I/A Series® Software

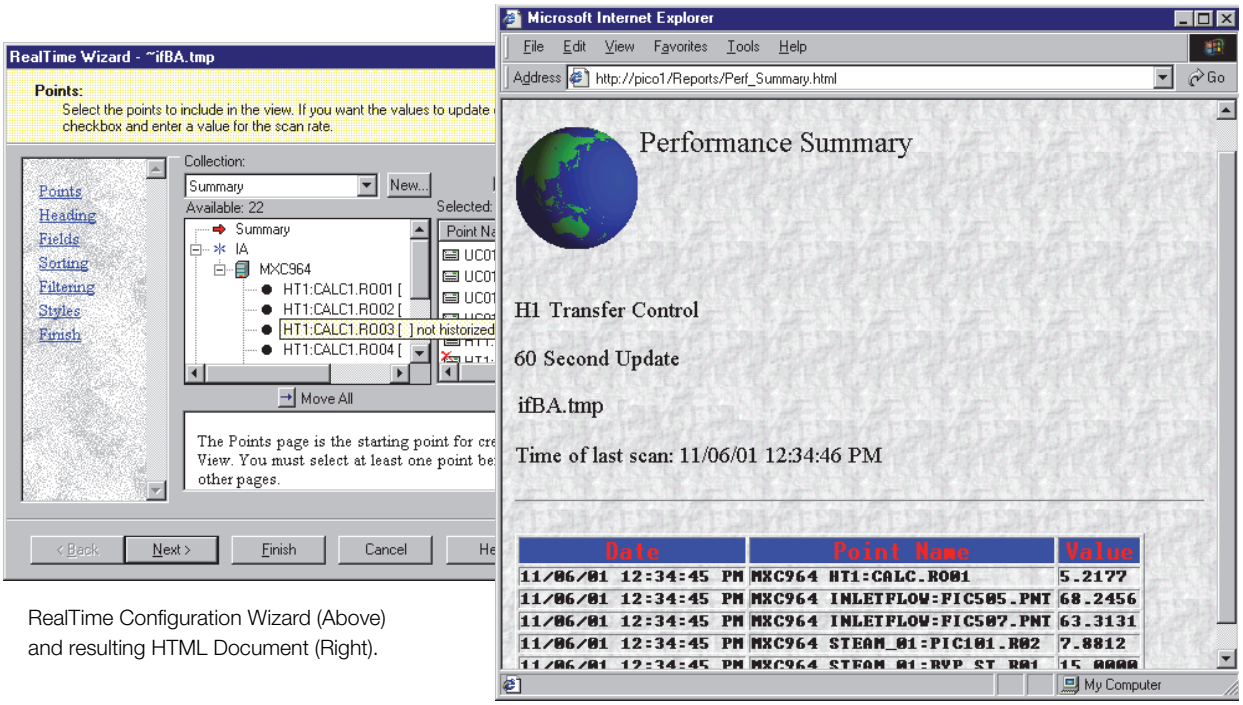
Product Specifications

Foxboro®

by Schneider Electric

PSS 21S-6AIMINF

AIM*Inform™



RealTime Configuration Wizard (Above) and resulting HTML Document (Right).

*AIM*Inform retrieves real-time and process history data from I/A Series® systems and AIM*Historian databases, and publishes the data in attractive, highly readable HTML documents.*

OVERVIEW

AIM*Inform is a desktop information management tool that enables you to retrieve real-time control system data and process history, and make that information available throughout the enterprise.

With AIM*Inform, you create HTML documents called Data Views that display retrieved data in a convenient tabular format. You can run the data retrievals on demand or schedule them to run automatically, each time updating the Data View HTML documents. The Data Views can be automatically stored on a networked PC or an I/A Series workstation.

They can also be stored on a web server so they can be viewed by authorized individuals throughout the plant using a familiar browser such as Microsoft® Internet Explorer.

DATA VIEW SOURCES

At startup AIM*Inform establishes communication with one or more AIM*AT™ servers to source data for three types of Data Views:

- RealTime
- History
- Messages.

REALTIME DATA VIEWS

Real-time data objects consist of I/A Series compounds and block parameters, shared variables on I/A Series workstations, and current values of AIM*Historian real-time points (RTPs). The RTPs can include data collected from control systems other than an I/A Series system.

RealTime Data Views provide snapshots of selected I/A Series process variables. The views can be configured to continue scanning at a set interval, and thus continuously update the Data View. The retrieval can also be run as a scheduled task, repeating at a set interval, such as once every five minutes. With each retrieval, AIM*Inform updates the HTML document. During configuration, you can insert a browser refresh command into the Data View that causes the browser to reload the Data View at a specific rate, and thus automatically update the display with the latest real-time data retrieval.

HISTORY DATA VIEWS

History Data Views access RTP values collected by AIM*Historian instances. The data can be sourced from multiple historians, and retrieved as raw sample data or as reduced data. AIM*Inform on-the-fly reduction operations, which are independent of reduction files configured on the historians, include:

- Linearization
- Sum
- Average
- Minimum
- Maximum
- High-Low (Peaks and Valleys)
- Kurtosis
- Standard Deviation.

The retrieval time span can be set with an absolute start and end time, or with a relative time, such as last hour, second shift, or previous seven days.

MESSAGE DATA VIEWS

AIM*Inform Message Data Views access the message databases of connected AIM*Historian instances, and provide convenient displays of I/A Series alarm and event messages. The Message Data View capability in AIM*Inform can be separately licensed as the AIM*AT Alarm & Message Interface (AIM*AMI). AIM*AMI provides process operators and other plant personnel timely access to selected process messages. Messages of interest can include standard I/A Series process and system monitor alarms, event messages, operator actions, and sequence of events (SOE) messages, as well as application program event and error messages. AIM*AMI enables the distribution of selected messages to production supervisors, process engineers, and maintenance personnel, as well as process operators.

In addition to absolute and relative time spans, AIM*Inform offers a highly versatile and selective message retrieval capability, allowing you to select specific fields within a message type and include only messages that meet filtering criteria (such as messages for selected control processors). Once retrieved, the messages can be grouped into a single table or into multiple tables arranged by date and message type.

AIM*INFORM WINDOW

AIM*Inform offers a variety of interfaces, including an automation component, a command line interface, and web access using an Active Server Page (ASP). The principal interface for configuring Data Views is the AIM*Inform Window. This graphical user interface includes the Data Center window, configuration wizards, and tools for scheduling and managing server connections. From the Data Center, you can modify Data View configurations and execute retrievals.

When you run a Data View, the resulting HTML document is displayed in a separate window and saved to the locations specified in the configuration.

DATA VIEW CONFIGURATION

The Data Center (Figure 1) in the AIM*Inform window lists existing Data View configurations and provides tools for setting program options and configuring additional Data Views.

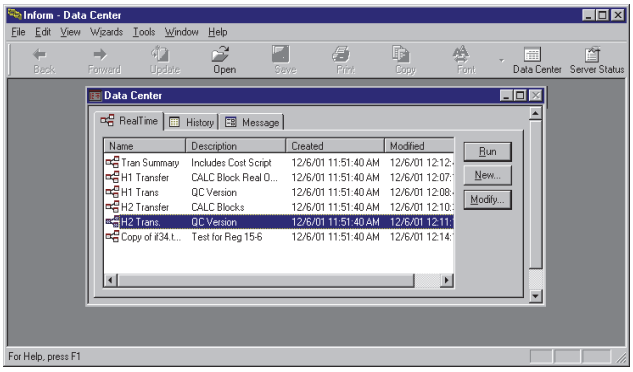


*Figure 1. AIM*Inform Window and Data Center*

The Data Center window includes three tabbed pages, each listing existing configurations for a Data View type. The New and Modify buttons to the right of the listing start a configuration wizard for the Data View type. The wizards include seven to ten pages of controls that prompt you through the selection of data and the formatting of an HTML document. The first page of the wizard allows you to browse the data sources for available points or messages, and select items of interest for retrieval.

DATA VIEW CONFIGURATION WIZARDS

AIM*Inform provides a configuration wizard for each of the three Data View types. The wizards, which include convenient on-screen help, guide you through Data View development, including:

- Selection of messages to be retrieved
- Arrangement of data tables
- Formatting of HTML document appearance
- Specification of output options, such as printing and web publishing.

Quick Views

The wizards support quick configuration of Data Views, allowing you to browse and select points in a few clicks of the mouse. You select points with a simple drag-and-drop operation. You can then immediately run the configured retrieval and produce the Data View using default style selections.

Figure 2 is the first page of the RealTime Wizard on which you select data from a tree view of available points sourced from I/A Series control databases.

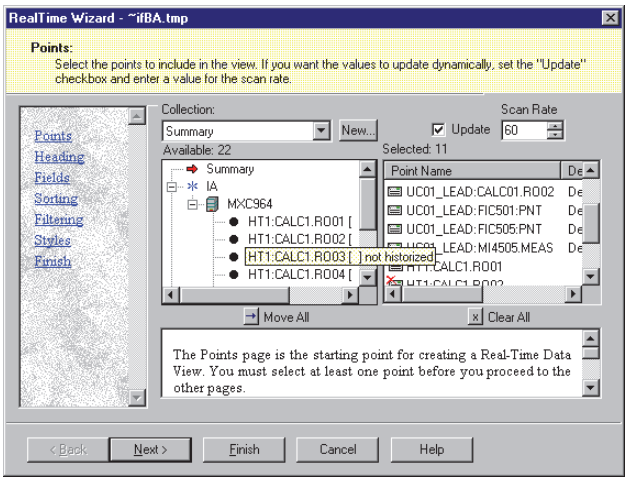


Figure 2. RealTime Wizard Points Page

Collections

The points presented in the RealTime and History wizards are based on lists of data objects called collections that are created with the Data Object Wizard. This wizard, which can be started from either the RealTime Wizard or History Wizard, provides a series of data filters that enable highly selective retrieval of I/A Series block parameters and AIM*Historian RTPs. Multiple collections can be built for use in both wizards. Figure 3 is a Data Object Wizard page used for selecting parameters from I/A Series control databases.

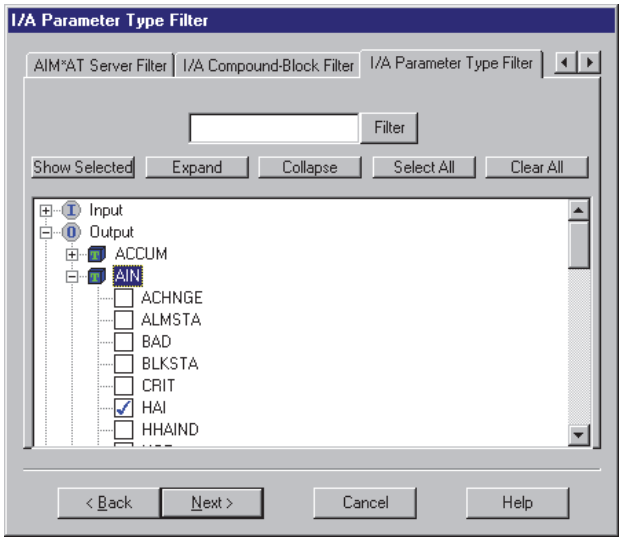


Figure 3. Data Object Wizard Parameter Page

The first page of the Message Wizard presents a tree view of message types and fields configured in the connected AIM*Historian instances. AIM*Inform builds this tree view when the application starts up and establishes connection with AIM*AT servers.

Multiple Configuration Options

In addition to creating quick views, you can select other pages in the Data View configuration wizards by clicking the page title in the Navigation Bar on the left side of the wizard.

These pages provide tools to arrange the data table, select style options, and specify how and where the Data View is to be accessed by others. Figure 4 shows the additional pages in the RealTime Wizard.

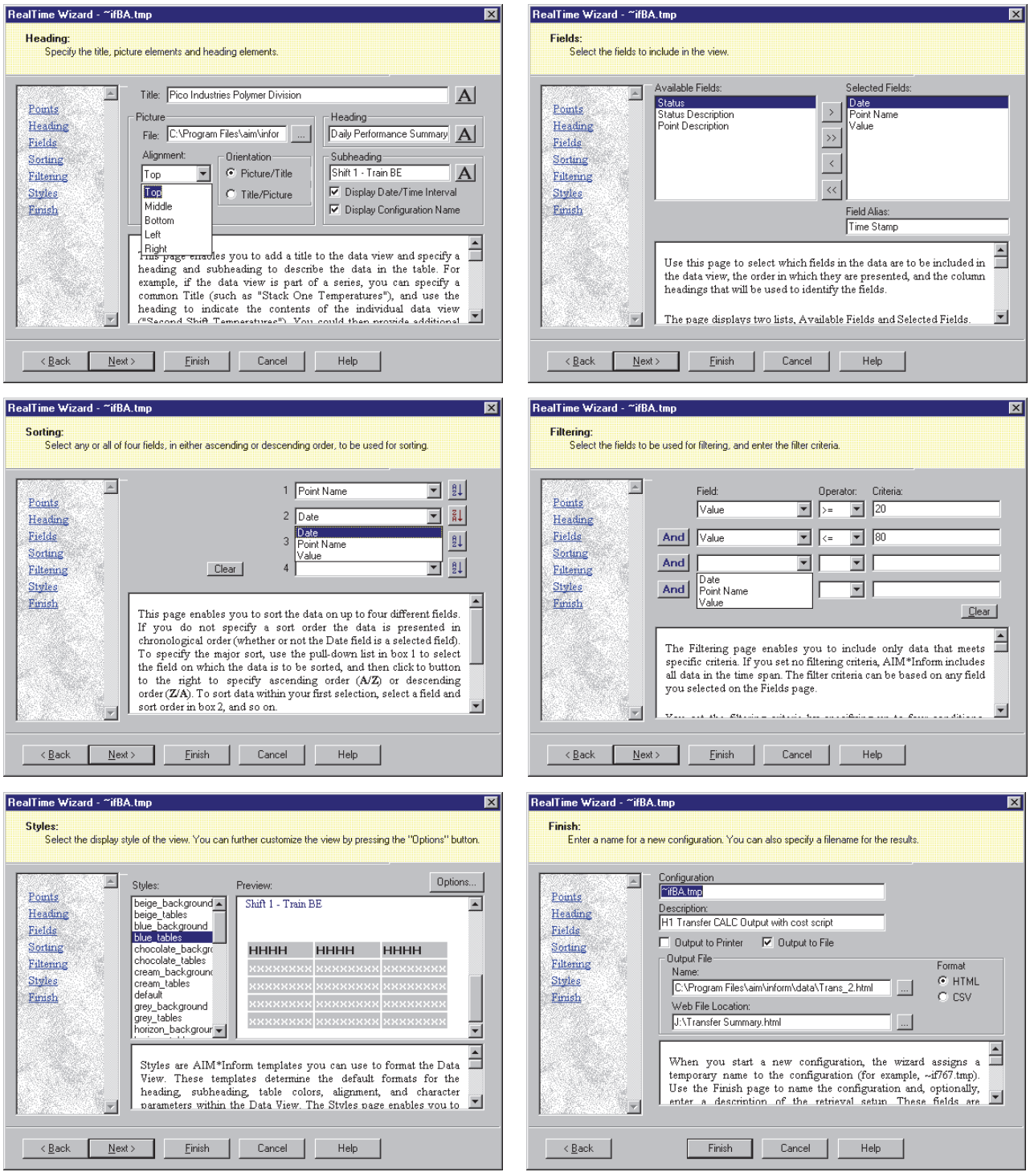


Figure 4. RealTime Wizard Pages

The wizards include the following configuration options:

- Continuous updating of RealTime Data Views.
- Data reduction for AIM*Historian RTPs.
- Specifying a retrieval time span for History and Message Data Views. The start and end of the span can be set as absolute times, or with variable times such a Last Shift or the Previous Week.
- Selecting specific data fields for inclusion in the Data View.
- Sorting of data by selected fields. You can specify up to four different sorts.
- Grouping of historian data into separate tables by time or point name.
- Grouping of message data into separate tables by time or message type.
- Filtering the retrieved data to include only objects that match specific criteria. You can configure up to four filter conditions.
- Adding elements to the HTML page including titles and pictures, table rules and grid lines, and background patterns.
- Applying defined styles to the document background and data table.
- Formatting the appearance of the document by specifying the type style, size, and color.
- Configuring a Java or VB script to process the retrieved data before it is presented in the HTML document. This capability can be used to highlight specific conditions such as out-of-range values or to convert units of measurement and compute costs.
- Naming the Data View configuration and specifying how the document is to be stored.

RUNNING DATA VIEWS

On Demand Execution

Once a Data View has been configured, you can run the data retrieval and create an HTML document by selecting the configuration and clicking the Run button. The Data View is displayed in a separate window in the AIM*Inform window. You can open multiple Data View windows, tile or cascade the displays, and page through the active windows using the navigation buttons in the toolbar.

Each time data is retrieved, AIM*Inform creates a new Data View based on the specifications in the configuration file. If a storage location is specified for the Data View, the new document overwrites the previous file with each retrieval. Thus, if a continuously updated RealTime Data View is published to a web server, the document on the server is continually refreshed by AIM*Inform.

In addition to running Data Views from the AIM*Inform window, you can use the following methods to access the Data Center without opening the AIM*Inform window:

- Scheduled tasks
- Command line interface
- Automation component
- Web access to AIM*Inform.

Scheduled Tasks

The Windows Schedule Wizard is invoked from the Data Center menu bar to schedule execution of a Data View. The Data View is run and stored as configured.

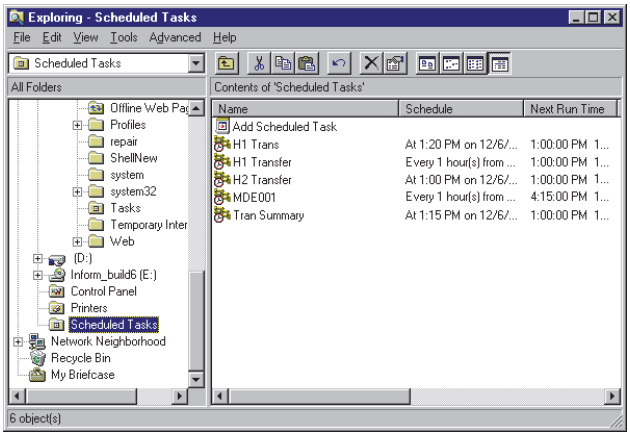


*Figure 5. Scheduled AIM*Inform Data Views*

Command Line Interface

The command line interface used by the scheduling task to run Data Views is also available for setting up scripts and shortcuts that run one or more Data Views without opening the AIM*Inform window. This interface also allows you to designate alternate storage locations for the resulting HTML documents.

Automation Component

The AIM*Inform automation component exposes a creatable application object for use in programs developed with C++, VB, and similar tools. The applications can list the Data View configurations available in the Data Center, change retrieval time spans, specify alternate storage locations, and execute Data Views. Use of the automation component does not alter the original Data View configuration.

Web Access to AIM*Inform

You can install AIM*Inform on a web server that uses Microsoft Internet Information Server and run AIM*Inform from an Active Server Page (ASP). The ASP application uses the AIM*Inform automation component to list Data View configurations, change time spans and file locations, and execute Data Views.

STORAGE OPTIONS

You can store an active Data View to an HTML file on the AIM*Inform host computer. You can also apply any of the following automatic output options in the configuration wizard.

Output to a Printer

With each retrieval, the Data View document is sent to a printer that has been selected from the Data Center menu.

Output to a CSV File

This option stores a comma-separated ASCII file in the designated location so that the data can be used in spreadsheets and other applications.

Output to an HTML File

AIM*Inform automatically saves the HTML document to two different locations:

- Folder on the host computer file system
- URL.

The URL location enables you to automatically publish Data Views as web pages.

INSTALLATION AND LICENSING

AIM*Inform software is distributed on a single CD-ROM that contains the runtime software, example files, an InstallShield® setup program, and updates to both AIM*AT server programs and to Microsoft Internet Explorer. Installation of the AIM*Inform software takes about five minutes.

Configuration of AIM*Inform involves entering a Foxboro® license code in the configuration files of the various AIM*AT servers to be accessed by the application. The code authorizes a set number of permanent or concurrent users to access the server from the client application.

SYSTEMS REQUIREMENTS

Platform

PC running any of the following operating systems:

- Windows® 7
- Windows® XP
- Windows Server® 2008
- Windows Server® 2003
- Windows Terminal Server.

I/A Series workstation or server running I/A Series software Version 8.5 or later.

Performance

350 MHz CPU or faster
128 MB of RAM
25 MB of storage

Browser Software

Microsoft Internet Explorer

Web Access to AIM*Inform Functions

Active Server Pages (ASP) on Microsoft Internet Information Server (IIS).

Server for Web Publishing Site

Microsoft IIS or similar software on a Windows or Solaris server.

Data Servers

AIM*AT Servers running Version 3.3 or later, and at least one AIM*Historian instance.

Communication

TCP/IP connections to the AIM*AT Servers.

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