



# OptiView<sup>TM</sup>

## Series III Workgroup Analyzer

### Getting Started Guide

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# Table of Contents










Title	Page
Before You Start .....	1
Safety Information .....	1
Cleaning the Analyzer .....	2
Has This Instrument Been Damaged in Shipping? .....	2
Contacting Fluke Networks Sales, Service, and Support Centers .....	2
OptiView™ Series III Workgroup Analyzer Support .....	2
The Analyzer and Accessories .....	3
Supplied Out of the Box Items .....	4
About the Analyzer .....	6
General Specifications .....	6
A Look at the Analyzer External Connections and LEDs .....	6
External Connectors .....	6
LEDs .....	6
Connecting to the Management Port .....	7
Changing the SFP Adapter .....	7
Security .....	8
Setting the Remote Control PC IP Address .....	8
Setting the Analyzer IP Address on the Network Under Test Interface .....	8
Setting the Analyzer IP Address on the Management Port .....	8
Restoring the OptiView™ Workgroup Analyzer Default Configuration .....	8
Accessing the Analyzer through the Remote User Interface Software .....	8
Using the OptiView™ Browser and User Interface Software .....	9
Refresh analyzer list .....	10
Launch user interface for selected analyzer .....	10
Launch Web browser for selected OptiView Integrated Network Analyzer .....	10
Update firmware for selected OptiView™ Workgroup Analyzer .....	10
Installing the User Interface Software .....	10
User Interface Events that will Terminate a Remote Session .....	11
Configuring the Analyzer through the Serial Configuration Port .....	12
Configuration Port Guidelines .....	12
Root mode user commands: .....	13
Remote mode user commands .....	13
Management configuration mode user commands: .....	14
Network configuration mode user commands: .....	14
Using the Online Help System .....	15
Accessing and Navigating the Help System .....	15
Accessing the Online Documentation .....	16
Updating the OptiView Workgroup Analyzer Firmware .....	16

- Software Update Procedure ..... 16
  - Step One – Update the PC User Interface Software ..... 16
  - Step Two – Connect to the Analyzer via the Management Port ..... 17
  - Step Three – Run the User Interface Software ..... 18
- Troubleshooting Your Analyzer ..... 19
  - Before Calling Technical Support ..... 19
    - Do you suspect the analyzer has locked up? ..... 19
    - Unexpected IP Discovery or Tools results? ..... 19
    - Are you connected to the network? ..... 19
    - Does the analyzer pass self test? ..... 19
- Safety and General Specifications ..... 20
  - Cable Type Specification ..... 21
    - Cable Types ..... 21
    - Cable Length ..... 21
    - Fault Tolerance ..... 21

# Before You Start

## Safety Information

The following symbols are used on the product and in this document:

	NOT FOR CONNECTION TO PUBLIC TELEPHONE SYSTEMS
	PLEASE READ MANUAL FOR SAFETY
	COMPLIES WITH EUROPEAN UNION DIRECTIVE
	SHOCK HAZARD
	CLASS 1 LASER PRODUCT. DO NOT LOOK INTO LASER
	RECYCLE LITHIUM ION BATTERIES
	COMPLIES WITH CAN/CSA-C22.2 NO. 60950-1 CANADIAN STANDARDS, AND UL 60950-1 (US STANDARDS)
	DO NOT DISPOSE OF LITHIUM ION BATTERIES IN GARBAGE, RECYCLE
	MEETS AUSTRALIA EMC REQUIREMENTS

The OptiView™ Series III Workgroup Analyzer (hereafter referred to as the “analyzer”) complies with:



Class 1 Laser product 21 CFR 1040.10 & 1040.11, CFR(J)



CSA C22.2 No 950, and EN60950

## Warnings

To avoid possible electric shock or personal injury, follow these guidelines:

**Do not use this product if it is damaged. Before using the product, inspect the case. Look for cracked or missing plastic. Pay particular attention to the insulation surrounding the connectors.**

**Do not operate the product around explosive gas, vapor or dust.**

**No serviceable parts. Do not try to service.**

**Do not connect a telephone line to this product.**

If this product is used in a manner not specified by the manufacturer, the protection provided by the product may be impaired.

### **Warning Class 1 Laser Product**

With an optional SFP fiber adapter installed, this product will contain a Class 1 laser. Do not look into the laser port because this may cause eye injury.

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

### **Cautions**

**To avoid possible damage to the analyzer and to the equipment under test, follow these guidelines.**

- **Use the proper terminals and cable for all connections.**

## **Cleaning the Analyzer**

To prevent moisture from entering the analyzer, clean with a moist cloth only. Wipe the case with a damp cloth. Do not use organic solvents, acid, or alkali solutions.

## **Has This Instrument Been Damaged in Shipping?**

ATTENTION!

In case of damage, call the carrier at once for inspection, and request an inspection report. ALWAYS NOTIFY THE CARRIER FIRST! Please do not write the factory until you have notified the carrier, since this will delay the claim.

If this precaution is not taken, we cannot assist you in recovering the amount of claim against the carrier.

When the carrier's inspection report is obtained, you may return the instrument and copy of the inspection report to the factory immediately.

## **Contacting Fluke Networks Sales, Service, and Support Centers**

To order accessories or get the location of the nearest Fluke Networks distributor or service center, visit the Fluke Networks contact web site at [www.flukenetworks.com/contact](http://www.flukenetworks.com/contact). Send email to [support@flukenetworks.com](mailto:support@flukenetworks.com). For operator assistance in the USA, call 1-800-28-FLUKE (1-800-283-5853).

## **OptiView™ Series III Workgroup Analyzer Support**

As a registered user, you are entitled to entry level product support, including three free telephone support incidents during the first 60 days of ownership, access to the entry level online Knowledge Base library of product operation and application information, and Web-based trouble ticketing. We will also be sending you Fluke Networks company and product information updates.



## The Analyzer and Accessories

The analyzer is designed for troubleshooting and monitoring Local Area Networks (LANs). It tests all seven OSI layers from the cable to the application layer and everything in between, so problems have nowhere to hide. The analyzer can be used in a stand-alone fashion or mounted in a rack using the optional rack mount kit.

**OptiView™ Series III Workgroup Analyzer** supports 10/100/1000 Ethernet through the Network 10/100/1000 port (RJ-45 jack) along with a 1000BASE-X fiber optic port that supports the following optional fiber adapters: 1000BASE-SX (850nm), 1000BASE-LX (1300nm), 1000BASE-LX10 (1310nm), 1000BASE-BX (1490nm), 1000BASE-ZX (1550nm), and 100BASE-FX (1310nm). Check [www.flukenetworks.com](http://www.flukenetworks.com) for additional supported fiber adapters.

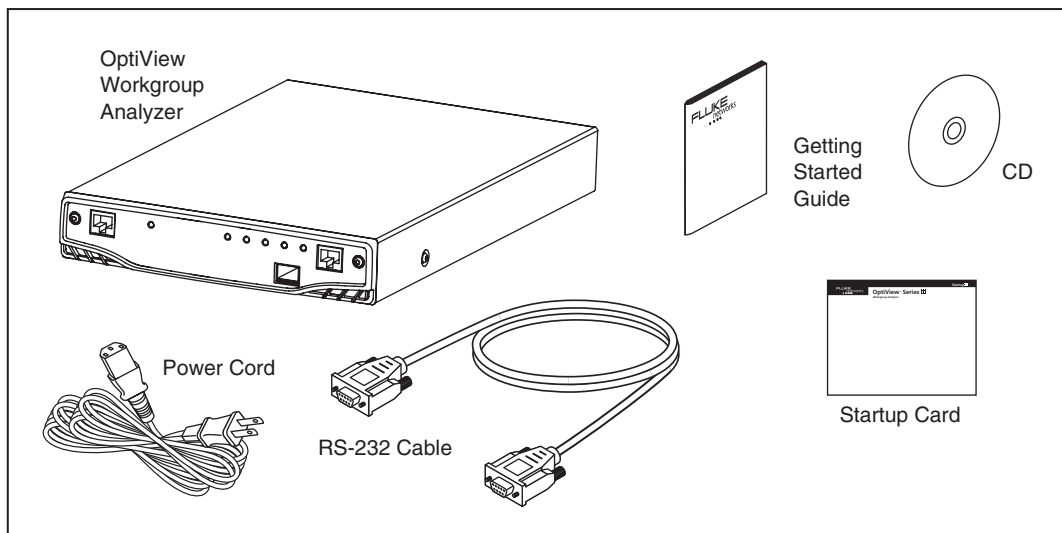


Figure 1. The OptiView™ Workgroup Analyzer and Supplied Accessories

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Supplied Out of the Box Items

The following equipment is supplied with the OptiView™ Workgroup Analyzer.

Table 1. Supplied OptiView™ Workgroup Analyzer Items

Item	Description	Model/Part Number
AC power cord	Country specific AC power cord.	North America UK Cont. Europe South Africa Australia
Getting Started Guide	Provides basic operating information, accessory part numbers, and specifications.	N/A
CD-ROM	OptiView™ Resource CD. Includes user interface software, OptiView firmware, MIB Browser and Getting Started Guide (Multiple languages in PDF format).	N/A
Female to female DB-9 null modem RS-232 cable	Serial configuration port cable. Used to manually configure the analyzer as opposed to configuring the analyzer through the user interface software.	N/A
Registration Card	Fluke Networks can serve you best by registering online at <a href="http://www.flukenetworks.com">www.flukenetworks.com</a> . If you cannot register online, please fill out and return the supplied registration card.	N/A
Startup Card	Provides basic information about operating the analyzer.	N/A

**Table 2. Other Available Accessories**

<b>Item</b>	<b>Description</b>	<b>Model/Part Number</b>
OptiView Reporter™	The OptiView Reporter™ application allows you to communicate remotely with an OptiView™ Workgroup Analyzer to generate reports on the network to which the analyzer is connected.	OPV-RPTR OPV-RPTR/PRO
OptiView Protocol Expert™	The Fluke Networks Windows based protocol analyzer for network engineers, LAN administrators, and network technicians who maintain LANs. The application allows you to monitor and decode captured packets on your local network. The application will decode OptiView™ Workgroup Analyzer packet capture files.	OPV-PE/PRO
OptiView Workgroup Analyzer Bundle	Includes OPV-RPTR/PRO and OPV-PE/PRO	OPVS3-WGA/GIG/DSVS
19" Rack mount Kit	Rack mount kit for holding one or two OptiView™ Workgroup Analyzers.	OPV-RMK
Hard side transit case	Hard shell transit case for shipping analyzers to remote sites.	OPV-TCASE
Fiber SFP SX adapter	850nm, 50 and 62.5 micron multi mode fiber. 1000BASE-SX SFP adapter used in the Fiber port.	OPV-SFP-SX
Fiber SFP LX adapter	1300 nm, 10 micron single mode fiber. 1000BASE-LX SFP adapter used in the Fiber port.	OPV-SFP-LX
Fiber SFP LX10 adapter	1310 nm, 10 micron single mode fiber. 1000BASE-LX SFP adapter used in the Fiber port.	OPV-SFP-LX10
Fiber SFP BX adapter	1000BASE-BX10D, 1490 nm fiber. 1000BASE-BX SFP adapter used in the Fiber port.	OPV-SFP-BX
Fiber SFP ZX adapter	1000BASE-ZX, 1550 nm fiber. 1000BASE-ZX SFP adapter used in the Fiber port.	OPV-SFP-ZX
Fiber SFP FX adapter	100FX adapter used in the Fiber port.	OPV-SFP-100FX

## About the Analyzer

### General Specifications

**Analyzer Interfaces:** 10/100/1000BASE-T (RJ-45), and 1000BASE-X and 100BASE-FX (SFP adapter)

**Analyzer LEDs:** Management Link (in RJ-45 connector), Power, 10/100/1000/Fiber Link, Utilization, Transmit, Collision, and Errors

**Test Access:** Active termination to a switch port, switch span port, or a hub

**Layer 2 Support:** Ethernet

**Management Port:** 10/100/1000BASE-T (RJ-45)

**Configuration Port:** Serial RS-232 (9-pin male)

**Capture Memory:** 480 MBytes

### A Look at the Analyzer External Connections and LEDs

#### External Connectors

**MANAGEMENT:** Remote control interface. Accepts 10BASE-T/100BASE-TX/1000BASE-TX twisted pair copper cable.

**10/100/1000 port:** Network analysis interface. Accepts 10BASE-T/100BASE-TX/1000BASE-TX twisted pair copper cable.

**1000BASE-X:** Network analysis interface. Accepts 100 and 1000BASE-X fiber adapters.

#### LEDs

**Management Link (in RJ-45 connector):** Indicates that link has been established on the Management connection (green). Flashing green indicates activity is present.

**Power (PWR):** Indicates whether the analyzer is Off or On (blue).

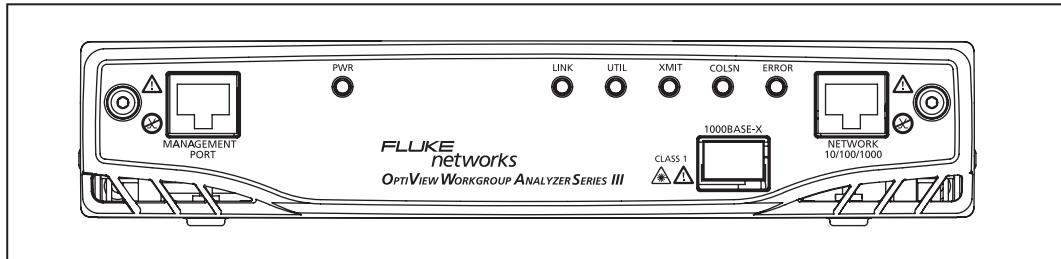
**10/100/1000/Fiber Link (LINK):** Indicates one of the test interfaces is connected to the network and Link has been established. Green = link established.

**Utilization (UTIL):** Indicates the percent of utilization the network under test interface is experiencing (green = 0 - 49%, yellow = 50 - 79%, red = 80 - 100%).

**Transmit (XMIT):** Indicates analyzer transmit activity (yellow). When the analyzer is first powered on, it will generate transmit activity while trying to identify devices on the network. Ping, Trace Route, Trace Switch Route, and Traffic Generator will cause this LED to flash in proportion to the amount of transmit activity.

**Collision (COLSN):** Indicates by yellow flashing intensity the amount of Collisions being experienced on the network (yellow).

**Error (ERROR):** Indicates by red flashing intensity the amount of Errors being experienced on the network (red). The Ethernet layer 2 error types include CRC alignment, undersize, oversize, and jabber errors.



anj03f.eps

Figure 2. Front View of the Analyzer

## Connecting to the Management Port

Use the Management port to manage the analyzer out of band when it is connected to a different network (outside the network under test broadcast domain). In the event that you are unable to communicate with the analyzer through the Network 10/100/1000 or 1000BASE-X (fiber) ports, you can use the Management Port to gain access to the analyzer.

The Management Port is not a measurement interface. The Management Port facilitates remote control. Test functions such as traffic generation, cable testing and active discovery only apply to the Network 10/100/1000 or 1000BASE-X ports. The Management Port can be used to view traffic discovered on the Network 10/100/1000 or 1000BASE-X fiber ports.

The Management Port is also used to flash new software into the analyzer.

### Note:

*Analyzer software updates can only be done through the Management Port.*

## Changing the SFP Fiber Adapter

To install a SFP Fiber adapter, remove the protect cap and simply slide the adapter into the fiber port (labeled 1000BASE-X) until it clicks.

To remove a SFP Fiber adapter, press and hold the tabs on the sides of the SFP adapter and pull gently out of the fiber port.

## ⚠ Warning

**SFP fiber adapters are Class 1 laser light-emitting products. Avoid staring into the SFP module while the analyzer is on; otherwise injury to the eyes may occur.**

### Note

*It is recommended that the analyzer be powered off prior to changing the SFP fiber adapter. This will reduce the possibility of damage to the SFP fiber adapter.*

## Security

Security is controlled through the **Setup | Users**, **Setup | Agent**, and **Setup | Remote** screens. If user accounts have been enabled, you must enter a name and password to access the setup screens. You must have administrative rights to execute the “default” command in the Root Mode. This command restores factory defaults to the analyzer.

## Setting the Remote Control PC IP Address

Set this field to specify an offnet PC running the OptiView™ Browser remote user interface software. By setting this field, the analyzer will send its identification back to the specified PC running the remote user interface software. Set this field to *<none>*, *<last connected>*, or manually enter the IP address of the remote PC that will be running the OptiView Browser remote user interface software. *<last connected>* is the last remote session to terminate from the analyzer, and that PC's IP address is saved into this field.

This address is configured in the **Setup | Remote** screen. Optionally, this address can be configured through the RS-232 configuration port located on the rear of the analyzer. This is done so that analyzers that are placed on network segments other than the one the controlling PC is on will still automatically show up in the OptiView Browser list of available analyzers.

## Setting the Analyzer IP Address on the Network Under Test Interface

The network under test interface connects either through the Network 10/100/1000 or the 1000BASE-X port. It does not include the Management Port. To set the IP address of the network under test Interface, select **Setup | TCP/IP**. Refer to the analyzer Help on configuring this screen.

## Setting the Analyzer IP Address on the Management Port

Select **Setup | Mgmt. Port** and either configure using DHCP, or enter the IP address manually.

## Restoring the OptiView™ Workgroup Analyzer Default Configuration

This task is performed through the Serial Configuration Port. Follow the instructions outlined in the section “Configuring the Analyzer through the Serial Configuration Port” and enter the command “default”. The default command will restore all factory default settings and reboot the analyzer. If there was a password enabled prior to entering the command, the same password is retained after rebooting.

## Accessing the Analyzer through the Remote User Interface Software

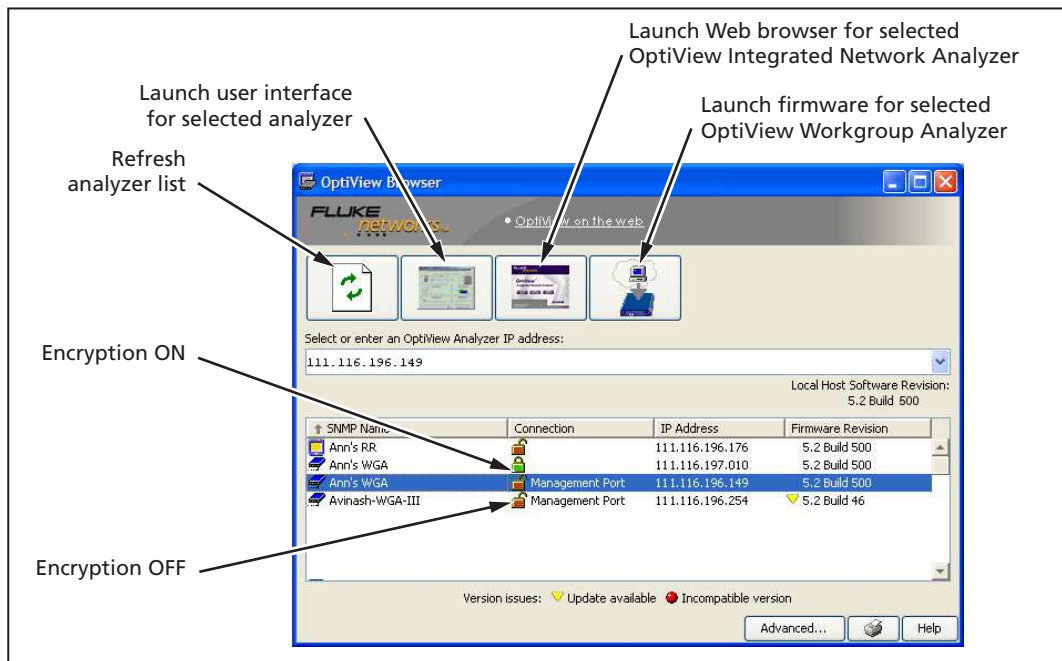
The remote user interface software will need to be installed on your PC before you will be able to remotely interface with the analyzer. It is included on the supplied OptiView™ Resource CD (select the **Install Remote User Interface** button). It is also available for download at [www.flukenetworks.com](http://www.flukenetworks.com).





To view decodes of the packets captured by the analyzer you need to purchase and install the Fluke Networks Protocol Expert software. Alternatively, the captured files can, in most cases, be imported into other 3<sup>rd</sup> party protocol analysis software products.

## Using the OptiView™ Browser and User Interface Software

The OptiView Browser allows you access to OptiView Workgroup and OptiView™ Integrated analyzers through a browseable user interface installed on your PC. Double-click on an analyzer from this list and the user interface is launched. If an analyzer is password protected, you will be prompted to enter a password.

In order for analyzers that are not in the same local network (subnet) to be displayed in the OptiView Browser list, you must first configure the Remote Control IP address setting. This is found in the **Setup | Remote** screen. The Remote Control IP address should match the IP address of the PC that you intend to run the OptiView™ Workgroup user interface software on. Then, the remote analyzer will send its source IP address back to the controlling PC.



	OptiView Series III Integrated Network Analyzer		OptiView Workgroup Analyzer
	OptiView Series I and II Integrated Network Analyzer		OptiView WAN Analyzers

ovbrowser.bmp

**Figure 3. OptiView Browser**

#### Refresh analyzer list

Re-displays the analyzer list with current active analyzers.

#### Launch user interface for selected analyzer

Launches the user interface software and connects to the selected analyzer. The selected analyzer is highlighted in the OptiView Browser device list or the IP address is entered in the OptiView Browser IP address field.

#### Launch Web browser for selected OptiView Integrated Network Analyzer

Enabled only for OptiView™ Integrated Network Analyzers and not for OptiView™ Workgroup Analyzers. Launches the default Web browser on your PC and connects to the home page on the selected OptiView™ Integrated Network Analyzer. From the home page, you can access saved reports, packet capture files, and data from OptiView Reporter, located on the hard drive of the OptiView™ Integrated Network Analyzer.

#### Update firmware for selected OptiView™ Workgroup Analyzer

Updates the firmware on the analyzer by downloading from the controlling PC. Perform analyzer firmware updates when the local host software revision number is newer than the firmware revision number displayed next to the selected analyzer (a yellow triangle indicates this). This button is enabled only when selecting an OptiView™ Workgroup Analyzer through the Management Port. It does not apply to OptiView™ Integrated analyzers.

##### Note

*Newer OptiView Workgroup Analyzers run firmware version 5.2 or greater and have new hardware to support them.*

*Older OptiView Workgroup Analyzers running firmware less than version 5.2 can only be updated to firmware version 4.09. A yellow triangle will appear next to analyzers less than 4.09 but greater than 3.51 indicating they can be updated to 4.09. OptiView Workgroup Analyzers running 3.51 or less firmware can not be updated.*

## Installing the User Interface Software

The user interface software can be installed on Win98 SE, WinNT 4.0, Win2000, and WinXP operating systems.

To install the user interface software from CD, insert the OptiView™ Resource CD into your PC's CD drive. Autorun will execute and load the CD user interface. If autorun is disabled on your PC, execute the file *launch.exe* located in the root directory on the CD. Follow the on-screen instructions to complete the installation.

Once the installation is complete, you will be able to launch the OptiView Browser from your desktop, select an analyzer from the OptiView Browser list, or enter the IP address of the analyzer, and gain access to valuable network information through the user interface software.



## User Interface Events that will Terminate a Remote Session

The active TCP/IP session between the user interface software and the analyzer can be severed under the following conditions:

- ☐ IP parameters are manually changed on the analyzer and Apply is selected in the Management port TCP/IP setup screen

*Note*

*The following conditions only apply to the Network 10/100/1000 and 1000BASE-X fiber ports, and not to the Management port.*

- ☐ **Auto Reconfigure on Network Change** is checked in the TCP/IP setup screen and the analyzer patch cable is disconnected and reconnected to another jack
- ☐ The Ethernet link goes down on either interface due to temporary network outage
- ☐ **Rerun Auto Configure** is selected in the TCP/IP setup screen
- ☐ **Find Unused IP and Apply** is selected in the TCP/IP setup screen
- ☐ IP parameters are manually changed and **Apply** is selected in the TCP/IP setup screen
- ☐ **Rerun Cable Test** is selected
- ☐ If the Analyzer MAC address is changed in the **Setup | Ethernet** screen
- ☐ If **Receive only, do not transmit frames** is selected in the **Setup | Ethernet** screen

## Configuring the Analyzer through the Serial Configuration Port

In situations where you do not have remote access (through the user interface software) to the analyzer, you may want to configure the analyzer IP address parameters for both the Network 10/100/1000 (or 1000BASE-X fiber) and Management ports before connecting the analyzer to a network. The analyzer has a serial configuration port that provides this capability.

To configure the analyzer through the configuration port:

- 1 Connect the supplied RS-232 cable between the analyzer serial configuration port and a serial port on a PC or terminal.
- 2 Run a terminal emulation application on the PC to access the configuration port command line interface.
- 3 Press <Enter> and a prompt will appear that includes the SNMP name of the analyzer. If the analyzer is password protected, a prompt for the password will appear to gain configuration access. If the analyzer is not password protected, configuration access is directly available.

The configuration port command line interface provides four configuration “modes”: Root, Remote, Management, and Network configuration. The commands associated with each mode are described on the next page.

### Configuration Port Guidelines

- ☐ The analyzer serial configuration port communication parameters are fixed to 115200 baud, 8 data bits, no parity, 1 stop bit.
- ☐ Commands are case insensitive. Password is case sensitive.
- ☐ Parameters that are applied via the configuration port are retained after turning off the power to the analyzer.
- ☐ Entering an invalid command will cause a list of available commands to be displayed for the current configuration mode.
- ☐ Entering an invalid parameter to a command (where applicable) will cause a command usage message to be displayed.
- ☐ Access to change the configuration will time out after a period of inactivity when password protection is enabled. You will have to enter the correct password to regain configuration access.

## Workgroup Analyzer

### Configuring the Analyzer through the Serial Configuration Port

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#### Root mode user commands:

"management"	Allows the user to enter "Management" configuration mode. This mode allows the user to configure IP parameters for the out-of-band Management Port. The text "/Management>" is appended to the prompt while in this mode.
"network"	Allows the user to enter "Network" configuration mode. This mode allows the user to configure IP parameters for the in-band 10/100/1000/Fiber ports. The text "/Network>" is appended to the prompt while in this mode.
"default"	Restores the analyzer configuration parameters back to factory defaults and reboots the analyzer. Password settings are retained.
"productinfo"	Displays analyzer product information.
"exit"	Exits the Root mode if password protection is enabled. The user must enter the correct password to regain configuration access.
"show (user command)"	Displays the current value of an individual setup parameter of interest within the Root mode.
"show all"	Displays the current values of all setup parameters within the Root mode.

#### Remote mode user commands

"remoteipaddr A.B.C.D  last connected   none"	Sets the IP address (A.B.C.D) of the PC that will be running the remote user interface software. The analyzer will send it's identification to that PC so that the OptiView Browser will display that analyzer for selection. The address is entered in decimal dot notation. See help for more information about setting the Remote PC IP address.
"import1ipaddr A.B.C.D   none" and "import2ipaddr A.B.C.D   none"	Sets the IP address (A.B.C.D) of up to two PCs that are running software that will import data from the analyzer such as OptiView Reporter or OptiView Console. The analyzer will then send it's identification to that PC so that the import software can use the analyzer as a data source, receive the problem log from the analyzer, and display the analyzer as an agent. See help for more information about setting the Remote PC IP address.
"syslog1ipaddr A.B.C.D   none" and "syslog2ipaddr A.B.C.D   none"	Sets the IP address (A.B.C.D) of up to two PCs that will receive information about packet captures called a syslog server (also referred to as syslog collector). See help for more information about setting the syslog server IP address.
"exit"	Exits to the Root mode. Changes are saved.
"show (user command)"	Displays the current value of a Remote mode individual setup parameter.
"show all"	Displays the current values of all setup parameters within the Remote mode.

## Management configuration mode user commands:

"ipaddr A.B.C.D E.F.G.H"	Statically assigns the IP address (A.B.C.D) and subnet mask (E.F.G.H) of the Management Port. Address and subnet mask are entered in decimal dot notation.
"ipaddr dhcp"	Enables the automatic configuration of the Management Port IP parameters via a DHCP server. This occurs when "apply" is entered (see below). It will then attempt to acquire an IP address from the DHCP server if link is available.
"iprouter A.B.C.D"	Statically assigns the IP address (A.B.C.D) of the default router on the Management Port. Address is entered in decimal dot notation.
"apply"	Applies the changes (if any) made to the Management Port configuration. Management Port configuration changes do not take effect until this command is entered.
"exit"	Exits the Management configuration mode. Exiting will discard any Management Port configuration changes unless 'apply' is entered.
"show (user command)"	Displays the current value of an individual setup parameter of interest within the Management configuration mode.
"show all"	Displays the current values of all setup parameters within the Management configuration mode.

## Network configuration mode user commands:

"ipaddr A.B.C.D E.F.G.H"	Statically assigns the IP address (A.B.C.D) and subnet mask (E.F.G.H) of the Network port. Address and subnet mask are entered in decimal dot notation.
"ipaddr autoconfig"	Enables the "Auto Reconfigure" command which reconfigures the TCP/IP connection. This occurs when "apply" is entered (see below). It will then attempt to autoconfigure an IP address if link is available. It will first look for a DHCP server. If it does not find one, it will generate an IP address based on the network activity it sees.
"autoconfig enable/disable"	Enables or disables the "Auto Configure on Network Change" checkbox. See the TCP/IP Help topic for a description of use.
"iprouter A.B.C.D"	Statically assigns the IP address (A.B.C.D) of the default router on the Network port. Address is entered in decimal dot notation.
"ippridns A.B.C.D"	Statically assigns the IP address (A.B.C.D) of the primary Domain Name Server (DNS) on the Network port. Address is entered in decimal dot notation.
"ipsecdns A.B.C.D"	Statically assigns the IP address (A.B.C.D) of the secondary DNS on the Network port. Address is entered in decimal dot notation.
"apply"	Applies the changes (if any) made to the Network port configuration and runs "Auto Configure on Network Change" if specified by "ipaddr autoconfig". Network port configuration changes do not take effect until this command is entered.

"exit"	Exits the Network configuration mode. Exiting will discard any Network port configuration changes unless 'apply' is entered.
"show (user command)"	Displays the current value of an individual setup parameter of interest within the Network configuration mode.
"show all"	Displays the current values of all setup parameters within the Network configuration mode.

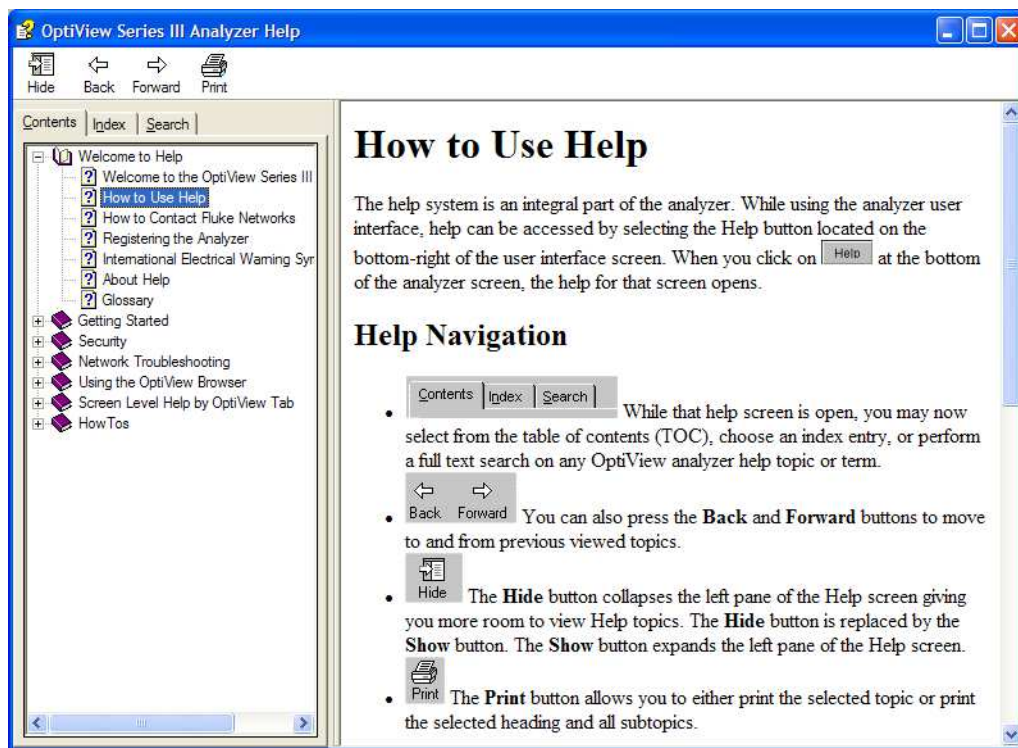
## Using the Online Help System

View the online Help from within the analyzer user interface for a detailed explanation of each screen and how to use the analyzer. Some of the topics of interest are:

## OptiView™ Series III Getting Started Guide

- ❑ Setting up security - Setup | User Accounts and Setup | Remote
- ❑ Setting up community strings - Setup | SNMP and Setup | Agent
- ❑ Generating network traffic - Traffic Generator feature
- ❑ Capturing traffic passing over a network - Packet Capture feature
- ❑ Measuring bidirectional data flow – Throughput feature
- ❑ Setting Up a Printer

## Accessing and Navigating the Help System



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Figure 4. The Help Screen

The help system is an integral part of the analyzer. While using the analyzer user interface, help can be accessed by selecting the **Help** button located on the bottom-right of the user interface screen.

When the Help is launched, the current screen topic is displayed. You can also select a topic from the Contents (left pane), choose an Index entry, or perform a full text Search on any analyzer help topic or term.

You can also press the **Back** and **Forward** buttons to move to and from previous viewed topics.

## Accessing the Online Documentation

This Getting Started Guide and Help are provided in electronic format on the OptiView Resource CD.

## Updating the OptiView Workgroup Analyzer Firmware

### *Note*

*To be notified when new software becomes available for your analyzer, or to access technical support/knowledge base information via the web, please register your product at **<http://support.flukenetworks.com>**.*

From time to time, software improvements are being made to the analyzer. The software update involves two steps; first to update the user interface software on the PC, then to individually update the firmware in each of your OptiView Workgroup Analyzers to match the software version running on your PC.

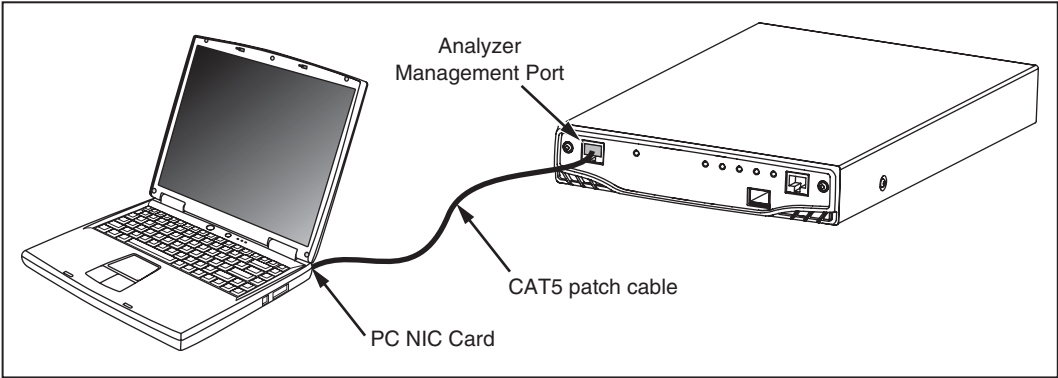
You can obtain the latest version of software by visiting [www.flukenetworks.com](http://www.flukenetworks.com) and downloading the file to the PC that you intend to use to control your analyzers. This software is supplied to you on the OptiView Resource CD that was shipped with your analyzer. To obtain additional CD copies or to get newer versions supplied to you on a CD rather than downloading from our web site, see the section on Contacting Fluke Networks Sales, Service, and Support Centers to make that request.

## Software Update Procedure

### Step One – Update the PC User Interface Software

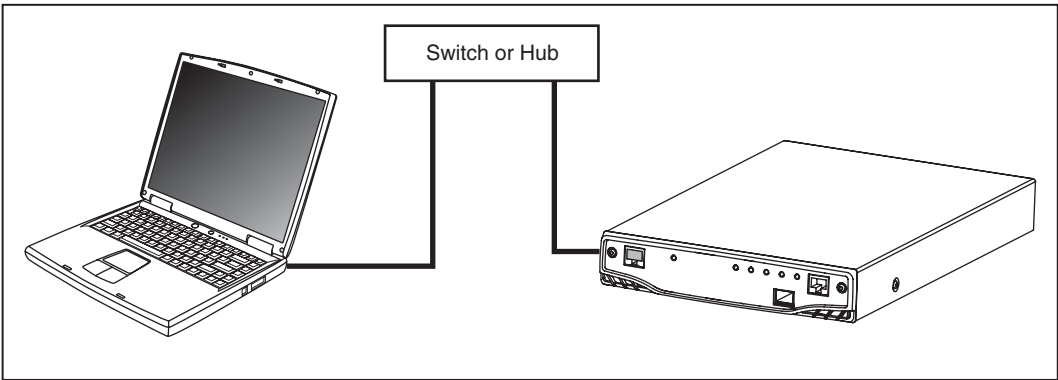
Run the Launch.exe file on the OptiView Resource CD or within the download directory on your PC. The InstallShield™ program will guide you through the steps that will install a new user interface on your PC or will update an existing user interface.

Step Two – Connect to the Analyzer via the Management Port



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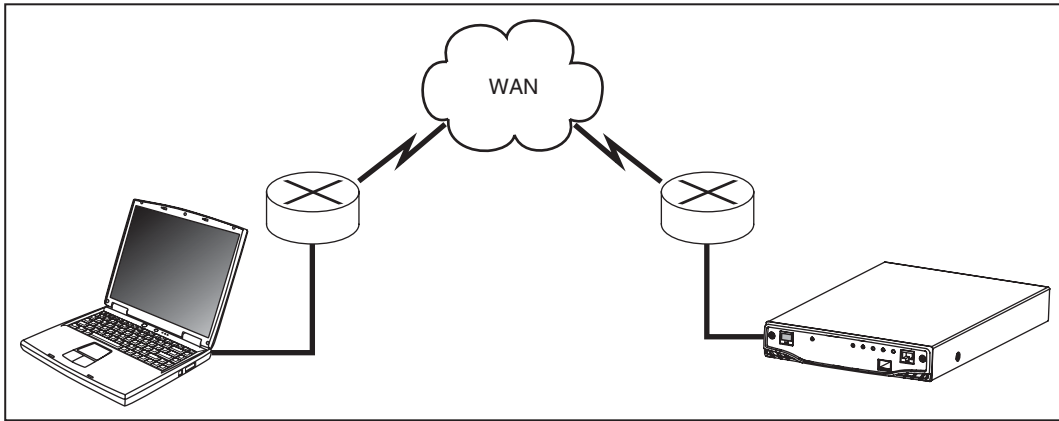
Figure 5. Direct Management Port Connection



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Figure 6. LAN Management Port Connection





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**Figure 7. Remote Management Port Connection**

### Step Three – Run the User Interface Software

When you launch the user interface software (an icon is placed on your desktop), the analyzer will automatically be listed in the OptiView Browser list as long as it is in the local network (broadcast domain). Figure 7 shows a WAN connection where you will need to configure the remote PC IP address in the **Setup | Remote** screen in order to see it in the OptiView Browser.

Note the *Local Host Software Revision* number. This number should match the *Firmware Revision* numbers displayed for each analyzer. If the firmware revision displayed is a lower number than the local host software revision number, select that analyzer and click on the update firmware button (right-most on the button bar). The software will begin its update process of the firmware on the selected analyzer.

#### *Note*

*The Connection type has to show “management port” for the update firmware button to be enabled. You cannot update the analyzer’s firmware through a network measurement interface, only through the Management Port.*

*Older OptiView Workgroup Analyzers running firmware less than version 5.2 can only be updated to firmware version 4.09. A yellow triangle will appear next to analyzers less than 4.09 but greater than 3.51 indicating they can be updated to 4.09. OptiView Workgroup Analyzers running 3.51 or less firmware can not be updated.*

You cannot update OptiView™ Integrated Network analyzers using this method. See the software update procedure for OptiView™ Integrated Network analyzers in the analyzer Help.

Once the user interface software is finished flashing new firmware into your analyzer, the **Update Complete** dialog box will be presented. Select **OK** and continue updating all of the OptiView™ Workgroup Analyzers in this manner until all of the firmware revisions match the host software revision number.

## Troubleshooting Your Analyzer

### Before Calling Technical Support

Before calling technical support, you can perform these basic analyzer troubleshooting steps to pinpoint many problems:

#### Do you suspect the analyzer has locked up?

If yes, completely power-down the analyzer.

#### Unexpected IP Discovery or Tools results?

Does the analyzer have a valid IP address? Look at the **Front Page** screen **OptiView** button and see if a valid IP has been configured. Also, see if the Auto Configure capability in the **Setup | TCP/IP** screen has been disabled. If an IP address has been manually entered, it may not be within the local subnet.

#### Are you connected to the network?





- ☐ Link light should be on solid green if Link exists.
- ☐ Some activity on Utilization LED should be seen.
- ☐ Go to **Setup | Ethernet** screen. An active interface should be indicated.

#### Does the analyzer pass self test?

Connect to the Management Port and go to the **Setup | Self Test** screen and press **Run Self Test**. All tests need to pass.

## Safety and General Specifications

**Table 3. General Specifications**

Weight	1.63 kilograms (3.6 lbs)
Dimensions	4.1 x 21.1 x 32.8 cm (1.6 x 8.3 x 12.9 in), one half of a standard 19 in rack mount width
AC input	85 to 265 VAC; 47/63 Hz; 25 watts
Network Analysis Interface	10/100/100 BASE-T (RJ-45) + SFP (100/1000 fiber)
Network Analysis interface LEDs	Link, Utilization, Transmit, Collision, Errors
Capture Memory	480 Mbytes
Serial Configuration Port	Serial RS-232 (9-pin male)
Management Port	10/100/1000BASE-T (RJ-45) Ethernet
Shock and vibration	Meets requirements of MIL-PRF-28800F for Class 3 equipment
Laser	 Class 1 Laser Product, complies with 21 CFR 1040.10 & 1040.11, CFR(J), and EN60825-1:1994/A1:1997/A2:2002
Operating Temperature	10°C to 30°C (50°F to 86°F) with up to 95% Relative Humidity 10°C to 40°C (50°F to 104°F) with up to 75% Relative Humidity Non-Operating Temperature -20°C to +60°C (-4°F to +140°F)
Connection to public telephone network	The analyzer network interfaces are NOT FOR CONNECTION TO PUBLIC TELEPHONE SYSTEMS. The analyzer should only be connected to the public phone network through regulatory agency compliant modem devices.
Safety	 Complies with CSA C22.2 No. 950 Canadian standards, and UL 1950 (US standards)  Complies with European Union directive EN60950 2 <sup>nd</sup> edition.
EMC	 Complies with EN61326 Class A.

## Cable Type Specification

### Cable Types

Unshielded Twisted Pair LAN cables (100 and 120 Ohm UTP category 3, 4, 5, 5E, and 6 ISO/IEC Class C and D)

Foil-screened Twisted Pair cables (100 and 120 Ohm ScTP category 3, 4, 5, and 6 ISO/IEC Class C and D)

### Cable Length

Measurable cable lengths are from 3 feet (.9 meter) to 500 feet (152 meters). Within this cable length, the accuracy is +/-6 feet (+/-2 meters).

#### Note

*Length accuracy is dependent upon the cable type selected in the **Cable Test** screen with its ideal NVP (nominal velocity of propagation) matching the NVP of the cable under test.*

### Fault Tolerance

The RJ-45 10/100/1000BASE-T Ethernet connection on the analyzer is designed to withstand a maximum of 100 volts.





# OptiView<sup>TM</sup>

## Series III

### Workgroup Analyzer

#### Getting Started Guide

PN 3105444

February 2008

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## **LIMITED WARRANTY & LIMITATION OF LIABILITY**

Each Fluke Networks product is warranted to be free from defects in material and workmanship under normal use and service. The warranty period is one year and begins on the date of purchase. Parts, accessories, product repairs and services are warranted for 90 days. This warranty extends only to the original buyer or end-user customer of a Fluke Networks authorized reseller, and does not apply to disposable batteries, cable connector tabs, cable insulation-displacement connectors, or to any product which, in Fluke Networks' opinion, has been misused, altered, neglected, contaminated, or damaged by accident or abnormal conditions of operation or handling. Fluke Networks warrants that software will operate substantially in accordance with its functional specifications for 90 days and that it has been properly recorded on non-defective media. Fluke Networks does not warrant that software will be error free or operate without interruption.

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To obtain warranty service, contact your nearest Fluke Networks authorized service center to obtain return authorization information, then send the product to that service center, with a description of the difficulty, postage and insurance prepaid (FOB Destination). Fluke Networks assumes no risk for damage in transit. Following warranty repair, the product will be returned to Buyer, transportation prepaid (FOB Destination). If Fluke Networks determines that failure was caused by neglect, misuse, contamination, alteration, accident or abnormal condition of operation or handling, or normal wear and tear of mechanical components, Fluke Networks will provide an estimate of repair costs and obtain authorization before commencing the work. Following repair, the product will be returned to the Buyer transportation prepaid and the Buyer will be billed for the repair and return transportation charges (FOB Shipping Point).

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## **Cryptix General License**

### *Note*

*This Cryptix General License only applies to the data encryption software used by the OptiView remote user interface.*

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# Table of Contents










Title	Page
Before You Start .....	1
Safety Information .....	1
Cleaning the Analyzer .....	2
Has This Instrument Been Damaged in Shipping? .....	2
Contacting Fluke Networks Sales, Service, and Support Centers .....	2
OptiView™ Series III Workgroup Analyzer Support .....	2
The Analyzer and Accessories .....	3
Supplied Out of the Box Items .....	4
About the Analyzer .....	6
General Specifications .....	6
A Look at the Analyzer External Connections and LEDs .....	6
External Connectors .....	6
LEDs .....	6
Connecting to the Management Port .....	7
Changing the SFP Adapter .....	7
Security .....	8
Setting the Remote Control PC IP Address .....	8
Setting the Analyzer IP Address on the Network Under Test Interface .....	8
Setting the Analyzer IP Address on the Management Port .....	8
Restoring the OptiView™ Workgroup Analyzer Default Configuration .....	8
Accessing the Analyzer through the Remote User Interface Software .....	8
Using the OptiView™ Browser and User Interface Software .....	9
Refresh analyzer list .....	10
Launch user interface for selected analyzer .....	10
Launch Web browser for selected OptiView Integrated Network Analyzer .....	10
Update firmware for selected OptiView™ Workgroup Analyzer .....	10
Installing the User Interface Software .....	10
User Interface Events that will Terminate a Remote Session .....	11
Configuring the Analyzer through the Serial Configuration Port .....	12
Configuration Port Guidelines .....	12
Root mode user commands: .....	13
Remote mode user commands .....	13
Management configuration mode user commands: .....	14
Network configuration mode user commands: .....	14
Using the Online Help System .....	15
Accessing and Navigating the Help System .....	15
Accessing the Online Documentation .....	16
Updating the OptiView Workgroup Analyzer Firmware .....	16

- Software Update Procedure ..... 16
  - Step One – Update the PC User Interface Software ..... 16
  - Step Two – Connect to the Analyzer via the Management Port ..... 17
  - Step Three – Run the User Interface Software ..... 18
- Troubleshooting Your Analyzer ..... 19
  - Before Calling Technical Support ..... 19
    - Do you suspect the analyzer has locked up? ..... 19
    - Unexpected IP Discovery or Tools results? ..... 19
    - Are you connected to the network? ..... 19
    - Does the analyzer pass self test? ..... 19
- Safety and General Specifications ..... 20
  - Cable Type Specification ..... 21
    - Cable Types ..... 21
    - Cable Length ..... 21
    - Fault Tolerance ..... 21

# Before You Start

## Safety Information

The following symbols are used on the product and in this document:

	NOT FOR CONNECTION TO PUBLIC TELEPHONE SYSTEMS
	PLEASE READ MANUAL FOR SAFETY
	COMPLIES WITH EUROPEAN UNION DIRECTIVE
	SHOCK HAZARD
	CLASS 1 LASER PRODUCT. DO NOT LOOK INTO LASER
	RECYCLE LITHIUM ION BATTERIES
	COMPLIES WITH CAN/CSA-C22.2 NO. 60950-1 CANADIAN STANDARDS, AND UL 60950-1 (US STANDARDS)
	DO NOT DISPOSE OF LITHIUM ION BATTERIES IN GARBAGE, RECYCLE
	MEETS AUSTRALIA EMC REQUIREMENTS

The OptiView™ Series III Workgroup Analyzer (hereafter referred to as the “analyzer”) complies with:



Class 1 Laser product 21 CFR 1040.10 & 1040.11, CFR(J)



CSA C22.2 No 950, and EN60950

## Warnings

To avoid possible electric shock or personal injury, follow these guidelines:

**Do not use this product if it is damaged. Before using the product, inspect the case. Look for cracked or missing plastic. Pay particular attention to the insulation surrounding the connectors.**

**Do not operate the product around explosive gas, vapor or dust.**

**No serviceable parts. Do not try to service.**

**Do not connect a telephone line to this product.**

If this product is used in a manner not specified by the manufacturer, the protection provided by the product may be impaired.

### **Warning Class 1 Laser Product**

With an optional SFP fiber adapter installed, this product will contain a Class 1 laser. Do not look into the laser port because this may cause eye injury.

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

### **Cautions**

**To avoid possible damage to the analyzer and to the equipment under test, follow these guidelines.**

- **Use the proper terminals and cable for all connections.**

## **Cleaning the Analyzer**

To prevent moisture from entering the analyzer, clean with a moist cloth only. Wipe the case with a damp cloth. Do not use organic solvents, acid, or alkali solutions.

## **Has This Instrument Been Damaged in Shipping?**

ATTENTION!

In case of damage, call the carrier at once for inspection, and request an inspection report. ALWAYS NOTIFY THE CARRIER FIRST! Please do not write the factory until you have notified the carrier, since this will delay the claim.

If this precaution is not taken, we cannot assist you in recovering the amount of claim against the carrier.

When the carrier's inspection report is obtained, you may return the instrument and copy of the inspection report to the factory immediately.

## **Contacting Fluke Networks Sales, Service, and Support Centers**

To order accessories or get the location of the nearest Fluke Networks distributor or service center, visit the Fluke Networks contact web site at [www.flukenetworks.com/contact](http://www.flukenetworks.com/contact). Send email to [support@flukenetworks.com](mailto:support@flukenetworks.com). For operator assistance in the USA, call 1-800-28-FLUKE (1-800-283-5853).

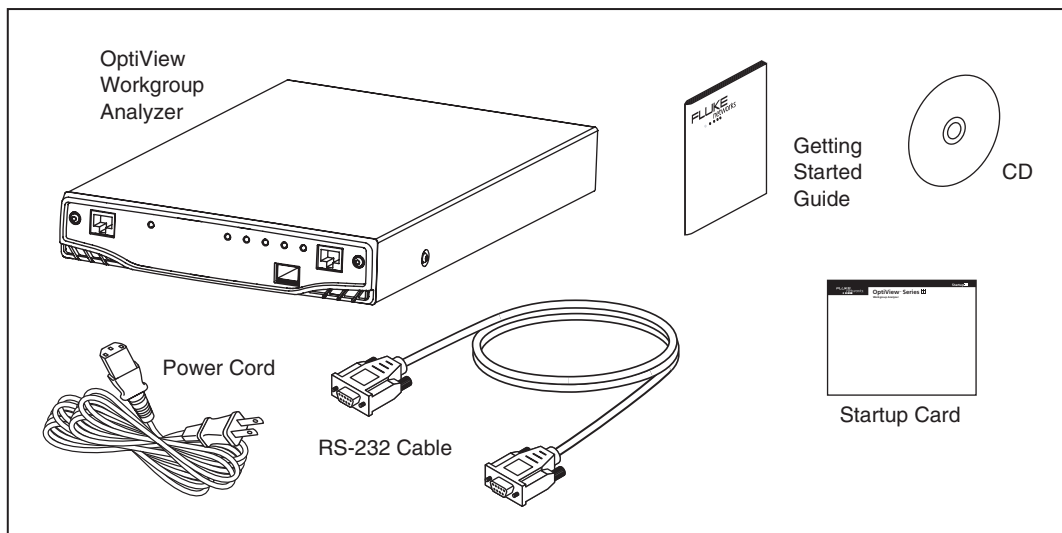
## **OptiView™ Series III Workgroup Analyzer Support**

As a registered user, you are entitled to entry level product support, including three free telephone support incidents during the first 60 days of ownership, access to the entry level online Knowledge Base library of product operation and application information, and Web-based trouble ticketing. We will also be sending you Fluke Networks company and product information updates.

## The Analyzer and Accessories

The analyzer is designed for troubleshooting and monitoring Local Area Networks (LANs). It tests all seven OSI layers from the cable to the application layer and everything in between, so problems have nowhere to hide. The analyzer can be used in a stand-alone fashion or mounted in a rack using the optional rack mount kit.

**OptiView™ Series III Workgroup Analyzer** supports 10/100/1000 Ethernet through the Network 10/100/1000 port (RJ-45 jack) along with a 1000BASE-X fiber optic port that supports the following optional fiber adapters: 1000BASE-SX (850nm), 1000BASE-LX (1300nm), 1000BASE-LX10 (1310nm), 1000BASE-BX (1490nm), 1000BASE-ZX (1550nm), and 100BASE-FX (1310nm). Check [www.flukenetworks.com](http://www.flukenetworks.com) for additional supported fiber adapters.



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**Figure 1. The OptiView™ Workgroup Analyzer and Supplied Accessories**

Supplied Out of the Box Items

The following equipment is supplied with the OptiView™ Workgroup Analyzer.

Table 1. Supplied OptiView™ Workgroup Analyzer Items

Item	Description	Model/Part Number
AC power cord	Country specific AC power cord.	North America UK Cont. Europe South Africa Australia
Getting Started Guide	Provides basic operating information, accessory part numbers, and specifications.	N/A
CD-ROM	OptiView™ Resource CD. Includes user interface software, OptiView firmware, MIB Browser and Getting Started Guide (Multiple languages in PDF format).	N/A
Female to female DB-9 null modem RS-232 cable	Serial configuration port cable. Used to manually configure the analyzer as opposed to configuring the analyzer through the user interface software.	N/A
Registration Card	Fluke Networks can serve you best by registering online at <a href="http://www.flukenetworks.com">www.flukenetworks.com</a> . If you cannot register online, please fill out and return the supplied registration card.	N/A
Startup Card	Provides basic information about operating the analyzer.	N/A

**Table 2. Other Available Accessories**

<b>Item</b>	<b>Description</b>	<b>Model/Part Number</b>
OptiView Reporter™	The OptiView Reporter™ application allows you to communicate remotely with an OptiView™ Workgroup Analyzer to generate reports on the network to which the analyzer is connected.	OPV-RPTR OPV-RPTR/PRO
OptiView Protocol Expert™	The Fluke Networks Windows based protocol analyzer for network engineers, LAN administrators, and network technicians who maintain LANs. The application allows you to monitor and decode captured packets on your local network. The application will decode OptiView™ Workgroup Analyzer packet capture files.	OPV-PE/PRO
OptiView Workgroup Analyzer Bundle	Includes OPV-RPTR/PRO and OPV-PE/PRO	OPVS3-WGA/GIG/DSVS
19" Rack mount Kit	Rack mount kit for holding one or two OptiView™ Workgroup Analyzers.	OPV-RMK
Hard side transit case	Hard shell transit case for shipping analyzers to remote sites.	OPV-TCASE
Fiber SFP SX adapter	850nm, 50 and 62.5 micron multi mode fiber. 1000BASE-SX SFP adapter used in the Fiber port.	OPV-SFP-SX
Fiber SFP LX adapter	1300 nm, 10 micron single mode fiber. 1000BASE-LX SFP adapter used in the Fiber port.	OPV-SFP-LX
Fiber SFP LX10 adapter	1310 nm, 10 micron single mode fiber. 1000BASE-LX SFP adapter used in the Fiber port.	OPV-SFP-LX10
Fiber SFP BX adapter	1000BASE-BX10D, 1490 nm fiber. 1000BASE-BX SFP adapter used in the Fiber port.	OPV-SFP-BX
Fiber SFP ZX adapter	1000BASE-ZX, 1550 nm fiber. 1000BASE-ZX SFP adapter used in the Fiber port.	OPV-SFP-ZX
Fiber SFP FX adapter	100FX adapter used in the Fiber port.	OPV-SFP-100FX



## About the Analyzer

### General Specifications

**Analyzer Interfaces:** 10/100/1000BASE-T (RJ-45), and 1000BASE-X and 100BASE-FX (SFP adapter)

**Analyzer LEDs:** Management Link (in RJ-45 connector), Power, 10/100/1000/Fiber Link, Utilization, Transmit, Collision, and Errors

**Test Access:** Active termination to a switch port, switch span port, or a hub

**Layer 2 Support:** Ethernet

**Management Port:** 10/100/1000BASE-T (RJ-45)

**Configuration Port:** Serial RS-232 (9-pin male)

**Capture Memory:** 480 MBytes

### A Look at the Analyzer External Connections and LEDs

#### External Connectors

**MANAGEMENT:** Remote control interface. Accepts 10BASE-T/100BASE-TX/1000BASE-TX twisted pair copper cable.

**10/100/1000 port:** Network analysis interface. Accepts 10BASE-T/100BASE-TX/1000BASE-TX twisted pair copper cable.

**1000BASE-X:** Network analysis interface. Accepts 100 and 1000BASE-X fiber adapters.

#### LEDs

**Management Link (in RJ-45 connector):** Indicates that link has been established on the Management connection (green). Flashing green indicates activity is present.

**Power (PWR):** Indicates whether the analyzer is Off or On (blue).

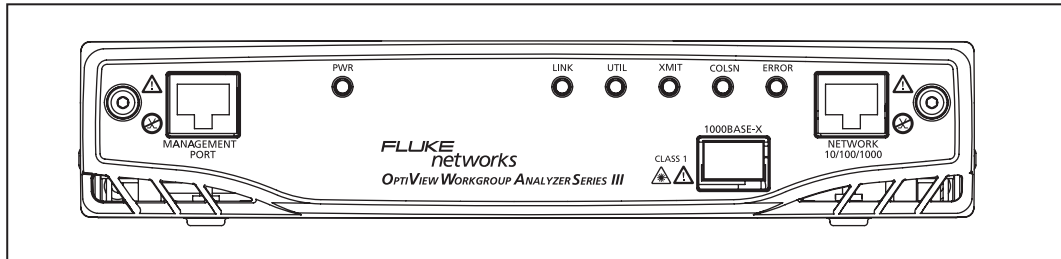
**10/100/1000/Fiber Link (LINK):** Indicates one of the test interfaces is connected to the network and Link has been established. Green = link established.

**Utilization (UTIL):** Indicates the percent of utilization the network under test interface is experiencing (green = 0 - 49%, yellow = 50 - 79%, red = 80 - 100%).

**Transmit (XMIT):** Indicates analyzer transmit activity (yellow). When the analyzer is first powered on, it will generate transmit activity while trying to identify devices on the network. Ping, Trace Route, Trace Switch Route, and Traffic Generator will cause this LED to flash in proportion to the amount of transmit activity.

**Collision (COLSN):** Indicates by yellow flashing intensity the amount of Collisions being experienced on the network (yellow).

**Error (ERROR):** Indicates by red flashing intensity the amount of Errors being experienced on the network (red). The Ethernet layer 2 error types include CRC alignment, undersize, oversize, and jabber errors.



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**Figure 2. Front View of the Analyzer**

### Connecting to the Management Port

Use the Management port to manage the analyzer out of band when it is connected to a different network (outside the network under test broadcast domain). In the event that you are unable to communicate with the analyzer through the Network 10/100/1000 or 1000BASE-X (fiber) ports, you can use the Management Port to gain access to the analyzer.

The Management Port is not a measurement interface. The Management Port facilitates remote control. Test functions such as traffic generation, cable testing and active discovery only apply to the Network 10/100/1000 or 1000BASE-X ports. The Management Port can be used to view traffic discovered on the Network 10/100/1000 or 1000BASE-X fiber ports.

The Management Port is also used to flash new software into the analyzer.

#### *Note:*

*Analyzer software updates can only be done through the Management Port.*

### Changing the SFP Fiber Adapter

To install a SFP Fiber adapter, remove the protect cap and simply slide the adapter into the fiber port (labeled 1000BASE-X) until it clicks.

To remove a SFP Fiber adapter, press and hold the tabs on the sides of the SFP adapter and pull gently out of the fiber port.

### **⚠ Warning**

**SFP fiber adapters are Class 1 laser light-emitting products. Avoid staring into the SFP module while the analyzer is on; otherwise injury to the eyes may occur.**

#### *Note*

*It is recommended that the analyzer be powered off prior to changing the SFP fiber adapter. This will reduce the possibility of damage to the SFP fiber adapter.*

## Security

Security is controlled through the **Setup | Users**, **Setup | Agent**, and **Setup | Remote** screens. If user accounts have been enabled, you must enter a name and password to access the setup screens. You must have administrative rights to execute the “default” command in the Root Mode. This command restores factory defaults to the analyzer.

## Setting the Remote Control PC IP Address

Set this field to specify an offnet PC running the OptiView™ Browser remote user interface software. By setting this field, the analyzer will send its identification back to the specified PC running the remote user interface software. Set this field to *<none>*, *<last connected>*, or manually enter the IP address of the remote PC that will be running the OptiView Browser remote user interface software. *<last connected>* is the last remote session to terminate from the analyzer, and that PC's IP address is saved into this field.

This address is configured in the **Setup | Remote** screen. Optionally, this address can be configured through the RS-232 configuration port located on the rear of the analyzer. This is done so that analyzers that are placed on network segments other than the one the controlling PC is on will still automatically show up in the OptiView Browser list of available analyzers.

## Setting the Analyzer IP Address on the Network Under Test Interface

The network under test interface connects either through the Network 10/100/1000 or the 1000BASE-X port. It does not include the Management Port. To set the IP address of the network under test Interface, select **Setup | TCP/IP**. Refer to the analyzer Help on configuring this screen.

## Setting the Analyzer IP Address on the Management Port

Select **Setup | Mgmt. Port** and either configure using DHCP, or enter the IP address manually.

## Restoring the OptiView™ Workgroup Analyzer Default Configuration

This task is performed through the Serial Configuration Port. Follow the instructions outlined in the section “Configuring the Analyzer through the Serial Configuration Port” and enter the command “default”. The default command will restore all factory default settings and reboot the analyzer. If there was a password enabled prior to entering the command, the same password is retained after rebooting.

## Accessing the Analyzer through the Remote User Interface Software

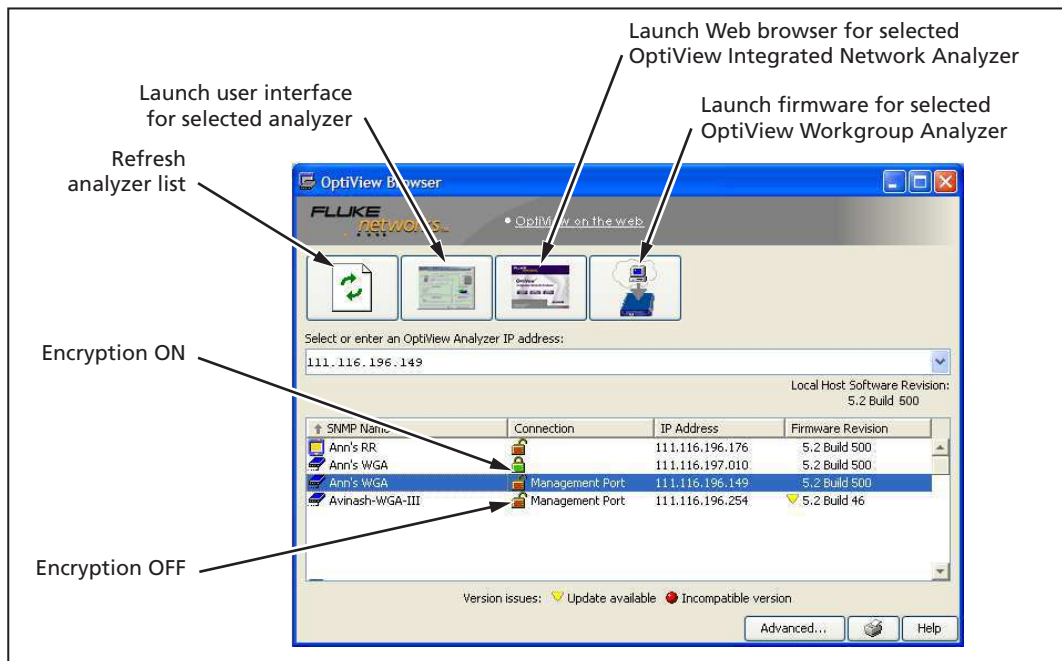
The remote user interface software will need to be installed on your PC before you will be able to remotely interface with the analyzer. It is included on the supplied OptiView™ Resource CD (select the **Install Remote User Interface** button). It is also available for download at [www.flukenetworks.com](http://www.flukenetworks.com).







To view decodes of the packets captured by the analyzer you need to purchase and install the Fluke Networks Protocol Expert software. Alternatively, the captured files can, in most cases, be imported into other 3<sup>rd</sup> party protocol analysis software products.

## Using the OptiView™ Browser and User Interface Software

The OptiView Browser allows you access to OptiView Workgroup and OptiView™ Integrated analyzers through a browseable user interface installed on your PC. Double-click on an analyzer from this list and the user interface is launched. If an analyzer is password protected, you will be prompted to enter a password.

In order for analyzers that are not in the same local network (subnet) to be displayed in the OptiView Browser list, you must first configure the Remote Control IP address setting. This is found in the **Setup | Remote** screen. The Remote Control IP address should match the IP address of the PC that you intend to run the OptiView™ Workgroup user interface software on. Then, the remote analyzer will send its source IP address back to the controlling PC.



	OptiView Series III Integrated Network Analyzer		OptiView Workgroup Analyzer
			OptiView Series III Workgroup Analyzer
	OptiView Series I and II Integrated Network Analyzer		OptiView WAN Analyzers
			

ovbrowser.bmp

**Figure 3. OptiView Browser**

#### Refresh analyzer list

Re-displays the analyzer list with current active analyzers.

#### Launch user interface for selected analyzer

Launches the user interface software and connects to the selected analyzer. The selected analyzer is highlighted in the OptiView Browser device list or the IP address is entered in the OptiView Browser IP address field.

#### Launch Web browser for selected OptiView Integrated Network Analyzer

Enabled only for OptiView™ Integrated Network Analyzers and not for OptiView™ Workgroup Analyzers. Launches the default Web browser on your PC and connects to the home page on the selected OptiView™ Integrated Network Analyzer. From the home page, you can access saved reports, packet capture files, and data from OptiView Reporter, located on the hard drive of the OptiView™ Integrated Network Analyzer.

#### Update firmware for selected OptiView™ Workgroup Analyzer

Updates the firmware on the analyzer by downloading from the controlling PC. Perform analyzer firmware updates when the local host software revision number is newer than the firmware revision number displayed next to the selected analyzer (a yellow triangle indicates this). This button is enabled only when selecting an OptiView™ Workgroup Analyzer through the Management Port. It does not apply to OptiView™ Integrated analyzers.

##### Note

*Newer OptiView Workgroup Analyzers run firmware version 5.2 or greater and have new hardware to support them.*

*Older OptiView Workgroup Analyzers running firmware less than version 5.2 can only be updated to firmware version 4.09. A yellow triangle will appear next to analyzers less than 4.09 but greater than 3.51 indicating they can be updated to 4.09. OptiView Workgroup Analyzers running 3.51 or less firmware can not be updated.*

## Installing the User Interface Software

The user interface software can be installed on Win98 SE, WinNT 4.0, Win2000, and WinXP operating systems.

To install the user interface software from CD, insert the OptiView™ Resource CD into your PC's CD drive. Autorun will execute and load the CD user interface. If autorun is disabled on your PC, execute the file *launch.exe* located in the root directory on the CD. Follow the on-screen instructions to complete the installation.

Once the installation is complete, you will be able to launch the OptiView Browser from your desktop, select an analyzer from the OptiView Browser list, or enter the IP address of the analyzer, and gain access to valuable network information through the user interface software.

## User Interface Events that will Terminate a Remote Session

The active TCP/IP session between the user interface software and the analyzer can be severed under the following conditions:

- ☐ IP parameters are manually changed on the analyzer and Apply is selected in the Management port TCP/IP setup screen

*Note*

*The following conditions only apply to the Network 10/100/1000 and 1000BASE-X fiber ports, and not to the Management port.*

- ☐ **Auto Reconfigure on Network Change** is checked in the TCP/IP setup screen and the analyzer patch cable is disconnected and reconnected to another jack
- ☐ The Ethernet link goes down on either interface due to temporary network outage
- ☐ **Rerun Auto Configure** is selected in the TCP/IP setup screen
- ☐ **Find Unused IP and Apply** is selected in the TCP/IP setup screen
- ☐ IP parameters are manually changed and **Apply** is selected in the TCP/IP setup screen
- ☐ **Rerun Cable Test** is selected
- ☐ If the Analyzer MAC address is changed in the **Setup | Ethernet** screen
- ☐ If **Receive only, do not transmit frames** is selected in the **Setup | Ethernet** screen

## Configuring the Analyzer through the Serial Configuration Port

In situations where you do not have remote access (through the user interface software) to the analyzer, you may want to configure the analyzer IP address parameters for both the Network 10/100/1000 (or 1000BASE-X fiber) and Management ports before connecting the analyzer to a network. The analyzer has a serial configuration port that provides this capability.

To configure the analyzer through the configuration port:

- 1 Connect the supplied RS-232 cable between the analyzer serial configuration port and a serial port on a PC or terminal.
- 2 Run a terminal emulation application on the PC to access the configuration port command line interface.
- 3 Press <Enter> and a prompt will appear that includes the SNMP name of the analyzer. If the analyzer is password protected, a prompt for the password will appear to gain configuration access. If the analyzer is not password protected, configuration access is directly available.

The configuration port command line interface provides four configuration “modes”: Root, Remote, Management, and Network configuration. The commands associated with each mode are described on the next page.

### Configuration Port Guidelines

- ❑ The analyzer serial configuration port communication parameters are fixed to 115200 baud, 8 data bits, no parity, 1 stop bit.
- ❑ Commands are case insensitive. Password is case sensitive.
- ❑ Parameters that are applied via the configuration port are retained after turning off the power to the analyzer.
- ❑ Entering an invalid command will cause a list of available commands to be displayed for the current configuration mode.
- ❑ Entering an invalid parameter to a command (where applicable) will cause a command usage message to be displayed.
- ❑ Access to change the configuration will time out after a period of inactivity when password protection is enabled. You will have to enter the correct password to regain configuration access.

## Workgroup Analyzer

### Configuring the Analyzer through the Serial Configuration Port

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#### Root mode user commands:

"management"	Allows the user to enter "Management" configuration mode. This mode allows the user to configure IP parameters for the out-of-band Management Port. The text "/Management>" is appended to the prompt while in this mode.
"network"	Allows the user to enter "Network" configuration mode. This mode allows the user to configure IP parameters for the in-band 10/100/1000/Fiber ports. The text "/Network>" is appended to the prompt while in this mode.
"default"	Restores the analyzer configuration parameters back to factory defaults and reboots the analyzer. Password settings are retained.
"productinfo"	Displays analyzer product information.
"exit"	Exits the Root mode if password protection is enabled. The user must enter the correct password to regain configuration access.
"show (user command)"	Displays the current value of an individual setup parameter of interest within the Root mode.
"show all"	Displays the current values of all setup parameters within the Root mode.

#### Remote mode user commands

"remoteipaddr A.B.C.D  last connected   none"	Sets the IP address (A.B.C.D) of the PC that will be running the remote user interface software. The analyzer will send it's identification to that PC so that the OptiView Browser will display that analyzer for selection. The address is entered in decimal dot notation. See help for more information about setting the Remote PC IP address.
"import1ipaddr A.B.C.D   none" and "import2ipaddr A.B.C.D   none"	Sets the IP address (A.B.C.D) of up to two PCs that are running software that will import data from the analyzer such as OptiView Reporter or OptiView Console. The analyzer will then send it's identification to that PC so that the import software can use the analyzer as a data source, receive the problem log from the analyzer, and display the analyzer as an agent. See help for more information about setting the Remote PC IP address.
"syslog1ipaddr A.B.C.D   none" and "syslog2ipaddr A.B.C.D   none"	Sets the IP address (A.B.C.D) of up to two PCs that will receive information about packet captures called a syslog server (also referred to as syslog collector). See help for more information about setting the syslog server IP address.
"exit"	Exits to the Root mode. Changes are saved.
"show (user command)"	Displays the current value of a Remote mode individual setup parameter.
"show all"	Displays the current values of all setup parameters within the Remote mode.



## Management configuration mode user commands:

"ipaddr A.B.C.D E.F.G.H"	Statically assigns the IP address (A.B.C.D) and subnet mask (E.F.G.H) of the Management Port. Address and subnet mask are entered in decimal dot notation.
"ipaddr dhcp"	Enables the automatic configuration of the Management Port IP parameters via a DHCP server. This occurs when "apply" is entered (see below). It will then attempt to acquire an IP address from the DHCP server if link is available.
"iprouter A.B.C.D"	Statically assigns the IP address (A.B.C.D) of the default router on the Management Port. Address is entered in decimal dot notation.
"apply"	Applies the changes (if any) made to the Management Port configuration. Management Port configuration changes do not take effect until this command is entered.
"exit"	Exits the Management configuration mode. Exiting will discard any Management Port configuration changes unless 'apply' is entered.
"show (user command)"	Displays the current value of an individual setup parameter of interest within the Management configuration mode.
"show all"	Displays the current values of all setup parameters within the Management configuration mode.

## Network configuration mode user commands:

"ipaddr A.B.C.D E.F.G.H"	Statically assigns the IP address (A.B.C.D) and subnet mask (E.F.G.H) of the Network port. Address and subnet mask are entered in decimal dot notation.
"ipaddr autoconfig"	Enables the "Auto Reconfigure" command which reconfigures the TCP/IP connection. This occurs when "apply" is entered (see below). It will then attempt to autoconfigure an IP address if link is available. It will first look for a DHCP server. If it does not find one, it will generate an IP address based on the network activity it sees.
"autoconfig enable/disable"	Enables or disables the "Auto Configure on Network Change" checkbox. See the TCP/IP Help topic for a description of use.
"iprouter A.B.C.D"	Statically assigns the IP address (A.B.C.D) of the default router on the Network port. Address is entered in decimal dot notation.
"ippridns A.B.C.D"	Statically assigns the IP address (A.B.C.D) of the primary Domain Name Server (DNS) on the Network port. Address is entered in decimal dot notation.
"ipsecdns A.B.C.D"	Statically assigns the IP address (A.B.C.D) of the secondary DNS on the Network port. Address is entered in decimal dot notation.
"apply"	Applies the changes (if any) made to the Network port configuration and runs "Auto Configure on Network Change" if specified by "ipaddr autoconfig". Network port configuration changes do not take effect until this command is entered.

"exit"	Exits the Network configuration mode. Exiting will discard any Network port configuration changes unless 'apply' is entered.
"show (user command)"	Displays the current value of an individual setup parameter of interest within the Network configuration mode.
"show all"	Displays the current values of all setup parameters within the Network configuration mode.

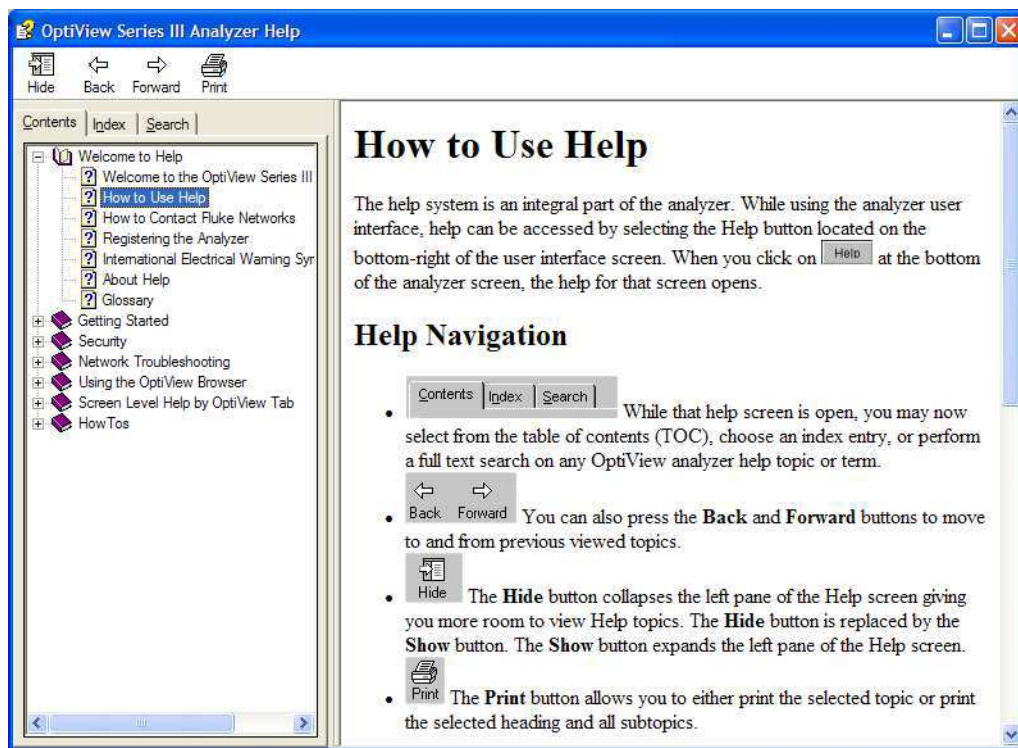
## Using the Online Help System

View the online Help from within the analyzer user interface for a detailed explanation of each screen and how to use the analyzer. Some of the topics of interest are:

## OptiView™ Series III Getting Started Guide

- ❑ Setting up security - Setup | User Accounts and Setup | Remote
- ❑ Setting up community strings - Setup | SNMP and Setup | Agent
- ❑ Generating network traffic - Traffic Generator feature
- ❑ Capturing traffic passing over a network - Packet Capture feature
- ❑ Measuring bidirectional data flow – Throughput feature
- ❑ Setting Up a Printer

## Accessing and Navigating the Help System



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Figure 4. The Help Screen

The help system is an integral part of the analyzer. While using the analyzer user interface, help can be accessed by selecting the **Help** button located on the bottom-right of the user interface screen.

When the Help is launched, the current screen topic is displayed. You can also select a topic from the Contents (left pane), choose an Index entry, or perform a full text Search on any analyzer help topic or term.

You can also press the **Back** and **Forward** buttons to move to and from previous viewed topics.

## Accessing the Online Documentation

This Getting Started Guide and Help are provided in electronic format on the OptiView Resource CD.

## Updating the OptiView Workgroup Analyzer Firmware

### *Note*

*To be notified when new software becomes available for your analyzer, or to access technical support/knowledge base information via the web, please register your product at **<http://support.flukenetworks.com>**.*

From time to time, software improvements are being made to the analyzer. The software update involves two steps; first to update the user interface software on the PC, then to individually update the firmware in each of your OptiView Workgroup Analyzers to match the software version running on your PC.

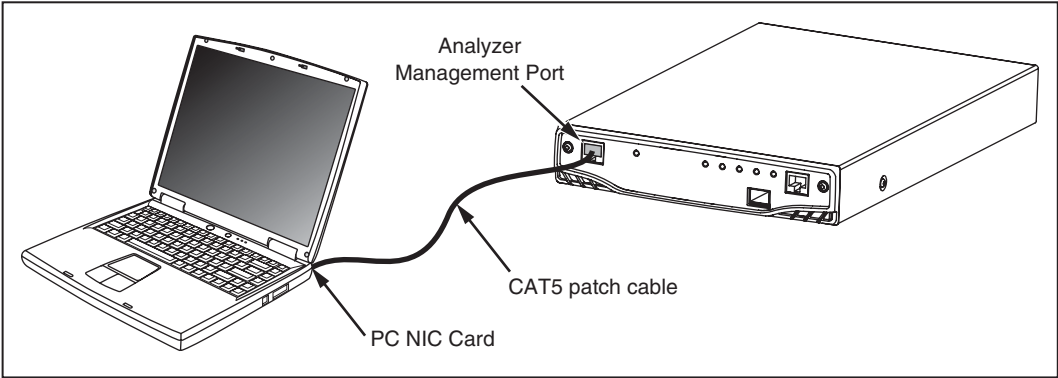
You can obtain the latest version of software by visiting [www.flukenetworks.com](http://www.flukenetworks.com) and downloading the file to the PC that you intend to use to control your analyzers. This software is supplied to you on the OptiView Resource CD that was shipped with your analyzer. To obtain additional CD copies or to get newer versions supplied to you on a CD rather than downloading from our web site, see the section on Contacting Fluke Networks Sales, Service, and Support Centers to make that request.

## Software Update Procedure

### Step One – Update the PC User Interface Software

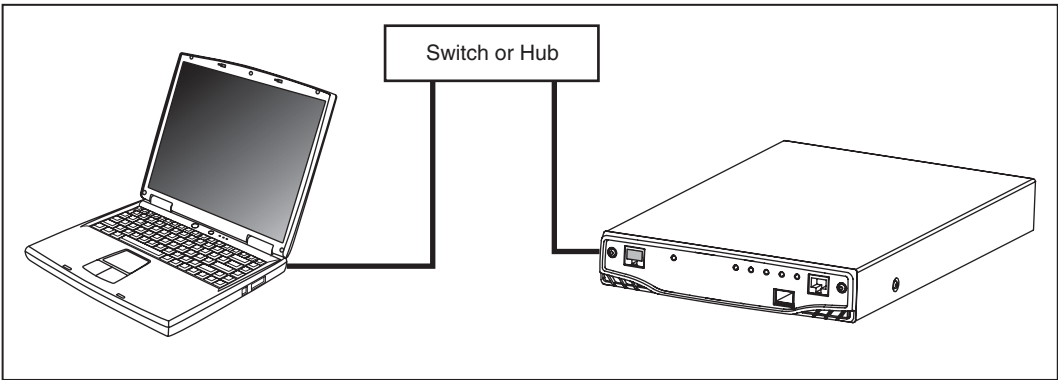
Run the Launch.exe file on the OptiView Resource CD or within the download directory on your PC. The InstallShield™ program will guide you through the steps that will install a new user interface on your PC or will update an existing user interface.

Step Two – Connect to the Analyzer via the Management Port



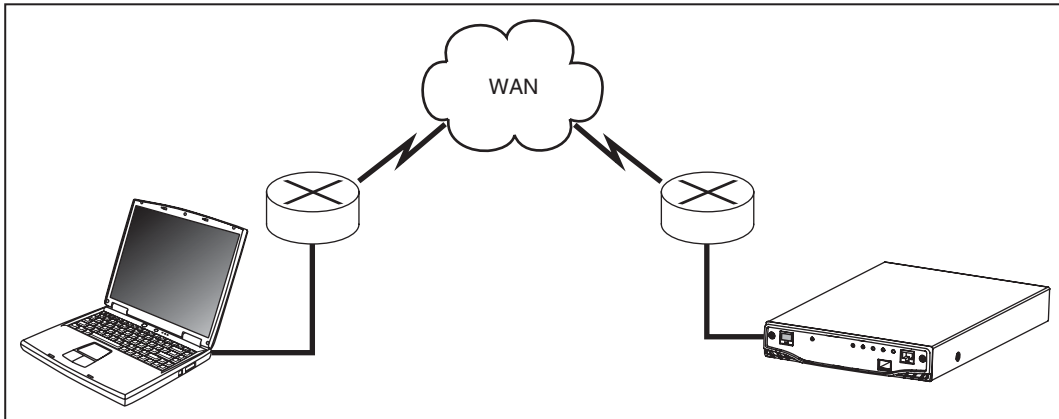
anj04f.eps

Figure 5. Direct Management Port Connection



anj05f.eps

Figure 6. LAN Management Port Connection



anj06f.eps

**Figure 7. Remote Management Port Connection**

### Step Three – Run the User Interface Software

When you launch the user interface software (an icon is placed on your desktop), the analyzer will automatically be listed in the OptiView Browser list as long as it is in the local network (broadcast domain). Figure 7 shows a WAN connection where you will need to configure the remote PC IP address in the **Setup | Remote** screen in order to see it in the OptiView Browser.

Note the *Local Host Software Revision* number. This number should match the *Firmware Revision* numbers displayed for each analyzer. If the firmware revision displayed is a lower number than the local host software revision number, select that analyzer and click on the update firmware button (right-most on the button bar). The software will begin its update process of the firmware on the selected analyzer.

#### *Note*

*The Connection type has to show “management port” for the update firmware button to be enabled. You cannot update the analyzer’s firmware through a network measurement interface, only through the Management Port.*

*Older OptiView Workgroup Analyzers running firmware less than version 5.2 can only be updated to firmware version 4.09. A yellow triangle will appear next to analyzers less than 4.09 but greater than 3.51 indicating they can be updated to 4.09. OptiView Workgroup Analyzers running 3.51 or less firmware can not be updated.*

You cannot update OptiView™ Integrated Network analyzers using this method. See the software update procedure for OptiView™ Integrated Network analyzers in the analyzer Help.

Once the user interface software is finished flashing new firmware into your analyzer, the **Update Complete** dialog box will be presented. Select **OK** and continue updating all of the OptiView™ Workgroup Analyzers in this manner until all of the firmware revisions match the host software revision number.

## Troubleshooting Your Analyzer

### Before Calling Technical Support

Before calling technical support, you can perform these basic analyzer troubleshooting steps to pinpoint many problems:

#### Do you suspect the analyzer has locked up?

If yes, completely power-down the analyzer.

#### Unexpected IP Discovery or Tools results?

Does the analyzer have a valid IP address? Look at the **Front Page** screen **OptiView** button and see if a valid IP has been configured. Also, see if the Auto Configure capability in the **Setup | TCP/IP** screen has been disabled. If an IP address has been manually entered, it may not be within the local subnet.

#### Are you connected to the network?





- ☐ Link light should be on solid green if Link exists.
- ☐ Some activity on Utilization LED should be seen.
- ☐ Go to **Setup | Ethernet** screen. An active interface should be indicated.

#### Does the analyzer pass self test?

Connect to the Management Port and go to the **Setup | Self Test** screen and press **Run Self Test**. All tests need to pass.

## Safety and General Specifications

**Table 3. General Specifications**

Weight	1.63 kilograms (3.6 lbs)
Dimensions	4.1 x 21.1 x 32.8 cm (1.6 x 8.3 x 12.9 in), one half of a standard 19 in rack mount width
AC input	85 to 265 VAC; 47/63 Hz; 25 watts
Network Analysis Interface	10/100/1000 BASE-T (RJ-45) + SFP (100/1000 fiber)
Network Analysis interface LEDs	Link, Utilization, Transmit, Collision, Errors
Capture Memory	480 Mbytes
Serial Configuration Port	Serial RS-232 (9-pin male)
Management Port	10/100/1000BASE-T (RJ-45) Ethernet
Shock and vibration	Meets requirements of MIL-PRF-28800F for Class 3 equipment
Laser	 Class 1 Laser Product, complies with 21 CFR 1040.10 & 1040.11, CFR(J), and EN60825-1:1994/A1:1997/A2:2002
Operating Temperature	10°C to 30°C (50°F to 86°F) with up to 95% Relative Humidity 10°C to 40°C (50°F to 104°F) with up to 75% Relative Humidity Non-Operating Temperature -20°C to +60°C (-4°F to +140°F)
Connection to public telephone network	The analyzer network interfaces are NOT FOR CONNECTION TO PUBLIC TELEPHONE SYSTEMS. The analyzer should only be connected to the public phone network through regulatory agency compliant modem devices.
Safety	 Complies with CSA C22.2 No. 950 Canadian standards, and UL 1950 (US standards)  Complies with European Union directive EN60950 2 <sup>nd</sup> edition.
EMC	 Complies with EN61326 Class A.



## Cable Type Specification

### *Cable Types*

Unshielded Twisted Pair LAN cables (100 and 120 Ohm UTP category 3, 4, 5, 5E, and 6 ISO/IEC Class C and D)

Foil-screened Twisted Pair cables (100 and 120 Ohm ScTP category 3, 4, 5, and 6 ISO/IEC Class C and D)

### *Cable Length*

Measurable cable lengths are from 3 feet (.9 meter) to 500 feet (152 meters). Within this cable length, the accuracy is +/-6 feet (+/-2 meters).

#### *Note*

*Length accuracy is dependent upon the cable type selected in the **Cable Test** screen with its ideal NVP (nominal velocity of propagation) matching the NVP of the cable under test.*

### *Fault Tolerance*

The RJ-45 10/100/1000BASE-T Ethernet connection on the analyzer is designed to withstand a maximum of 100 volts.

