CHAPTER 27

Using the DWDM and SONET Commands

The Cisco IP over dense wavelength division multiplexing (IPoDWDM) solution enables the convergence of the IP and DWDM core networks of the service providers. It increases service flexibility, operational efficiency and reliability while lowering operating expenses (OpEx) and capital expenditures (CapEx).

Cisco Prime Network discovers and displays the following DWDM attributes in the Physical Inventory tree of the Cisco Prime Network Vision

- DWDM controllers. The controller location is same as the DWDM interface.
- Loopback information for the DWDM controller.
- DWDM controller status.
- DWDM port properties—Wavelength, Laser Status, Tx Power, and Rx Power.
- DWDM controller card status (G.709 status).

See the *Cisco Prime Network 3.9 User Guide* for more details on the physical and logical inventory information for the device.

Prime Network provides commands that support DWDM and Synchronous Optical Network (SONET) controllers. These commands help in configuring the device and in displaying device details.

Supported Network Elements

You can run the DWDM commands on the following network elements:

- Cisco 7600 Series Routers
- Cisco CRS Carrier Routing System

  Cisco CRS series includes Cisco CRS-1 and Cisco CRS-3 Carrier Routing Systems.
- Cisco IOS 12000 Series Gigabit Switch Router (GSR)

You can run the SONET commands on the following network elements:

- Cisco 7600 Series Routers
- Cisco CRS Carrier Routing System

  Cisco CRS series includes Cisco CRS-1 and Cisco CRS-3 Carrier Routing Systems.
- Cisco IOS 12000 Series GSR

See the “Cisco VNEs” section in this guide for details on the network element software versions that Prime Network supports. To run the DWDM and SONET commands, the software on the network element must support the DWDM and SONET technology.

Running SONET Commands

The following sections provide details about the tasks that you can perform by running the SONET commands:

Note In the GUI, parameters that are displayed in bold text are mandatory.

- Displaying BER Threshold, page 27-2
- Displaying SONET Controller Data, page 27-3
- Displaying TCA Threshold, page 27-3
- Displaying Line PM Counters, page 27-3
- Displaying Medium PM Counters, page 27-4
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- Setting BER Threshold, page 27-7
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Displaying BER Threshold

Use the BER Threshold command to display the bit error rate (BER) threshold details.

Step 1 In the inventory window, expand the Physical Inventory tree, then right-click the SONET port.

Step 2 Choose **Commands > SONET > Show > BER Threshold** from the popup menu.

The BER Threshold window is displayed.

Step 3 To see how the command, including variables, looks before it is executed, click **Preview**.

Step 4 To schedule the command, click the Scheduling tab. For more details on scheduling, see Scheduling a Command.

Step 5 To run the command, click **Execute**.

The Result tab displays the actual interaction of the command in the output console.

Step 6 To close the window, click **Close**.

Displaying SONET Controller Data

Use the show SONET Controller Data command to display SONET controller data.

Step 1 In the inventory window, expand the Physical Inventory tree, then right-click the SONET port.

Step 2 Choose **Commands > SONET > Show > Controller Data** from the popup menu.

The Controller Data window is displayed.

Step 3 To see how the command, including variables, looks before it is executed, click **Preview**.

Step 4 To schedule the command, click the Scheduling tab. For more details on scheduling, see Scheduling a Command.

Step 5 To run the command, click **Execute**.

The Result tab displays the actual interaction of the command in the output console.

Step 6 To close the window, click **Close**.

Displaying TCA Threshold

Use the show SONET TCA Threshold command to display SONET threshold crossing alert (TCA) thresholds.

Step 1 In the inventory window, expand the Physical Inventory tree, then right-click the SONET port.

Step 2 Choose **Commands > SONET > Show > TCA Threshold** from the popup menu.

The TCA Threshold window is displayed.

Step 3 To see how the command, including variables, looks before it is executed, click **Preview**.

Step 4 To schedule the command, click the Scheduling tab. For more details on scheduling, see Scheduling a Command.

Step 5 To run the command, click **Execute**.

The Result tab displays the actual interaction of the command in the output console.

Step 6 To close the window, click **Close**.

Displaying Line PM Counters

Use the show SONET Line Performance Measurement (PM) Counters command to display SONET Line PM counters.

Step 1 In the inventory window, expand the Physical Inventory tree, then right-click the SONET port.

Step 2 Choose **Commands > SONET > Show > PM > Line Counters** from the popup menu.

The Line Counters dialog box is displayed.

Step 3 Enter values for the following parameters.

Input Parameter	Description
Line Option	The line type. Values are: • farendline • farendline-history • line • line-history
History Interval (1 to 96, or 0 for all)	The interval for the history. Value in the range from 1 to 96 (to view the details of a particular interval), or 0 (to view the details of all intervals).

Step 4 To see how the command, including variables, looks before it is executed, click **Preview**.

Step 5 To schedule the command, click the Scheduling tab. For more details on scheduling, see Scheduling a Command.

Step 6 To run the command, click **Execute**.

The Result tab displays the actual interaction of the command in the output console.

Step 7 To close the window, click **Close**.

Displaying Medium PM Counters

Use the show SONET Medium PM Counters command to display the SONET Medium PM counters.

Step 1 In the inventory window, expand the Physical Inventory tree, then right-click the SONET port.

Step 2 Choose **Commands > SONET > Show > PM > Medium Counters** from the popup menu.

The Medium Counters window is displayed.

Step 3 To see how the command, including variables, looks before it is executed, click **Preview**.

Step 4 To schedule the command, click the Scheduling tab. For more details on scheduling, see Scheduling a Command.

Step 5 To run the command, click **Execute**.

The Result tab displays the actual interaction of the command in the output console.

Step 6 To close the window, click **Close**.

Displaying Path PM Counters

Use the show SONET Path PM Counters command to display the SONET Path PM counters.

Step 1 In the inventory window, expand the Physical Inventory tree, then right-click the SONET port.

Step 2 Choose **Commands > SONET > Show > PM > Path Counters** from the popup menu.

The Path Counters window is displayed.

Step 3 Enter values for the following parameters.

Input Parameter	Description
Path Option	The path type. Values are: • farendpath • farendpath-history • path • path-history
Channelized Path Index (1 to 48, or 0 for all)	The channel number. Value in the range from 1 to 48 (to view the details of a particular channel), or 0 (to view the details of all channels).
History Interval (1 to 96, or 0 for all)	The interval for the history. Value in the range from 1 to 96 (to view the details of a particular interval), or 0 (to view the details of all intervals).

Step 4 To see how the command, including variables, looks before it is executed, click **Preview**.

Step 5 To schedule the command, click the Scheduling tab. For more details on scheduling, see Scheduling a Command.

Step 6 To run the command, click **Execute**.

The Result tab displays the actual interaction of the command in the output console.

Step 7 To close the window, click **Close**.

Displaying Section PM Counters

Use the show SONET Section PM Counters command to display the SONET Section PM counters.

Step 1 In the inventory window, expand the Physical Inventory tree, then right-click the SONET port.

Step 2 Choose **Commands > SONET > Show > PM > Section Counters** from the popup menu.

The Section Counters window is displayed.

Step 3 Enter values for the following parameters.

Input Parameter	Description
Section Option	The section type. Values are: • section • section-history
History Interval (1 to 96, or 0 for all)	The interval for the history. Value in the range from 1 to 96 (to view the details of a particular interval), or 0 (to view the details of all intervals).

Step 4 To see how the command, including variables, looks before it is executed, click **Preview**.

Step 5 To schedule the command, click the Scheduling tab. For more details on scheduling, see Scheduling a Command.

Step 6 To run the command, click **Execute**.

The Result tab displays the actual interaction of the command in the output console.

Step 7 To close the window, click **Close**.

Displaying Trace Details

Use the show SONET Trace details command to display the SONET trace details for card location.

Note You can run this command only if the device is managed by Prime Network with device admin privilege.

Step 1 In the inventory window, expand the Physical Inventory tree, then right-click the SONET port.

Step 2 Choose **Commands > SONET > Show > Trace Details** from the popup menu.

The Trace Details window is displayed.

Step 3 Enter a value for the following parameter.

Input Parameter	Description
Location	The card location; for example, 0/5/CPU0

Step 4 To see how the command, including variables, looks before it is executed, click **Preview**.

Step 5 To schedule the command, click the Scheduling tab. For more details on scheduling, see Scheduling a Command.

Step 6 To run the command, click **Execute**.

The Result tab displays the actual interaction of the command in the output console.

Step 7 To close the window, click **Close**.

Clearing SONET Counters

Use the Clear SONET Counters command to clear the SONET counters.

Step 1 In the inventory window, expand the Physical Inventory tree, then right-click the SONET port.

Step 2 Choose **Commands > SONET > Clear > SONET > SDH Counters** from the popup menu.

The SDH Counters window is displayed.

Step 3 To see how the command, including variables, looks before it is executed, click **Preview**.

Step 4 To schedule the command, click the Scheduling tab. For more details on scheduling, see Scheduling a Command.

Step 5 To run the command, click **Execute**.

The Result tab displays the actual interaction of the command in the output console.

Step 6 To close the window, click **Close**.

Setting BER Threshold

Use the Configure SONET BER Threshold command to set the BER threshold values of the specified alarms for a SONET controller.

Step 1 In the inventory window, expand the Physical Inventory tree, then right-click the SONET port.

Step 2 Choose **Commands > SONET > Configure > BER Threshold** from the popup menu.

The BER Threshold dialog box is displayed.

Step 3 Enter values for the following parameters.

Input Parameter	Description
BER Threshold	The BER threshold value. Values are: • sf-ber—Sets the signal degrade BER threshold. Value in the range from 3 to 9. The default value is 6. • sd-ber—Sets the signal failure BER threshold. Value in the range from 3 through 9. The default value is 3.
Bit Error Rate (3 to 9)	Bit error rate. Value in the range from 3 to 9, or default. • The default value for sd-ber is 6. • The default value for sf-ber is 3.

Step 4 To see how the command, including variables, looks before it is executed, click **Preview**.

Step 5 To schedule the command, click the Scheduling tab. For more details on scheduling, see Scheduling a Command.

Step 6 To run the command, click **Execute**.The Result tab displays the actual interaction of the command in the output console.

Step 7 To close the window, click **Close**.

Setting Clock Source

Use the Configure SONET Clock Source command to set the clock source of the sent signal on SONET ports.

Step 1 In the inventory window, expand the Physical Inventory tree, then right-click the SONET port.

Step 2 Choose **Commands > SONET > Configure > Clock Source** from the popup menu.

The Clock Source dialog box is displayed.

Step 3 Enter a value for the following parameter.

Input Parameter	Description
Clock Source	The clock source of the sent signal on SONET ports. Values are: • internal—Specifies that the controller will clock its sent data from its internal clock. • line—(Default) Specifies that the controller will clock its sent data from a clock recovered from the receive data stream of the line. • default—Cancels a clock source setting.

Step 4 To see how the command, including variables, looks before it is executed, click **Preview**.

Step 5 To schedule the command, click the Scheduling tab. For more details on scheduling, see Scheduling a Command.

Step 6 To run the command, click **Execute**.

The Result tab displays the actual interaction of the command in the output console.

Step 7 To close the window, click **Close**.

Setting TCA Threshold

Use the Configure SONET TCA Threshold command to set the BER TCA values of the specified alarms for a SONET controller.

Step 1 In the inventory window, expand the Physical Inventory tree, then right-click the SONET port.

Step 2 Choose **Commands > SONET > Configure > TCA Threshold** from the popup menu.

The TCA Threshold dialog box is displayed.

Step 3 Enter values for the following parameters.

Input Parameters	Description
TCA Threshold	The TCA threshold. Values are: • b1-tca—Sets the B1 BER TCA. Value in the range from 3 to 9. The default value is 6. • b2-tca—Sets the B2 BER TCA. Value in the range from 3 to 9. The default value is 6.
Bit Error Rate (3 to 9)	The bit error rate. Value in the range from 3 to 9 (10 to the minus *x*), or default.

Step 4 To see how the command, including variables, looks before it is executed, click **Preview**.

Step 5 To schedule the command, click the Scheduling tab. For more details on scheduling, see Scheduling a Command.

Step 6 To run the command, click **Execute**.

The Result tab displays the actual interaction of the command in the output console.

Step 7 To close the window, click **Close**.

Running DWDM Commands

The following sections provide details about the tasks that you can perform by running the DWDM commands:

Note In the GUI, parameters that are displayed in bold text are mandatory.

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- Displaying DWDM PM History Data, page 27-10
- Displaying DWDM RTPM Counters, page 27-11
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- Displaying DWDM Wavelength Map, page 27-12
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Displaying DWDM Controller Data

Use the Show DWDM Controller Data command to display the complete details about the DWDM controller.

Step 1 In the inventory window, expand the Physical Inventory tree, then right-click the DWDM port.

Step 2 Choose **Commands > IPODWDM > Show > Controller Data** from the popup menu.

The Controller Data window is displayed.

Step 3 To see how the command, including variables, looks before it is executed, click **Preview**.

Step 4 To schedule the command, click the Scheduling tab. For more details on scheduling, see Scheduling a Command.

Step 5 To run the command, click **Execute**.

The Result tab displays the actual interaction of the command in the output console.

Step 6 To close the window, click **Close**.

Displaying DWDM PM History Data

Use the Show DWDM Controller Data to display PM history in 15-minute or 24-hour buckets.

Step 1 In the inventory window, expand the Physical Inventory tree, then right-click the DWDM port.

Step 2 Choose **Commands > IPODWDM > Show > PM History Data** from the popup menu.

The PM History Data window is displayed.

Step 3 Enter values for the following parameters.

Input Parameter	Description
PM Interval	PM interval type. Values are: • 15-min • 24-hour
Interval	The interval number.

Step 4 To see how the command, including variables, looks before it is executed, click **Preview**.

Step 5 To schedule the command, click the Scheduling tab. For more details on scheduling, see Scheduling a Command.

Step 6 To run the command, click **Execute**.

The Result tab displays the actual interaction of the command in the output console.

Step 7 To close the window, click **Close**.

Displaying DWDM RTPM Counters

Use the Show DWDM RTPM Counters command to display PM counters for Forward Error Correction (FEC), optical, and Optical Transport Network (OTN) layers.

Step 1 In the inventory window, expand the Physical Inventory tree, then right-click the DWDM port.

Step 2 Choose **Commands > IPODWDM > Show > RTPM Counters** from the popup menu.

The RTPM Counters window is displayed.

Step 3 Enter values for the following parameter.

Input Parameter	Description
PM Interval	The PM interval type. Values are: • 15-min • 24-hour

Step 4 To see how the command, including variables, looks before it is executed, click **Preview**.

Step 5 To schedule the command, click the Scheduling tab. For more details on scheduling, see Scheduling a Command.

Step 6 To run the command, click **Execute**.

The Result tab displays the actual interaction of the command in the output console.

Step 7 To close the window, click **Close**.

Displaying DWDM RTPM Threshold

Use the DWDM RTPM Threshold command to display TCA thresholds for FEC, optical, and OTN layers.

Step 1 In the inventory window, expand the Physical Inventory tree, then right-click the DWDM port.

Step 2 Choose **Commands > IPODWDM > Show > RTPM Threshold** from the popup menu.

The RTPM Threshold window is displayed.

Step 3 Enter values for the following parameter.

Input Parameter	Description
PM Interval	The PM interval type. Values are: • 15-min • 24-hour

Step 4 To see how the command, including variables, looks before it is executed, click **Preview**.

Step 5 To schedule the command, click the Scheduling tab. For more details on scheduling, see Scheduling a Command.

Step 6 To run the command, click **Execute**.

The Result tab displays the actual interaction of the command in the output console.

Step 7 To close the window, click **Close**.

Displaying DWDM Wavelength Map

Use the Show DWDM Wavelength Map command to display the available wavelength map for the DWDM controller.

Step 1 In the inventory window, expand the Physical Inventory tree, then right-click the DWDM port.

Step 2 Choose **Commands > IPODWDM > Show > Wavelength Map** from the popup menu.

The Wavelength Map window is displayed.

Step 3 To see how the command, including variables, looks before it is executed, click **Preview**.

Step 4 To schedule the command, click the Scheduling tab. For more details on scheduling, see Scheduling a Command.

Step 5 To run the command, click **Execute**.

The Result tab displays the actual interaction of the command in the output console.

Step 6 To close the window, click **Close**.

Clearing DWDM Counters

Use the Clear DWDM Counters command to clear the DWDM counters.

Step 1 In the inventory window, expand the Physical Inventory tree, then right-click the DWDM port.

Step 2 Choose **Commands > IPODWDM > Clear > Counters** from the popup menu.

The Counters window is displayed.

Step 3 To see how the command, including variables, looks before it is executed, click **Preview**.

Step 4 To schedule the command, click the Scheduling tab. For more details on scheduling, see Scheduling a Command.

Step 5 To run the command, click **Execute**.

The Result tab displays the actual interaction of the command in the output console.

Step 6 To close the window, click **Close**.

Setting DWDM Channel

Use the Configure DWDM Channel command to configure the channel number corresponding to the first wavelength and to reset the channel back to the default.

Step 1 In the inventory window, expand the Physical Inventory tree, then right-click the DWDM port.

Step 2 Choose **Commands > IPODWDM > Configure > Channel** from the popup menu.

The Channel dialog box is displayed.

Step 3 Enter values for the following parameters.

Input parameters	Description
Channel Number	The channel number.
Option	Specifies whether to set or reset the channel.

Step 4 To see how the command, including variables, looks before it is executed, click **Preview**.

Step 5 To schedule the command, click the Scheduling tab. For more details on scheduling, see Scheduling a Command.

Step 6 To run the command, click **Execute**.

The Result tab displays the actual interaction of the command in the output console.

Step 7 To close the window, click **Close**.

Setting DWDM FEC Mode

Use the Configure DWDM FEC Mode to configure forward error correction (FEC) mode.

Step 1 In the inventory window, expand the Physical Inventory tree, then right-click the DWDM port.

Step 2 Choose **Commands > IPODWDM > Configure > FEC Mode** from the popup menu.

The FEC Mode dialog box is displayed.

Step 3 Enter the value for the following parameter.

Input Parameter	Description
G709 FEC Mode	The G709 FEC mode. Values are: • Disabled • Enhanced • Standard

Step 4 To see how the command, including variables, looks before it is executed, click **Preview**.

Step 5 To schedule the command, click the Scheduling tab. For more details on scheduling, see Scheduling a Command.

Step 6 To run the command, click **Execute**.

The Result tab displays the actual interaction of the command in the output console.

Step 7 To close the window, click **Close**.

Setting DWDM G.709 ODU

Use the Configure DWDM G.709 ODU command to configure the logging of selected optical channel data unit (ODU) alarms to the console.

Step 1 In the inventory window, expand the Physical Inventory tree, then right-click the DWDM port.

Step 2 Choose **Commands > IPODWDM > Configure > G.709 ODU** from the popup menu.

The G.709 ODU dialog box is displayed.

Step 3 Enter the values for the following parameters.

Input Parameter	Description
ODU Alarm Type	The ODU alarm type. Values are: • ais • bdi • lck • oci • ptim • oci • tim
Option	Specifies whether to enable or disable the alarm type.

Step 4 To see how the command, including variables, looks before it is executed, click **Preview**.

Step 5 To schedule the command, click the Scheduling tab. For more details on scheduling, see Scheduling a Command.

Step 6 To run the command, click **Execute**.

The Result tab displays the actual interaction of the command in the output console.

Step 7 To close the window, click **Close**.

Setting DWDM G.709 OTU

Use the Configure DWDM G.709 OTU command to configure the logging of selected optical channel transport unit (OTU) alarms to the console.

Step 1 In the inventory window, expand the Physical Inventory tree, then right-click the DWDM port.

Step 2 Choose **Commands > IPODWDM > Configure > G.709 OTU** from the popup menu.

The G.709 OTU dialog box is displayed.

Step 3 Enter values for the following parameters.

Input Parameter	Description
OTU Alarm Type	The OTU alarm type. Values are: • bdi • fecmismatch • iae • lof • lom • los • sd-ber • sf-ber • tim
Option	Specifies whether to enable or disable the alarm type.

Step 4 To see how the command, including variables, looks before it is executed, click **Preview**.

Step 5 To schedule the command, click the Scheduling tab. For more details on scheduling, see Scheduling a Command.

Step 6 To run the command, click **Execute**.

The Result tab displays the actual interaction of the command in the output console.

Step 7 To close the window, click **Close**.

Setting DWDM G.709 TTI

Use the Configure DWDM G.709 TTI command to configure a transmit or expected Trail Trace Identifier (TTI).

Step 1 In the inventory window, expand the Physical Inventory tree, then right-click the DWDM port.

Step 2 Choose **Commands > IPODWDM > Configure > G.709 TTI** from the popup menu.

The G.709 TTI dialog box is displayed.

Step 3 Enter values for the following parameters.

Input Parameter	Description
Optical Channel Unit Type	The optical channel unit type. Values are: • ODU • OTU
TTI Type	The TTI type. Values are: • Expected • Sent
TTI String Type	The TTI string type. Values are: • ASCII • HEX
TTI String	The TTI string.
Option	Specifies whether to set or reset the TTI string. Values are: • Reset TTI string • Set TTI String

Step 4 To see how the command, including variables, looks before it is executed, click **Preview**.

Step 5 To schedule the command, click the Scheduling tab. For more details on scheduling, see Scheduling a Command.

Step 6 To run the command, click **Execute**.

The Result tab displays the actual interaction of the command in the output console.

Step 7 To close the window, click **Close**.

Setting DWDM G.709 Wrapper

Use the Configure DWDM G.709 Wrapper command to disable the G.709 wrapper and re-enable it.

Step 1 In the inventory window, expand the Physical Inventory tree, then right-click the DWDM port.

Step 2 Choose **Commands > IPODWDM > Configure > G.709 Wrapper** from the popup menu.

The G.709 Wrapper dialog box is displayed.

Step 3 Enter the value for the following parameter.

Input Parameter	Description
Option	Specifies whether to disable or enable G.709 wrapper. Values are: • Disable G.709 wrapper • Enable G.709 wrapper

Step 4 To see how the command, including variables, looks before it is executed, click **Preview**.

Step 5 To schedule the command, click the Scheduling tab. For more details on scheduling, see Scheduling a Command.

Step 6 To run the command, click **Execute**.

The Result tab displays the actual interaction of the command in the output console.

Step 7 To close the window, click **Close**.

Setting DWDM Laser State

Use the Configure DWDM Laser State command to configure the laser state.

Step 1 In the inventory window, expand the Physical Inventory tree, then right-click the DWDM port.

Step 2 Choose **Commands > IPODWDM > Configure > Laser State** from the popup menu.

The Laser State dialog box is displayed.

Step 3 Enter the value for the following parameter.

Input Parameter	Descriptions
Laser State	Specifies whether to switch off or switch on the laser. Values are: • Off • On

Step 4 To see how the command, including variables, looks before it is executed, click **Preview**.

Step 5 To schedule the command, click the Scheduling tab. For more details on scheduling, see Scheduling a Command.

Step 6 To run the command, click **Execute**.

The Result tab displays the actual interaction of the command in the output console.

Step 7 To close the window, click **Close**.

Setting DWDM Loopback

Use the Configure DWDM Loopback command to configure loopback and reset loopback back to none.

Step 1 In the inventory window, expand the Physical Inventory tree, then right-click the DWDM port.

Step 2 Choose **Commands > IPODWDM > Configure > Loopback** from the popup menu.

The Loopback dialog box is displayed.

Step 3 Enter values for the following parameters.

Input Parameter	Description
Loopback	The loopback type. Values are: • Internal • Line
Option	Specifies whether to set or remove loopback.

Step 4 To see how the command, including variables, looks before it is executed, click **Preview**.

Step 5 To schedule the command, click the Scheduling tab. For more details on scheduling, see Scheduling a Command.

Step 6 To run the command, click **Execute**.

The Result tab displays the actual interaction of the command in the output console.

Step 7 To close the window, click **Close**.

Setting DWDM PM FEC Data

Use the Configure DWDM PM FEC Data command to configure TCA generation and PM counters on the FEC layer.

Step 1 In the inventory window, expand the Physical Inventory tree, then right-click the DWDM port.

Step 2 Choose **Commands > IPODWDM > Configure > PM FEC Data** from the popup menu.

The PM FEC Data dialog box is displayed.

Step 3 Enter values for the following parameters.

Input Parameter	Description
PM Interval	The PM interval type.
FEC Alarm Type	The FEC alarm type. Values are: • Ec-bits—Bit errors corrected (BIEC). Indicates the number of bit errors corrected in the DWDM trunk line during the performance monitoring time interval. • Uc-words—Uncorrectable words. Indicates the number of uncorrectable words detected in the DWDM trunk line during the performance monitoring time interval.
TCA Option	Specifies whether to enable or disable the TCA generation.
Threshold Option	Sets or resets the threshold option. If you select Set, the threshold value that is entered is set on the device; otherwise, the threshold value is reset. If you select blank, the threshold value is not used.
Threshold	The threshold value.

Step 4 To see how the command, including variables, looks before it is executed, click **Preview**.

Step 5 To schedule the command, click the Scheduling tab. For more details on scheduling, see Scheduling a Command.

Step 6 To run the command, click **Execute**.

The Result tab displays the actual interaction of the command in the output console.

Step 7 To close the window, click **Close**.

Setting DWDM PM Optics Data

Use the Configure DWDM PM Optics Data command to configure TCA generation and PM counters on the optical layer.

Step 1 In the inventory window, expand the Physical Inventory tree, then right-click the DWDM port.

Step 2 Choose **Commands > IPODWDM > Configure > PM Optics Data** from the popup menu.

The PM Optics Data dialog box is displayed.

Step 3 Enter values for the following parameters.

Input Parameter	Description
PM Interval	The PM interval type. Values are: • 15-min • 24- hour
Optics Alarm Type	The alarm type. Values are: • lbc—Laser bias current. • opr—Optical power on the unidirectional port. • opt—Transmit optical power in dBm.
Max TCA Option	Specifies whether to enable or disable the maximum threshold option.
Max Threshold Option	Sets or resets the maximum threshold option. If you select Set, the maximum threshold value that is entered is set on the device; otherwise, the threshold value is reset. If you select blank, the maximum threshold value is not used.
Max Threshold	The maximum threshold value.
Min-TCA Option	Specifies whether to disable or enable the minimum threshold option.
Min Threshold Option	Sets or resets the minimum threshold option. If you select Set, the minimum threshold value that is entered is set on the device; otherwise, the threshold value is reset. If you select blank, the minimum threshold value is not used.
Min Threshold	The minimum threshold value.

Step 4 To see how the command, including variables, looks before it is executed, click **Preview**.

Step 5 To schedule the command, click the Scheduling tab. For more details on scheduling, see Scheduling a Command.

Step 6 To run the command, click **Execute**.

The Result tab displays the actual interaction of the command in the output console.

Step 7 To close the window, click **Close**.

Setting DWDM PM OTN Data

Use the Configure DWDM PM OTN Data to configure TCA generation and PM counters on the OTN layer.

Step 1 In the inventory window, expand the Physical Inventory tree, then right-click the DWDM port.

Step 2 Choose **Commands > IPODWDM > Configure > PM OTN Data** from the popup menu.

The PM OTN Data dialog box is displayed.

Step 3 Enter values for the following parameters.

Input Parameter	Descriptions
PM Interval	The interval type. Values are: • 15-min • 24- hour
OTN Alarm Type	The OTN alarm type. Values are: • bbe-pm-fe—Far-end path monitoring background block errors (BBE-PM). • bbe-pm-ne—Near-end BBE-PM. • bbe-sm-fe—Far-end section monitoring background block errors (BBE-SM). • bbe-sm-ne—Near-end BBE-SM. • bber-pm-fe—Far-end path monitoring background block errors ratio (BBER-PM). • bber-pm-ne—Near-end BBER-PM. • bber-sm-fe—Far-end section monitoring background block errors ratio (BBER-SM). • bber-sm-ne—Near-end BBER-SM. • es-pm-fe—Far-end path monitoring errored seconds (ES-PM). • es-pm-ne—Near-end ES-PM. • es-sm-fe—Far-end section monitoring errored seconds (ES-SM). • es-sm-ne—Near-end ES-SM. • esr-pm-fe—Far-end path monitoring errored seconds ratio (ESR-PM). • esr-pm-ne—Near-end ESR-PM.

Input Parameter	Descriptions
OTN Alarm Type (continued)	• esr-sm-fe—Far-end section monitoring errored seconds ratio (ESR-SM). • esr-sm-ne—Near-end ESR-SM. • fc-pm-fe—Far-end path monitoring failure counts (FC-PM). • fc-pm-ne—Near-end FC-PM. • fc-sm-fe—Far-end section monitoring failure counts (FC-SM). • fc-sm-ne—Near-end FC-SM. • ses-pm-fe—Far-end path monitoring severely errored seconds (SES-PM). • ses-pm-ne—Near-end SES-PM. • ses-sm-fe—Far-end section monitoring severely errored seconds (SES-SM). • ses-sm-ne—Near-end SES-SM. • sesr-pm-fe—Far-end path monitoring severely errored seconds ratio (SESR-PM). • sesr-pm-ne—Near-end SESR-PM. • sesr-sm-fe—Far-end section monitoring severely errored seconds ratio (SESR-SM). • sesr-sm-ne—Near-end SESR-SM. • uas-pm-fe—Far-end path monitoring unavailable seconds (UAS-PM). • uas-pm-ne—Near-end UAS-PM. • uas-sm-fe—Far-end section monitoring unavailable seconds (UAS-SM). • uas-sm-ne—Near-end UAS-SM.
TCA Option	Specifies whether to disable or enable.
Threshold Option	Sets or resets the threshold option. If you select Set, the threshold value that is entered is set on the device; otherwise, the threshold value is reset. If you select blank, the threshold value is not used.
Threshold	The threshold value.

Step 4 To see how the command, including variables, looks before it is executed, click **Preview**.

Step 5 To schedule the command, click the Scheduling tab. For more details on scheduling, see Scheduling a Command.

Step 6 To run the command, click **Execute**.

The Result tab displays the actual interaction of the command in the output console.

Step 7 To close the window, click **Close**.

Setting DWDM Transmit Power

Use the Configure DWDM Transmit Power command to configure transponder Tx threshold and reset it to the default.

Step 1 In the inventory window, expand the Physical Inventory tree, then right-click the DWDM port.

Step 2 Choose **Commands > IPODWDM > Configure > Transmit Power** from the popup menu.

The Transmit Power dialog box is displayed.

Step 3 Enter values for the following parameters.

Input Parameter	Description
Transmit Power	The transmit power in dBm.
Option	Specifies whether to set or reset the transponder Tx threshold.

Step 4 To see how the command, including variables, looks before it is executed, click **Preview**.

Step 5 To schedule the command, click the Scheduling tab. For more details on scheduling, see Scheduling a Command.

Step 6 To run the command, click **Execute**.

The Result tab displays the actual interaction of the command in the output console.

Step 7 To close the window, click **Close**.

Setting Rx LOS Threshold

Use the Configure Rx LOS Threshold command to configure transponder Rx threshold and reset it to the default.

Step 1 In the inventory window, expand the Physical Inventory tree, then right-click the DWDM port.

Step 2 Choose **Commands > IPODWDM > Configure > Rx LOS Threshold** from the popup menu.

The Rx LOS Threshold dialog box is displayed.

Step 3 Enter values for the following parameters.

Input Parameter	Description
Rx Los Threshold	The Rx LOS threshold value.
Option	Specifies whether to set or reset the transponder Rx threshold.

Step 4 To see how the command, including variables, looks before it is executed, click **Preview**.

Step 5 To schedule the command, click the Scheduling tab. For more details on scheduling, see Scheduling a Command.

Step 6 To run the command, click **Execute**.

The Result tab displays the actual interaction of the command in the output console.

Step 7 To close the window, click **Close**.

Displaying IM Trace Details

Use the Show DWDM Interface Manager Trace Details command to display Interface Manager trace details for the card.

Step 1 In the inventory window, expand the Physical Inventory tree, then right-click the module.

Step 2 Choose **Commands > IPODWDM > Show > IM Trace Details** from the popup menu.

The IM Trace Details dialog box is displayed.

Step 3 Enter a value for the following parameter.

Input Parameter	Description
Location	The card location; for example, 0/5/CPU0

Step 4 To see how the command, including variables, looks before it is executed, click **Preview**.

Step 5 To schedule the command, click the Scheduling tab. For more details on scheduling, see Scheduling a Command.

Step 6 To run the command, click **Execute**.

The Result tab displays the actual interaction of the command in the output console.

Step 7 To close the window, click **Close**.

Displaying Device Log

Use the Show DWDM Device Log command to display device logs.

Step 1 In the inventory window, right-click the VNE.

Step 2 Choose **Commands > IPODWDM > Show > Device Log**.

The Device Log window is displayed.

Step 3 To see how the command, including variables, looks before it is executed, click **Preview**.

Step 4 To schedule the command, click the Scheduling tab. For more details on scheduling, see Scheduling a Command.

Step 5 To run the command, click **Execute**.

The Result tab displays the actual interaction of the command in the output console.

Step 6 To close the window, click **Close**.