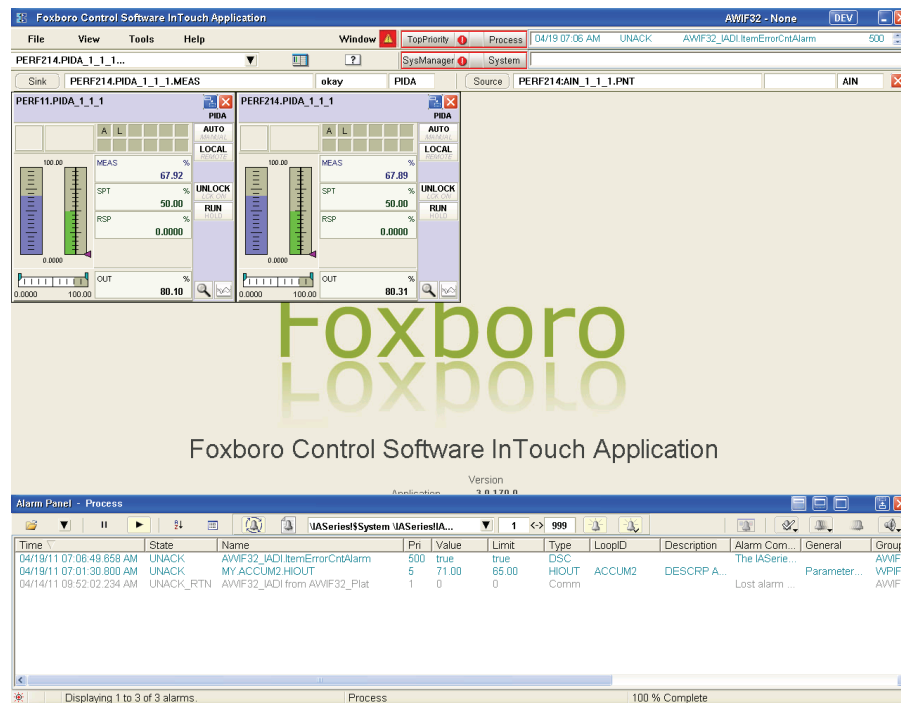


Foxboro® Control Software InTouch® Application



The Foxboro® Control Software InTouch® Application is the primary graphical human interface for use by process plant personnel in monitoring and controlling industrial processes.

FEATURES

This comprehensive visualization software subsystem provides:

- ▶ Intuitive, easy to navigate display hierarchy
- ▶ I/A Series® control block faceplate overlays
- ▶ Process and system alarm summaries
- ▶ Real-time and historical trending
- ▶ Role-based security options
- ▶ Powerful scripting language.

NAVIGATION HIERARCHY

The Foxboro Control Software (FCS) InTouch Application offers a hierarchical navigation feature to organize graphical displays into logical plant-oriented groupings. With the Framer application, users define up to a four-level display hierarchy in a hierarchical organization that reflects the desired process plant structure.

Horizontal or vertical navigation windows can be used to view the window hierarchy to quickly select a display at any level.

The hierarchy supports up to twelve entries per level which allow the user to traverse it using the standard keyboard function keys.

Process alarm indications are shown at each level rapidly guiding the operator to any point in alarm.

The FCS InTouch Application supports alerting operators of alarms within the HMI, and through external devices such as annunciator panels and GCIO horns.

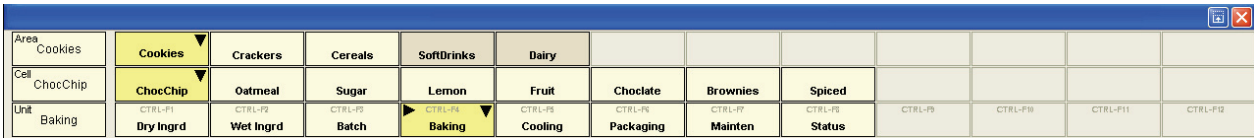


Figure 1. Navigation Display Hierarchy

FACEPLATES AND FACEPLATE OVERLAYS

I/A Series control blocks are represented as faceplates that may be inserted into process graphics or used in a group of up to eight faceplate overlays. They provide real-time text and graphical information on all I/O and control blocks. Extensions to the faceplates are faceplate overlays which provide more detailed information about each faceplate. Faceplate overlays are composed of multiple overlays, including alarm views, tuning views, configuration views and real-time trend views.

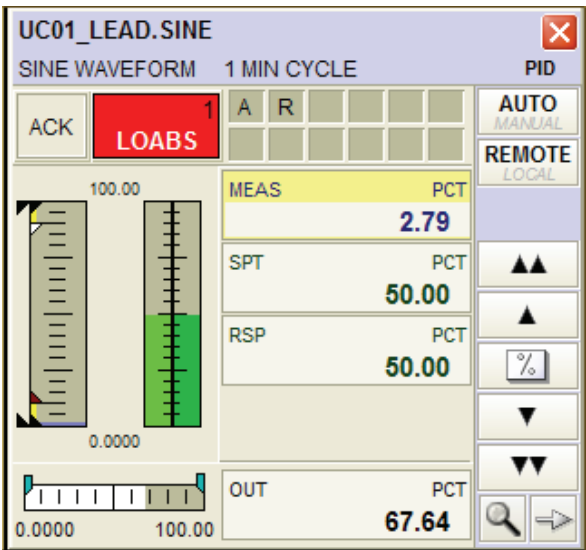
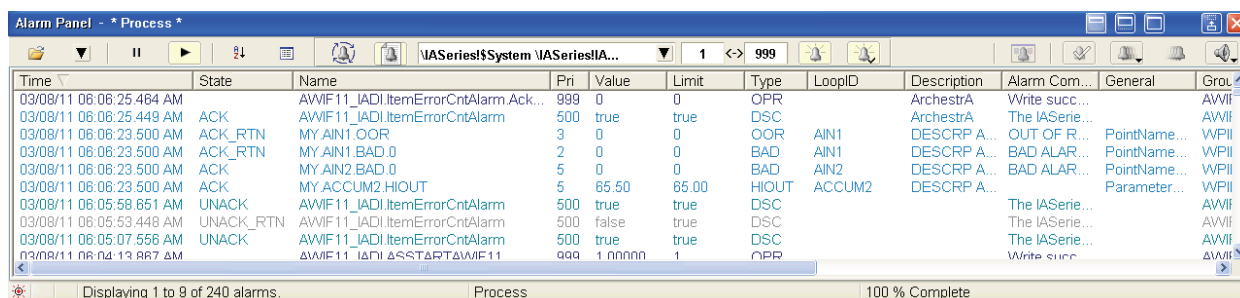


Figure 2. Faceplate Overlay

ALARM WINDOW

The Alarm Window displays alarms in a scrollable window. It can be adjusted to three sizes within the HMI. The user can filter for certain types of alarms, such as unacknowledged alarms, Priority 1 alarms only, all alarms, and so forth, using alarm queries. Users can switch to any configured query to change filters on the fly.



Time	State	Name	Pri	Value	Limit	Type	LoopID	Description	Alarm Com...	General	Group
03/08/11 06:06:25.464 AM		AWIF11_IAD1.ItemErrorCntAlarm Ack...	999	0	0	OPR		ArchestrA	Write succ...		AWIF
03/08/11 06:06:25.449 AM	ACK	AWIF11_IAD1.ItemErrorCntAlarm	500	true	true	DSC		ArchestrA	The IASerie...		AWIF
03/08/11 06:06:23.500 AM	ACK_RTN	MY.AIN1.OOR	3	0	0	OOR	AIN1	DESCRP A...	OUT OF R...	PointName...	WPIL
03/08/11 06:06:23.500 AM	ACK_RTN	MY.AIN1.BAD.0	2	0	0	BAD	AIN1	DESCRP A...	BAD ALAR...	PointName...	WPIL
03/08/11 06:06:23.500 AM	ACK	MY.AIN2.BAD.0	5	0	0	BAD	AIN2	DESCRP A...	BAD ALAR...	PointName...	WPIL
03/08/11 06:06:23.500 AM	ACK	MY.ACCUM2.HIOUT	5	65.50	65.00	HIOUT	ACCUM2	DESCRP A...		Parameter...	WPIL
03/08/11 06:05:58.651 AM	UNACK	AWIF11_IAD1.ItemErrorCntAlarm	500	true	true	DSC			The IASerie...		AWIF
03/08/11 06:05:53.448 AM	UNACK_RTN	AWIF11_IAD1.ItemErrorCntAlarm	500	false	true	DSC			The IASerie...		AWIF
03/08/11 06:05:07.556 AM	UNACK	AWIF11_IAD1.ItemErrorCntAlarm	500	true	true	DSC			The IASerie...		AWIF
03/08/11 06:04:13.867 AM		AWIF11_IAD1.ASSTART&AWIF11	999	1.00000	1	OPR			Write succ...		AWIF

Displaying 1 to 9 of 240 alarms. Process 100 % Complete

Figure 3. Alarm Window

REAL TIME AND HISTORICAL TRENDING

A powerful data trending capability is available that delivers trends that include analog or discrete event data to notify plant personnel of process changes. Users may enter specific or relative time periods to view data to compare data from different time periods. Other useful features include:

- ▶ Scaling by tag or entire trend
- ▶ Annotations with user and time entries
- ▶ Statistics such as average, min/max
- ▶ Zoom In/Out to analyze trend details.

Scratchpad trends are available for historical trending, as shown in Figure 4. Users may save current trend tags and settings for later review. A Real Time trend window is associated with each faceplate overlay for viewing I/A Series block data in real time.

Up to 16 tags may be selected for each real time trend window.

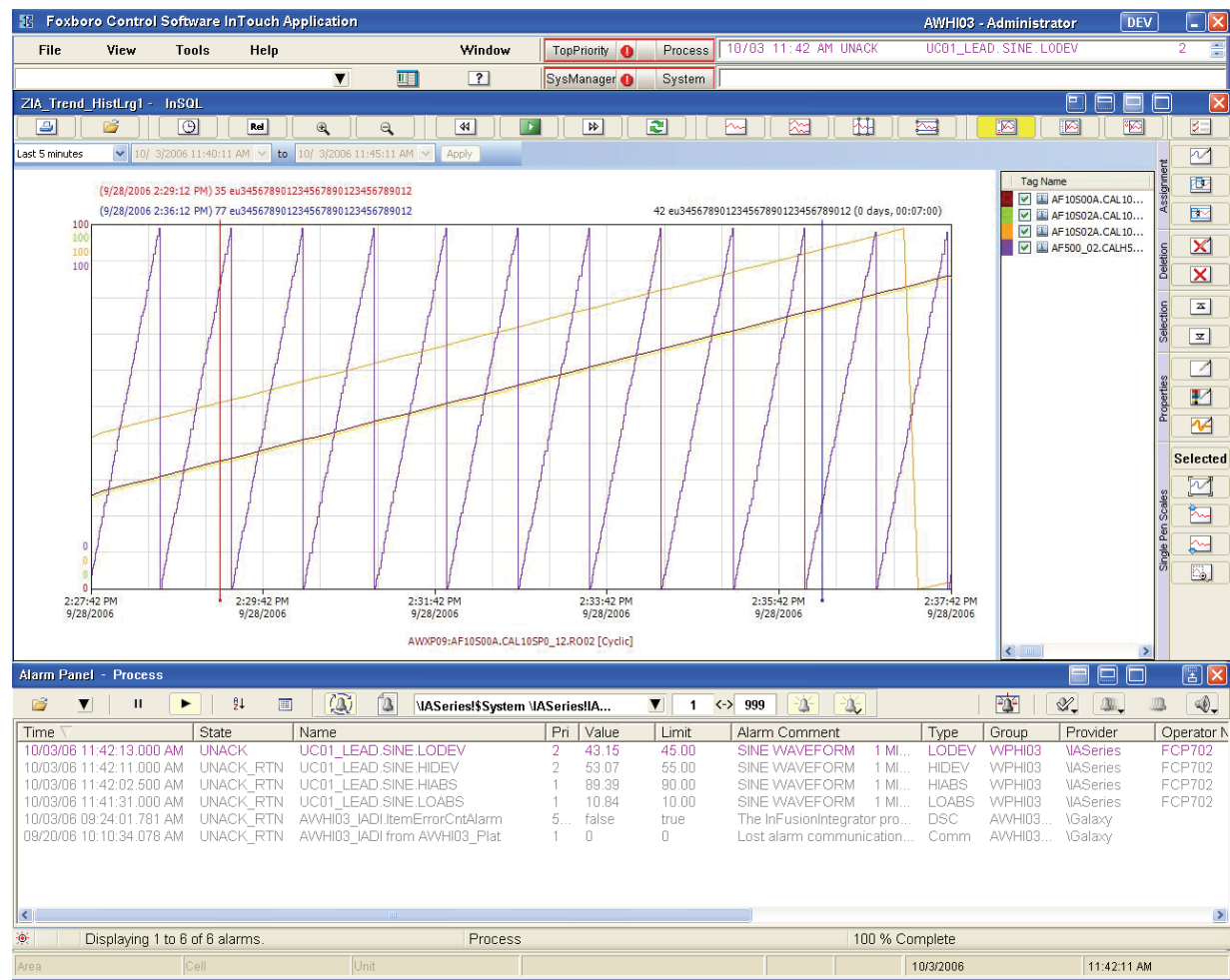


Figure 4. Trend Display

BLOCK SELECT BROWSER

The Block Select Browser is a graphical interface that presents a view of the control schema in the monitored controllers. This interface allows users to access hierarchical views from controllers to compounds and control blocks, as well as access to faceplate overlays in order to perform control actions, such as ramping a variable and auto/manual switching.

This browser also supports report configurations which can generate a screen or printed report listing compounds or control blocks that are in an exception condition such as:

- ▶ Compounds or blocks off scan
- ▶ Compounds or blocks in alarm
- ▶ Compounds or blocks with alarms inhibited
- ▶ Blocks not on control
- ▶ Blocks in manual mode
- ▶ Blocks with Bad I/O.

Reports may be filtered in a variety of combinations through an easy-to-use graphical configurator.

ROLE-BASED SECURITY

The FCS InTouch Application utilizes a role-based model that provides write access security down to a parameter level. This three level model consists of the following:

- ▶ Users are associated with specific roles
- ▶ Roles are associated with specific security groups
- ▶ Security groups are associated with write access at the control block level.

Created at control configuration time using the FCS Configuration Tools, role-based security allows the administrator to create flexible configurations that allow a user's runtime permissions to vary from object-to-object, action-to-action and process-to-process.

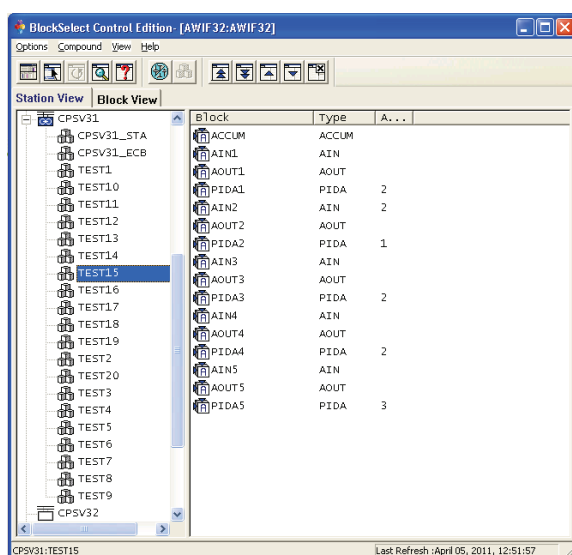


Figure 5. Block Select Browser

QUICKSCRIPT EDITOR

A QuickScript Editor is available to allow users to customize display applications to meet specific needs. Scripts can be configured to execute based on a range of parameters, such as process conditions, application events, keyboard strokes, etc.

The QuickScript environment supports QuickFunctions, which allow a user to develop a library of scripts that can be re-used, thus shortening the time required to develop the application engineering tasks.

Also provided are selections of common expressions and structures, such as greater than, less than, if-then-else, along with advanced functions that include math, string conversion and others. A built-in validation engine allows the user to validate scripts before deploying them, preventing runtime errors and decreasing application development time.

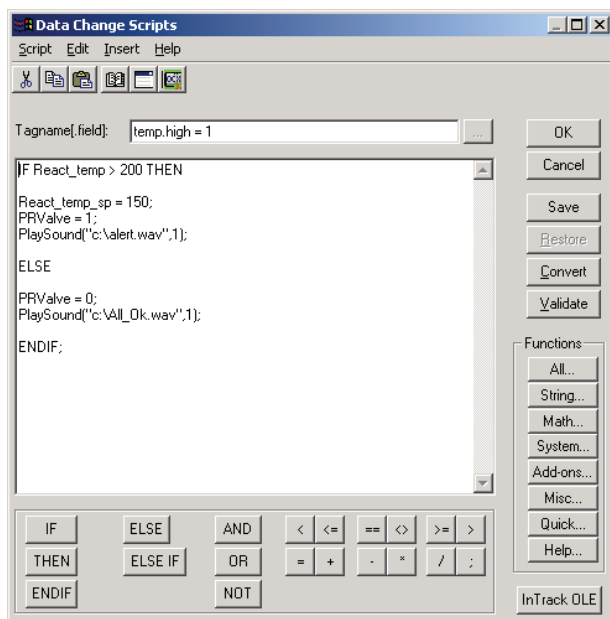


Figure 6. QuickScript Editor

OTHER FEATURES

Terminal Services and Remote Desktop Services

Using Microsoft Remote Desktop Services (for stations with Windows 7 and Windows Server 2008 R2) or Microsoft Terminal Services (for stations with Windows XP and Windows Server 2003), the FCS InTouch Application provides users with the following benefits:

- ▶ Reduced tasks via centralized Software Administration and Management
- ▶ Use of a range of devices such as thin client terminals, etc.
- ▶ Wireless platforms for mobile operations
- ▶ Network load balancing using multiple servers.

SPECIFICATIONS

The FCS InTouch Application is designed to run on an I/A Series workstation running Windows® 7, Windows Server® 2008 R2, Windows® Server 2003 or Windows XP® operating system.

It is designed to operate with I/A Series software v8.7 or later. The FCS InTouch Application must be displayed at 1280x1024 resolution when accessed on any workstation locally or remotely.

