



CHAPTER 4

Working with Cisco ANA NetworkVision Maps

This chapter describes how to work with the topological maps displayed in the workspace of the Cisco ANA NetworkVision window. The topological map is the main tool used by Cisco ANA NetworkVision to display the links and relationships between the network elements and/or aggregated nodes.

- [Opening Selected Maps, page 4-2](#), describes how to open maps that were last visited by you, quickly and easily when the application is launched.
- [Creating a New Map, page 4-3](#), describes how to create a new map.
- [Opening a Map, page 4-4](#), describes how to open an existing map.
- [Adding a Device, page 4-5](#), describes how to add a device in a map.
- [Removing a Device from the Map, page 4-6](#), describes how to remove a device from the map.
- [Defining the Map Layout, page 4-6](#), describes how to define the layout of the network in a map.
- [Saving a Map, page 4-7](#), describes how to save the layout of the map.
- [Saving as a New Map, page 4-8](#), describes how to save a copy of the entire map or parts thereof while leaving the original map intact.
- [Saving a Map as an Image, page 4-8](#), describes how to save a map as an image.
- [Closing a Map, page 4-10](#), describes how to close a map.
- [Deleting a Map, page 4-10](#), describes how to delete a map.
- [Renaming a Map, page 4-10](#), describes how to rename an existing map.
- [Resizing a Device, page 4-11](#), describes how to define the size of selected device(s) or aggregated nodes in the map pane.
- [Viewing the Network, page 4-12](#), describes how to display the entire network map or any part of the map, in the Overview window. In addition, it describes how to display an aggregated node in a thumbnail.
- [Viewing a Network Device, page 4-13](#), describes how to view any network device on the map. The device is selected in the appropriate map in the workspace and/or tree pane and the active tickets are shown in the ticket pane.
- [Selecting Map Views, page 4-14](#), describes the various selection tools that can be used to view and analyze maps in the map pane.
- [Finding a Ticket Source, page 4-15](#), describes how to find the source of a ticket displayed in the ticket pane.
- [Finding a Link Source, page 4-15](#), describes how to find the source of a link displayed in the links view.

- [Finding a Network Device, page 4-15](#), describes how to find and display a network device on the map.
- [Aggregating Devices, page 4-16](#), describes how to aggregate devices. In addition, it describes how to disaggregate the aggregated node selected in the map pane.
- [Renaming an Aggregated Node, page 4-17](#), describes how to rename an existing aggregated node.
- [Filtering Links According To Type, page 4-17](#), describes how to filter (display or hide) the different types of links displayed in the map pane.
- [Opening the CPU Usage Graph, page 4-20](#), describes how to display memory and CPU usage information for a device.
- [Communicating with Devices, page 4-20](#), describes how to ping and telnet a device.
- [Previewing a Map, page 4-21](#), describes how to preview a map before it is printed.
- [Defining the Print Setup, page 4-22](#), describes how to define the print setup.
- [Printing a Map, page 4-23](#), describes how to print the map that is currently displayed.

Opening Selected Maps

When Cisco ANA NetworkVision is launched, the Cisco ANA NetworkVision window appears. Maps that were last visited by you can be opened quickly when the application is launched, if you closed the application without closing the maps.



Note

First time users and users that closed their maps before closing the application will not be able to open maps using this functionality.

To open a selected map:

- Step 1** Launch Cisco ANA NetworkVision. The Cisco ANA NetworkVision window is launched with the Open Selected Maps dialog box. For more information about launching Cisco ANA NetworkVision, see [Starting Cisco ANA NetworkVision, page 2-1](#).

The Open Selected Maps dialog box displays a list of the maps last visited by you and that were not closed by you when exiting the application. By default all the maps that were last visited by you are selected.

The following buttons are displayed in the Open Selected Maps dialog box:

- **All**—Selects and opens all the last visited maps.
- **Selected**—Opens the maps that have been selected (checked) in the Open Selected Maps dialog box.
- **None**—Deselects all the last visited maps and displays an empty Cisco ANA NetworkVision window. You can now create a new map (see [Creating a New Map, page 4-3](#)) or open a map that was previously saved in the database.

- Step 2** Click **All**,
or
Click **None**,
or

Clear the checkbox(es) for the maps that you do not want to display in the Cisco ANA NetworkVision window and click **Selected**.

The maps are displayed in the Cisco ANA NetworkVision window according to the defined selection.

**Note**

By default you can only view and work on a maximum of five maps at any given time in the NetworkVision map pane (to change this default setting please contact Cisco Professional Services). To create a new map or select a new map, close the required amount of maps.

Creating a New Map

When Cisco ANA NetworkVision is launched for the first time, or if None is selected in the Open Selected Maps dialog box (as described in the previous section) the Cisco ANA NetworkVision window appears empty.

A new map must be created, or a map that was previously saved can be opened, in order to display the network. Cisco ANA NetworkVision supports the creation of multiple network maps in order to represent specific network views. Views can cover specific network segments, customer networks, or any other mix of network elements desired. When a user creates a map it is available to other users (assuming they have sufficient access/security privileges).

The network maps provide a graphic display of active faults and alarms and serve as an easy access point for the activation of services.

**Note**

You can create a new map, select a filter and then add the devices to the map. This filter will then be applied to the new map and only the required link types will be visible in the map pane and recorded the links view. For more information see [Filtering Links According To Type, page 4-17](#).

**Note**

You cannot define the same name for two or more maps.

To create a new map:

Step 1 On the toolbar, click **New Map**,

or

Select **New Map** from the File menu. The Create Map dialog box is displayed.

**Note**

Cisco ANA NetworkVision has the following pre-configured map name defaults; the administrator can however modify these defaults using the Cisco ANA Registry:
The minimum map name length of is 1 character.
The maximum map name length is 65 characters.
The map name cannot contain any symbols, excluding the \$ symbol.

The **Advanced** button enables you to filter the links displayed in the map pane. For more information see [Filtering Links According To Type, page 4-17](#).

- Step 2** Enter a name for the new map and click **OK**. An empty new map is displayed in the tree pane and map pane, as displayed below. For more information on adding devices, see [Adding a Device, page 4-5](#).

Opening a Map

Cisco ANA NetworkVision enables you to open a map that was previously saved. When you open the map, the network information is automatically refreshed. For example, if a device was up the last time that the map was saved and closed, and then the device is moved to maintenance, the next time you open the map the management status of the device will be updated accordingly and the device will display a maintenance status.



Note

The maps that you last visited can be opened quickly when the application is launched provided that you closed the application without closing the maps. For more information see [Opening Selected Maps, page 4-2](#).

To open a map:

- Step 1** On the toolbar, click **Open Map**,






or





Select **Open** from the File menu. The Map List dialog box is displayed.

The Map List dialog box displays the map name as defined by the network administrator.

The Find field enables you to search for information in the table according to the selected column. For more information see [Finding Text in a Table, page 3-2](#).

The Map List dialog box contains the following tools:

Tool	Description
	Export to CSV —Exports the information displayed in the table. For more information see Exporting the Table to a File, page 3-5 . Note The tools described above occur throughout the application and provide the same functionality.
	Delete Map —Deletes the selected map from the Map List dialog box, the Cisco ANA NetworkVision window and from the database. If a map that is being opened is deleted, this map will close. For more information see Deleting a Map, page 4-10 .
	Rename Map —Renames the selected map in the Map List dialog box and Cisco ANA NetworkVision window. For more information see Renaming a Map, page 4-10 .
	Sort Table Values —Enables you to sort the information displayed in the table.
	Filter —Defines a filter for the information displayed in the table. For more information see Defining a Filter, page 3-2 . Note When a filter is applied the Set Selection Filter button is activated.

Tool	Description
	Set Selection Filter —Applies filters to the selected line or lines displayed in the Map List. Note When you select one or multiple lines, the Previous Selection Filter (and Rewind All) buttons are activated.
	Previous Selection Filter —Enables you to undo the last applied filter selection.
	Rewind All —Enables you to undo previous filter selections, and display all the original information in the table.
	Help —Opens the online help.

- Step 2** Select the map that you require from the Map List and click **Open**,
or
Right-click on the required map, and select **Open** from the displayed shortcut menu,
or
Double-click on the required map. The map is displayed in the Cisco ANA NetworkVision window with the network.

One or more maps can be opened in the Cisco ANA NetworkVision window displaying the various available networks. Use the Windows menu to move between the open maps. For more information on the Cisco ANA NetworkVision window, see [Chapter 2, “Getting Started”](#).

**Note**

By default you can only view and work on a maximum of five maps at any given time in the NetworkVision map pane (to change this default setting please contact Cisco Professional Services). To create a new map or select a new map, close the required amount of maps.

Adding a Device

Cisco ANA NetworkVision enables you to add devices to the network. The device is added to the map or aggregation selected in the tree pane and workspace. In addition, devices that are added to the network are automatically saved.

**Note**

Based on the security level and access permissions assigned to a user, this option may not be available.

To add a device:

- Step 1** On the toolbar, click **Add Device**,
or
Select **Add Device** from the File menu. The Device List dialog box is displayed, with all the devices that are managed by the system.



Note Locked devices only display device information and the **Locked Device** icon.

For more information about:

- The columns that are displayed in the Device List dialog box, see [Device View, page 2-9](#).
- The buttons displayed in the Device List dialog box, see [Device View, page 2-9](#).

Step 2 From the Device List, select the device that you want to add.



Note You can select and add multiple devices using <Ctrl> or <Ctrl +A> or by clicking and dragging the mouse.

Step 3 Click **Add Device**. The device is displayed in the tree pane and the selected map or sub-network in the Cisco ANA NetworkVision window's workspace. In addition, any tickets are displayed in the ticket pane.



Note When a device is added to the network it is no longer displayed in the Device List dialog box dialog box.

Step 4 Click **Close** to close the Device List dialog box. The Cisco ANA NetworkVision window is displayed.

Removing a Device from the Map

Cisco ANA NetworkVision enables you to remove a device or aggregated node from the map.

A device that has been removed from the map is not deleted from the network.

To remove a device or aggregated node from the map:

Step 1 Select the device or aggregated node that you want to delete in the tree pane or map pane.

Step 2 Right-click to display the shortcut menu and select **Remove from Map**. The selected device or aggregated node is removed from the map.

Defining the Map Layout

Cisco ANA NetworkVision enables you to select the way in which the network object topology is displayed. The map pane displays the selected layout, namely, Circular, Symmetric, Hierarchical or Tree.

To define the map layout:

Step 1 On the toolbar, click on the dropdown list next to the Layout button and select one of the following options:

- **Circular**
- **Symmetric**
- **Tree**
- **Hierarchical**

or

Select **Layout** from the View menu and from the dropdown list, select one of the options displayed, as described above.

The map is displayed according to the selected option.



Note Clicking Layout on the toolbar displays the map according to the option last selected. Circular is the default layout option.

Saving a Map

Cisco ANA NetworkVision enables you to save map layouts and change existing ones.

The following changes are saved automatically:

- Addition or removal of a device
- Addition or removal of a link
- Aggregation or disaggregation of elements

The following changes to the workspace are only saved when the Save option is selected:

- The location of the devices on the map
- The layout
- Thumbnails
- The size of the devices

The maps can then be opened later as required.

To save changes to a map:

Step 1 On the toolbar, click **Save Map Appearance**,

or

Select **Save Map** from the File menu. Your changes are saved.

Saving as a New Map

The user can save a copy of the entire map or parts thereof (specific devices and aggregations) while leaving the original map intact.

To save as a new map:

-
- Step 1** Make sure that the map that you want to save is displayed in the Cisco ANA NetworkVision window or that the required network elements and/or aggregated nodes are selected in the tree pane and map pane.
 - Step 2** Right-click in the tree pane or map pane to display the Device shortcut menu. Select **Save as New Map**. The Create Map dialog box is displayed with a default name for the new map.
 - Step 3** Enter a new name for the map,
or
You can accept the name provided by default.
 - Step 4** Click **OK**. The new map is created.
-

**Note**

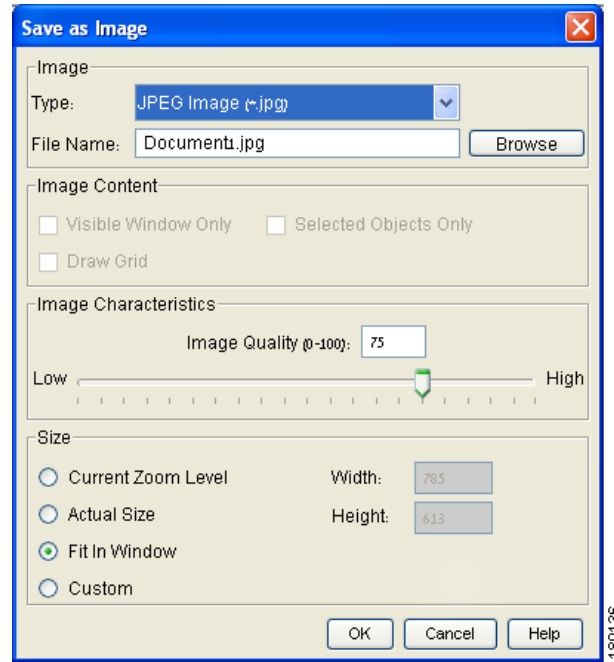
For more information about how to open the new map, see [Opening a Map, page 4-4](#).

Saving a Map as an Image

Cisco ANA NetworkVision enables you save the currently displayed map as an image.

To save a map as an image:

-
- Step 1** Select **Save As Image** from the File menu. The Save as Image dialog box is displayed.

Figure 4-1 Save as Image Dialog Box

The following fields are displayed in the **Image** area:

- **Type**—Enables you to select the type of image required.



Note The file types .svg and .png are not available in this version.

- **File Name**—Enables you to define a name for the image.

The following checkboxes are displayed in the Image Content area:

- **Visible Window Only**—Saves only the currently displayed window as an image.
- **Draw Grid**—This option is not available in this version.
- **Selected Objects Only**—Saves only the selected network objects as an image.

The Image Characteristics area enables you to define the quality of the image by entering a figure or by clicking and dragging the slider.

The following radio buttons are displayed in the Size area:

- **Current Zoom Level**—Saves the image at the currently selected zoom level. Selecting this radio button enables the Visible Window Only checkbox.
- **Actual Size**—Saves the image at the actual size.
- **Fit in Window**—Saves the image to fit in the window.
- **Custom**—Saves the image at an enlarged or reduced size. Selecting this radio button enables the Width and Height options.


Step 2 Define the image settings that are required.

Step 3 Click **OK**. The map is saved, as an image in the defined directory.

Closing a Map

Cisco ANA NetworkVision enables you to close a map displayed in the map pane whenever required. At the same time other maps can be left open in order to work with them.

To close a map:

-
- Step 1** Select **Close** from the File menu,
or
Click  in the upper right-hand corner of the map in the workspace.
If changes have been made to the map, an information message is displayed.
- Step 2** Click **Yes**. The map is saved and closed. An empty Cisco ANA NetworkVision window is displayed, or the map that was last opened is displayed.
-

Deleting a Map

Cisco ANA NetworkVision enables you to delete a map from all the views in the Cisco ANA NetworkVision window.

To delete a map:

-
- Step 1** On the toolbar, click **Open Map**,
or
Select **Open** from the File menu. The Map List dialog box is displayed.
- Step 2** From the Map List, select the map that you want to delete.
- Step 3** On the toolbar, click **Delete Map**. A confirmation message is displayed.
- Step 4** Click **Yes**. The selected map is deleted from the Map List dialog box, the Cisco ANA NetworkVision window and the database.
- Step 5** Click **Close** to close the Map List dialog box. The Cisco ANA NetworkVision window is displayed.
-



Note

When a map that is open is deleted, a message is displayed to all users of the client that the map is being closed and deleted from the database.

Renaming a Map

Cisco ANA NetworkVision enables you to rename a map that is displayed in the Cisco ANA NetworkVision window. The name change affects all users of the map and the new name is displayed in the Cisco ANA NetworkVision window of all users.

To rename a map:

-
- Step 1** On the toolbar, click **Open Map**,
or
Select **Open** from the File menu. The Map List dialog box is displayed.
- Step 2** From the Map List, select the map that you want to rename.
- Step 3** On the toolbar, click **Rename Map**. The Rename Map dialog box is displayed.
- Step 4** Enter the new map name.
- Step 5** Click **OK**. The selected map is renamed in the Map List dialog box, in the Cisco ANA NetworkVision window and in the database.
- Step 6** Click **Close** to close the Map List dialog box. The Cisco ANA NetworkVision window is displayed.
-

Resizing a Device

Cisco ANA NetworkVision enables you to define the size of selected devices or aggregated nodes in the map pane, according to predefined sizes or according to a percentage of the current size.

**Note**

You can manually resize a node by selecting it and dragging the corner (handle).

To resize a device or aggregated node:

-
- Step 1** Select the devices and/or aggregated node that you want to resize in the map pane.

**Note**

The Resize option is only enabled when devices and/or aggregated nodes are selected. If there are any links selected this option is disabled.

-
- Step 2** On the toolbar, click **Resize Selected Nodes**,

or

Select **Resize** from the Edit menu.

or

Right-click on the selected devices and/or aggregated node in the map pane to display the Device shortcut menu. Select **Resize**.

The Resize Nodes Controller dialog box is displayed.

The following fields are displayed in the Resize Nodes Controller dialog box:

- **Resize Node**—Displays a dropdown list of percentages according to which the map selection is resized based on the current size.
- **Set Node Sizes**—Displays a dropdown list of fixed sizes according to which the map selection is resized.

- Step 3** Select an option from the Resize Node or Set Node Sizes dropdown list.

- Step 4** Click **OK**. The selected devices and/or aggregated node are resized.
-

Viewing the Network

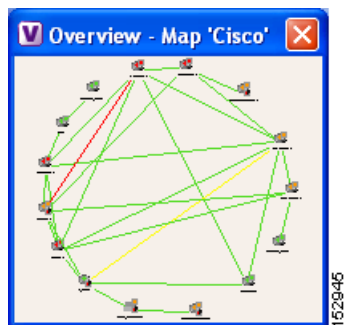
Cisco ANA NetworkVision enables you to display the entire network map or any part of the map in the Cisco ANA NetworkVision window.


You can use the Zoom tools or the Overview window to display the part of the map that you require. The Overview window enables you to view all the changes and alarms taking place in the network. In addition, you can display an aggregated node in a thumbnail.

To open an overview of the network:

- Step 1** On the toolbar, click **Overview**,
or
Select **Overview** from the View menu. The Overview window is displayed.

Figure 4-2 Overview Window



- Step 2** In the Overview window, select the area that you require by clicking and dragging the mouse to view the required area and thereby enlarging it in the map pane. A blue rectangle is displayed around the selected area. You can move the selected area by placing the mouse above the rectangle. The mouse icon will be changed to a hand, and you can then click and drag the mouse to move the rectangle over the required area.
- Step 3** Click and drag the rectangle again to select or resize a different network area.
- Step 4** Click  to close the Overview window.
-

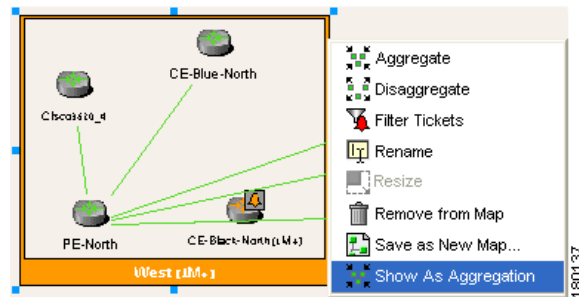
In addition, you can display a thumbnail of the selected aggregated node in the map pane, including all the aggregated devices. Thumbnails can also be nested.

To display a thumbnail of the node:

- Step 1** Right-click on an aggregated node in the map pane to display the Aggregated Node shortcut menu.

Step 2 Select **Show Thumbnail**. The thumbnail is displayed in the map pane.

Figure 4-3 Thumbnail



Note To redisplay the aggregated node in the map pane right-click on the thumbnail and select **Show As Aggregation**.



Note To resize the thumbnail select it, and click and drag any of the thumbnail handles.

Viewing a Network Device

Cisco ANA NetworkVision enables you to view any network device in the currently displayed map.

The network device is selected in the map pane and the tree pane. The ticket pane displays all the active and cleared tickets, however, the user can filter the tickets so that only the tickets of the selected network device are displayed in the ticket pane.

For more information about filtering tickets by device, see [Filtering Tickets by Device, page 8-4](#).

To view a network device:

Step 1 Click on the device in the tree pane or select the device on the map.



- Note**
- You can use the Zoom tools when viewing the network, see [Cisco ANA NetworkVision Toolbar, page 2-18](#).
 - Click **Overview** on the toolbar to display the network in the Overview window.









Selecting Map Views

Cisco ANA NetworkVision provides you with various selection tools that can be used to view and analyze maps in the map pane.

You can view graphical representations of NEs and various links appearing in the map pane of the Cisco ANA NetworkVision window's workspace using the toolbar buttons.

The **Device View** and **Show Links View** buttons open dynamic tables listing network element/device information and respective map context links in table-format (not graphical links). The respective tables are displayed in the Cisco ANA NetworkVision window's workspace. For more information on viewing and working with device view tables and filtering the links view, see [Chapter 3, "Working with Cisco ANA NetworkVision Tables"](#).

Cisco ANA NetworkVision provides you with various selection tools that can be used to view and analyze maps in the map pane and the links view table displayed in the workspace as described below.

Button	Function
	Defines the way in which the map is displayed in the map pane of the Cisco ANA NetworkVision window, namely, Circular, Symmetric, Tree or Hierarchical.
	Displays the device view in the Cisco ANA NetworkVision window's workspace (the button toggles when selected or deselected).
	Displays the links view in the Cisco ANA NetworkVision window (the button toggles when selected or deselected).
	Displays the map pane in the Cisco ANA NetworkVision window (the button toggles when selected or deselected).
	Activates the normal selection mode (the button toggles when selected or deselected).
	Activates the pan mode, which enables you to move around in the map pane by clicking and dragging (the button toggles when selected or deselected).
	Activates the zoom selection mode, which enables you to select an area in the map pane to be enlarged by clicking and dragging to view the selected area (the button toggles when selected or deselected).
	Fits the entire sub-network or map in the map pane.

To select a tool:

-
- Step 1** From the View menu choose the required selection tool,
or
On the toolbar, click the required selection tool.
-

Finding a Ticket Source

Cisco ANA NetworkVision enables you to find the source of a ticket displayed in the ticket pane by highlighting the device in the tree pane and/or map pane.

To find the ticket source:

-
- Step 1** Right-click on the required ticket in the ticket pane to display the Ticket shortcut menu.
- Step 2** Select **Find Source** from the Ticket menu. The source of the ticket is highlighted in the tree pane and/or map pane.



Note A blue selection box highlights the device that is the source of the ticket.

- Step 3** Click anywhere in the tree pane or the map pane to remove the highlight from the selected device or link.
-

Finding a Link Source

Cisco ANA NetworkVision enables you to find a link displayed in the links view by highlighting the link in the map pane.

To find the link:

-
- Step 1** Right-click on the required link in the links view to display the Links View menu.
- Step 2** Select **Find Source** from the Links View menu.

The source of the link is highlighted in the map pane.

or

If there are two or more lines that represent the same links, for example, a VRF link, the Select Link Context dialog box is displayed. Select the required link context from the dropdown list and click **OK**. The source of the link is highlighted in the map pane.



Note A blue link highlights the source of the link in the map pane.

- Step 3** Click anywhere in the tree pane or the map pane to remove the highlight from the selected link.
-

Finding a Network Device

Cisco ANA NetworkVision enables you to find a device in the map by entering the device name or the device IP address or any part thereof.

To find a device in the map:

Step 1 On the toolbar, click **Find in Map**,

or

Select **Find in Map** from the Edit menu. The Find in Map dialog box is displayed.

The Search all map levels checkbox enables you to search for a device or IP address at all levels of the map. This option is selected by default. Clearing this option searches for the device, but excludes device aggregations from the search.

Step 2 Enter the device name or the IP address.



Note

You can enter a partial name (case sensitive) or IP address. For example, XY will find the devices with the names containing the letters XY.

Step 3 Click **OK** to enable the search in all the maps and sub-networks. A device matching the search criteria is displayed on the map.

Step 4 Press **F3** to view the next device matching the search criteria.

Aggregating Devices

Cisco ANA NetworkVision enables you to aggregate devices in the map pane.

To aggregate devices:

Step 1 Select the required devices in the map pane,

or

Select the required devices in the tree pane or map pane using <Ctrl> or the selection tool.

Step 2 On the toolbar, click **Aggregate**,

or

Select **Aggregate** from the Node menu,

or

Right-click on the selected devices in the tree pane or map pane to display the Device menu. Select **Aggregate**.

The Aggregation dialog box is displayed prompting you to enter a name for the aggregated node.

Step 3 Enter a unique name for the aggregated node and click **OK**. The aggregated node is displayed in the tree pane and map pane. Aggregated nodes are displayed as a single entity with the Aggregation icon.

The aggregated node icon changes color according to the alarm severity. For more information about device colors, see [Status of Network Objects, page 2-15](#).

The aggregated node selected in the map pane and tree pane of the Cisco ANA NetworkVision window can be disaggregated.

To disaggregate a node:

-
- Step 1** Select the required branch in the tree pane,
or
Select the required aggregated node in the map pane.



Note The Aggregation icon indicates an aggregated node.

- Step 2** Select **Disaggregate** from the Node menu,
or
Right-click on the aggregated node in the tree pane or map pane to display the Aggregated Node shortcut menu. Select **Disaggregate**.
An information message is displayed.
- Step 3** Click **Yes**. The node is disaggregated.
-

For more information about resizing an aggregated node, see [Resizing a Device, page 4-11](#).

Renaming an Aggregated Node

Cisco ANA NetworkVision enables you to rename an aggregated node that is displayed in the Cisco ANA NetworkVision window.

The name change affects all users of the map and the new name is displayed in the Cisco ANA NetworkVision window of all users.

To rename an aggregated node:

-
- Step 1** Select the aggregated node that you want to rename in the tree pane or map pane.
- Step 2** Right-click on the aggregated node to display the Aggregated Node menu and select **Rename**. The Rename Node dialog box is displayed.
- Step 3** Enter a new name for the aggregated node and click **OK**. The selected aggregated node is renamed in the tree pane and map pane and in the database.
-

Filtering Links According To Type

The links filter enables the user to filter the links displayed in the map pane and in the links view.

The user quickly selects the types of links to be filtered by selecting from a predefined set of link types in the list or by manually configuring a customized set of link types. The user can either:

- Create a new map, select a filter and then add the devices to the map. This filter will then be applied to the new map and only the required link types will be visible in the map pane and the links view (**method 1**)
or
- Create a map and add the devices with all the links enabled and visible in the map pane and links view. The user can then filter (display or hide) the different types of links required (**method 2**).

**Note**

By default all the link types are displayed in the map pane and links view until the links filter is applied.

**Note**

The filter only applies to the map pane and the links view; it has no affect elsewhere in Cisco ANA NetworkVision. Since the filtered links are removed from the map, it also has an affect on the severity of the network elements.

To filter links according to type (method 1):

Step 1 On the toolbar, click **New Map**,

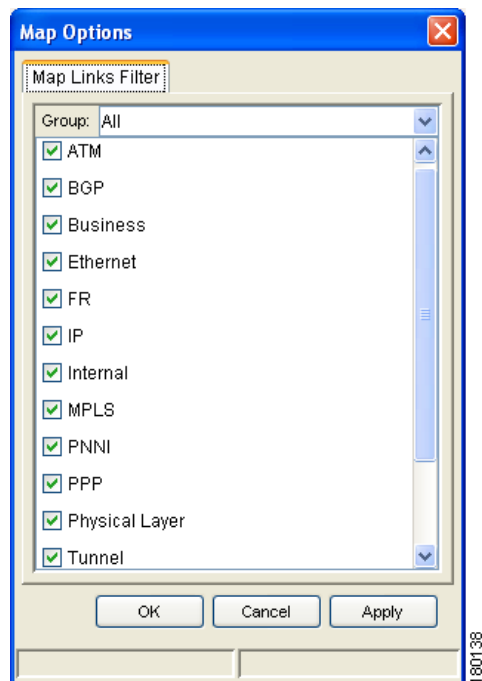
or

Select **New Map** from the File menu.

The Create Map dialog box is displayed. For more information see [Creating a New Map, page 4-3](#).

Step 2 Click **Advanced**. The Map Options dialog box is displayed.

Figure 4-4 Map Options Dialog Box



**Note**

By default all the link types are selected in the Map Options dialog box, namely, all the links are displayed in the map pane and links view.

The Map Options dialog box displays a list of all the types of links that can be filtered by the user in the map pane.

The **Group** dropdown list contains the following options:

- **Custom**—Only the links defined for the customized filter are displayed in the map pane.
- **All**—All the links are displayed in the map pane.
- **Data Link**—The data link layer class of links is displayed in the map pane, namely, ATM and FR.
- **None**—None of the links are displayed in the map pane.
- **Physical**—Only the physical links are displayed in the map pane.
- **VPN**—Only the VPN links are displayed in the map pane.

ATM, VPN, MPLS, and Ethernet are just some of the options displayed in the Map Options dialog box that can be used to filter the links displayed in the map pane and in the links view.

**Note**

The Group dropdown list options can be customized by selecting an option and adding or removing the required link types. The next time the Map Options dialog box is opened the Custom option is displayed with the required link types.

- Step 3** Select or clear the checkbox(es) for the links that you want or do not want to display in the map pane and links view.
- Step 4** Click **OK/Apply** to apply the defined link filter settings.
- Step 5** Enter a name for the new map and click **OK**. An empty new map is displayed in the tree pane and map pane.
- Step 6** Add the required devices to the network. For more information see [Adding a Device, page 4-5](#).
The links are displayed in the map pane and links view according to the defined filter criterion.

A user can also create a map and add the devices with all the links enabled and visible in the map pane and links view. The user can then filter (display or hide) the different types of links required.

To filter links according to type (method 2):

- Step 1** On the toolbar, click **Map Options**. The Map Options dialog box is displayed.
- Step 2** Clear the checkbox(es) for the links that you do not want to display in the map pane and links view.
- Step 3** Click **OK/Apply** to apply the defined link filter settings. The links are displayed in the map pane and links view according to the defined filter criterion

Opening the CPU Usage Graph

Cisco ANA NetworkVision enables you to display memory and CPU usage information for a device/network element, including its history.

To open the CPU usage graph:

Step 1 Right-click on a device/network element in the tree pane or map pane to display the Device shortcut menu.

Step 2 Select **Tools | CPU Usage**. The CPU Usage dialog box is displayed.

The following areas are displayed in the CPU Usage dialog box:

- **CPU Usage**—The CPU usage rate as a percentage.
- **CPU Usage History**—The CPU usage rate history is graphically displayed.
- **Memory Usage**—The memory usage rate as a percentage.
- **Memory Usage History**—The memory usage rate history is graphically displayed.

The following tool is displayed in the dialog box:



Exports all the information currently displayed in the dialog box. This information can then be viewed at a later stage. For more information see [Exporting the Table to a File, page 3-5](#).

Step 3 Click **Close** to close the CPU Usage dialog box.

Communicating with Devices

Cisco ANA NetworkVision enables you to communicate with devices in the following ways:

- [Pinging the Device](#)
- [Telnetting the Device](#)

Pinging the Device

Cisco ANA NetworkVision enables you to ping the device in order to check whether the device is responding.



Note

The ping is performed from the client to the device, and not from the ANA Unit hosting the VNE to the device.

To ping the device:

Step 1 Select the required device in the tree pane or map pane in the workspace.

Step 2 Right-click on the required device to display the Device shortcut menu.

- Step 3** Select **Tools | Ping**. The Ping window is displayed and the device is pinged.
-

Telneting the Device

Cisco ANA NetworkVision enables you to communicate with the device using the Telnet window.

**Note**

The telnet is performed from the client to the device, and not from the ANA Unit hosting the VNE to the device.

To telnet the device:

-
- Step 1** Select the required device in the tree pane or map pane in the workspace.
- Step 2** Right-click on the required device to display the Device shortcut menu.
- Step 3** Select **Tools | Telnet**. The Telnet window is displayed.
- Step 4** Complete the necessary communication with the device.
-

Previewing a Map

Using Cisco ANA NetworkVision you can preview a map before it is printed.

To preview a map:

-
- Step 1** Display the map that you want to print in the map pane.
- Step 2** Select **Print Preview** from the File menu. The Print Preview dialog box is displayed with the active map.
- The following buttons are displayed in the Print Preview dialog box:
- **Print**—Prints the displayed network/map to the selected printer.
 - **Print Setup**—Opens the Print Setup dialog box enabling you to define how the network/map is printed. For more information see [Defining the Print Setup, page 4-22](#).
 - **Zoom In**—Zooms in on the network/map.
 - **Zoom Out**—Zooms out of the network/map.
 - **Zoom %**—Zoom in to get a close-up view of your network/map or zoom out to see more of the network/map at a reduced size. Click the arrow next to the **Zoom** box and the zoom setting that you want.
 - **Fit In Window**—Displays the entire network/map in the Print Preview dialog box.
 - **Close**—Closes the Print Preview dialog box.
- Step 3** Click **Print**. The required map is printed to the selected printer.
-

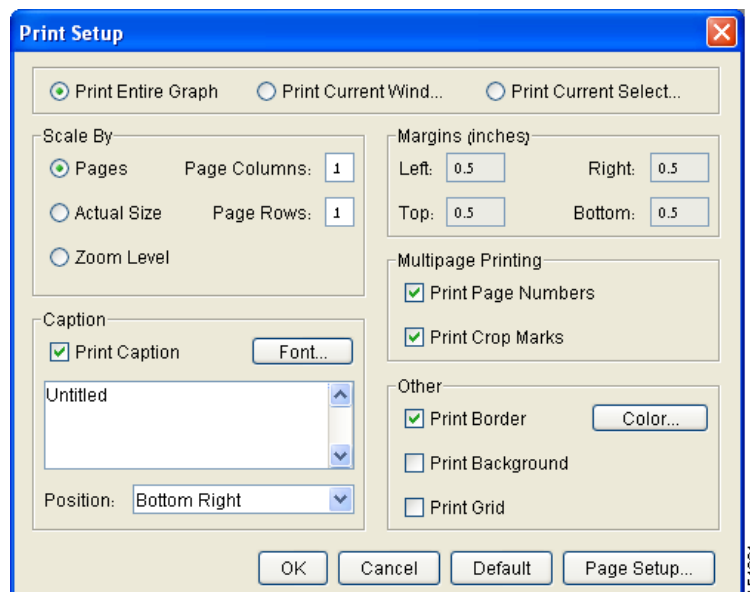
Defining the Print Setup

Cisco ANA NetworkVision enables you to define the print setup of a map before it is printed.

To define the print setup:

- Step 1** Open the Print Preview dialog box, see [Previewing a Map, page 4-21](#).
- Step 2** Click **Print Setup**. The Print Setup dialog box is displayed.

Figure 4-5 *Print Setup Dialog Box*



The following radio buttons are displayed at the top of the Print Setup dialog box:

- **Print Entire Graph**—Prints the currently displayed map, including aggregated nodes.
- **Print Current Window**—Prints the currently displayed map, excluding aggregated nodes.
- **Print Current Selection**—Prints the area selected in the currently displayed map.

The following radio buttons are displayed in the Scale By area, enabling you to define the number of pages and size at which the map is printed:

- **Pages**—Prints the currently displayed map according to the numbers specified in the Page Columns and Page Rows fields.
- **Actual Size**—Prints the currently displayed map at the actual size.
- **Zoom Level**—Prints the currently displayed map according to the selected zoom level.

The following checkbox is displayed in the Caption area:

- **Print Caption**—Select this option to add a caption to the printed map and enter the required text in the field below.

The following field is displayed in the **Caption** area:

- **Position**—Defines the position of the caption in the printed map.

The **Margins** area enables you to define the print margins of the map.

The following checkboxes are displayed in the Multipage Printing area:

- **Print Page Numbers**—Prints the map with page numbers.
- **Print Crop Marks**—Prints the map with crop marks.

The following checkboxes are displayed in the Other area:

- **Print Border**—Prints a border around the printed map.
- **Print Background**—Prints the background of the currently displayed map.
- **Print Grid**—Prints a grid for the printed map.

The following buttons are displayed in the Print Setup dialog box:

- **Default**—Restores the default print settings.
- **Page Setup**—Defines the page setup settings for printing.

Step 3 Define the print setup as required.

Step 4 Click **OK**. Now that you have defined the print setup you can print the map. For more information see [Printing a Map, page 4-23](#).

Printing a Map

Cisco ANA NetworkVision enables you to print the map that is currently displayed.

To print a map:

Step 1 Select **Print** from the File menu.

or

Click **Print** in the Print Preview dialog box. For more information about the Print Preview dialog box, see [Previewing a Map, page 4-21](#).
