CHAPTER 2

CiscoWorks Windows Features

CiscoWorks Windows is a suite of integrated PC-based network configuration and diagnostic tools for small to medium-sized networks or remote workgroups.

This chapter contains the following sections on CiscoWorks Windows applications and features:

- Configuration Builder
- Show Commands
- Health Monitor
- CiscoView
- Online Help

The CiscoWorks Windows Show Commands and Health Monitor applications can only run under HP OpenView or CastleRock SNMPc. Configuration Builder and CiscoView can run as standalone applications or within the HP OpenView or SNMPc platforms.

Note For detailed information on all CiscoWorks Windows applications, see the context-sensitive online help system. This comprehensive online help system provides procedures, overview material, and links to related information.

Configuration Builder

With Configuration Builder, you can create configuration files for multiple Cisco routers, access servers, hubs and devices without having to remember complicated command-line syntax for the devices. Using Configuration Builder, you can configure Cisco devices with the most common Cisco IOS features. See Tables 2-2 through 2-6 for a brief overview of supported Cisco IOS features.

Note Advanced features or features added in Cisco IOS releases later than those listed in the online help or "Supported Cisco Internetworking Operating System Versions and Devices" section of the Cisco Connection Documentation, are supported through the Configuration Builder Add Commands window—see the online help system for more details.

Configuration Builder provides the following special features:

- Multiple device configuration windows

  You can configure multiple devices simultaneously for remote source-route bridging and Synchronous Data Link Control (SDLC) Transport. For example, when you configure a new router into an existing remote source-route bridging (SRB) virtual ring group, configuration files of all devices in the same virtual ring group are automatically updated.

- Configuration snap-ins

  You can quickly import predefined priority queuing lists, Internet Protocol (IP) or Internetwork Packet Exchange (IPX) access lists, IPX Service Advertisement Protocol (SAP) filters, and AppleTalk filters into multiple configuration files. This ensures consistency among devices that share common configuration parameters.

- Duplicate address and configuration checking

  You can check for duplicate IP, IPX, and AppleTalk addresses in all open configuration files. You can also check for valid entries for common configuration parameters such as addresses, costs for DECnet and Open Shortest Path First (OSPF), and AppleTalk cable ranges.

- Guided configuration

  You can automatically move through the sequence of dialog boxes that need to be filled out to create a configuration file. To do so, complete the initial configuration dialog box and then do *one* of the following after you complete each configuration dialog box:

  — Press the **F2** key.

  — Select the Guided Configuration icon from the toolbar in the main window.

  — Select the **Guided Configuration** command from the Global menu.

- Learn hardware capability

  You can detect the model, software version and image type, and the number and type of installed interfaces on the router you are configuring. You can also learn the number of lines on an access server, and whether or not a hub is connected to a device. This information is automatically placed in the configuration file.

- Remote configuration capability

  You can configure remote devices if the PC is running a TCP/IP stack that is WINSOCK-compliant and has access via TCP/IP to the router you are configuring. The router must have the following minimum configuration:

  — IP routing enabled

  — An IP address assigned to an interface

  — Enable and virtual terminal passwords

- Configure access servers

  You can perform the following configuration tasks for Cisco hubs and access servers:

  — Grouping and ungrouping lines

  — Using expert mode to quickly configure related features

  — Configuring chat scripts

  — Using list boxes to quickly select device features and modem communication parameters

  — Configuring lines for IP, IPX, or AppleTalk Remote Access (ARA) protocols to allow flexibility for remote users to log in

- Configuring terminal services
- Setting up security
- Configuring dial-on-demand routing (DDR) to include asynchronous or synchronous serial lines and assigning them to a rotary group
- Configuring protocol translation to enable connections between hosts and resources running different protocols

Note For detailed information on all Configuration Builder features, see the context-sensitive online help system. This comprehensive online help system provides procedures, overview material, and links to related information.

Configuration Builder Files

Configuration Builder generates and stores the following files in the *\data* directory:

**.cdf*	configuration files (binary)
**.cfg*	configuration files (text)
**.cbk*	configuration backup files
snmphost.chl	SNMP host names file
zones.apt	AppleTalk zones file

Configuration Builder generates and stores the following files in the *\data\snapin* directory:

**.aal*	AppleTalk access lists
**.ial*	IP access lists
**.nal*	IPX access lists
**.nsl*	IPX SAP filter lists
**.pql*	Priority queuing lists

The *\data\srb* directory contains files with the extension **.srb*. These files define remote source-route bridging (SRB) groups.

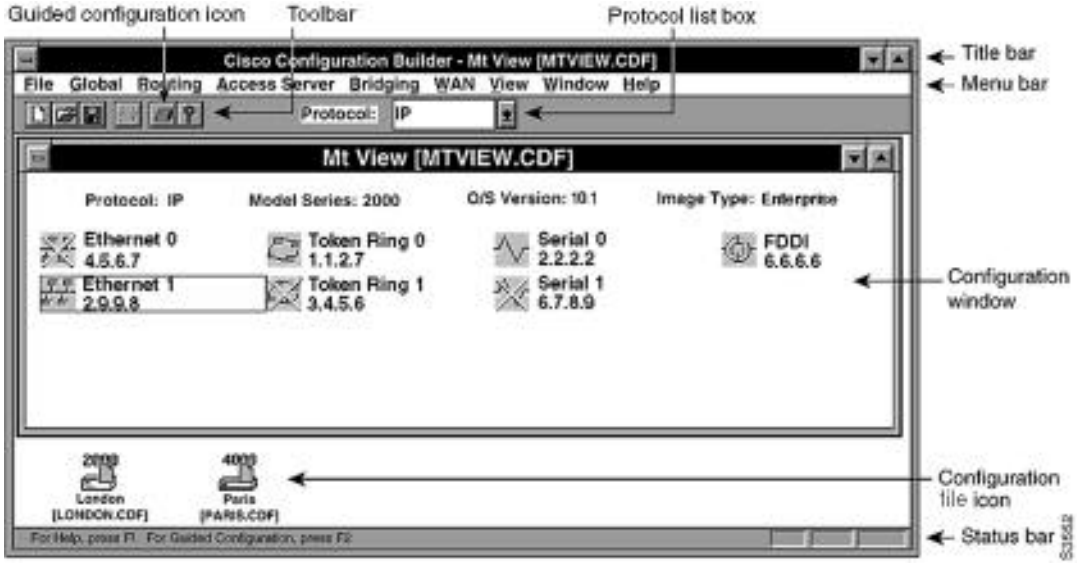
The *\data\sdlc* directory contains files with the extension **.s*. These files define SDLC tunnel groups.

Note If you create additional Configuration Builder icons through the Windows Program Manager, be sure to include the directory name in which you installed Configuration Builder 2.0 and the **ciscocb.exe** command. The working directory must specify the *\data* subdirectory.

Configuration Builder Main Window

The Configuration Builder main window is illustrated in Figure 2-1. The number and types of network icons displayed in the main window will vary according to your network configuration.

Figure 2-1 Configuration Builder Main Window



The Configuration Builder main window consists of the following elements:

- Title bar—Displays the application name and the name of the currently active router configuration. The active configuration name includes the router host name, followed by the file name in brackets. In Figure 2-1, the host name is Mt View, and the file name is MTVIEW.CDF.
- Menu bar—Provides access to all Configuration Builder dialog boxes. Table 2-1 through Table 2-9 list and explain the options under each menu.

- Toolbar—Provides the Guided Configuration icon in addition to the standard Create File, Open File, Save File, Print File, and Help icons. You can use the Guided Configuration icon or the F2 key to activate the guided configuration.
- Protocol list box—Used to select a routing protocol with configuration windows. The configuration window indicates whether interfaces are enabled for the specified routing protocol. In Figure 2-1, IP is the selected protocol. With this selected, you can double-click on any interface icon to open the IP Routing Configuration window.
- Configuration windows—Appear within the main window and indicate the router model, Cisco software version and image type, and interface status information.
- Configuration file icons—Display for any open configuration window that is iconized. In Figure 2-1, the London and Paris configurations are iconized.
- Status bar—Provides a brief description of the currently selected menu item.

Table 2-1 Configuration Builder File Menu Items

Items	Explanation
New	Create a new configuration file
Open	Open an existing file
Close	Close an existing file
Save	Save changes to a file
Save Backup	Create a backup of a configuration file
Save As Text	Save a configuration file as a text file so it can be edited with a word processor or stored on a network server.
Delete	Delete a configuration file.
Communication Timeouts	Specify the timeouts to be used for data transfer from the Configuration Builder to the router.
Send	Send a configuration file to a local or remote router.
Print	Print a configuration file.
Print Setup	Set up printer parameters.
Exit	Exit Configuration Builder.

Table 2-2 Configuration Builder Global Menu Items

Item	Explanation
Guided Configuration	Step through the guided configuration.
Basic	Set basic system parameters, including host names, passwords, and banner.
SNMP	Specify SNMP parameters for network management data, set community strings, and restrict SNMP access to the device.
Priority Queuing	Create new priority output queuing lists or import snap-in lists.
Modify Interfaces	Add or delete device interfaces and specify device type, software version, and image type. Specify device interfaces and lines. Change the sequence of the guided configuration.
Add Commands	Configure advanced features and features added in later Cisco IOS releases.
Hub	Enable hub configuration features.

Table 2-3 Configuration Builder Routing Menu Options

Item	Explanation
IP:	
Configuration Routing Protocols	Configure primary and secondary IP addresses. Configure Routing Information Protocol (RIP), Interior Gateway Routing Protocol (IGRP), and/or OSPF.
Access Lists	Create new access lists or import snap-in lists.
AppleTalk:	
Configuration	Configure AppleTalk addresses, cable ranges, and zones.
Distribute-Out Filters	Create access lists for filtering AppleTalk packets.
IPX:	
Configuration	Configure IPX addresses.
Access Lists	Create new access lists or import snap-in lists.
SAP Filters	Create new SAP filters or import snap-in lists.

Table 2-4 Configuration Builder Access Server Menu Options

Item	Explanation
Line Characteristics:	
Chat Script Manager	Configure modem or login chat scripts.
Line Configuration	Configure line characteristics for TTY and auxiliary lines.
Remote Node:	
Extended BootP Manager	Configure an access server for BootP to allow Serial Line Internet Protocol (SLIP) and Point-to-Point Protocol (PPP) requests from clients.
ARA	Configure AppleTalk Remote Access (ARA).
Line Configuration	Configure remote nodes for TTY and auxiliary lines.
Terminal Services:	
LAT Manager	Configure Local Area Transport (LAT).
XRemote Manager	Configure XRemote protocol.
Line Configuration	Configure terminal services for console, TTY, auxiliary, and virtual terminal lines.
Security:	
Local User Name Manager	Assign usernames and passwords.
TACACS Manager	Configure login method, line passwords, Point-to-Point PPP authentication, and assign IP access lists.
Line Configuration	Configure security for console, TTY, auxiliary, and virtual terminal lines.
Dial-on-Demand:	
Dialer Rotary Group	Configure the dialer rotary group.
IP	Configure DDR for IP.
IPX	Configure DDR for IPX.
Protocol Translation	View configuration protocol translation features.

Table 2-5 Configuration Builder Bridging Menu Items

Item	Explanation
Transparent Bridging:	
Configuration	Configure transparent bridging.
Bridge Groups	Create bridge groups and set spanning-tree and circuit options.
Source-Route:	
Simple	Configure simple SRB options.
Remote	Configure remote SRB options. Remote source-route bridging provides multiple router configuration capability. That is, equivalent statements in the configuration files of devices in the same virtual ring are automatically updated.
SR/TLB	Configure source-route translational bridging (SR/TLB).

Table 2-6 Configuration Builder WAN Menu Items

Item	Explanation
Wide-Area Protocols	Configure wide-area network (WAN) protocols, including High-Level Data Link Control (HDLC), PPP, X.25, Frame Relay, and Switched Multimegabit Data Service (SMDS).
Dial-on-Demand	Configure DDR destination subnet, subnet mask, telephone numbers, destination router IP address, and timers.
Dial Backup	Configure dial backup interfaces and delay options.
SDLC Transport	Configure devices for SDLC transport, a subset of serial tunneling (STUN). Provides multiple router configuration capability. That is, equivalent statements in the configuration files of other SDLC devices are automatically updated.

Table 2-7 Configuration Builder View Menu Items

Item	Explanation
By Protocol	Display configuration commands grouped by protocol type.
By Interface	Display configuration commands grouped by interface.
Configuration	Display the configuration as a text file.
Toolbar	Display or hide the toolbar.
Status Bar	Display or hide the status bar.
Expert Mode	Select expert mode to enable an additional path for configuring global access server features.

Table 2-8 Configuration Builder Window Menu Items

Item	Explanation
Cascade	Resize and layer windows so that each title bar is visible.
Tile	Resize and arrange windows side by side.
Arrange Icons	Arrange icons evenly.
file selection	Select a previously opened configuration file.

Table 2-9 Configuration Builder Help Menu Items

Item	Explanation
Contents	Open the Configuration Builder help system table of contents.
Cisco Support Information	Find out how to contact Cisco Systems for product support and how to obtain additional documentation.
Using Help	Learn how to use the online help system.
About Configuration Builder	Display Configuration Builder software release and copyright information.

Show Commands

With Show Commands, you can quickly display detailed system and protocol information for routers without having to remember complicated command-line syntax for each device. Launch Show Commands by clicking on the Show icon in the CiscoView toolbar.

What's in This Release

You can display the following system information for devices:

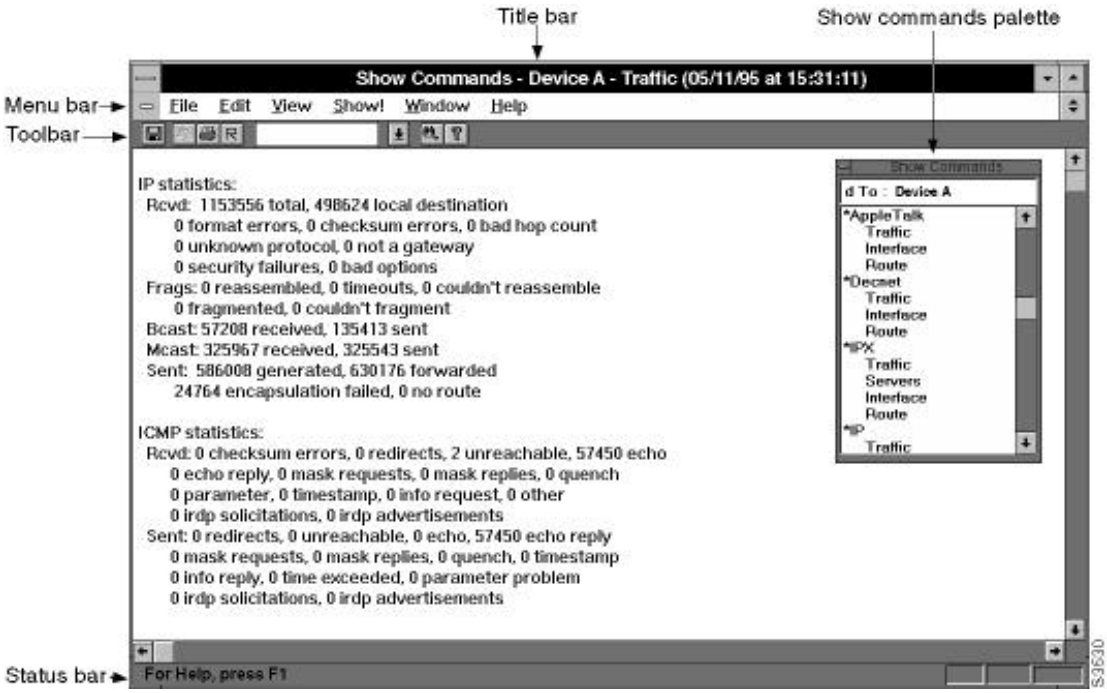
- Software version
- Device configuration (running memory and nonvolatile random-access memory [NVRAM])
- Controller status
- Buffer status
- Device voltage and temperature status
- Flash memory status

Note For detailed information on all Show Commands features, see the context-sensitive online help system. This comprehensive online help system provides procedures, overview material, and links to related information.

Show Commands Main Window

The Show Commands main window is illustrated in Figure 2-2.

Figure 2-2 Show Commands Main Window



The Show Commands main window consists of the following elements:

- Title bar—Displays the Show Commands application name, the active device name, and the name of the current Show Commands window.
- Menu bar—Provides access to all Show Commands dialog boxes. Table 2-10 through Table 2-15 list and explain the items under each menu.
- Toolbar—Provides Save File, Copy Text, Print File, Window Refresh, Enter Text for Searching, Find Entered Text, and Help icons.
- Status bar—Provides a brief description of the currently selected menu item.
- Show Commands palette—Floating window from which you can access all Show Commands options.

Table 2-10 Show Commands File Menu Items

Item	Explanation
Close	Closes the Show Commands window.
Save	Save changes to a file.
Save As	Save Show Commands output to a new filename.
Connect	Connect to a specific device.
Print	Send a Show Commands screen display to a printer.
Print Preview	View the file before printing. Zoom in or out and scan pages.
Print Setup	Set printing options.
Exit	Exit the Show Commands application.

Table 2-11 Show Commands Edit Menu Items

Item	Explanation
Copy	Copy text from an active window.
Select All	Select all text within an active window.
Find	Find a keyword within an active window.

Table 2-12 Show Commands View Menu Items

Item	Explanation
Toolbar	Display or hide the toolbar.
Status Bar	Display or hide the status bar.
Show Command Palette	Display the Show Commands Palette floating window.

Table 2-13 Show Commands Show Menu Items

Item	Explanation
Show!	Display the Show Commands window from which you can execute and display output from a specific **show** command.

Table 2-14 Show Commands Window Menu Items

Item	Explanation
Cascade	Resize and layer windows so that each title bar is visible.
Tile	Resize and arrange windows side by side.
Arrange Icons	Arrange icons evenly.
Close All	Close all open Show Commands windows.
Refresh	Refresh the active Show Commands window. The time and date are updated.
window selection	Select a previously opened Show Commands window.

Table 2-15 Show Commands Help Menu Items

Item	Explanation
Contents	Open the Show Commands help system table of contents.
Help for Current Show Command	Open the help window specific to the active **show** command window.
Cisco Support Information	Find out how to contact Cisco Systems for product support and how to obtain additional documentation.
Using Help	Learn how to use the online help system.
About Show Commands	Display Show Commands software release and copyright information.

Health Monitor

Health Monitor is a dynamic fault and performance management tool that provides real-time statistics on device characteristics, interface status and utilization, and protocol utilization. Launch Health Monitor by clicking on the Health Monitor icon in the CiscoView toolbar.

With Health Monitor, you can customize feedback on device and interface status with settings in the Preferences dialog box:

- Choose fatal and warning thresholds for CPU load and interface types.

  Fatal and warning indications are provided by color changes. Color indications include:

  — Green (up)

  — Yellow (warning)

  — Red (fatal)

  Color indications are provided within the IfErrors, IfUtilization, IfStatus, and Environment tabs. For the overall health of a device, color indication is also provided within the Health Monitor application icon.

- Select a polling frequency value to control when you receive device and interface feedback.
- Set the no-response timeout value to control the duration of time that Health Monitor waits for a reply from a monitored device.
- Sort interfaces by status or media type.

What's in This Release

Health Monitor provides the following device and interface information:

- System

  Provides device name, type, Cisco IOS version, location, and device contact information. Lists total and available RAM, flash memory, and NVRAM. Also provides a reason for the last restart of the device.

- Interface errors

  Graphs interface error rates and provides color warning and fatal threshold indications for interface error rates.

- Interface utilization

  Graphs interface utilization and provides color warning and fatal threshold indications for interface utilization.

- Interface status

  Graphs the number of bytes per protocol that an interface has sent or received. Provides interface status by color indication: up (green), test (magenta), dormant or waiting for an external event (cyan), administratively down (brown), and operational failure (red).

- Protocols

  Graphs the number of packets per protocol that the device has forwarded.

- CPU

  Graphs the device CPU utilization in 5-second, 1-minute, and 5-minute intervals.

- Environmental card status

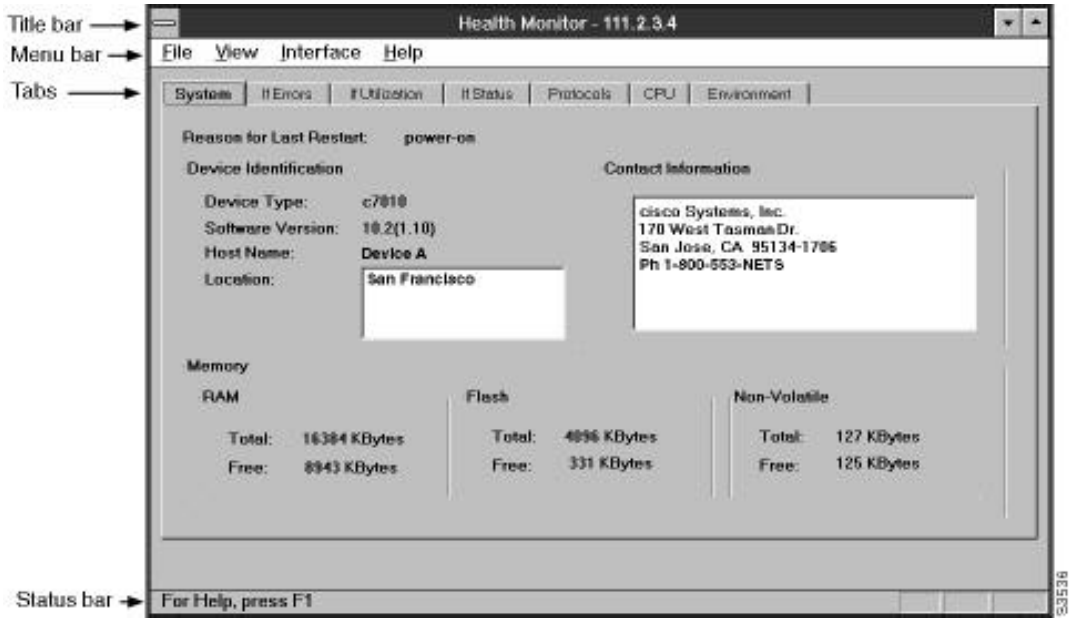
  Depicts air temperature and power supply voltage readings for a device. Provides color warning and fatal threshold indications for these readings.

Note For detailed information on all Health Monitor features, see the context-sensitive online help system. The comprehensive online help system provides procedures, overview material, and links to related information.

Health Monitor Main Window

The Health Monitor main window is illustrated in Figure 2-3.

Figure 2-3 Health Monitor Main Window



The Health Monitor main window consists of the following elements:

- Title bar—Provides the Health Monitor application name and the name of the current connected device.
- Menu bar—Provides access to all Health Monitor dialog boxes. Table 2-16 through Table 2-19 list and explain the items under each menu.
- Tabs—Provides access to all Health Monitor tabs. Table 2-20 lists and explains each tab item.
- Status bar—Provides a brief description of the currently selected menu item.

Table 2-16 Health Monitor File Menu Items

Item	Explanation
Connect	Connect to a specific device.
Preferences	Set the threshold value, interface sorting, polling frequency, and timeout preferences.
Exit	Exit the Health Monitor application.

Table 2-17 Health Monitor View Menu Items

Item	Explanation
Status Bar	Display or hide the status bar.

Table 2-18 Health Monitor Interface Menu Items

Item	Explanation
Utilization	View interface utilization.
Protocols	Determine interface protocol usage.
Errors	View interface error rates.
Show	View s**how interface** command statistics for an interface.

Table 2-19 Health Monitor Help Menu Items

Item	Explanation
Contents	Open the Health Monitor help system table of contents.
Help on Current Tab	Open the help window specific to the active Health Monitor tab.
Cisco Support Information	Find out how to contact Cisco Systems for product support and how to obtain additional documentation.
Using Help	Learn how to use the online help system.
About Health Monitor	Display Health Monitor software release and copyright information.

Table 2-20 Health Monitor Tabs

Tab	Explanation
System	View information on restarts, device identification, contact information, and memory usage.
IfErrors	View interface error rates.
IfUtilization	View interface utilization.
IfStatus	Determine interface status (up, down, dormant, failure, or test). Determine interface protocol usage.
Protocols	View traffic forwarded per protocol for a device.
CPU	Measure the device CPU load.
Environment	Check the device temperature and power supply voltage.

CiscoView

CiscoView provides a physical view of the back panel of a Cisco routers and switches. Some devices in CiscoView may also support a front panel device view. Real-time status is indicated through message feedback in the status bar area and through changes in port colors. See the section “CiscoView Main Window,” later in this chapter, for more details.

You can select cards and ports and instantly obtain system information, device characteristics, interface statistics, configuration settings, and real-time operational statistics.

What's in This Release

CiscoView provides the following features:

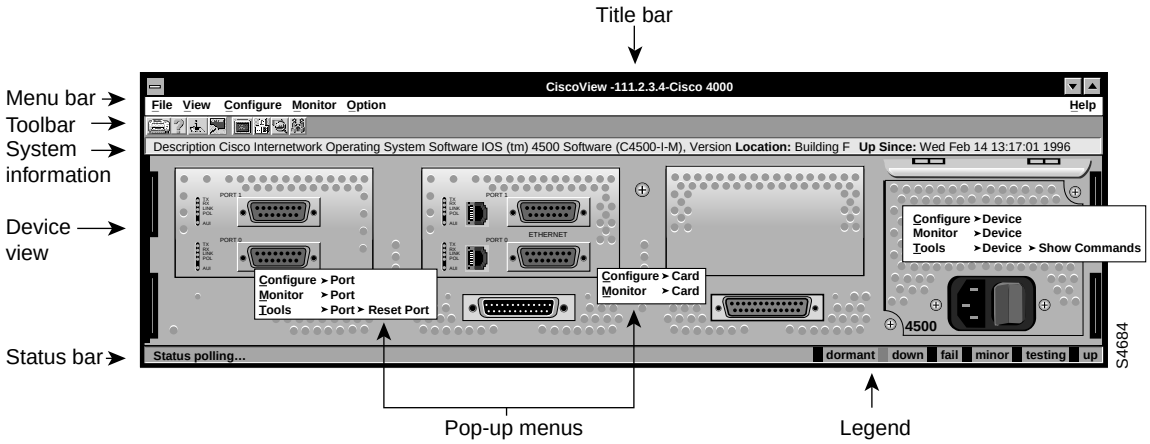
- View of the device back panel providing the following information:
  - Device type and operational status
  - System information (Cisco IOS version and CPU utilization)
  - Card types, number, and status
  - Port types, number, and status
- Ability to control and configure specific device information
- Ability to reset ports
- Launch points from selected CiscoView devices, interfaces, and ports to the main window of the following CiscoWorks Windows applications:
  - Show Commands
  - Health Monitor
  - Configuration Builder

Note For detailed information on all CiscoView features, see the context-sensitive online help system. The comprehensive online help system provides procedures, overview material, and links to related information.

CiscoView Main Window

The CiscoView main window is illustrated in Figure 2-4.

Figure 2-4 CiscoView Main Window



The main window consists of the following elements:

- Title bar—Provides the CiscoView application name and the name of the currently connected device.
- Menu bar—Provides access to all CiscoView dialog boxes. Table 2-21 through Table 2-26 list and explain the items under each menu.

Note Menu items may vary slightly depending upon device type and interface/port configuration.

- Toolbar—Provides icons for accessing the printer, viewing Help, telneting to the device, and launching Configuration Builder, Health Monitor, Show Commands, and other device-specific applications.
- System information—Provides a brief description of the device type and the Cisco IOS version.
- Device view—Provides a view of the device front or back panel (depending on the device capabilities).
- Status bar—Provides a brief description of the currently selected device, interface, or port, and provides an ongoing operational status, including polling and error message information.
- Legend—Provides port status as follows: dormant or waiting for an external event, such as having packets to transmit or dialing a remote site (cyan, or greenish blue), administratively down (brown), operational failure (red), minor alarm (yellow), testing (magenta), and up (green).
- Popup menus—Launches Configuration Builder, Health Monitor, and Show Commands, and opens the main windows for these applications. To access the popup menus, press the right mouse button over a device, card, or port. You can launch Configuration Builder, Health Monitor, and Show Commands applications from the device back panel (or front panel, if there is one). You can launch Configuration Builder and Health Monitor from specified interface cards and their ports. You can launch Configuration Builder from auxiliary and console ports.

Depending on the device capabilities, several applications are available under an Admin menu.

Table 2-21 CiscoView File Menu Items

Item	Explanation
Open Device	Display the back panel of a new device
Open Previous	Review a list of devices that you have already displayed without specifying the IP address or other information
Print	Print the physical view of the device
Printer Setup	Set printer options
Exit	Exit CiscoView

Table 2-22 CiscoView View Menu Items

Item	Explanation
Front View	Display the front panel of a device on selected devices only
Rear View	Display the back panel of a device
Refresh	Refresh the current display by checking that all information is current
View 50%	Reduce the display of the main panel by 50 percent

Table 2-23 CiscoView Configure Menu Items

Item	Explanation
Device	Open an existing or new Configuration Builder file for a specific device
Card	Open an existing or new Configuration Builder file for a specific interface card
Port: port_con port_tty	Open an existing or new Configuration Builder file for a specific port

Table 2-24 CIscoView Monitor Menu Items

Item	Explanation
Device	Open the Health Monitor application for a specific device
Card	Open the Health Monitor application for a specific interface card
Port	Open the Health Monitor application for a specific port

Table 2-25 CiscoView Options Menu Items

Item	Explanation
Show Toolbar	Display or hide the toolbar to access shortcut commands
Show System Information	Display or hide system information
Show Legend	Display or hide the legend
Properties	Set various operating characteristics, including polling frequency, retries, timeout interval, MIB descriptors, and read-write community string

The Admin menu only appears on specific devices that have administrative option features. Refer to online help for more information.

Table 2-26 CiscoView Help Menu Items

Item	Explanation
Contents	Open the CiscoView help system table of contents (includes currently loaded device and application help files)
Using Help	Learn how to use the online help system
Using CiscoView	Open the CiscoView help file
About CiscoView	Display CiscoView software release, device type and device software version, and copyright information

Online Help

Context-sensitive online help provides you with step-by-step instructions on how to use CiscoWorks Windows applications. The online help system also provides a glossary and keyword search capability.

Note Report any online help bugs to `cs-ciscoworks@cisco.com` or `bug-doc@cisco.com`.

Dialog Box Help Button

Each dialog box has a Help button. Select the Help button to open a help window describing the purpose of the dialog box and the procedures to complete the tasks that are specific to the dialog box. Links to overview material and related information may also be available, depending on the dialog box information requirements.

F1 Key and Context-Sensitive Help

Select a data-entry field in a Configuration Builder dialog box; then press the **F1** key to open a context-sensitive help window with information about the selected field. The Health Monitor and Show Commands applications provide **F1** key functionality for general dialog box or tab information only. In CiscoView, press the **F1** key while the mouse pointer is positioned over a device to view information about that device type.

Help Window Menu and Button Bars

Each help window has a menu bar and a button bar. The menu bar provides standard Microsoft Windows help functions for printing help topics, copying and pasting text from help topics, making online notes about particular help topics, and placing bookmarks.

The button bar provides the following buttons:

- Contents—Opens the current help table of contents. Help topics are highlighted and underlined. Select a help topic to open a help screen specific to the underlined topic. Some topics open popup windows that contain a list of subtopics. Select a help subtopic to open a help screen specific to the underlined subtopic.
- Search—Opens a window in which you can enter keywords to find topics and go directly to help screens on those topics.
- Back—Moves you back sequentially to previously opened help screens.
- History—Displays the sequence of help windows you have opened and allows you to jump to any of them.
- Browse—Allows you to browse through sets of related help screens, providing quick access to overviews of particular help topics.
- Main—Opens a help window that provides a top-level list of help contents with links to help on all applications, including Configuration Builder, Show Commands, Health Monitor, and CiscoView. You can keep the top-level help contents open while you navigate through other help windows.
- Glossary—Opens a help window that provides an alphabetical list of terms. Select a term to open a popup window with an explanation of the term. You can keep the glossary window open while you navigate through other help windows. Popup definitions are also available within most help screens.

Overview and See Also Buttons

Many help windows have Overview and See Also buttons in the help window topic caption area. You can select the Overview button to obtain background information for the procedure described in the current help window. Select the See Also button to view a list of related topics and go directly to those topics from the current help window.