WVC16

MODEL

WebView I/O Communications Interface

BENEFITS

- Provides Ethernet Connection for WebView Modules

- Will Interface with up to 32 WebView Signal Conditioning Modules via an IR Bus

- Contains a Web Server & Java Applet

- No Programming Required

- Battery Backed-up Data

DESCRIPTION

The model WVC16 is the heart of the WebView I/O System. While the WebView Signal Conditioners and Limit Alarms are the most advanced modules offered by Action Instruments, the WVC16 WebView Communications Interface adds functionality never before found in a signal conditioning system. The WVC16 interfaces with the WebView devices via an internal infrared communications link (no user programming required) and provides the ability to connect up to 32 modules to the user's intranet. This powerful combination allows the user to view process data on a near real time basis, perform data logging functions on specified modules, calibrate the signal conditioners remotely (under certain conditions) and view diagnostic information.

But, that's not all. Under user defined alarm conditions, the system can send email messages to up to ten people who might need to be notified when the alarm condition exists. Signal conditioners have never been able to perform that function until now. With a user selectable timer, the module can send an email message letting maintenance people know when it's time to perform calibration checks. Just imagine, signal conditioners that will notify you when something is not working within specified limits. Yes, your PLC/DCS system might have alarm notification capability, but what about those signals you wish you could monitor that are not connected to the PLC. That's where the WVC16 is an invaluable tool.

All this functionality is made possible by a signed Java applet that gets downloaded (transparently) to run on the client's computer. Using an applet rather than just a traditional web page allows data to be updated in near real-time. The applet provides access to the signal conditioner's data. The information available includes:

· *Module configuration summary*
· *Module configuration editing*
· *Diagnostic/warning status*
· *Alarm setup & status*
· *E-mail setup, editing & address book*
· *Process variable viewing*
· *Data logging capabilities*

As mentioned above, each WVC interface module is capable of supporting up to 32 I/O modules. The WVC16 contains a web server and email notification capability, as well as being the interface to an Ethernet network. All memory to support the signal conditioner's historical data is battery backed-up. Web pages and all e-mail messages are stored in non-volatile memory.

LED INDICATORS

There are six LED indicators, in two groups of three, that can be viewed through the translucent front cover. These are located down the left side of the unit. There is also a Power LED located on the right side of the unit. Their functions are described as follows:

GREEN   **POWER**: On when 9 to 30VDC is applied to the unit.

Upper Group

RED   **ERROR**: Flashes if one or more module errors have been logged into the non-volatile SRAM or if the battery was disabled prior to applying power. Off if neither of these conditions exist.

GREEN   **CONNECT:** Always ON to indicate Ethernet client connection.
Flashes if there is no connection.
Off if network parameters need to be set.

YELLOW   **MODULE:** Indicates IR bus con-nection. If no modules are present, the LED flashes. When modules are detected, the LED is on continuously.

Lower Group

RED   **OFFLINE**: Indicates a network socket connection fault.

YELLOW   **TRAFFIC**: Indicates 10Base-T transmit/receive & collision activity.

YELLOW   **LINK**: Indicates 10BASE-T link activity.

SOFTWARE

There are two software programs built into the WVC16. The first is a web server that provides the connection between the WVC16 and the client's computer (refer to Figure 1.). This is the "Home" page. From this point, other functions can be selected. The Statistics frame displays information on the Ethernet connection, frames sent/received etc., as well as information on the infrared bus between the modules. An Error Log will list any problems, that have occurred. The Help file contains the full manual for the WVC16.

NOTE: You need to have the Java applet plug-in installed on the client machine in order to load the WebView I/O Data Viewer. If you do not have the plug-in installed, the software will detect that and automatically connect to Sun Microsystems Java site to download and install the plug-in. As soon as that is complete, the WebView I/O Data Viewer will automatically download and open.

The WebView I/O Data Viewer (the Java applet) is "launched" from the home page in order to view the process data, define data logging parameters, set-up mail and address book information etc. The applet actually runs inside of a new window. The frame that comes into view when the applet is running is shown in Figure 2. This window shows all the modules connected to the WVC16. This is where the data logging function can be defined, if desired. Data logging is not simultaneous data from channel to channel. There is a time delay from sample to sample, plus network delays that may have to be considered. The time-stamped data can be saved to a file and opened in MS Excel for further analysis.

Clicking on a module name will bring up a window showing the signal, in near real-time, connected to the selected module. This window also provides access to look at and/or set the input and output ranges, set high and low alarm limits, calibrate the module (requires admin access) and the About tab which list the revision of the firmware, the current temperature of the module as well as the high and low temperature the module has seen and the number of hours it has been in operation.
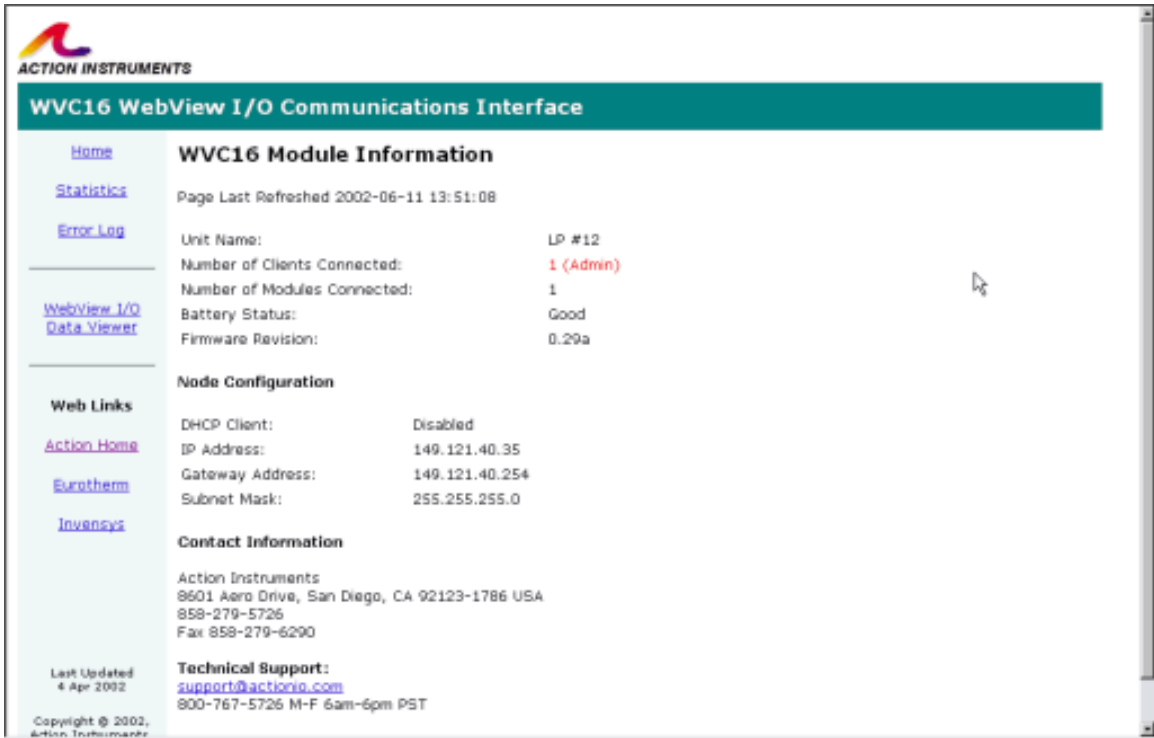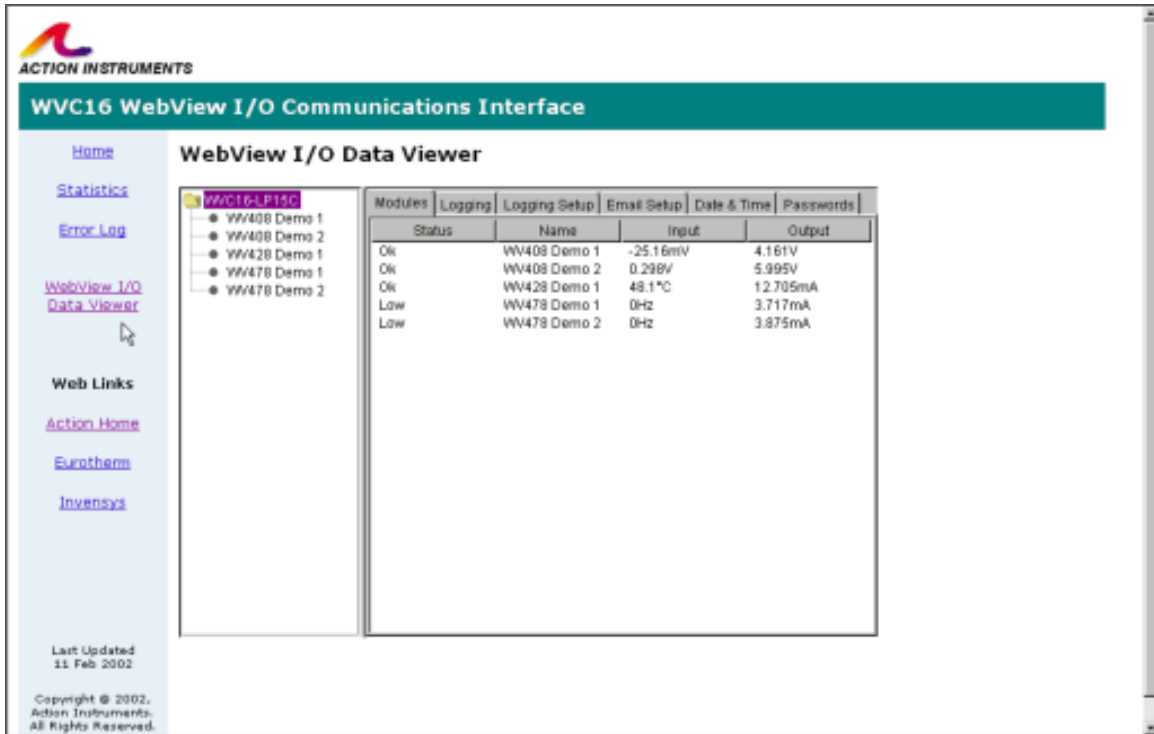
Figure 1

Figure 2

SPECIFICATIONS

Processor	Am186ESLV, 25MHz
Data Logging Capacity	>24k Samples
Host Interface	Type: Ethernet, 10Base-T
	Connector: RJ45
	Recommended
	Cable: Cat 5 (Preferred for industrial applications)
Utility Interface	Type: RS-232
	Baud rate: 9600
	Data bits: 8
	Stop bits: 1
	Parity: None
	Flow control: None
Module Interface	Type: Infrared (IR), transparent to the user
	Maximum number of modules: 32
User Interface	Type: Web Browser, requires Java 2 Plug-in
	Internet Explorer: 5.01 or later
	Netscape: 4.7 or later

Isolation	1500Vrms between 10Base-T port and all other external connections
Battery Backup	Battery Type: Non-rechargeable, 3V lithium, CR2032 or BR2032
	Life expectancy: 16 months for a fresh battery with battery enable switch ON (typical), 10 years if never used
Power	9 to 30VDC, 1.2W max.
Size	DIN rail case – 0.89" wide (22.5mm)
Operating Temperature	0°C to +60°C (32 to 140°F)
Storage Temperature	-25°C to +85°C (-13 to 185°F)
Operating Relative Humidity	15% to 95% RHNC @ 45°C Non-Operating
Relative Humidity	90% RHNC @ 60°C for 24hrs

ORDERING INFORMATION

Specify:

1. Model: WVC16-0000

2. Limit Alarm or Signal Conditioning models as required:

WV108-0000	DC Input Limit Alarm
WV108-0001	DC Input Limit Alarm w/ Latching Relays & Reset Switch
WV128-0000	Thermocouple Input Limit Alarm
WV128-0001	Thermocouple Input Limit Alarm w/ Latching Relays & Reset Switch
WV408-0000	DC Input Isolator
WV418-0000	RTD Input Signal Conditioner
WV428-0000	Thermocouple Input Signal Conditioner
WV438-0000	Potentiometer Input Signal Conditioner
WV448-0000	Bridge Input Signal Conditioner
WV478-0000	Frequency Input Signal Conditioner

3. Accessories:

C650-0000	Utility CD and Serial Interface Cable
WV905	24VDC Power Supply (0.5A)
H902	24VDC Power Supply (0.2A)
H910	24VDC Power Supply (1A)
H915	24VDC Power Supply (2.3A)
MD03	TS35 x 7.5 DIN rail (2 meters)
MB03	End Bracket for MD03