes easy editing features to speed your development time. Some of the new features include:

- Define tag scaling on "tools" or in the tag editor, or both
- Separate tag scaling expressions defined for Input and Output references
- Quick editing features for
    o Browsing and selecting defined tags
    o Quick insert of scaling operators and functions
    o A list of most recently used scaling expressions
- Easy to understand expression definitions

    Input Example: **Tag1 = (1.5 * ?) + Tag2**
                        In runtime, ? is replaced with the data entered by the operator

    Output Example: **(Tag1 – Tag2) / 1.5**
                        Updates when Tag1 or Tag2 changes value

- Immediate Scaling Validation – checks for valid syntax and use of a scaling expression. Invalid configurations are highlighted in red and are displayed in the interactive Error Window allowing for quick resolution of scaling issues.
- Automatic runtime error checking of expression.

Selection List Runtime Popup Quick Find – To make it easy to find the selection you want.

The Selection List Popup now includes auto-complete to find the selection you need quickly. You can select an option by entering the first few characters of what you want and allow the auto-complete to find the best possible match available. This new feature…
- Is designed to work with keyboard and touchscreen applications.
- Allows for quick selection anywhere the Selection List Popup is used, including the Input List Tool, Selection Entry Tool and Alarm Log selection.

PX PowerStation Hardware License – InteractX license that always stays with the PX PowerStation.

A new feature has been added to PX PowerStation and the InteractX License Manager to store InteractX licenses as part of the hardware system. Now, even if the internal hard drive or CompactFlash is changed, the InteractX license on your PX PowerStation will remain.

PowerSmart Update for InteractX Compatibility – Monitor and display the health of your PC hardware in real-time.

PX PowerStations now include an updated PowerSmart Utility that provides information about the PowerStation hardware to InteractX. This utility can be used to monitor and display the following information
- Temperatures of the motherboard including minimum, maximum, and current temperature.
- Speed of fans installed in the system, which may be a CPU and chassis fan.
- Power Supply Voltages on the motherboard (12.0, 5.0, 3.3, -5.0, and –12.0 VDC).
- System Information including hardware model, powered on hours, and operating system type.
- Alarm Events for low fan speeds, high temperature conditions, and out of range DC voltages.

Deployment Server Update – Easy InteractX updates on runtime systems.

The Deployment Server is used to configure InteractX runtime system properties; access InteractX and system information; and to download InteractX project files. It has been updated to enable PX PowerStation hardware licenses and can now be automatically installed as part of your project downloads.

Continuous Improvements – The following is a list of various improvements made in this release:

VBA Tag Read Performance – Faster updates are possible based on how tags are referenced. Either a Synchronous or Asynchronous read may be performed to get a tag value.

> Tags.Tagname.Value
> *Faster, asynchronous read of cached controller value. This syntax requires the tag be exposed to VBA in the tag editor and causes the current tag value to be returned to VBA.*

> Tags.Item("TagName").Value
> *This syntax forces a read of the current value in the control device associated with the tag before a value is returned to VBA. This is called a synchronous read.*

Continuous Background Panel Loading – Optionally cache all panels using background CPU processing time. This allows for increased panel switching performance using cached panels.

Where Used – Tag Editor Where Used feature now displays tags in alphanumeric order.

Sounds added to Styles – The sound associated with an object has been added to style definitions.

Additional Fixes – The following is a list of various fixes made in this release:

> **ActiveX Control** fixes include:
> - Corrupt Panel Error no longer occurs when loading panels that contain ActiveX controls that are not installed on the system.
> - Runtime Panel Printing now includes ActiveX controls.
>
> **DCOM addressed Tags** now properly scale.
>
> **Hide Connections** associated with a group of objects no longer blocks input to tools stacked behind the group.
>
> **Input List** fixes include:
> - While working on a development system, Input List changes made in Runtime are recognized when switching back to the Designer.
> - Display of extra Input List items has been removed.
>
> **Latched Push Buttons** now unlatch across panels.
>
> **No User Access Symbols** no longer cover numeric values of Numeric Entry Tools.
>
> **OPC Systems** can now access more than one tag in InteractX runtime.
>
> **Popup Keyboard** fixes include:
> - Choosing the "X" (close keyboard) button closes and completes text entry.
> - Shift Lock/Release functionality now works as intended.
>
> **Radio Push Button** groups properly convert from version 1.70 applications.
>
> **Setup Program** is a new InstallShield version that addresses several 1.70 and 1.80 installation issues.
>
> **Splash Screen** now appears sooner after launching the product.
>
> **Tag Validation** does not occur when "Enable Validation" option is disabled.

COMM Server and Communications Driver Additions and Updates – This release includes 2 new and 17 updated drivers.

COMM Server – enhancements include the following:
- All drivers have been updated to support a maximum of 32 channels. The DDE Client and Modbus Plus support less than 32 channels.
- A timestamp to diagnostics data copied to the Windows clipboard.

ODBC Client Driver (V4.01.17) – New Driver
This driver provides access to ODBC compliant databases for retrieving records of data. The driver uses Microsoft Data Access Components (MDAC) to access data sources such as:
- Microsoft Access
- Microsoft SQL
- Oracle
- Sybase

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Allen Bradley Unsolicited Ethernet (V4.10.04) – New Driver
This driver will act as a single simulated Allen-Bradley PLC-2 and allows up to 256 devices to connect. Devices communicating with this driver require specialized ladder programming to communicate.

Allen Bradley ControlLogix (V4.70.81) – Enhancements to this driver include the following:
*   Updated for optimized real-time communications for improved data update rates.
*   Added support for ControlLogix Controllers via ENI.
*   Added support for CompactLogix 5300 Controllers via Ethernet and ENI.
*   Added support for FlexLogix 5400 Controllers via Ethernet and ENI.
*   Added support for SoftLogix 5800 controller.
*   Added Float (F) support for the ENI:Micrologix model.
*   Added Inactivity Watchdog timer device property.

Allen Bradley DF1 (V4.61.70) – Enhancements to this driver include the following:
*   Enhanced driver performance for reading larger amounts of PLC data.
*   Added link protocol type KF2/KF3 Half Duplex Master.
*   Added DF1 Radio Modem support.
*   Added Local ID channel property.
*   Enhanced SLC 500 Modular I/O models event log error messaging for I/O tags. They are now in slot.word format.

Allen Bradley Ethernet (4.22.28) – Enhanced for SLC 500 Modular I/O models event log error messaging for I/O tags. They are now in slot.word format.

AutomationDirect EBC (V4.40.52) – Enhancements to this driver include the following
*   Added support the GS1/GS2/GS3 Drives.
*   Fix for clearing error status in modules.
*   Fix for serial port access when multiple H2-SERIO modules exist in the same base.

GE CCM (V4.30.41) – Enhanced to include Series Five PLC support.

GE Fanuc Ethernet Global Data (4.24.40) – Enhanced to support the EGD device address range.

Mitsubishi FX (4.31.45) – Enhanced to support String data in D registers.

Modbus RTU (V4.86.81) – Enhanced to add support for Omni Flow Computer Custom Packets, Text Records Text Archives, and Raw Data Archive.

Modbus TCP/IP Ethernet (4.54.39) – Enhanced to support the Instromet model device type.

Modbus Unsolicited (V4.32.51) – Enhanced to support String data types.

Omron Fins Ethernet (4.10.30) – Enhanced to support String data in D registers.

Omron Fins Serial (4.10.26) – Enhanced to support String data in D registers.

Omron Host Link (V4.31.52) – Updated so that 32 bit data types in all memory areas to except true bit data.

Siemens S5 Serial (4.10.26) – Enhanced to expand all lower level PLC address ranges.

Siemens S7 200 (V4.22.47) – Update for properly handling blocks of data when driver errors occur.

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User CONfigurable Driver (UCON) (V4.00.60) – Enhancements to this driver include the following:

- Added capability to handle variable length data fields in delimited list format.
- Added BCD format option for 16-bit check sum types.
- Increased data buffer size.
- Added ASCII Hex option to "Modify Byte" command.
- Added support for 64-bit IEEE float (double) data formats.
- Added ASCII Hex option to "Modify Byte" command.
- Added Channel property for logging of unsolicited dead time expiration.
- Added support for new device data format "ASCII coded IEEE float" that represents each digit, sign, and exponent of a value as a variable length string.
- Added new "Log unsolicited message timeout" channel mode option.
- Added support for "Custom #2" check sum, a variation of the LRC (8-bit) check sum type.
- Fix for report of good quality data when an Update Tag command has not been called. Tag's quality will be bad until there is a successful execution of Update Tag command.
- Fix for validation errors when the length property of a variable length device data formats are changed during runtime.
- Fix for writing string data longer than 1536 characters in runtime.
- Fix for on-the-fly changes to the key length to be recognized without restarting the COMM Server.

Wago Ethernet (V4.02.32) – Enhanced the 750-342 bus coupler address range.