



Cisco Cable DVB/DAVIC Management Program

This chapter describes the Cisco Cable DVB/DAVIC Management Program supplied by Cisco for configuring and monitoring the Cisco DVB CAR100. It includes the following sections:

- Introducing the Cisco Cable DVB/DAVIC Management Program
- General Description of the Cisco Cable DVB/DAVIC Management Program
- Before Installing the Cisco DVB CAR100 Management Software
- Installing the Cisco Cable DVB/DAVIC Management Program
- Uninstalling the Cisco Cable DVB/DAVIC Management Program
- Starting the Cisco Cable DVB/DAVIC Management Program
- First Connection to the Cisco DVB CAR100
- User Entry Hints
- Changing Cisco DVB CAR100 Settings
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- Loading a Cisco DVB CAR100 Configuration from a File
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Introducing the Cisco Cable DVB/DAVIC Management Program

The Cisco DVB CAR100 is configured and managed using a program based on the Simple Network Management Protocol (SNMP). This program is called the Cisco Cable DVB/DAVIC Management Program. Using this program, you can get and set all parameters for the Cisco DVB CAR100.



Note

All the MIBs needed to use the Cisco DVB CAR100 are included in the **rcm.mib** file supplied with the Cisco Cable DVB/DAVIC Management Program. To extend the information and options provided by this application it can be useful to add the **RFC1213.mib**, **RFC2571.mib**, **RFC2851.mib** and the **rcmeeu.mib** (EuroModem MIB) to the database of MIB files referenced by the program.

Click **Options>Options>MIB Files...>Add** [browse to relevant MIB files]>**OK**.

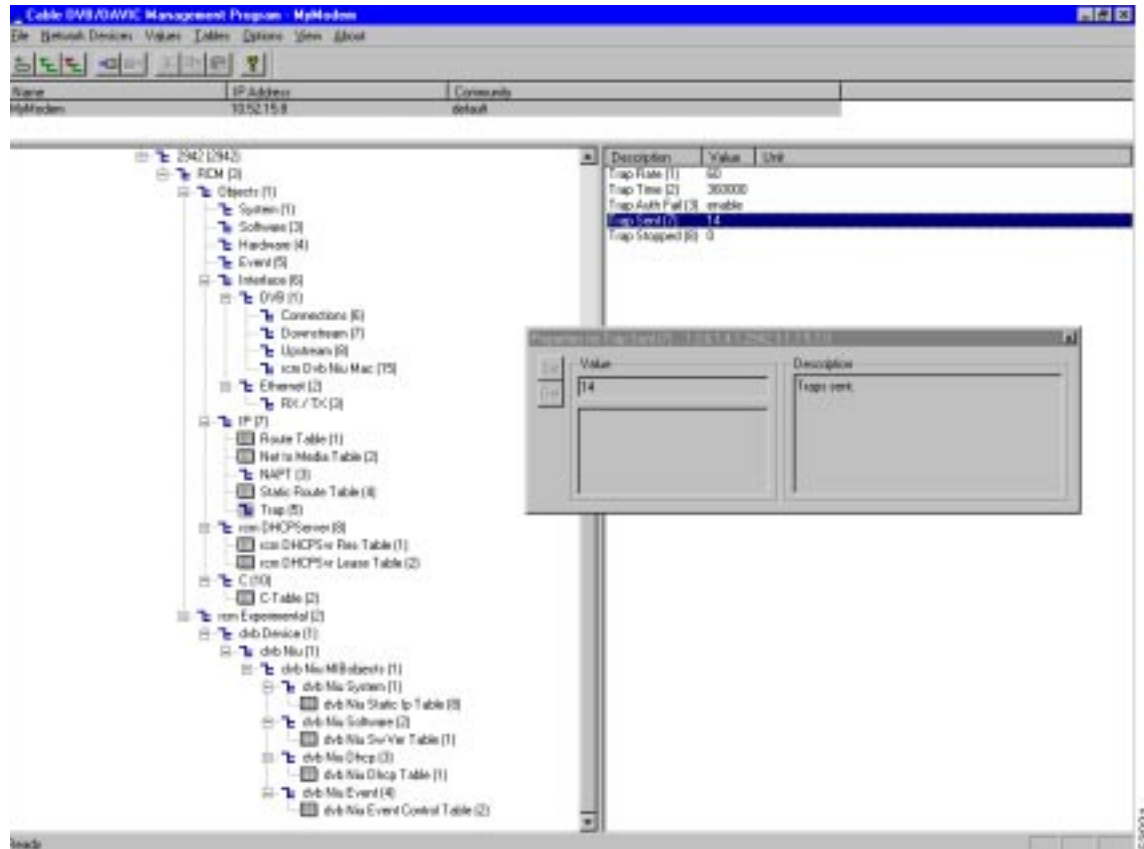
The Cisco Cable DVB/DAVIC Management Program and the Management Information Base file (MIB file) for the Cisco DVB CAR100 can be downloaded for free from the Cisco Connection Online (CCO) Software Center. See <http://www.cisco.com> or contact your local Cisco representative for details.

The application is simple to use and if you are familiar with MIB browsers you might want to go directly to the next chapter.

General Description of the Cisco Cable DVB/DAVIC Management Program

The main screen for the Cisco Cable DVB/DAVIC Management Program, including the Properties window, is shown in Figure 3-1.

Figure 3-1 Main Screen for the Cisco Cable DVB/DAVIC Management Program



The menu line of the Cisco Cable DVB/DAVIC Management Program contains the general commands that you need to start a connection to the Cisco DVB CAR100 and map a path to the MIB file.

The following menus are available:

- **File**—Contains the **Exit** function.
- **Edit**—This menu is inactive.
- **Network Devices**—Contains a menu item **New** for connecting to a new cable modem and the possibility to switch to the next and previous established connections.
- **Values**—Get the values from the connected units: Use **Get** (F4) to retrieve the settings for the particular MIB group or **Get All** (F5) to update all the settings for selected cable modem. The Values menu also allows you to save or load a cable modem configuration to or from a file. You can also hide the **Properties** window here.
- **Table**—Create and delete modem configuration tables when connected to a Cisco DVB INA2320.

- **Options**—Load, save, add, and remove MIB files, select whether to display the SNMP commands as plain text or as the MIB names and select the SNMP version. Other options include saving the network devices on exit (default) and displaying the MIB sub-IDs.
- **View**—Hide and display the Toolbar and the Status Bar.
- **About**—Lists which version of the Cisco Cable DVB/DAVIC Management Program you are using.

The top window of the Cisco Cable DVB/DAVIC Management Program lists the Cisco DVB CAR100s that are currently defined.

The lower left window displays the expandable MIB tree structure with all the sections of the MIB file. Click on the “+” signs to expand the tree.

The lower right window displays the commands available for the selected MIB tree branch.

Double-clicking on a parameter opens the **Properties** window containing the current setting or value for the parameter and a description of its purpose. There are also two buttons: **Set** and **Def** (Default). Gray fields are read-only.



Note

If the comment **Active after Save Settings** is mentioned in the description of a parameter, the new setting will first be available in the Cisco DVB CAR100 after a **saveSettings** has been performed and the cable modem is fully operational again. For instructions on how to perform a **saveSettings**, see the Settings MIB in the “System” section on page 5-3.

Before Installing the Cisco DVB CAR100 Management Software

The minimum requirements for the management PC to run the Cisco Cable DVB/DAVIC Management software are:

- Pentium class PC
- Minimum 32 MB of RAM
- Windows NT 4.0, Windows 95, Windows 98 or Windows 2000
- Standard Ethernet network adapter

The management PC also needs to be connected to the same LAN as the BOOTP server and assigns the relevant IP address, default gateway, and subnet mask.

Installing the Cisco Cable DVB/DAVIC Management Program

The Cisco Cable DVB/DAVIC Management Program is installed by running the Windows setup program.

To install the software:

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- Step 1 Click **Start**.
 - Step 2 Click **Run**.
 - Step 3 Browse to **Cisco DVB CAR100 setup.exe**.
 - Step 4 Click **OK**.
 - Step 5 Follow the instructions on the screen.

During the installation process, you can change the destination directory for the files. You can also select where the program icon is added to the Program folder and whether you want a shortcut for this application on the desktop.

When the Cisco Cable DVB/DAVIC Management Program has been successfully installed, it will be added to the list of programs in the Windows Programs menu.

Uninstalling the Cisco Cable DVB/DAVIC Management Program

To remove the Cisco Cable DVB/DAVIC Management Program from your management PC, use the Windows Uninstall function.

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- Step 1 Click **Start>Setting>Control Panel**.
 - Step 2 Double-click **Add/Remove Programs**.
 - Step 3 Select **Cisco Cable DVB/DAVIC Management Program** and click **Add/Remove**.
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Starting the Cisco Cable DVB/DAVIC Management Program

To start the Cisco Cable DVB/DAVIC Management Program and connect to a Cisco DVB CAR100:

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- Step 1 Start your PC and Windows operating system.
 - Step 2 Click **Start**.
 - Step 3 Click **Programs**.
 - Step 4 Select **Cisco Cable DVB/DAVIC Management Program** and click on the application.
- When the application opens, the fields are empty because no connections have been established.
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First Connection to the Cisco DVB CAR100

You can connect to the Cisco DVB CAR100 using your HFC network or by using a direct Ethernet connection. The instructions below explain how to proceed when connecting using your HFC network.



Note For instructions on how to configure the Cisco DVB CAR100 directly via an Ethernet connection see the “Getting Started” section on page 4-1.

Before you can configure a Cisco DVB CAR100, it must be powered up and you must establish a connection to the cable modem.

To open a first-time connection to the Cisco DVB CAR100:

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- Step 1 Start the Cisco Cable DVB/DAVIC Management Program.

Make sure your management PC is connected to your network backbone.

Step 2 From the menu **Network Device**, select **New**.

The **New Network Device** window appears.

Step 3 Enter the name of the Cisco DVB CAR100 in the **Name** field (optional).

Step 4 Enter the **IP Address** of the HFC cable interface to the Cisco DVB CAR100.

This address can be found using your BOOTP server.

Step 5 Enter the **Community** password.

There are three user security levels available:

- The Read community allows you to read the current Cisco DVB CAR100 settings. The default password is **public**.
- The Write community allows you to change the current Cisco DVB CAR100 settings. The default password is **private**.
- The Software Upgrade community allows you to perform a software upgrade. The default password is **default**.



Note The default access passwords in the SNMP standard for the read and write community are, respectively, **public** and **private** (case-sensitive). Cisco recommends changing the default passwords to secure the Cisco DVB CAR100 from being reconfigured accidentally.

Step 6 Click **OK**.

Step 7 Click on the **Values** menu.

- a. Click **Get** to get the current setting for a single parameter.
- b. Click **Get All** to get all the current settings from the Cisco DVB CAR100.

The management program contacts the Cisco DVB CAR100. In the status bar at the bottom, the text **Working** is displayed as the requested data is collected from the Cisco DVB CAR100.

User Entry Hints

The following table describes hints that appear in the Properties window regarding formats for entering data.

Hint	Description
1x	This hint represents media- or physical-level addresses, an Ethernet MAC address defined by IEEE 802.1a. Enter the data in hexadecimal format.
255a	This hint indicates you can enter standard ASCII alphanumeric characters.

Changing Cisco DVB CAR100 Settings

To change settings for the Cisco DVB CAR100:

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- Step 1** Using the management program, double-click the specific cable modem in the frame at the top of the screen, (or choose the **Edit** command from the **Network Devices** menu) and make sure you have Write access to the cable modem by checking that the community password is correct. The default Write community password is **private**.
 - Step 2** Click on the section for the parameter to be changed.
 - Step 3** Click on the parameter to be changed.
 - Step 4** In the **Properties** window, type in the new value for the parameter.
 - Step 5** Click **Set** in the **Properties** window.

As soon as you click **Set**, the new value is sent to the Cisco DVB CAR100. If you do not click **Set**, the new setting is not sent to the Cisco DVB CAR100.



Note For some commands, the Cisco DVB CAR100 must perform a **saveSettings** before the requested changes become active. When this is necessary, it is indicated in the description of the MIB displayed in the **Properties** box. To perform a **saveSettings**, open **rcm System>Settings**, select **saveSettings** from the pull down menu, and click **Set**.

Saving a Cisco DVB CAR100 Configuration to File

For service purposes you should save configuration settings of a Cisco DVB CAR100 to file. The configuration file can then be sent to your support centre for analysis purposes or for later reference.

To save the Cisco DVB CAR100 configuration data:

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- Step 1** Ensure you have a connection to the specific cable modem (either via your HFC network, or directly from your PC to the device's Ethernet port)
 - Step 2** Click on the **Values** menu.
 - Step 3** Click **Save to file...**
 - Step 4** Select the destination of the settings file on the PC.
 - Step 5** Edit the file name and directory, if needed.
 - Step 6** Click **Save**.

The status line shows "Working." When the status line displays "OK," the saving process is finished.

Loading a Cisco DVB CAR100 Configuration from a File

If you need to use a specific configuration for cloning a Cisco DVB CAR100 or to load settings into a replacement unit, you can load a configuration file from the PC. This feature is also useful if the unit has been serviced and you want to reconfigure it to the settings it had previously.

To load a configuration file:

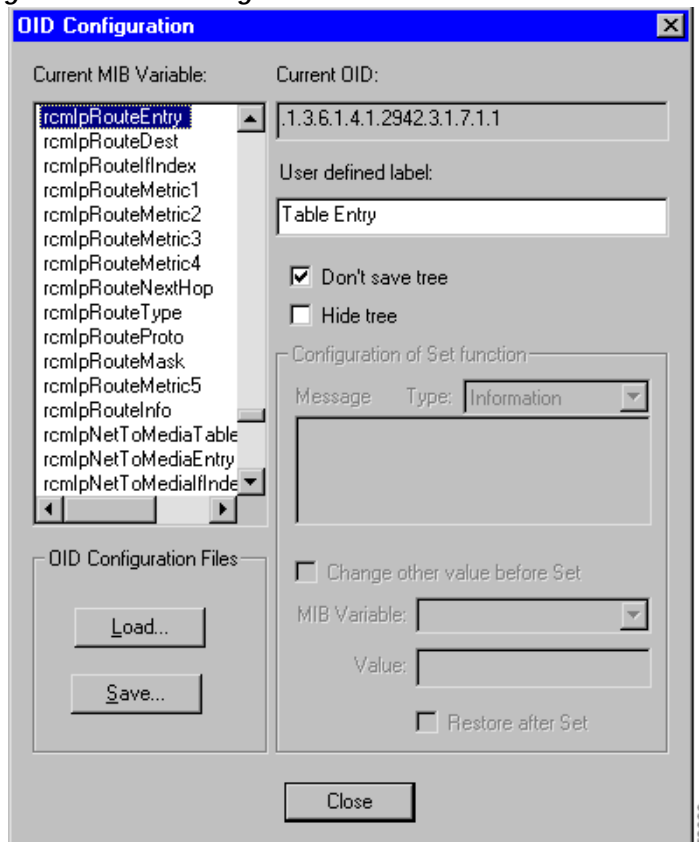
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- Step 1 Ensure you have a connection to the specific cable modem (either via your HFC network, or directly from your PC to the device's Ethernet port)
 - Step 2 Click on the **Values** menu.
 - Step 3 Click **Load from file...**
 - Step 4 Scroll to the file you want to load and select it.
 - Step 5 Click **Open**.

The status line shows **Working**. When the status line displays **OK**, the loading process is finished.

OID Configuration

To customize the object identifiers (OIDs) for the MIBs and to avoid problems when loading or saving MIB configurations for specific modems, use the OID Configuration feature.

Figure 3-2 **OID Configuration Control Panel**



This control panel allows you to define how each MIB is presented when addressed by the Cisco Cable DVB/DAVIC Management Program.

To save the Cisco DVB CAR100 configuration data:

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- Step 1** Ensure you have a connection to the specific cable modem (either via your HFC network, or directly from your PC to the device's Ethernet port)
 - Step 2** Click on the **Options** menu.
 - Step 3** Choose **Oid Configuration** and the control panel will appear.
 - Step 4** Select a specific MIB variable and its current OID and its user defined name will be displayed in the adjacent fields.
 - Step 5** Click in the "**Don't save tree**" check box to omit a specific variable from any configuration files. This is particularly relevant for routing tables.



Note Passwords are by default not saved when using the OID Configuration control panel. These need to be entered manually for each Cisco DVB CAR100. For more information see "Setting Community String Passwords" section on page 4-4.

- Step 6** Use the "**Configuration of Set Function**" panel to define how the Cisco DVB CAR100 responds to the **Set** command.
 - Step 7** You can also instruct the Cisco DVB CAR100 to automatically change another variable prior to a **Set** by using the remaining fields in the "**Configuration of Set Function**" panel.
 - Step 8** Click **Save** to save the settings, or **Load** to browse to a configuration profile that you have already programmed and saved.
 - Step 9** Click **Close** to return to the Cisco Cable DVB/DAVIC Management Program.
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