Insight—Advanced Workstation

Figure 1. Insight Advanced Main Menu.

Description

The Insight® Advanced Workstation transforms a personal computer into a powerful Insight workstation.

The Insight Advanced Workstation provides a graphical approach to manage and control a building from an easy-to-use interface. Additionally, the Insight Advanced Workstation provides for facility-wide efficiencies and cost effective information sharing.

With the Insight Advanced Workstation you can:

- Graphically monitor and control the building environment

- Schedule and modify mechanical equipment operation and automatic report generation

- Collect, view, and analyze trend information

- Connect other Insight workstations together, with centralized system management, using the networking feature

- Perform many tasks simultaneously (multi-task) through Windows Server 2003/2008 or Windows XP/Vista/ 7

- Troubleshoot and tune the system with Dynamic Plotter

- Make management decisions with information and reporting capabilities

- Store and retrieve long-term information

- Edit and modify all system databases

Purpose

Insight software provides the latest in user interface design. This user interface is designed to simplify the tasks an operator commonly performs.

Navigation

The Insight workstation provides the most advanced graphical interface in the industry. Operators can quickly and easily access any application in the workstation. Additionally, you can carry and exchange information among Insight applications by simply "dragging and dropping". This increases an operator's productivity by eliminating the need to copy data from one application and paste to another.

Flexibility

Provides support for a combination of Ethernet®, BACnet®/IP, BACnet over Ethernet, RS-485, and dedicated autodial connections (only with RS-485 networks) to field panel networks simultaneously.

Each Insight workstation can manage up to 64 logical Ethernet Automation Level Networks (EALN) and each Ethernet ALN can be defined with up to 100 nodes, with an overall performance limit of up to 6400 Ethernet field panel nodes per Insight workstation.

Each workstation can manage up to 4 dedicated Automation Level Networks (RS-485 ALN), and each RS-485 ALN can support up to 100 nodes. Each Insight workstation can manage up to 8 autodial modems, servicing up to 300 remote autodial RS-485 ALN sites.

Networking

Linking of Insight workstations over a TCP/IP Ethernet Network provides seamless operation of the APOGEE Automation System from any Insight workstation location. The system can be centrally administered for greater efficiency over a Management Level Network (MLN).

Open System Environment

Insight, with the BACnet Client option enabled, can communicate with both Insight and third-party BACnet devices and systems, enabling functionality such as: monitor and command BACnet objects, establish BACnet schedules and calendars, back up databases in BACnet devices, receive and acknowledge BACnet alarms, trend BACnet objects, and establish and read BACnet trend logs.

Applications

Operator Access and Privilege

Universal Access and Privilege™ allows the system manager to assign different capabilities to every operator for each application. For example, an operator may need to edit a scheduled event, but not edit points. Every application has an assignable View, Edit, and Command privilege. Assigned privileges will follow the operator system-wide to any terminal (workstation or operator interface at the field panel). This gives the system manager the ability to "custom-fit" privilege to the various levels of operator expertise or need.

- User accounts are based on existing Windows User Accounts to allow the system to leverage Windows integrated security while eliminating the need for users to maintain another set of logins.
- Privilege for each application is based on View, Edit, and Command capabilities that can be assigned to any individual operator.
- Each operator has a unique password.
- Universal Access and Privilege are system wide.
- Access can also be assigned to objects (for example, points).
- Operator activity is captured for the Insight workstation and field panel logons and logoffs.

Alarm Management

Insight Alarm Management allows operators to troubleshoot alarms as they occur without disturbing the current task. In addition, Alarm Management allows operators to view and troubleshoot only the alarms that are relevant to their jobs or locations.

Alarm Management features include:
- Alarm Summary with current list of alarms and status
- Alarm priority with six priority levels that can be assigned different color codes for at-a-glance viewing
- Audible alarms with selectable .wav file
- Enhanced Alarm Routing
- Alarm Acknowledgment which includes operator identification
- Ability to view recent alarm history
- Attach a memo to the alarm record
- Customizable alarm messages for each alarm to provide specific instructions to the operator
- Optional Alarm Issue Management procedure

Trending

Insight software provides trending capabilities that allow an operator to easily monitor and store a record of point values trended by time or change of value (COV). Trending is especially useful in monitoring critical points or other points of interest such as discharge air temperatures or relative humidity.

Trended point data can be collected automatically at the Insight workstation from the field panel (or third-party BACnet devices with BACnet option enabled) and is available at any workstation on the network. Trend reports are easy to set up.

A Trending Wizard is available to guide the operator through the configuration of trending strategies. You do not need to understand the intricacies of the building system to report on trended information.

Scheduler

Scheduling is easy to use and understand, allowing you to create schedules that reflect their specific building activities.

Schedule configurations include weekly schedules with normal days and exception days, exception schedules for holidays and special events, and Start Stop Time Optimization (SSTO). This flexibility allows for optimal configuration based on planned facility usage by allowing equipment and reports to be scheduled years in advance.

Creating and Editing Graphics

Graphics are easy to create and modify with Corel DESIGNER®, a powerful graphics package that runs on Microsoft Windows.

DESIGNER contains basic drawing features including freehand lines, boxes, circles, arcs, ellipses, and more. Text is displayed in a variety of scalable fonts, sizes and colors. With DESIGNER's wide array of color palettes, the operator can choose the standard colors, or customize colors.

DESIGNER supports library features that allow the operator to select HVAC symbols from a template window and place them in a new graphic. The operator can also import existing drawings from an equivalent Micrografx drawing package, or even AutoCAD® drawings.

Insight software comes with an extensive library of HVAC and automation symbols including fans, valves, motors, chillers, standard ductwork diagrams, and laboratory symbols.

Energy and temperature dashboard graphics are easier to create using the Enhanced Graphic controls.

Electronic Documentation

A robust library of electronic documents is available with every revision including current Release Notes, Online help, and printable User and Training Guides. These documents detail step-by-step procedures for using each application to its fullest capacity and allow quick navigation of the system.

System Configuration and Maintenance

The Insight Backup Utility provides the following capabilities:
- Back up and restore databases
- Schedule recurring backups
- Delete unwanted backups to free disk space

System Profile is the Insight application that gives you graphical, system-wide control for defining, configuring, and maintaining your entire building control network.

Dynamic Plotter

Dynamically plot the values of up to 15 points simultaneously to troubleshoot and tune the system. Capture and store trend graph charts for future reference. Easily set up and save points in templates to be run when the need arises.

Information and Reporting Capabilities

The information and reporting capabilities of Insight software are greatly expanded to provide you not just information, but insight into their buildings. Simplified report setup is standard. You do not have to be concerned with the complexities of the building control system when information is needed. The Insight software package includes over 60 configurable reporting templates.

Once a report is set up, it can be scheduled years in advance and run as often as it is required. Reports can be scheduled to print, saved to a file, and/or e-mailed to select individuals. Once the report is scheduled, you can walk away with the confidence that you will not miss a report and important information.

System Activity

Capture and report on individual operator activity to identify system utilization and training needs.

By using the System Activity Log, system managers can determine if they need to alter an operator's privilege and access. The System Activity Log captures all Insight operator actions to the system including database changes. By recording the actions an operator is taking on the APOGEE Automation System. The System Activity Log can be used as a useful tool to help determine if additional training is needed for an operator or to document or change an operational procedure.

Dynamic Graphics

- Point information displays and dynamically updates on the Insight graphic.
- Graphics can be linked in a logical structure that makes the most sense for the facility, allowing the operator to navigate from building floor plans to associated air handling units in seconds.
- Graphics can be accessed directly by name or point association from other application screens such as the alarm screen or trend plot.
- Animated graphics allow you to define the visual movement of the control based on the point's value.
- Point values can be viewed and commanded from each graphic.
- Analog bars can be used to monitor and control analog values such as setpoints or static air pressure. High and low limits are also displayed on the scale.
- Graphics can be linked to related applications or documents.
- Graphics can be created and customized to suit any operator's need.

Specifications

Operating System Environment	Windows Server 2008 (32-bit), or Windows Server 2008 R2 Standard or Enterprise Edition; Windows Server 2003 (32-bit) Standard or Enterprise Edition; Windows 7 (32-bit and 64-bit) Professional, Ultimate or Enterprise Edition; Windows XP Professional (32-bit)
Object Oriented Database	Objectivity®
Graphics Package	Corel DESIGNER®
Insight Database Server on Management Level Network	Any dual-core processor or better (Intel® Pentium® D/AMD Athlon™ 64 X2 or better) 4 GB RAM 7200 RPM hard drive or better USB port DVD-ROM Drive
Insight Database Client	Any Single-core processor or better (Intel® Pentium® D/AMD Athlon™ 64 X2 or better) 2 GB RAM 7200 RPM hard drive or better USB port DVD-ROM Drive

NOTES on Specifications:

- The Enterprise Edition of Windows Server 2003, Windows Server 2008, or Windows Server 2008 R2 is required if you intend to install the Insight software on a Windows cluster.
- The performance of your computer may be affected by the size and amount of animated graphic controls on a graphic. In addition, the performance and efficiency of the InsightDBCSServer is highly dependent on the current running hardware. In general, upgrading to the recommended hardware will improve the responsiveness of your Insight software.

Ordering Information

Description	Product Number
Insight Advanced Software Package (includes one user license and one Sentinel Key)	571-010-3P13-USB

Note: Dynamic Plotter, System Activity Log, Program Editor, and Report Scheduler are standard features in the Advanced package.

Take advantage of new features and keep your system current by ordering update software for your existing Advanced Package:

Description	Product Number
Insight 3.11 and 3.12 to 3.13 Advanced Server Update Package (first server)	571-016-3P13 (non-SA) or 571-063-3P13 (SA)
Insight 3.11 and 3.12 to 3.13 Advanced Server Update Package (multiple servers, for 2nd server and above)	571-067-3P13 (SA only)
Insight 3.11 and 3.12 to 3.13 Advanced User License Update	571-017-3P13 (non-SA) or 571-064-3P13 (SA)
Insight 3.6, 3.7, 3.8 & 3.8.1, 3.9 & 3.9.1, and 3.10 to 3.13 Advance Server Update Kit	571-842-5T13
Insight 3.6, 3.7, 3.8 & 3.8.1, 3.9 & 3.9.1, and 3.10 to 3.13 Advance Client Update Kit	571-843-5T13
Insight 3.1, 3.2, 3.3, 3.4, 3.5 & 3.5.1 to 3.13 Advance Server Update Kit	571-838-1T13
Insight 3.1, 3.2, 3.3, 3.4, 3.5 & 3.5.1 to 3.13 Advance Client Update	571-839-1T13

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Increase your system utilization by adding one or more of the following options to the Package:

Option	Number
Insight Auto-Dial Option	571-180
BACnet Client Option	571-188
BACnet Server Option	571-189
RENO™ Option	571-181
Terminal Services Option	571-105
Text to Speech Option for use with RENO	571-186
Compliance Support Option (CSO)	571-126
Alarm Issue Management Option (AIM)	571-127
Validation Options Bundle (includes both CSO and AIM)	571-125
Soft Controller	571-620
Field Panel Go Graphics Conversion	571-304
OPC Server Option – 1000 Point Capacity	571-162
OPC Server Option – 5000 Point Capacity	571-163
APOGEE GO for Insight Option License (does not include User licenses)	571-305
APOGEE GO for Insight 2-User License	571-317
APOGEE GO for Insight 20-User License	571-318
APOGEE GO for Insight Unlimited-User (includes APOGEE Go Option license)	571-319
Data Export Utility Option	571-121
SOAP Server Option	571-122