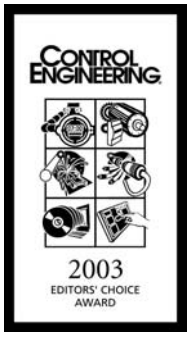
What's New in Release 2.0

InteractX FROM CTC

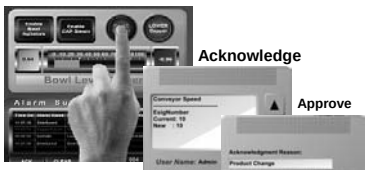


InteractX 2.0 is a new product release that includes many features and enhancements. The release includes updates to the InteractX Designer, InteractX Runtime, Deployment Server and MachineShop Suite. This is a charged update from the previous versions that includes:

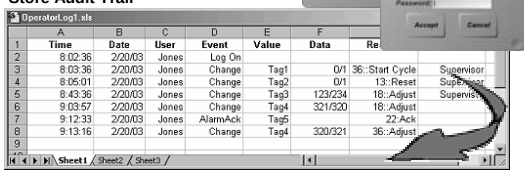
- Electronic Signatures & Operator Activity Tracking
- Integrated Database Logging and Audit Trails
- Networked-Based User Administration
- And more…

Electronic Signatures & Operator Activity Tracking

Tracking operator input and implementing an Electronic Signature can now be configured on tools eliminating the need for custom programming.



Input tools now support a new configuration option called Input Approval that provides simple check box options to implement various levels of operator input tracking. New operator Authentication and data change Verification pop-up dialogs are included for simple application integration.



Input tracking configuration options include:

1) **Require Input Approval** – activates tracking of changes made by the tool.
2) **Verify Input** – defines the actions required by an operator to check their input before it is sent to a control device. Configurable options include:
   a. ***Require Authentication*** – requires operator's password to be entered to enforce uniqueness of operator.
   b. ***Reason for change*** – defines the rules for requiring information for the reason a change is being made in the system. The reason information can be selected from a pre-defined group of reasons, or manually entered by the operator.
3) **Approve Input** – configures the optional rules for requiring supervisor approval before a change is made to the system.
   a. ***Approval User Level*** – defines which level of access a user must have to approve a data change entered on the tool.
   b. ***Require Authentication*** – forces the approver to enter their unique combination of user name and password. Their information is verified before a data change is made in the control device.
   c. ***Approval Reason for change*** – allows the manager to select the meaning of their approval from a predefined list of options or by manually entering the information.

The Input Approval process updates system information for both the current and new values of the change; who the operator and approver are; the reasons for the change and the meaning of the approval; time and date, and more… all of which can be used with the new Event Database logging features of this release to create audit trails.

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Integrated Database Logging

Event and Historical Data Logging is now included as a standard part of every InteractX system. The new database capabilities allow the logging of user activity to create audit trails and time or trigger based historical data.

- **Microsoft Access, SQL, Oracle and ODBC support**
- **Multiple Data logging types**
  - Event Logging (date, time, user, current value, new value, reason, …)
  - Data Logging (date, time, value1, value2, value3, …)
  - Alarm Logging (data, time, user, alarm event, alarm value, …)
- **Advanced features include**
  - Automatic table creation
  - Database security
  - Local or network based databases
  - Cache and Forward data buffering for networked databases
  - Status information that can be displayed for the operator
  - User defined database connection strings for special needs
- **Database support preinstalled on HPX/PX PowerStations**
  - Each system includes the Microsoft ADO Jet Engine and ODBC Support
    - Access Database (MS Access license not required)
    - ASCII Files (ODBC connection)
    - Oracle Database
    - SQL Database

Enhanced Built-in User Administration Enhancements

The built-in User Administration has been enhanced to make it easier to implement operator uniqueness. New and updated features include:

User's Full Printed Name – now part of the standard user configuration

User Configuration History – information is no longer overwritten by an application file transfer. The configured user's current setting and their password history are kept intact to enforce the password aging rules required by the machine installation.

No Access Symbol – can now be optionally turned off in an application. The "no access" symbol appears over tools that the current user does not have access rights for. Access to individual tools can also be restricted by not displaying unless the user has the appropriate user access privileges. Selecting the tools "Hide If Restricted For Use" checkbox enables this feature.

New Networked Based User Administration Support

When network based user administration is required, Windows operating system services can now be used. The new product features allow an OEM to build an application without knowledge of the network requirements, and easily enable network user administration during machine setup. The new features include:

- Simple check box to switch user administration from built-in to networked
- Supports Windows Active Directory, NT Domain, or "auto detection" services
- Integrated popup dialogs for log on, password change and authentication

- Access privileges based on convenient user groupings that can be shared with all runtime systems or unique for each machine
- Inactivity timeouts and application restrictions work identical to built-in User Administration

New VBA User Administration Functions For Custom Application Needs

Custom script and VBA code is not required in InteractX to implement electronic signatures. Two new VBA functions have been added to InteractX to help when custom integration is needed.

AuthenticateUser(Name, Password) – used to verify user information. Can be used with Authentication popup dialog to automatically fill in user name and password information.

ChangePassword(NewPassword) – changes the current user's password.

LoginUser(Name, Password) – changes the current user.

Alarm Management Updates

Several alarm management features have been updated in this release.

Alarm Viewer Alarm Group(s) Option - The Alarm Viewer now supports an option to select which alarm group or groups that it will display.

Alarm Viewer Display with Fixed Column Widths – The column widths for information in the Alarm Viewer can now be configured for each individual column.

Alarm logging to database – The new database logging capability has been integrated with alarm logging. Historical alarm information can be stored in a database. The alarm events that trigger a historical record can be configured so only the information needed for an application is stored. Custom data fields can be added to the alarm log.

New Powerful Tag Scaling Functions

Two new functions are available that can be used to define a tag address, or tool input/output expressions.

ROUND() – Rounds a number to a whole number or to a specific number of decimal places.

DEADBAND() – Evaluates to True or False as a number value changes around a defined target value.

New Hardware License Option

This release includes support for a USB Security Key that allows an InteractX product license to be used with multiple systems. Version 2.x or later software is required to use this feature. A USB key can be purchased from CTC that allows the transfer of an existing software license to the portable USB device. A key can be ordered using the INTX-KEY model number.

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Continuous Improvements

The following is a list of various improvements made in this release. Please see the readme.txt document included with the setup program for a complete list of changes.

Increased Development Environment Performance – several updates were made to improve InteractX designer performance including:

- Tag lookup optimization that speeds loading of panels in large projects.
- Tag validation fix that improves the amount of memory used by the Designer.
- Object Project Page fix that caused multiple graphic redraws, drastically slowing down the Designer in applications with a large tag count.

Runtime User Management Tool - updated to restrict the ability to assign a user more privileged access than the current user.

Tag Scaling Fix - for validating expressions with decimal values. A value of "10." now converts to "10.0" as expected.

COMM Server and Communications Driver Additions and Updates – This release includes 7 new and 28 updated drivers. The following is a list of some of the updates.

COMM Server – now includes user defined channel communication recovery optimization

Advanced Simulator (V4.01.17) – New Driver
This driver provides a simulation of live data by using an ODBC data connection to increment through all the records in a data table at a rate set by the user.

Allen-Bradley Data Highway Plus (V4.01.17) – New Driver
Provides a connection the Allen-Bradley DH+ and DH-485 networks using cards from Allen-Bradley and SST Woodhead. Supported cards include:

Allen-Bradley: KT, KTX (D), PKTX (D) and PCMK/B
SST Woodhead: 5136-SD-ISA and 5136-SD-PCI

BACnet Ethernet (V4.10.11) – New Driver
This driver can be used with devices that use the BACnet/IP (Annex J) protocol and are visible on an Ethernet network. The device must support the objects, properties, and services used by this driver. You should consult the Protocol Implementation Conformance Statement (PICS), available from your hardware vender and compare it to the online help for this driver.

Fuji Flex Serial (V4.0.0.15) – New Driver
Supports a serial connectivity with the Fuji Flex-PC N Series PLCs (NB0, NB1, NB2, NB3, NJ, and NS).

Hilscher Universal – Profibus DP and DeviceNet (V4.00.21) – New Driver
This driver uses the Hilscher Communication Interface (CIF) cards to provide access to Profibus DP and DeviceNet networks. The cards supported include:

DeviceNet Master (ie. CIF50-DNM) – Read/write to DeviceNet slave I/O.
DeviceNet Slave (CIF50-DNS) – Read/write to local board I/O only.
Profibus DP Master (ie. CIF50-PB) – Read/write to Profibus slave I/O.
Profibus DP Slave (CIF50-DPS) – Read/write to local board I/O only.

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Yaskawa MP Ethernet (V4.0.1.16) – New Driver
Connects Ethernet to the MP 940 controllers using 218IF Ethernet communication modules.

Yaskawa MP Serial (V4.0.1.16) – New Driver
Connects serial to the MP 900 series controllers using native address referencing (IB, MB, IW, IL, MW, ML, and MF)

Allen-Bradley ControlLogix (V4.80.122) – Updated ENI module support for better communication re-connections and reliability.

AutomationDirect DirectNet (V4.42.61) – Updated to add address range for "R" registers.

Mitsubishi Ethernet (MELSEC) (V4.60.39) – Updated Q series support for multiple PLCs and expanded memory.

Modbus ASCII (V4.60.40) – Updated adding features to handle variations in protocol implementation. Enhancements include:

- Double Data Type Support
- First Dword low in 64 bit data types
- Option for default Modbus byte order
- Holding register bit mask writes
- Modbus function 06 for single register writes
- Modicon bit ordering
- Zero based bit addressing within registers
- Write Only data access

Modbus Serial (V4.121.97) – Updated adding features to handle variations in protocol implementation. Updates include:

- Modicon Bit Ordering
- 0/1-Based Bit Addressing
- Double Data Type Support for Modbus Model
- First Dword low in 64 bit data types
- Holding register bit mask writes

Modbus Plus (V4.40.67)
Now supports the Hilscher CIP MBP card, requires SyCon software installed on runtime and development systems.

Siemens TCP/IP 200/300/400 Ethernet (V4.22.32)
Increased communication performance and added support for the S7-300/400 using the NETLink Ethernet to MPI serial adapter from Systeme Helm.

User-Configurable Driver (U-CON) (V4.60.81)
Added support for inter-request delays and additional user defined check sums.

Uni-Telway (V4.21.49)
Added memory type support for TSX Micro/Premium series PLC's including MW strings, PL7-3 counters and timers, and IEC 1131-3 timers.