



APPENDIX B

Cisco Catalyst Blade Switch 3020 for HP Debug Commands

This appendix describes the **debug** privileged EXEC commands that have been created or changed for use with the switch. These commands are helpful in diagnosing and resolving internetworking problems and should be enabled only under the guidance of Cisco technical support staff.



Caution

Because debugging output is assigned high priority in the CPU process, it can render the system unusable. For this reason, use the **debug** commands only to troubleshoot specific problems or during troubleshooting sessions with Cisco technical support staff. It is best to use the **debug** commands during periods of lower network traffic and fewer users. Debugging during these periods decreases the likelihood that increased **debug** command processing overhead will affect system use.

debug auto qos

debug auto qos

Use the **debug auto qos** privileged EXEC command to enable debugging of the automatic quality of service (auto-QoS) feature. Use the **no** form of this command to disable debugging.

debug auto qos

no debug auto qos

Syntax Description This command has no keywords or arguments.

Defaults Auto-QoS debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines To display the QoS configuration that is automatically generated when auto-QoS is enabled, enable debugging *before* you enable auto-QoS. You enable debugging by entering the **debug auto qos** privileged EXEC command.

The **undebbug auto qos** command is the same as the **no debug auto qos** command.

Examples This example shows how to display the QoS configuration that is automatically generated when auto-QoS is enabled:

```

Switch# debug auto qos
AutoQoS debugging is on
Switch# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)# interface gigabitethernet0/21
Switch(config-if)# auto qos voip cisco-phone

21:29:41: mls qos map cos-dscp 0 8 16 26 32 46 48 56
21:29:41: mls qos
21:29:42: no mls qos srr-queue input cos-map
21:29:42: no mls qos srr-queue output cos-map
21:29:42: mls qos srr-queue input cos-map queue 1 threshold 3 0
21:29:42: mls qos srr-queue input cos-map queue 1 threshold 2 1
21:29:42: mls qos srr-queue input cos-map queue 2 threshold 1 2
21:29:42: mls qos srr-queue input cos-map queue 2 threshold 2 4 6 7
21:29:43: mls qos srr-queue input cos-map queue 2 threshold 3 3 5
21:29:43: mls qos srr-queue output cos-map queue 1 threshold 3 5
21:29:43: mls qos srr-queue output cos-map queue 2 threshold 3 3 6 7
21:29:44: mls qos srr-queue output cos-map queue 3 threshold 3 2 4
21:29:44: mls qos srr-queue output cos-map queue 4 threshold 2 1
21:29:44: mls qos srr-queue output cos-map queue 4 threshold 3 0

```

```

21:29:44: no mls qos srr-queue input dscp-map
21:29:44: no mls qos srr-queue output dscp-map
21:29:44: mls qos srr-queue input dscp-map queue 1 threshold 2 9 10 11 12 13 14 15
21:29:45: mls qos srr-queue input dscp-map queue 1 threshold 3 0 1 2 3 4 5 6 7
21:29:45: mls qos srr-queue input dscp-map queue 1 threshold 3 32
21:29:45: mls qos srr-queue input dscp-map queue 2 threshold 1 16 17 18 19 20 21 22 23
21:29:45: mls qos srr-queue input dscp-map queue 2 threshold 2 33 34 35 36 37 38 39 48
21:29:46: mls qos srr-queue input dscp-map queue 2 threshold 2 49 50 51 52 53 54 55 56
21:29:46: mls qos srr-queue input dscp-map queue 2 threshold 2 57 58 59 60 61 62 63
21:29:46: mls qos srr-queue input dscp-map queue 2 threshold 3 24 25 26 27 28 29 30 31
21:29:47: mls qos srr-queue input dscp-map queue 2 threshold 3 40 41 42 43 44 45 46 47
21:29:47: mls qos srr-queue output dscp-map queue 1 threshold 3 40 41 42 43 44 45 46 47
21:29:47: mls qos srr-queue output dscp-map queue 2 threshold 3 24 25 26 27 28 29 30 31
21:29:47: mls qos srr-queue output dscp-map queue 2 threshold 3 48 49 50 51 52 53 54 55
21:29:48: mls qos srr-queue output dscp-map queue 2 threshold 3 56 57 58 59 60 61 62 63
21:29:48: mls qos srr-queue output dscp-map queue 3 threshold 3 16 17 18 19 20 21 22 23
21:29:48: mls qos srr-queue output dscp-map queue 3 threshold 3 32 33 34 35 36 37 38 39
21:29:49: mls qos srr-queue output dscp-map queue 4 threshold 1 8
21:29:49: mls qos srr-queue output dscp-map queue 4 threshold 2 9 10 11 12 13 14 15
21:29:49: mls qos srr-queue output dscp-map queue 4 threshold 3 0 1 2 3 4 5 6 7
21:29:49: no mls qos srr-queue input priority-queue 1
21:29:49: no mls qos srr-queue input priority-queue 2
21:29:50: mls qos srr-queue input bandwidth 90 10
21:29:50: no mls qos srr-queue input buffers
21:29:50: mls qos queue-set output 1 buffers 10 10 26 54
21:29:50: interface GigabitEthernet0/1
21:29:50: mls qos trust device cisco-phone
21:29:50: mls qos trust cos
21:29:50: no queue-set 1
21:29:50: srr-queue bandwidth shape 10 0 0 0
21:29:50: srr-queue bandwidth share 10 10 60 20

```

Related Commands

Command	Description
auto qos voip	Configures auto-QoS for voice over IP (VoIP) within a QoS domain.
show auto qos	Displays the initial configuration that is generated by the automatic auto-QoS feature
show debugging	Displays information about the types of debugging that are enabled.

debug backup

debug backup

Use the **debug backup** privileged EXEC command to enable debugging of the Flex Links backup interface. Use the **no** form of this command to disable debugging.

debug backup {all | errors | events | vlan-load-balancing}

no debug backup {all | errors | events | vlan-load-balancing}

Syntax Description	all Display all backup interface debug messages. errors Display backup interface error or exception debug messages. events Display backup interface event debug messages. vlan-load-balancing Display backup interface VLAN load balancing.
---------------------------	--

Command Default Backup interface debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)SEF	This command was introduced.
	12.2(37)SE	Added vlan-load-balancing keyword.

Usage Guidelines The **undebbug backup** command is the same as the **no debug backup** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

debug cisp

Use the **debug cisp** global configuration command to enable debugging message exchanges and events on a Client Information Signalling Protocol (CISP)-enabled interface. Use the **no** form of this command to disable debugging.

debug cisp [all | errors | events | packets | sync]

no debug cisp [initialization | interface-configuration | rpc]

Syntax Description	all Display all CISP debug messages. errors Display CISP debug messages. events Display CISP event debug messages. packets Display CISP packet debug messages. sync Display CISP operational synchronization debug messages.
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Defaults	Debugging is disabled.
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Command Modes	Privileged EXEC
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Command History	Release	Modification
	12.2(50)SE	This command was introduced.

Related Commands	Command	Description
	cisp enable	Enables Client Information Signalling Protocol (CISP)
	dot1x credentials (global configuration) profile	Configures a profile on a supplicant switch.
	show cisp	Displays CISP information for a specified interface.

debug dot1x

debug dot1x

Use the **debug dot1x** privileged EXEC command to enable debugging of the IEEE 802.1x authentication feature. Use the **no** form of this command to disable debugging.

```
debug dot1x {all | errors | events | feature | packets | registry | state-machine}
no debug dot1x {all | errors | events | feature | packets | registry | state-machine}
```

Syntax Description	all Display all IEEE 802.1x authentication debug messages.
errors	Display IEEE 802.1x error debug messages.
events	Display IEEE 802.1x event debug messages.
feature	Display IEEE 802.1x feature debug messages.
packets	Display IEEE 802.1x packet debug messages.
registry	Display IEEE 802.1x registry invocation debug messages.
state-machine	Display state-machine related-events debug messages.



Note Though visible in the command-line help strings, the **redundancy** keyword is not supported.

Command Default Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines The **undebug dot1x** command is the same as the **no debug dot1x** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.
	show dot1x	Displays IEEE 802.1x statistics, administrative status, and operational status for the switch or for the specified port.

debug dtp

Use the **debug dtp** privileged EXEC command to enable debugging of the Dynamic Trunking Protocol (DTP) activity. Use the **no** form of this command to disable debugging.

```
debug dtp {aggregation | all | decision | events | oserrs | packets | queue | states | timers}
no debug dtp {aggregation | all | decision | events | oserrs | packets | queue | states | timers}
```

Syntax Description	aggregation Display DTP user-message aggregation debug messages.
all	Display all DTP debug messages.
decision	Display the DTP decision-table debug messages.
events	Display the DTP event debug messages.
oserrs	Display DTP operating system-related error debug messages.
packets	Display DTP packet-processing debug messages.
queue	Display DTP packet-queueing debug messages.
states	Display DTP state-transition debug messages.
timers	Display DTP timer-event debug messages.

Defaults	Debugging is disabled.
Command Modes	Privileged EXEC

Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines	The undebug dtp command is the same as the no debug dtp command.
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Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.
	show dtp	Displays DTP information for the switch or for a specified interface.

debug eap

debug eap

Use the **debug eap** privileged EXEC command to enable debugging of the Extensible Authentication Protocol (EAP) activity. Use the **no** form of this command to disable debugging.

debug dot1x {all | authenticator | errors | events | md5 | packets | peer | sm}

no debug dot1x {all | authenticator | errors | events | md5 | packets | peer | sm}

Syntax Description	all Display all EAP debug messages.
authenticator	Display authenticator debug messages.
errors	Display EAP error debug messages.
events	Display EAP event debug messages.
md5	Display EAP-MD5 debug messages.
packets	Display EAP packet debug messages.
peer	Display EAP peer debug messages.
sm	Display EAP state-machine related-events debug messages.

Command Default	Debugging is disabled.
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Command Modes	Privileged EXEC
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Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines	The undebug dot1x command is the same as the no debug dot1x command.
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Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.
	show eap	Displays EAP registration and session information for the switch or for the specified port.

debug etherchannel

Use the **debug etherchannel** privileged EXEC command to enable debugging of the EtherChannel/PAgP shim. This shim is the software module that is the interface between the Port Aggregation Protocol (PAgP) software module and the port manager software module. Use the **no** form of this command to disable debugging.

debug etherchannel [all | detail | error | event | idb]

no debug etherchannel [all | detail | error | event | idb]

Syntax Description

all	(Optional) Display all EtherChannel debug messages.
detail	(Optional) Display detailed EtherChannel debug messages.
error	(Optional) Display EtherChannel error debug messages.
event	(Optional) Debug major EtherChannel event messages.
idb	(Optional) Display PAgP interface descriptor block debug messages.



Though visible in the command-line help strings, the **linecard** keyword is not supported.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)SEF	This command was introduced.

Usage Guidelines

If you do not specify a keyword, all debug messages appear.

The **undebug etherchannel** command is the same as the **no debug etherchannel** command.

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled.
show etherchannel	Displays EtherChannel information for the channel.

debug ip dhcp snooping

debug ip dhcp snooping

Use the **debug ip dhcp snooping** privileged EXEC command to enable debugging of DHCP snooping.
Use the **no** form of this command to disable debugging.

debug ip dhcp snooping {mac-address | agent | event | packet}

no debug ip dhcp snooping {mac-address | agent | event | packet}

This command is available only if your switch is running the IP services image.

Syntax Description	<i>mac-address</i> Display debug messages for a DHCP packet with the specified MAC address. <i>agent</i> Display debug messages for DHCP snooping agents. <i>event</i> Display debug messages for DHCP snooping events. <i>packet</i> Display debug messages for DHCP snooping.
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Defaults	Debugging is disabled.
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Command Modes	Privileged EXEC
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Command History	Release	Modification
	12.2(44)SE	This command was introduced.

Usage Guidelines	The undebug ip dhcp snooping command is the same as the no debug ip dhcp snooping command.
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Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled. For syntax information, select Cisco IOS Release 12.2 Configuration Guides and Command References > Cisco IOS Configuration Fundamentals Configuration Guide, Release 12.2 > System Management > Troubleshooting and Fault Management .

debug ip verify source packet

Use the **debug ip verify source packet** privileged EXEC command to enable debugging of IP source guard. Use the **no** form of this command to disable debugging.

debug ip verify source packet

no debug ip verify source packet

Syntax Description This command has no arguments or keywords.

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(44)SE	This command was introduced.

Usage Guidelines The **undebug ip verify source packet** command is the same as the **no debug ip verify source packet** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled. For syntax information, select Cisco IOS Release 12.2 Configuration Guides and Command References > Cisco IOS Configuration Fundamentals Configuration Guide, Release 12.2 > System Management > Troubleshooting and Fault Management .

debug interface

debug interface

Use the **debug interface** privileged EXEC command to enable debugging of interface-related activities. Use the **no** form of this command to disable debugging.

```
debug interface {interface-id | null interface-number | port-channel port-channel-number |
vlan vlan-id}
```

```
no debug interface {interface-id | null interface-number | port-channel port-channel-number |
vlan vlan-id}
```

Syntax Description	<code>interface-id</code> Display debug messages for the specified physical port, identified by type switch number/module number/ port, for example gigabitethernet 0/2 . <code>null interface-number</code> Display debug messages for null interfaces. The <i>interface-number</i> is always 0 . <code>port-channel port-channel-number</code> Display debug messages for the specified EtherChannel port-channel interface. The <i>port-channel-number</i> range is 1 to 48. <code>vlan vlan-id</code> Display debug messages for the specified VLAN. The <i>vlan-id</i> range is 1 to 4094.
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Defaults	Debugging is disabled.
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Command Modes	Privileged EXEC
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Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines	If you do not specify a keyword, all debug messages appear. The undebbug interface command is the same as the no debug interface command.
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Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.
	show etherchannel	Displays EtherChannel information for the channel.

debug ip igmp filter

Use the **debug ip igmp filter** privileged EXEC command to enable debugging of Internet Group Management Protocol (IGMP) filter events. Use the **no** form of this command to disable debugging.

debug ip igmp filter

no debug ip igmp filter

Syntax Description This command has no arguments or keywords.

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines The **undebug ip igmp filter** command is the same as the **no debug ip igmp filter** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

 ■ **debug ip igmp max-groups**

debug ip igmp max-groups

Use the **debug ip igmp max-groups** privileged EXEC command to enable debugging of Internet Group Management Protocol (IGMP) maximum groups events. Use the **no** form of this command to disable debugging.

debug ip igmp max-groups

no debug ip igmp max-groups

Syntax Description This command has no arguments or keywords.

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines The **undebug ip igmp max-groups** command is the same as the **no debug ip igmp max-groups** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

debug ip igmp snooping

Use the **debug igmp snooping** privileged EXEC command to enable debugging of Internet Group Management Protocol (IGMP) snooping activity. Use the **no** form of this command to disable debugging.

debug ip igmp snooping [group | management | querier | router | timer]

no debug ip igmp snooping [group | management | querier | router | timer]

Syntax Description	group (Optional) Display IGMP snooping group activity debug messages. management (Optional) Display IGMP snooping management activity debug messages. querier (Optional) Display IGMP snooping querier debug messages. router (Optional) Display IGMP snooping router activity debug messages. timer (Optional) Display IGMP snooping timer event debug messages.
---------------------------	--

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines The **undebug ip igmp snooping** command is the same as the **no debug ip igmp snooping** command.

Related Commands	Command	Description
	debug platform ip igmp snooping	Displays information about platform-dependent IGMP snooping activity.
	show debugging	Displays information about the types of debugging that are enabled.

debug lacp

debug lacp

Use the **debug lacp** privileged EXEC command to enable debugging of Link Aggregation Control Protocol (LACP) activity. Use the **no** form of this command to disable debugging.

debug lacp [all | event | fsm | misc | packet]

no debug lacp [all | event | fsm | misc | packet]

Syntax Description	
all	(Optional) Display all LACP debug messages.
event	(Optional) Display LACP event debug messages.
fsm	(Optional) Display LACP finite state-machine debug messages.
misc	(Optional) Display miscellaneous LACP debug messages.
packet	(Optional) Display LACP packet debug messages.

Defaults Debugging is disabled.

Command Modes

Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

The **undebug lacp** command is the same as the **no debug lacp** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.
	show lacp	Displays LACP channel-group information.

debug lldp packets

Use the **debug lldp packets** privileged EXEC command to enable debugging of Link Layer Discovery Protocol (LLDP) packets. Use the **no** form of this command to disable debugging.

debug lldp packets

no debug lldp packets

Syntax Description This command has no arguments or keywords.

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(50)SE	This command was introduced.

Usage Guidelines The **undebbug lldp packets** command is the same as the **no debug lldp packets** command.

When you enable debugging, it is enabled only on the stack master. To enable debugging on a stack member, you can start a session from the stack master by using the **session switch-number** privileged EXEC command. Then enter the **debug** command at the command-line prompt of the stack member. You also can use the **remote command stack-member-number LINE** privileged EXEC command on the stack master switch to enable debugging on a member switch without first starting a session.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

debug mac-notification

debug mac-notification

Use the **debug mac-notification** privileged EXEC command to enable debugging of MAC notification events. Use the **no** form of this command to disable debugging.

debug mac-notification

no debug mac-notification

Syntax Description This command has no arguments or keywords.

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines The **undebug mac-notification** command is the same as the **no debug mac-notification** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.
	show mac address-table notification	Displays the MAC address notification information for all interfaces or the specified interface.

debug matm

Use the **debug matm** privileged EXEC command to enable debugging of platform-independent MAC address management. Use the **no** form of this command to disable debugging.

debug matm

no debug matm

Syntax Description This command has no arguments or keywords.

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines The **undebug matm** command is the same as the **no debug matm** command.

Related Commands	Command	Description
	debug platform matm	Displays information about platform-dependent MAC address management.
	show debugging	Displays information about the types of debugging that are enabled.

debug matm move update

debug matm move update

Use the **debug matm move update** privileged EXEC command to enable debugging of MAC address-table move update message processing.

debug matm move update

no debug matm move update

Syntax Description This command has no arguments or keywords.

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines The **undebug matm move update** command is the same as the **no debug matm move update** command.

Related Commands	Command	Description
	mac address-table move update {receive transmit}	Configures MAC address-table move update feature on the switch.
	show debugging	Displays information about the types of debugging that are enabled.
	show mac address-table move update	Displays the MAC address-table move update information on the switch.

debug monitor

Use the **debug monitor** privileged EXEC command to enable debugging of the Switched Port Analyzer (SPAN) feature. Use the **no** form of this command to disable debugging.

debug monitor {all | errors | idb-update | info | list | notifications | platform | requests | snmp}

no debug monitor {all | errors | idb-update | info | list | notifications | platform | requests | snmp}

Syntax Description	all Display all SPAN debug messages.
errors	Display detailed SPAN error debug messages.
idb-update	Display SPAN interface description block (IDB) update-trace debug messages.
info	Display SPAN informational-tracing debug messages.
list	Display SPAN port and VLAN-list tracing debug messages.
notifications	Display SPAN notification debug messages.
platform	Display SPAN platform-tracing debug messages.
requests	Display SPAN request debug messages.
snmp	Display SPAN and Simple Network Management Protocol (SNMP) tracing debug messages.

Defaults	Debugging is disabled.
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Command Modes	Privileged EXEC
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Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines	The undebug monitor command is the same as the no debug monitor command.
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Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.
	show monitor	Displays information about all SPAN and remote SPAN (RSPAN) sessions on the switch.

debug mvrdbg

debug mvrdbg

Use the **debug mvrdbg** privileged EXEC command to enable debugging of Multicast VLAN Registration (MVR). Use the **no** form of this command to disable debugging.

debug mvrdbg {all | events | igmpsn | management | ports}

no debug mvrdbg {all | events | igmpsn | management | ports}

Syntax Description	all Display all MVR activity debug messages.
events	Display MVR event-handling debug messages.
igmpsn	Display MVR Internet Group Management Protocol (IGMP) snooping-activity debug messages.
management	Display MVR management-activity debug messages.
ports	Display MVR port debug messages.

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines The **undebug mvrdbg** command is the same as the **no debug mvrdbg** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.
	show mvr	Displays the current MVR configuration.

debug nmsp

Use the **debug nmsp** privileged EXEC command to enable debugging of the Network Mobility Services Protocol (NMSP) on the switch. This command is available only when your switch is running the cryptographic (encrypted) software image. Use the **no** form of this command to disable debugging.

debug nmsp {all | connection | error | event | packet | rx | tx}

no debug nmsp

Syntax Description This command has no arguments or keywords.

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(50)SE	This command was introduced.

Usage Guidelines The **undebug nmsp** command is the same as the **no debug nmsp** command.

When you enable debugging, it is enabled only on the stack master. To enable debugging on a stack member, you can start a session from the stack master by using the **session switch-number** privileged EXEC command. Then enter the **debug** command at the command-line prompt of the stack member. You also can use the **remote command stack-member-number LINE** privileged EXEC command on the stack master switch to enable debugging on a member switch without first starting a session.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.
	show nmsp	Displays the NMSP information.

debug nvram

debug nvram

Use the **debug nvram** privileged EXEC command to enable debugging of NVRAM activity. Use the **no** form of this command to disable debugging.

debug nvram

no debug nvram

Syntax Description This command has no arguments or keywords.

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines The **undebug nvram** command is the same as the **no debug nvram** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

debug pagp

Use the **debug pagp** privileged EXEC command to enable debugging of Port Aggregation Protocol (PAgP) activity. Use the **no** form of this command to disable debugging.

debug pagp [all | dual-active | event | fsm | misc | packet]

no debug pagp [all | dual-active | event | fsm | misc | packet]

Syntax Description	all (Optional) Display all PAgP debug messages. dual-active (Optional) Dispaly dual-active detection messages. event (Optional) Display PAgP event debug messages. fsm (Optional) Display PAgP finite state-machine debug messages. misc (Optional) Display miscellaneous PAgP debug messages. packet (Optional) Display PAgP packet debug messages.
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Defaults	Debugging is disabled.
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Command Modes	Privileged EXEC
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Command History	Release	Modification
	12.2(25)SEF	This command was introduced.
	12.2(46)SE	The dual-active keyword was added.

Usage Guidelines	The undebbug pagp command is the same as the no debug pagp command.
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Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.
	show pagp	Displays PAgP channel-group information.

debug platform acl

Use the **debug platform acl** privileged EXEC command to enable debugging of the access control list (ACL) manager. Use the **no** form of this command to disable debugging.

debug platform acl {all | exit | label | main | racl | vACL | vLmap | warn}

no debug platform acl {all | exit | label | main | racl | vACL | vLmap | warn}

Syntax Description	all Display all ACL manager debug messages.
exit	Display ACL exit-related debug messages.
label	Display ACL label-related debug messages.
main	Display the main or important ACL debug messages.
racl	Display router ACL related debug messages.
vACL	Display VLAN ACL-related debug messages.
vLmap	Display ACL VLAN-map-related debug messages.
warn	Display ACL warning-related debug messages.



Note Though visible in the command-line help strings, the **stack** keyword is not supported.

Defaults	Debugging is disabled.
----------	------------------------

Command Modes	Privileged EXEC
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Command History	Release	Modification
	12.2(25)SEF	This command was introduced.
	12.2(44)SE	The racl keyword was added.

Usage Guidelines	The undebug platform acl command is the same as the no debug platform acl command.
------------------	--

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

debug platform backup interface

Use the **debug platform backup interface** privileged EXEC command to enable debugging of the Flex Links platform backup interface. Use the **no** form of this command to disable debugging.

debug platform backup interface

no debug platform backup interface

Syntax Description This command has no arguments or keywords.

Command Default Platform backup interface debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines The **undebbug platform backup interface** command is the same as the **no platform debug backup interface** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

 debug platform cisp

debug platform cisp

Use the **debug platform cisp** global configuration command to enable platform-level debugging of a switch that has one or more Client Information Signalling Protocol (CISP)-enabled interfaces. Use the **no** form of this command to disable debugging.

debug platform cisp [initialization | interface-configuration | rpc]

no debug platform cisp [initialization | interface-configuration | rpc]

Syntax Description	initialization Enable debugging of the CISP initialization sequence. interface-configuration Enable debugging of the CISP configuration. rpc Enable debugging of the CISP RPC requests.
---------------------------	--

Defaults	Debugging is disabled.
-----------------	------------------------

Command Modes	Privileged EXEC
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Command History	Release	Modification
	12.2(50)SE	This command was introduced.

Usage Guidelines	When you enable debugging, it is enabled only on the stack master. To enable debugging on a stack member, start a session from the stack master by using the session switch-number privileged EXEC command and enter the debug command at the command-line prompt of the stack member. You also can use the remote command stack-member-number <line> privileged EXEC command on the stack master switch to enable debugging on a member switch without first starting a session.
-------------------------	---

Related Commands	Command	Description
	cisp enable	Enables Client Information Signalling Protocol (CISP)
	dot1x credentials (global configuration)profile	Configures a profile on a supplicant switch.
	show cisp	Displays CISP information for a specified interface.

debug platform cli-redirection main

Use the **debug platform cli-redirection main** privileged EXEC command to enable debugging of the main (important) command-line interface (CLI) redirection events. Use the **no** form of this command to disable debugging.

debug platform cli-redirection main

no debug platform cli-redirection main

Syntax Description This command has no arguments or keywords.

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(44)SE	This command was introduced.

Usage Guidelines The **undebbug platform cli-redirection main** command is the same as the **no debug platform cli-redirection main** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled. For syntax information, select Cisco IOS Release 12.2 Configuration Guides and Command References > Cisco IOS Configuration Fundamentals Configuration Guide, Release 12.2 > System Management > Troubleshooting and Fault Management .

 debug platform cpu-queues

debug platform cpu-queues

Use the **debug platform cpu-queues** privileged EXEC command to enable debugging of platform central processing unit (CPU) receive queues. Use the **no** form of this command to disable debugging.

```
debug platform cpu-queues {broadcast-q | cbt-to-spt-q | cpuhub-q | host-q | icmp-q |
  igmp-snooping-q | layer2-protocol-q | logging-q | remote-console-q | routing-protocol-q |
  rpffail-q | software-fwd-q | stp-q}
```

```
no debug platform cpu-queues {broadcast-q | cbt-to-spt-q | cpuhub-q | host-q | icmp-q |
  igmp-snooping-q | layer2-protocol-q | logging-q | remote-console-q | routing-protocol-q |
  rpffail-q | software-fwd-q | stp-q}
```

Syntax Description	broadcast-q	Display debug messages about packets received by the broadcast queue.
	cbt-to-spt-q	Display debug messages about packets received by the core-based tree to shortest-path tree (cbt-to-spt) queue.
	cpuhub-q	Display debug messages about packets received by the CPU heartbeat queue.
	host-q	Display debug messages about packets received by the host queue.
	icmp-q	Display debug messages about packets received by the Internet Control Message Protocol (ICMP) queue.
	igmp-snooping-q	Display debug messages about packets received by the Internet Group Management Protocol (IGMP)-snooping queue.
	layer2-protocol-q	Display debug messages about packets received by the Layer 2 protocol queue.
	logging-q	Display debug messages about packets received by the logging queue.
	remote-console-q	Display debug messages about packets received by the remote console queue.
	routing-protocol-q	Display debug messages about packets received by the routing protocol queue.
	rpffail-q	Display debug messages about packets received by the reverse path forwarding (RPF) failure queue.
	software-fwd-q	Debug packets received by the software forwarding queue.
	stp-q	Debug packets received by the Spanning Tree Protocol (STP) queue.

Defaults	Debugging is disabled.
-----------------	------------------------

Command Modes	Privileged EXEC
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Command History	Release	Modification
	12.2(25)SEF	This command was introduced.
	12.2(44)SE	The routing-protocol-q and rpffail-q keywords were added.

Usage Guidelines The **undebug platform cpu-queues** command is the same as the **no debug platform cpu-queues** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

 debug platform dot1x

debug platform dot1x

Use the **debug platform dot1x** privileged EXEC command to enable debugging of IEEE 802.1x events. Use the **no** form of this command to disable debugging.

debug platform dot1x {initialization | interface-configuration | rpc}

no debug platform dot1x {initialization | interface-configuration | rpc}

Syntax Description	initialization Display IEEE 802.1x-authentication initialization sequence debug messages. interface-configuration Display IEEE 802.1x interface configuration-related debug messages. rpc Display IEEE 802.1x remote procedure call (RPC) request debug messages.
---------------------------	--

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines The **undebug platform dot1x** command is the same as the **no debug platform dot1x** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

debug platform etherchannel

Use the **debug platform etherchannel** privileged EXEC command to enable debugging of platform-dependent EtherChannel events. Use the **no** form of this command to disable debugging.

debug platform etherchannel {init | link-up | rpc | warnings}

no debug platform etherchannel {init | link-up | rpc | warnings}

Syntax Description	init Display EtherChannel module initialization debug messages. link-up Display EtherChannel link-up and link-down related debug messages. rpc Display EtherChannel remote procedure call (RPC) debug messages. warnings Display EtherChannel warning debug messages.
---------------------------	--

Defaults	Debugging is disabled.
-----------------	------------------------

Command Modes	Privileged EXEC
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Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines	The undebug platform etherchannel command is the same as the no debug platform etherchannel command.
-------------------------	--

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

 debug platform fallback-bridging

debug platform fallback-bridging

Use the **debug platform fallback-bridging** privileged EXEC command to enable debugging of the platform-dependent fallback bridging manager. Use the **no** form of this command to disable debugging.

debug platform fallback-bridging [error | retry | rpc {events | messages}]

no debug platform fallback-bridging [error | retry | rpc {events | messages}]

Syntax Description	error (Optional) Display fallback bridging manager error condition messages. retry (Optional) Display fallback bridging manager retry messages. rpc {events messages} (Optional) Display fallback bridging debugging information. The keywords have these meanings: <ul style="list-style-type: none"> • events—Display remote procedure call (RPC) events. • messages—Display RPC messages.
---------------------------	---

Defaults	Debugging is disabled.
-----------------	------------------------

Command Modes	Privileged EXEC
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Command History	Release	Modification
	12.2(44)SE	This command was introduced.

Usage Guidelines	If you do not specify a keyword, all fallback bridging manager debug messages appear. The undebug platform fallback-bridging command is the same as the no debug platform fallback-bridging command.
-------------------------	--

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled. For syntax information, select Cisco IOS Release 12.2 Configuration Guides and Command References > Cisco IOS Configuration Fundamentals Configuration Guide, Release 12.2 > System Management > Troubleshooting and Fault Management .

debug platform forw-tcam

Use the **debug platform forw-tcam** privileged EXEC command to enable debugging of the forwarding ternary content addressable memory (TCAM) manager. Use the **no** form of this command to disable debugging.

debug platform forw-tcam [adjustment | allocate | audit | error | move | read | write]

no debug platform forw-tcam [adjustment | allocate | audit | error | move | read | write]

Syntax Description	adjustment (Optional) Display TCAM manager adjustment debug messages. allocate (Optional) Display TCAM manager allocation debug messages. audit (Optional) Display TCAM manager audit messages. error (Optional) Display TCAM manager error messages. move (Optional) Display TCAM manager move messages. read (Optional) Display TCAM manager read messages. write (Optional) Display TCAM manager write messages.
--------------------	--

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines If you do not specify a keyword, all forwarding TCAM manager debug messages appear.

The **undebug platform forw-tcam** command is the same as the **no debug platform forw-tcam** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

 debug platform ip arp inspection

debug platform ip arp inspection

Use the **debug platform ip arp inspection** privileged EXEC command to debug dynamic Address Resolution Protocol (ARP) inspection events. Use the **no** form of this command to disable debugging.

debug platform ip arp inspection {all | error | event | packet | rpc}

no debug platform ip arp inspection {all | error | event | packet | rpc}

Syntax Description	all Display all dynamic ARP inspection debug messages. error Display dynamic ARP inspection error debug messages. event Display dynamic ARP inspection event debug messages. packet Display dynamic ARP inspection packet-related debug messages. rpc Display dynamic ARP inspection remote procedure call (RPC) request debug messages.
--------------------	---

Defaults	Debugging is disabled.
-----------------	------------------------

Command Modes	Privileged EXEC
----------------------	-----------------

Command History	Release	Modification
	12.2(44)SE	This command was introduced.

Usage Guidelines	The udebug platform ip arp inspection command is the same as the no debug platform ip arp inspection command.
-------------------------	---

Related Commands	Command	Description
	show inventory	Displays the dynamic ARP inspection configuration and operating state.
	show debugging	Displays information about the types of debugging that are enabled. For syntax information, select Cisco IOS Release 12.2 Configuration Guides and Command References > Cisco IOS Configuration Fundamentals Configuration Guide, Release 12.2 > System Management > Troubleshooting and Fault Management .

debug platform ip dhcp

Use the **debug platform ip dhcp** privileged EXEC command to debug DHCP events. Use the **no** form of this command to disable debugging.

debug platform ip dhcp [all | error | event | packet | rpc]

no debug platform ip dhcp [all | error | event | packet | rpc]

Syntax Description	all (Optional) Display all DHCP debug messages. error (Optional) Display DHCP error debug messages. event (Optional) Display DHCP event debug messages. packet (Optional) Display DHCP packet-related debug messages. rpc (Optional) Display DHCP remote procedure call (RPC) request debug messages.
--------------------	--

Defaults	Debugging is disabled.
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Command Modes	Privileged EXEC
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Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines	The undebug platform ip dhcp command is the same as the no debug platform ip dhcp command.
------------------	--

Related Commands	Command	Description
	show ip dhcp snooping	Displays the DHCP snooping configuration.
	show ip dhcp snooping binding	Displays the DHCP snooping binding information.
	show debugging	Displays information about the types of debugging that are enabled.

 debug platform ip igmp snooping

debug platform ip igmp snooping

Use the **debug platform ip igmp snooping** privileged EXEC command to enable debugging of platform-dependent Internet Group Management Protocol (IGMP) snooping. Use the **no** form of this command to disable debugging.

debug platform ip igmp snooping {all | di | error | event | group | mgmt | pak | retry | rpc | warn}

debug platform ip igmp snooping pak {ip-address | error | ipopt | leave | query | report | rx | svi | tx}

debug platform ip igmp snooping rpc [cfg | misc | vlan]

no debug platform ip igmp snooping {all | di | error | event | group | mgmt | pak | retry | rpc | warn}

Syntax Description	
all	Display all IGMP snooping debug messages.
di	Display IGMP snooping destination index (di) coordination remote procedure call (RPC) debug messages.
error	Display IGMP snooping error messages.
event	Display IGMP snooping event debug messages.
group	Display IGMP snooping group debug messages.
mgmt	Display IGMP snooping management debug messages.
pak {ip-address error ipopt leave query report rx svi tx}	Display IGMP snooping packet event debug messages. The keywords have these meanings: <ul style="list-style-type: none"> • ip-address—IP address of the IGMP group. • error—Display IGMP snooping packet error debug messages. • ipopt—Display IGMP snooping IP bridging options debug messages. • leave—Display IGMP snooping leave debug messages. • query—Display IGMP snooping query debug messages. • report—Display IGMP snooping report debug messages. • rx—Display IGMP snooping received packet debug messages. • svi—Display IGMP snooping switched virtual interface (SVI) packet debug messages. • tx—Display IGMP snooping sent packet debug messages.
retry	Display IGMP snooping retry debug messages.
rpc [cfg misc vlan]	Display IGMP snooping remote procedure call (RPC) event debug messages. The keywords have these meanings: <ul style="list-style-type: none"> • cfg—(Optional) Display IGMP snooping RPC debug messages. • misc—(Optional) IGMP snooping miscellaneous RPC debug messages. • vlan—(Optional) IGMP snooping VLAN assert RPC debug messages.
warn	Display IGMP snooping warning messages.

**Note**

Though visible in the command-line help strings, the **rpc l3mm** keyword is not supported.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)SEF	This command was introduced.

Usage Guidelines

The **undebug platform ip igmp snooping** command is the same as the **no debug platform ip igmp snooping** command.

Related Commands

Command	Description
debug ip igmp snooping	Displays information about platform-independent IGMP snooping activity.
show debugging	Displays information about the types of debugging that are enabled.

 debug platform ip multicast

debug platform ip multicast

Use the **debug platform ip multicast** privileged EXEC command to enable debugging of IP multicast routing. Use the **no** form of this command to disable debugging.

```
debug platform ip multicast {all | mdb | mdfs-rp-retry | midb | mroute-rp | resources | retry | rpf-throttle | snoop-events | software-forward | swidb-events | vlan-locks}
```

```
no debug platform ip multicast {all | mdb | mdfs-rp-retry | midb | mroute-rp | resources | retry | rpf-throttle | snoop-events | software-forward | swidb-events | vlan-locks}
```

Syntax Description	all Display all platform IP-multicast event debug messages. Note Using this command can degrade the performance of the switch.	
mdb	Display IP-multicast debug messages for multicast distributed fast switching (MDFS) multicast descriptor block (mdb) events.	
mdfs-rp-retry	Display IP-multicast MDFS rendezvous point (RP) retry event debug messages.	
midb	Display IP-multicast MDFS multicast interface descriptor block (MIDB) debug messages.	
mroute-rp	Display IP-multicast RP event debug messages.	
resources	Display IP-multicast hardware resource debug messages.	
retry	Display IP-multicast retry processing event debug messages.	
rpf-throttle	Display IP-multicast reverse path forwarding (RPF) throttle event debug messages.	
snoop-events	Display IP-multicast IGMP snooping event debug messages.	
software-forward	Display IP-multicast software forwarding event debug messages.	
swidb-events	Display IP-multicast MDFS software interface descriptor block (swidb) or global event debug messages.	
vlan-locks	Display IP-multicast VLAN lock and unlock event debug messages.	
Defaults	Debugging is disabled.	
Command Modes	Privileged EXEC	
Command History	Release	Modification
	12.1(11)AX	This command was introduced.

Usage Guidelines

The **undebug platform ip multicast** command is the same as the **no debug platform ip multicast** command.

When you enable debugging, it is enabled only on the stack master. To enable debugging on a stack member, you can start a session from the stack master by using the **session switch-number** privileged EXEC command. Then enter the **debug** command at the command-line prompt of the stack member. You also can use the **remote command stack-member-number LINE** privileged EXEC command on the stack master switch to enable debugging on a member switch without first starting a session.

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled. For syntax information, select Cisco IOS Release 12.2 Configuration Guides and Command References > Cisco IOS Configuration Fundamentals Configuration Guide, Release 12.2 > System Management > Troubleshooting and Fault Management .

 debug platform ip unicast

debug platform ip unicast

Use the **debug platform ip unicast** privileged EXEC command to enable debugging of platform-dependent IP unicast routing. Use the **no** form of this command to disable debugging.

```
debug platform ip unicast {adjacency | all | arp | dhcp | errors | events | interface | mpath | registries | retry | route | rpc | standby | statistics}
```

```
no debug platform ip unicast {adjacency | all | arp | dhcp | errors | events | interface | mpath | registries | retry | route | rpc | standby | statistics}
```

Syntax Description	adjacency Display IP unicast routing adjacency programming event debug messages. all Display all platform IP unicast routing debug messages. Note Using this command can degrade the performance of the switch. arp Display IP unicast routing Address Resolution Protocol (ARP) and ARP throttling debug messages. dhcp Display IP unicast routing DHCP dynamic address-related event debug messages. errors Display all IP unicast routing error debug messages, including resource allocation failures. events Display all IP unicast routing event debug messages, including registry and miscellaneous events. interface Display IP unicast routing interface event debug messages. mpath Display IP unicast routing multi-path adjacency programming event debug messages (present when performing equal or unequal cost routing). registries Display IP unicast routing forwarding information database (FIB), adjacency add, update, and delete registry event debug messages. retry Display IP unicast routing reprogram FIBs with ternary content addressable memory (TCAM) allocation failure debug messages. route Display IP unicast routing FIB TCAM programming event debug messages. rpc Display IP unicast routing Layer 3 unicast remote procedure call (RPC) interaction debug messages. standby Display IP unicast routing standby event debug messages, helpful in troubleshooting Hot Standby Routing Protocol (HSRP) issues. statistics Display IP unicast routing statistics gathering-related event debug messages.
--------------------	---

Defaults	Debugging is disabled.				
Command Modes	Privileged EXEC				
Command History	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>12.1(11)AX</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	12.1(11)AX	This command was introduced.
Release	Modification				
12.1(11)AX	This command was introduced.				

Usage Guidelines

The **undebbug platform ip unicast** command is the same as the **no debug platform ip unicast** command.

When you enable debugging, it is enabled only on the stack master. To enable debugging on a stack member, you can start a session from the stack master by using the **session switch-number** privileged EXEC command. Then enter the **debug** command at the command-line prompt of the stack member. You also can use the **remote command stack-member-number LINE** privileged EXEC command on the stack master switch to enable debugging on a member switch without first starting a session.

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled. For syntax information, select Cisco IOS Release 12.2 Configuration Guides and Command References > Cisco IOS Configuration Fundamentals Configuration Guide, Release 12.2 > System Management > Troubleshooting and Fault Management .

debug platform ipc

debug platform ipc

Use the **debug platform ipc** privileged EXEC command to enable debugging of the platform-dependent Interprocess Communication (IPC) Protocol. Use the **no** form of this command to disable debugging.

debug platform ipc {all | init | receive | send | trace}

no debug platform {all | init | receive | send | trace}

Syntax Description	<table border="0"> <tr> <td>all</td><td>Display all platform IPC debug messages. Note Using this command can degrade the performance of the switch.</td></tr> <tr> <td>init</td><td>Display debug messages related to IPC initialization.</td></tr> <tr> <td>receive</td><td>Display IPC traces each time an IPC packet is received by the switch.</td></tr> <tr> <td>send</td><td>Display IPC traces each time an IPC packet is sent by the switch.</td></tr> <tr> <td>trace</td><td>Display IPC trace debug messages, tracing the code path as the IPC functions are executed.</td></tr> </table>	all	Display all platform IPC debug messages. Note Using this command can degrade the performance of the switch.	init	Display debug messages related to IPC initialization.	receive	Display IPC traces each time an IPC packet is received by the switch.	send	Display IPC traces each time an IPC packet is sent by the switch.	trace	Display IPC trace debug messages, tracing the code path as the IPC functions are executed.
all	Display all platform IPC debug messages. Note Using this command can degrade the performance of the switch.										
init	Display debug messages related to IPC initialization.										
receive	Display IPC traces each time an IPC packet is received by the switch.										
send	Display IPC traces each time an IPC packet is sent by the switch.										
trace	Display IPC trace debug messages, tracing the code path as the IPC functions are executed.										
Defaults	Debugging is disabled.										
Command Modes	Privileged EXEC										
Command History	<table border="0"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>12.1(44)SE</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	12.1(44)SE	This command was introduced.						
Release	Modification										
12.1(44)SE	This command was introduced.										
Usage Guidelines	The undebbug platform ipc command is the same as the no debug platform ipc .										
Related Commands	<table border="0"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>show debugging</td> <td>Displays information about the types of debugging that are enabled. For syntax information, select Cisco IOS Release 12.2 Configuration Guides and Command References > Cisco IOS Configuration Fundamentals Configuration Guide, Release 12.2 > System Management > Troubleshooting and Fault Management.</td> </tr> </tbody> </table>	Command	Description	show debugging	Displays information about the types of debugging that are enabled. For syntax information, select Cisco IOS Release 12.2 Configuration Guides and Command References > Cisco IOS Configuration Fundamentals Configuration Guide, Release 12.2 > System Management > Troubleshooting and Fault Management .						
Command	Description										
show debugging	Displays information about the types of debugging that are enabled. For syntax information, select Cisco IOS Release 12.2 Configuration Guides and Command References > Cisco IOS Configuration Fundamentals Configuration Guide, Release 12.2 > System Management > Troubleshooting and Fault Management .										

debug platform led

Use the **debug platform led** privileged EXEC command to enable debugging of light-emitting diode (LED) actions. Use the **no** form of this command to disable debugging.

debug platform led {generic | signal}

no debug platform led {generic | signal}

Syntax Description	generic Display LED generic action debug messages. signal Display LED signal bit map debug messages.
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Note Though visible in the command-line help strings, the **stack** keyword is not supported.

Defaults	Debugging is disabled.
-----------------	------------------------

Command Modes	Privileged EXEC
----------------------	-----------------

Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines	The undebbug platform led command is the same as the no debug platform led command.
-------------------------	---

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

 debug platform matm

debug platform matm

Use the **debug platform matm** privileged EXEC command to enable debugging of platform-dependent MAC address management. Use the **no** form of this command to disable debugging.

```
debug platform matm {aging | all | ec-aging | errors | learning | rpc | secure-address | warnings}
```

```
no debug platform matm {aging | all | ec-aging | errors | learning | rpc | secure-address | warnings}
```

Syntax Description	
aging	Display MAC address aging debug messages.
all	Display all platform MAC address management event debug messages.
ec-aging	Display EtherChannel address aging-related debug messages.
errors	Display MAC address management error messages.
learning	Display MAC address management address-learning debug messages.
rpc	Display MAC address management remote procedure call (RPC) related debug messages.
secure-address	Display MAC address management secure address learning debug messages.
warning	Display MAC address management warning messages.

Defaults	Debugging is disabled.
-----------------	------------------------

Command Modes	Privileged EXEC
----------------------	-----------------

Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines	The undebug platform matm command is the same as the no debug platform matm command.
-------------------------	--

Related Commands	Command	Description
	debug matm	Displays information about platform-independent MAC address management.
	show debugging	Displays information about the types of debugging that are enabled.

debug platform messaging application

Use the **debug platform messaging application** privileged EXEC command to enable debugging of application messaging activity. Use the **no** form of this command to disable debugging.

debug platform messaging application {all | badpak | cleanup | events | memerr | messages | usererr}

no debug platform messaging application {all | badpak | cleanup | events | memerr | messages | usererr}

Syntax Description

all	Display all application-messaging debug messages.
badpak	Display bad-packet debug messages.
cleanup	Display clean-up debug messages.
events	Display event debug messages.
memerr	Display memory-error debug messages.
messages	Display application-messaging debug messages.
usererr	Display user-error debug messages.



Note Though visible in the command-line help strings, the **stackchng** keyword is not supported.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)SEF	This command was introduced.

Usage Guidelines

The **udebug platform messaging application** command is the same as the **no debug platform messaging application** command.

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled.

 debug platform phy

debug platform phy

Use the **debug platform phy** privileged EXEC command to enable debugging of PHY driver information. Use the **no** form of this command to disable debugging.

```
debug platform phy {automdix | cablediag | dual-purpose | flcd {configure | ipc | iter | trace} | flowcontrol | forced | init-seq | link-status | read | sfp | show-controller | speed | write | xenpak}
```

```
no debug platform phy {automdix | cablediag | dual-purpose | flcd {configure | ipc | iter | trace} | flowcontrol | forced | init-seq | link-status | read | sfp | show-controller | speed | write | xenpak}
```

Syntax Description	automdix	Display PHY automatic medium-dependent interface crossover (auto-MDIX) debug messages.
	cablediag	Display PHY cable-diagnostic debug messages.
	dual-purpose	Display PHY dual-purpose event debug messages.
	flcd {configure ipc iter trace}	Display PHY FLCD debug messages. The keywords have these meanings: <ul style="list-style-type: none"> • configure—Display PHY configure debug messages. • ipc—Display Interprocess Communication Protocol (IPC) debug messages. • iter—Display iter debug messages. • trace—Display trace debug messages.
	flowcontrol	Display PHY flowcontrol debug messages.
	forced	Display PHY forced-mode debug messages.
	init-seq	Display PHY initialization-sequence debug messages.
	link-status	Display PHY link-status debug messages.
	read	Display PHY-read debug messages.
	sfp	Display PHY small form-factor pluggable (SFP) modules debug messages.
	show-controller	Display PHY show-controller debug messages.
	speed	Display PHY speed-change debug messages.
	write	Display PHY-write debug messages.
	xenpak	Display PHY XENPAK debug messages

Defaults	Debugging is disabled.
-----------------	------------------------

Command Modes	Privileged EXEC
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Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines The **undebug platform phy** command is the same as the **no debug platform phy** command.

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled.

■ debug platform pm

debug platform pm

Use the **debug platform pm** privileged EXEC command to enable debugging of the platform-dependent port manager software module. Use the **no** form of this command to disable debugging.

```
debug platform pm {all | counters | errdisable | etherchnl | exceptions | hpm-events | idb-events | if-numbers | ios-events | link-status | platform | pm-events | pm-span | pm-vectors [detail] | rpc [general | oper-info | state | vectors | vp-events] | soutput-vectors | sync | vlans}
```

```
no debug platform pm {all | counters | errdisable | etherchnl | exceptions | hpm-events | idb-events | if-numbers | ios-events | link-status | platform | pm-events | pm-span | pm-vectors [detail] | rpc [general | oper-info | state | vectors | vp-events] | soutput-vectors | sync | vlans}
```

Syntax Description	
all	Display all port-manager debug messages.
counters	Display counters for remote procedure call (RPC) debug messages.
errdisable	Display error-disabled related-events debug messages.
etherchnl	Display EtherChannel related-events debug messages.
exceptions	Display system exception debug messages.
hpm-events	Display platform port-manager event debug messages.
idb-events	Display interface descriptor block (IDB) related-events debug messages.
if-numbers	Display interface-number translation-event debug messages.
ios-events	Display Cisco IOS event debug messages.
link-status	Display interface link-detection event debug messages.
platform	Display port-manager function-event debug messages.
pm-events	Display port manager event debug messages.
pm-span	Display port manager Switched Port Analyzer (SPAN) event debug messages.
pm-vectors [detail]	Display port-manager vector-related-event debug messages. The keyword has this meaning: <ul style="list-style-type: none"> • detail—Display vector-function details.
rpc [general oper-info state vectors vp-events]	Display RPC related-event debug messages. The keywords have these meanings: <ul style="list-style-type: none"> • general—(Optional) Display RPC general events. • oper-info—(Optional) Display operational- and informational-related RPC messages. • state—(Optional) Display administrative- and operational-related RPC messages. • vectors—(Optional) Display vector-related RPC messages. • vp-events—(Optional) Display virtual ports related-events RP messages.
soutput-vectors	Display IDB output vector event debug messages.
sync	Display operational synchronization and VLAN line-state event debug messages.
vlans	Display VLAN creation and deletion event debug messages.

**Note**

Though visible in the command-line help strings, the **stack-manager** keyword is not supported.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines

The **undebug platform pm** command is the same as the **no debug platform pm** command.

Related Commands

	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

■ **debug platform port-asic**

debug platform port-asic

Use the **debug platform port-asic** privileged EXEC command to enable debugging of the port application-specific integrated circuit (ASIC) driver. Use the **no** form of this command to disable debugging.

debug platform port-asic {interrupt | periodic | read | write}

no debug platform port-asic {interrupt | periodic | read | write}

Syntax Description	interrupt Display port-ASIC interrupt-related function debug messages. periodic Display port-ASIC periodic-function-call debug messages. write Display port-ASIC write debug messages.
---------------------------	---



Note Though visible in the command-line help strings, the **stack** keyword is not supported.

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines The **undebug platform port-asic** command is the same as the **no debug platform port-asic** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

debug platform port-security

Use the **debug platform port-security** privileged EXEC command to enable debugging of platform-dependent port-security information. Use the **no** form of this command to disable debugging.

debug platform port-security {add | aging | all | delete | errors | rpc | warnings}

no debug platform port-security {add | aging | all | delete | errors | rpc | warnings}

Syntax Description	add Display secure address addition debug messages. aging Display secure address aging debug messages. all Display all port-security debug messages. delete Display secure address deletion debug messages. errors Display port-security error debug messages. rpc Display remote procedure call (RPC) debug messages. warnings Display warning debug messages.
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Defaults	Debugging is disabled.
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Command Modes	Privileged EXEC
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Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines	The undebbug platform port-security command is the same as the no debug platform port-security command.
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Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

 debug platform qos-acl-tcam

debug platform qos-acl-tcam

Use the **debug platform qos-acl-tcam** privileged EXEC command to enable debugging of the quality of service (QoS) and access control list (ACL) ternary content addressable memory (TCAM) manager software. Use the **no** form of this command to disable debugging.

debug platform qos-acl-tcam {all | ctcam | errors | labels | mask | rpc | tcam}

no debug platform qos-acl-tcam {all | ctcam | errors | labels | mask | rpc | tcam}

Syntax Description	all Display all QoS and ACL TCAM (QATM) manager debug messages. ctcam Display Cisco TCAM (CTCAM) related-events debug messages. errors Display QATM error-related-events debug messages. labels Display QATM label-related-events debug messages. mask Display QATM mask-related-events debug messages. rpc Display QATM remote procedure call (RPC) related-events debug messages. tcam Display QATM TCAM-related events debug messages.
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Defaults	Debugging is disabled.
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Command Modes	Privileged EXEC
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Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines	The undebug platform qos-acl-tcam command is the same as the no debug platform qos-acl-tcam command.
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Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

debug platform remote-commands

Use the **debug platform remote-commands** privileged EXEC command to enable debugging of remote commands. Use the **no** form of this command to disable debugging.

debug platform remote-commands

no debug platform remote-commands

Syntax Description This command has no arguments or keywords.

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines The **undebug platform remote-commands** command is the same as the **no debug platform remote-commands** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

 debug platform resource-manager

debug platform resource-manager

Use the **debug platform resource-manager** privileged EXEC command to enable debugging of the resource manager software. Use the **no** form of this command to disable debugging.

debug platform resource-manager {all | dm | erd | errors | madmed | sd | stats | vld}

no debug platform resource-manager {all | dm | erd | errors | madmed | sd | stats | vld}

Syntax Description	all Display all resource manager debug messages.
dm	Display destination-map debug messages.
erd	Display equal-cost-route descriptor-table debug messages.
errors	Display error debug messages.
madmed	Display the MAC address descriptor table and multi-expansion descriptor table debug messages.
sd	Display the station descriptor table debug messages.
stats	Display statistics debug messages.
vld	Display the VLAN-list descriptor debug messages.

Defaults	Debugging is disabled.
Command Modes	Privileged EXEC

Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines	The undebug platform resource-manager command is the same as the no debug platform resource-manager command.				
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>show debugging</td> <td>Displays information about the types of debugging that are enabled.</td> </tr> </tbody> </table>	Command	Description	show debugging	Displays information about the types of debugging that are enabled.
Command	Description				
show debugging	Displays information about the types of debugging that are enabled.				

debug platform snmp

Use the **debug platform snmp** privileged EXEC command to enable debugging of the platform-dependent Simple Network Management Protocol (SNMP) software. Use the **no** form of this command to disable debugging.

debug platform snmp

no debug platform snmp

Syntax Description This command has no arguments or keywords.

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines The **undebug platform snmp** command is the same as the **no debug platform snmp** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

debug platform span

debug platform span

Use the **debug platform span** privileged EXEC command to enable debugging of the platform-dependent Switched Port Analyzer (SPAN) software. Use the **no** form of this command to disable debugging.

debug platform span

no debug platform span

Syntax Description This command has no arguments or keywords.

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines The **undebug platform span** command is the same as the **no debug platform span** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

debug platform supervisor-asic

Use the **debug platform supervisor-asic** privileged EXEC command to enable debugging of the supervisor application-specific integrated circuit (ASIC). Use the **no** form of this command to disable debugging.

debug platform supervisor-asic {all | errors | receive | send}

no debug platform supervisor-asic {all | errors | receive | send}

Syntax Description	all Display all supervisor-ASIC event debug messages. errors Display the supervisor-ASIC error debug messages. receive Display the supervisor-ASIC receive debug messages. send Display the supervisor-ASIC send debug messages.				
Defaults	Debugging is disabled.				
Command Modes	Privileged EXEC				
Command History	<table border="1"> <thead> <tr> <th>Release</th><th>Modification</th></tr> </thead> <tbody> <tr> <td>12.2(25)SEF</td><td>This command was introduced.</td></tr> </tbody> </table>	Release	Modification	12.2(25)SEF	This command was introduced.
Release	Modification				
12.2(25)SEF	This command was introduced.				
Usage Guidelines	The undebug platform supervisor-asic command is the same as the no debug platform supervisor-asic command.				
Related Commands	<table border="1"> <thead> <tr> <th>Command</th><th>Description</th></tr> </thead> <tbody> <tr> <td>show debugging</td><td>Displays information about the types of debugging that are enabled.</td></tr> </tbody> </table>	Command	Description	show debugging	Displays information about the types of debugging that are enabled.
Command	Description				
show debugging	Displays information about the types of debugging that are enabled.				

 debug platform sw-bridge

debug platform sw-bridge

Use the **debug platform sw-bridge** privileged EXEC command to enable debugging of the software bridging function. Use the **no** form of this command to disable debugging.

debug platform sw-bridge {broadcast | control | multicast | packet | unicast}

no debug platform sw-bridge {broadcast | control | multicast | packet | unicast}

Syntax Description	broadcast Display broadcast-data debug messages. control Display protocol-packet debug messages. multicast Display multicast-data debug messages. packet Display sent and received data debug messages. unicast Display unicast-data debug messages.
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Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines The **undebug platform sw-bridge** command is the same as the **no debug platform sw-bridge** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

debug platform tcam

Use the **debug platform team** privileged EXEC command to enable debugging of ternary content addressable memory (TCAM) access and lookups. Use the **no** form of this command to disable debugging.

```
debug platform team {log | read | search | write}  
debug platform team log l2 {acl {input | output} | local | qos}  
debug platform team log l3 {acl {input | output} | ipv6 {acl {input | output} | local | qos |  
secondary} | local | qos | secondary}  
debug platform team read {reg | ssram | tcam}  
debug platform team search  
debug platform team write {forw-ram | reg | tcam}  
no debug platform tcam {log | read | search | write}  
no debug platform team log l2 {acl {input | output} | local | qos}  
no debug platform team log l3 {acl {input | output} | ipv6 {acl {input | output} | local | qos |  
secondary} | local | qos | secondary}  
no debug platform team read {reg | ssram | tcam}  
no debug platform team search  
no debug platform team write {forw-ram | reg | tcam}
```

■ debug platform tcam

Syntax Description	<p>log l2 {acl {input output} local qos}</p> <p>l3 {acl {input output} ipv6 {acl {input output} local qos secondary} local qos secondary}</p> <p>read {reg ssram tcam}</p> <p>search</p> <p>write {forw-ram reg tcam}</p>	<p>Display Layer 2 field-based CAM look-up type debug messages. The keywords have these meanings:</p> <ul style="list-style-type: none"> • acl {input output}—Display input or output ACL look-up debug messages. • local—Display local forwarding look-up debug messages. • qos—Display classification and quality of service (QoS) look-up debug messages. <p>Display Layer 3 field-based CAM look-up type debug messages. The keywords have these meanings:</p> <ul style="list-style-type: none"> • acl {input output}—Display input or output ACL look-up debug messages. • ipv6 {acl {input output} local qos secondary}—Display IPv6-based look-up debug messages. Options include displaying input or output ACL look-up, local forwarding look-up, classification and QoS look-up, or secondary forwarding look-up debug messages. • local—Display local forwarding look-up debug messages. • qos—Display classification and quality of service (QoS) look-up debug messages. • secondary—Display secondary forwarding look-up debug messages. <p>Display TCAM-read debug messages. The keywords have these meanings:</p> <ul style="list-style-type: none"> • reg—Display TCAM-register read debug messages. • ssram—Display synchronous static RAM (SSRAM)-read debug messages. • tcam—Display TCAM-read debug messages. <p>Display supervisor-initiated TCAM-search results debug messages.</p> <p>Display TCAM-write debug messages. The keywords have these meanings:</p> <ul style="list-style-type: none"> • forw-ram—Display forwarding-RAM write debug messages. • reg—Display TCAM-register write debug messages. • tcam—Display TCAM-write debug messages.
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Though visible in the command-line help strings, the **l3 ipv6 {acl {input | output} | local | qos | secondary}**, the **l3 local**, and the **l3 secondary** keywords are not supported.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History	Release	Modification
	12.2(25)SEF	This command was introduced.
	12.2(44)SE	The ipv6 , acl , input , output , local , qos , secondary , and local keywords were added.

Usage Guidelines The **undebbug platform tcam** command is the same as the **no debug platform team** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

debug platform udld

debug platform udld

Use the **debug platform udld** privileged EXEC command to enable debugging of the platform-dependent UniDirectional Link Detection (UDLD) software. Use the **no** form of this command to disable debugging.

debug platform udld [all | error | rpc {events | messages}]

no debug platform udld [all | error | rpc {events | messages}]

Syntax Description	all (Optional) Display all UDLD debug messages. error (Optional) Display error condition debug messages. rpc {events messages} (Optional) Display UDLD remote procedure call (RPC) debug messages. The keywords have these meanings: <ul style="list-style-type: none"> • events—Display UDLD RPC events. • messages—Display UDLD RPC messages.
--------------------	--

Defaults	Debugging is disabled.
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Command Modes	Privileged EXEC
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Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines	The undebug platform udld command is the same as the no debug platform udld command.
-------------------------	--

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

debug platform vlan

Use the **debug platform vlan** privileged EXEC command to enable debugging of the VLAN manager software. Use the **no** form of this command to disable debugging.

debug platform vlan {errors | mvid | rpc}

no debug platform vlan {errors | mvid | rpc}

Syntax Description	errors Display VLAN error debug messages. mvid Display mapped VLAN ID allocations and free debug messages. rpc Display remote procedure call (RPC) debug messages.
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Defaults	Debugging is disabled.
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Command Modes	Privileged EXEC
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Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines	The undebug platform vlan command is the same as the no debug platform vlan command.
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Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

debug pm

debug pm

Use the **debug pm** privileged EXEC command to enable debugging of port manager (PM) activity. The port manager is a state machine that controls all the logical and physical interfaces. All features, such as VLANs, UniDirectional Link Detection (UDLD), and so forth, work with the port manager to provide switch functions. Use the **no** form of this command to disable debugging.

```
debug pm {all | assert | card | etherchnl | hatable | messages | port | redundancy | registry | sm | span | split | vlan | vp}

no debug pm {all | assert | card | etherchnl | hatable | messages | port | redundancy | registry | sm | span | split | vlan | vp}
```

Syntax Description

all	Display all PM debug messages.
assert	Display assert debug messages.
card	Display line-card related-events debug messages.
etherchnl	Display EtherChannel related-events debug messages.
hatable	Display Host Access Table events debug messages.
messages	Display PM debug messages.
port	Display port related-events debug messages.
redundancy	Display redundancy debug messages.
registry	Display PM registry invocation debug messages.
sm	Display state-machine related-events debug messages.
span	Display spanning-tree related-events debug messages.
split	Display split-processor debug messages.
vlan	Display VLAN related-events debug messages.
vp	Display virtual port related-events debug messages.



Though visible in the command-line help strings, the **scp** and **pvlan** keywords are not supported.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)SEF	This command was introduced.

Usage Guidelines The **undebug pm** command is the same as the **no debug pm** command.

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled.

debug port-security

debug port-security

Use the **debug port-security** privileged EXEC command to enable debugging of the allocation and states of the port security subsystem. Use the **no** form of this command to disable debugging.

debug port-security

no debug port-security

Syntax Description This command has no arguments or keywords.

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines The **undebbug port-security** command is the same as the **no debug port-security** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.
	show port-security	Displays port-security settings for an interface or for the switch.

debug qos-manager

Use the **debug qos-manager** privileged EXEC command to enable debugging of the quality of service (QoS) manager software. Use the **no** form of this command to disable debugging.

debug qos-manager {all | event | verbose}

no debug qos-manager {all | event | verbose}

Syntax Description	all Display all QoS-manager debug messages. event Display QoS-manager related-event debug messages. verbose Display QoS-manager detailed debug messages.
---------------------------	---

Defaults	Debugging is disabled.
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Command Modes	Privileged EXEC
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Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines	The undebug qos-manager command is the same as the no debug qos-manager command.
-------------------------	--

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

 debug spanning-tree

debug spanning-tree

Use the **debug spanning-tree** privileged EXEC command to enable debugging of spanning-tree activities. Use the **no** form of this command to disable debugging.

```
debug spanning-tree {all | backbonefast | bpdu | bpdu-opt | config | csuf/csrt | etherchannel | events | exceptions | general | mstp | pvst+ | root | snmp | switch | synchronization | uplinkfast}
```

```
no debug spanning-tree {all | backbonefast | bpdu | bpdu-opt | config | csuf/csrt | etherchannel | events | exceptions | general | mstp | pvst+ | root | snmp | switch | synchronization | uplinkfast}
```

Syntax Description	
all	Display all spanning-tree debug messages.
backbonefast	Display BackboneFast-event debug messages.
bpdu	Display spanning-tree bridge protocol data unit (BPDU) debug messages.
bpdu-opt	Display optimized BPDU handling debug messages.
config	Display spanning-tree configuration change debug messages.
csuf/csrt	Display cross-stack UplinkFast and cross-stack rapid transition activity debug messages.
etherchannel	Display EtherChannel-support debug messages.
events	Display spanning-tree topology event debug messages.
exceptions	Display spanning-tree exception debug messages.
general	Display general spanning-tree activity debug messages.
mstp	Debug Multiple Spanning Tree Protocol events.
pvst+	Display per-VLAN spanning-tree plus (PVST+) event debug messages.
root	Display spanning-tree root-event debug messages.
snmp	Display spanning-tree Simple Network Management Protocol (SNMP) handling debug messages.
synchronization	Display the spanning-tree synchronization event debug messages.
switch	Display switch shim command debug messages. This shim is the software module that is the interface between the generic Spanning Tree Protocol (STP) code and the platform-specific code of various switch platforms.
uplinkfast	Display UplinkFast-event debug messages.



Note Though visible in the command-line help strings, the **csuf/csrt** keyword is not supported.

Defaults	Debugging is disabled.
Command Modes	Privileged EXEC

Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines The **undebug spanning-tree** command is the same as the **no debug spanning-tree** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.
	show spanning-tree	Displays spanning-tree state information.

 debug spanning-tree backbonefast

debug spanning-tree backbonefast

Use the **debug spanning-tree backbonefast** privileged EXEC command to enable debugging of spanning-tree BackboneFast events. Use the **no** form of this command to disable debugging.

debug spanning-tree backbonefast [detail | exceptions]

no debug spanning-tree backbonefast [detail | exceptions]

Syntax Description	detail (Optional) Display detailed BackboneFast debug messages. exceptions (Optional) Display spanning-tree BackboneFast-exception debug messages.						
Defaults	Debugging is disabled.						
Command Modes	Privileged EXEC						
Command History	<table border="1"> <thead> <tr> <th>Release</th><th>Modification</th></tr> </thead> <tbody> <tr> <td>12.2(25)SEF</td><td>This command was introduced.</td></tr> </tbody> </table>	Release	Modification	12.2(25)SEF	This command was introduced.		
Release	Modification						
12.2(25)SEF	This command was introduced.						
Usage Guidelines	The undebug spanning-tree backbonefast command is the same as the no debug spanning-tree backbonefast command.						
Related Commands	<table border="1"> <thead> <tr> <th>Command</th><th>Description</th></tr> </thead> <tbody> <tr> <td>show debugging</td><td>Displays information about the types of debugging that are enabled.</td></tr> <tr> <td>show spanning-tree</td><td>Displays spanning-tree state information.</td></tr> </tbody> </table>	Command	Description	show debugging	Displays information about the types of debugging that are enabled.	show spanning-tree	Displays spanning-tree state information.
Command	Description						
show debugging	Displays information about the types of debugging that are enabled.						
show spanning-tree	Displays spanning-tree state information.						

debug spanning-tree bpdu

Use the **debug spanning-tree bpdu** privileged EXEC command to enable debugging of sent and received spanning-tree bridge protocol data units (BPDUs). Use the **no** form of this command to disable debugging.

debug spanning-tree bpdu [receive | transmit]

no debug spanning-tree bpdu [receive | transmit]

Syntax Description	receive (Optional) Display the nonoptimized path for received BPDU debug messages. transmit (Optional) Display the nonoptimized path for sent BPDU debug messages.
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Defaults	Debugging is disabled.
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Command Modes	Privileged EXEC
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Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines	The undebug spanning-tree bpdu command is the same as the no debug spanning-tree bpdu command.
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Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.
	show spanning-tree	Displays spanning-tree state information.

 debug spanning-tree bpdu-opt

debug spanning-tree bpdu-opt

Use the **debug spanning-tree bpdu-opt** privileged EXEC command to enable debugging of optimized spanning-tree bridge protocol data units (BPDUs) handling. Use the **no** form of this command to disable debugging.

debug spanning-tree bpdu-opt [detail | packet]

no debug spanning-tree bpdu-opt [detail | packet]

Syntax Description	detail (Optional) Display detailed optimized BPDU-handling debug messages. packet (Optional) Display packet-level optimized BPDU-handling debug messages.
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Defaults	Debugging is disabled.
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Command Modes	Privileged EXEC
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Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines	The undebug spanning-tree bpdu-opt command is the same as the no debug spanning-tree bpdu-opt command.
-------------------------	--

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.
	show spanning-tree	Displays spanning-tree state information.

debug spanning-tree mstp

Use the **debug spanning-tree mstp** privileged EXEC command to enable debugging of the Multiple Spanning Tree Protocol (MSTP) software. Use the **no** form of this command to disable debugging.

```
debug spanning-tree mstp {all | boundary | bpdu-rx | bpdu-tx | errors | flush | init | migration | pm | proposals | region | roles | sanity_check | sync | tc | timers}
```

```
no debug spanning-tree mstp {all | boundary | bpdu-rx | bpdu-tx | errors | flush | init | migration | pm | proposals | region | roles | sanity_check | sync | tc | timers}
```

Syntax Description	
all	Enable all the debugging messages.
boundary	Debug flag changes at these boundaries: <ul style="list-style-type: none"> An multiple spanning-tree (MST) region and a single spanning-tree region running Rapid Spanning Tree Protocol (RSTP) An MST region and a single spanning-tree region running 802.1D An MST region and another MST region with a different configuration
bpdu-rx	Debug the received MST bridge protocol data units (BPDUs).
bpdu-tx	Debug the sent MST BPDUs.
errors	Debug MSTP errors.
flush	Debug the port flushing mechanism.
init	Debug the initialization of the MSTP data structures.
migration	Debug the protocol migration state machine.
pm	Debug MSTP port manager events.
proposals	Debug handshake messages between the designated switch and the root switch.
region	Debug the region synchronization between the switch processor (SP) and the route processor (RP).
roles	Debug MSTP roles.
sanity_check	Debug the received BPDU sanity check messages.
sync	Debug the port synchronization events.
tc	Debug topology change notification events.
timers	Debug the MSTP timers for start, stop, and expire events.

Defaults	Debugging is disabled.				
Command Modes	Privileged EXEC				
Command History	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>12.2(25)SEF</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	12.2(25)SEF	This command was introduced.
Release	Modification				
12.2(25)SEF	This command was introduced.				

■ debug spanning-tree mstp

Usage Guidelines The **undebug spanning-tree mstp** command is the same as the **no debug spanning-tree mstp** command.

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled.
show spanning-tree	Displays spanning-tree state information.

debug spanning-tree switch

Use the **debug spanning-tree switch** privileged EXEC command to enable debugging of the software interface between the Spanning Tree Protocol (STP) software module and the port manager software module. Use the **no** form of this command to disable debugging.

```
debug spanning-tree switch {all | errors | flush | general | helper | pm | rx {decode | errors | interrupt | process} | state | tx [decode] | uplinkfast}
```

```
no debug spanning-tree switch {all | errors | flush | general | helper | pm | rx {decode | errors | interrupt | process} | state | tx [decode] | uplinkfast}
```

Syntax Description	
all	Display all spanning-tree switch debug messages.
errors	Display debug messages for the interface between the spanning-tree software module and the port manager software module.
flush	Display debug messages for the shim flush operation.
general	Display general event debug messages.
helper	Display spanning-tree helper-task debug messages. Helper tasks handle bulk spanning-tree updates.
pm	Display port-manager event debug messages.
rx	Display received bridge protocol data unit (BPDU) handling debug messages. The keywords have these meanings: <ul style="list-style-type: none"> • decode—Display decoded received packets. • errors—Display receive error debug messages. • interrupt—Display interrupt service request (ISR) debug messages. • process—Display process receive BPDU debug messages.
state	Display spanning-tree port state change debug messages;
tx [decode]	Display sent BPDU handling debug messages. The keyword has this meaning: <ul style="list-style-type: none"> • decode—(Optional) Display decoded sent packets.
uplinkfast	Display uplinkfast packet transmission debug messages.

Defaults	Debugging is disabled.
Command Modes	Privileged EXEC

Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines	The undebug spanning-tree switch command is the same as the no debug spanning-tree switch command.
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■ **debug spanning-tree switch**

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.
	show spanning-tree	Displays spanning-tree state information.

debug spanning-tree uplinkfast

Use the **debug spanning-tree uplinkfast** privileged EXEC command to enable debugging of spanning-tree UplinkFast events. Use the **no** form of this command to disable debugging.

debug spanning-tree uplinkfast [exceptions]

no debug spanning-tree uplinkfast [exceptions]

Syntax Description	exceptions (Optional) Display spanning-tree UplinkFast-exception debug messages.						
Defaults	Debugging is disabled.						
Command Modes	Privileged EXEC						
Command History	<table border="1"> <thead> <tr> <th>Release</th><th>Modification</th></tr> </thead> <tbody> <tr> <td>12.2(25)SEF</td><td>This command was introduced.</td></tr> </tbody> </table>	Release	Modification	12.2(25)SEF	This command was introduced.		
Release	Modification						
12.2(25)SEF	This command was introduced.						
Usage Guidelines	The undebug spanning-tree uplinkfast command is the same as the no debug spanning-tree uplinkfast command.						
Related Commands	<table border="1"> <thead> <tr> <th>Command</th><th>Description</th></tr> </thead> <tbody> <tr> <td>show debugging</td><td>Displays information about the types of debugging that are enabled.</td></tr> <tr> <td>show spanning-tree</td><td>Displays spanning-tree state information.</td></tr> </tbody> </table>	Command	Description	show debugging	Displays information about the types of debugging that are enabled.	show spanning-tree	Displays spanning-tree state information.
Command	Description						
show debugging	Displays information about the types of debugging that are enabled.						
show spanning-tree	Displays spanning-tree state information.						

debug sw-vlan

debug sw-vlan

Use the **debug sw-vlan** privileged EXEC command to enable debugging of VLAN manager activities. Use the **no** form of this command to disable debugging.

```
debug sw-vlan {badpmcookies | cfg-vlan {bootup | cli} | events | ifs | management | mapping | notification | packets | redundancy | registries | vtp}
```

```
no debug sw-vlan {badpmcookies | cfg-vlan {bootup | cli} | events | ifs | management | mapping | notification | packets | redundancy | registries | vtp}
```

Syntax Description	badpmcookies Display debug messages for VLAN manager incidents of bad port manager cookies. cfg-vlan {bootup cli} Display config-vlan debug messages. The keywords have these meanings: <ul style="list-style-type: none"> • bootup—Display messages when the switch is booting up. • cli—Display messages when the command-line interface (CLI) is in config-vlan mode. events Display debug messages for VLAN manager events. ifs See the debug sw-vlan ifs command. management Display debug messages for VLAN manager management of internal VLANs. mapping Display debug messages for VLAN mapping. notification See the debug sw-vlan notification command. packets Display debug messages for packet handling and encapsulation processes. redundancy Display debug messages for VTP VLAN redundancy. registries Display debug messages for VLAN manager registries. vtp See the debug sw-vlan vtp command.
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Defaults	Debugging is disabled.
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Command Modes	Privileged EXEC
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Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines	The undebug sw-vlan command is the same as the no debug sw-vlan command.
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Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.
	show vlan	Displays the parameters for all configured VLANs or one VLAN (if the VLAN name or ID is specified) in the administrative domain.
	show vtp	Displays general information about VTP management domain, status, and counters.

debug sw-vlan ifs

debug sw-vlan ifs

Use the **debug sw-vlan ifs** privileged EXEC command to enable debugging of the VLAN manager IOS file system (IFS) error tests. Use the **no** form of this command to disable debugging.

```
debug sw-vlan ifs {open {read | write} | read {1 | 2 | 3 | 4} | write}
no debug sw-vlan ifs {open {read | write} | read {1 | 2 | 3 | 4} | write}
```

Syntax Description	open {read write} Display VLAN manager IFS file-open operation debug messages. The keywords have these meanings: <ul style="list-style-type: none"> • read—Display VLAN manager IFS file-read operation debug messages. • write—Display VLAN manager IFS file-write operation debug messages.
read {1 2 3 4}	Display file-read operation debug messages for the specified error test (1, 2, 3, or 4).
write	Display file-write operation debug messages.

Defaults	Debugging is disabled.
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Command Modes	Privileged EXEC
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Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines	The undebug sw-vlan ifs command is the same as the no debug sw-vlan ifs command. When selecting the file read operation, Operation 1 reads the file header, which contains the header verification word and the file version number. Operation 2 reads the main body of the file, which contains most of the domain and VLAN information. Operation 3 reads type length version (TLV) descriptor structures. Operation 4 reads TLV data.
-------------------------	--

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.
	show vlan	Displays the parameters for all configured VLANs or one VLAN (if the VLAN name or ID is specified) in the administrative domain.

debug sw-vlan notification

Use the **debug sw-vlan notification** privileged EXEC command to enable debugging of the activation and deactivation of Inter-Link Switch (ISL) VLAN IDs. Use the **no** form of this command to disable debugging.

```
debug sw-vlan notification {accfwdchange | allowedvlancfgchange | fwdchange | linkchange | modechange | pruningcfgchange | statechange}
```

```
no debug sw-vlan notification {accfwdchange | allowedvlancfgchange | fwdchange | linkchange | modechange | pruningcfgchange | statechange}
```

Syntax Description	accfwdchange	Display debug messages for VLAN manager notification of aggregated access interface spanning-tree forward changes.
	allowedvlancfgchange	Display debug messages for VLAN manager notification of changes to the allowed VLAN configuration.
	fwdchange	Display debug messages for VLAN manager notification of spanning-tree forwarding changes.
	linkchange	Display debug messages for VLAN manager notification of interface link-state changes.
	modechange	Display debug messages for VLAN manager notification of interface mode changes.
	pruningcfgchange	Display debug messages for VLAN manager notification of changes to the pruning configuration.
	statechange	Display debug messages for VLAN manager notification of interface state changes.

Defaults	Debugging is disabled.				
Command Modes	Privileged EXEC				
Command History	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>12.2(25)SEF</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	12.2(25)SEF	This command was introduced.
Release	Modification				
12.2(25)SEF	This command was introduced.				

Usage Guidelines	The undebug sw-vlan notification command is the same as the no debug sw-vlan notification command.						
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>show debugging</td> <td>Displays information about the types of debugging that are enabled.</td></tr> <tr> <td>show vlan</td> <td>Displays the parameters for all configured VLANs or one VLAN (if the VLAN name or ID is specified) in the administrative domain.</td></tr> </tbody> </table>	Command	Description	show debugging	Displays information about the types of debugging that are enabled.	show vlan	Displays the parameters for all configured VLANs or one VLAN (if the VLAN name or ID is specified) in the administrative domain.
Command	Description						
show debugging	Displays information about the types of debugging that are enabled.						
show vlan	Displays the parameters for all configured VLANs or one VLAN (if the VLAN name or ID is specified) in the administrative domain.						

debug sw-vlan vtp

debug sw-vlan vtp

Use the **debug sw-vlan vtp** privileged EXEC command to enable debugging of the VLAN Trunking Protocol (VTP) code. Use the **no** form of this command to disable debugging.

debug sw-vlan vtp {events | packets | pruning [packets | xmit] | redundancy | xmit}

no debug sw-vlan vtp {events | packets | pruning | redundancy | xmit}

Syntax Description	events Display debug messages for general-purpose logic flow and detailed VTP messages generated by the VTP_LOG_RUNTIME macro in the VTP code. packets Display debug messages for the contents of all incoming VTP packets that have been passed into the VTP code from the IOS VTP platform-dependent layer, except for pruning packets. pruning [packets xmit] Display debug messages generated by the pruning segment of the VTP code. The keywords have these meanings: <ul style="list-style-type: none"> packets—(Optional) Display debug messages for the contents of all incoming VTP pruning packets that have been passed into the VTP code from the IOS VTP platform-dependent layer. xmit—(Optional) Display debug messages for the contents of all outgoing VTP packets that the VTP code requests the IOS VTP platform-dependent layer to send.
redundancy	Display debug messages for VTP redundancy.
xmit	Display debug messages for the contents of all outgoing VTP packets that the VTP code requests the IOS VTP platform-dependent layer to send, except for pruning packets.

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines The **undebug sw-vlan vtp** command is the same as the **no debug sw-vlan vtp** command.

If no further parameters are entered after the **pruning keyword**, VTP pruning debugging messages appear. They are generated by the VTP_PRUNING_LOG_NOTICE, VTP_PRUNING_LOG_INFO, VTP_PRUNING_LOG_DEBUG, VTP_PRUNING_LOG_ALERT, and VTP_PRUNING_LOG_WARNING macros in the VTP pruning code.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.
	show vtp	Displays general information about VTP management domain, status, and counters.

debug udld

Use the **debug udld** privileged EXEC command to enable debugging of the UniDirectional Link Detection (UDLD) feature. Use the **no** form of this command to disable UDLD debugging.

debug udld {events | packets | registries}

no debug udld {events | packets | registries}

Syntax Description	events Display debug messages for UDLD process events as they occur. packets Display debug messages for the UDLD process as it receives packets from the packet queue and tries to send them at the request of the UDLD protocol code. registries Display debug messages for the UDLD process as it processes registry calls from the UDLD process-dependent module and other feature modules.
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Defaults	Debugging is disabled.
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Command Modes	Privileged EXEC
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Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines	The undebug udld command is the same as the no debug udld command.
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For **debug udld events**, these debugging messages appear:

- General UDLD program logic flow
- State machine state changes
- Program actions for the set and clear ErrDisable state
- Neighbor cache additions and deletions
- Processing of configuration commands
- Processing of link-up and link-down indications

For **debug udld packets**, these debugging messages appear:

- General packet processing program flow on receipt of an incoming packet
- Indications of the contents of the various pieces of packets received (such as type length versions [TLVs]) as they are examined by the packet reception code
- Packet transmission attempts and the outcome

For **debug udld registries**, these categories of debugging messages appear:

- Sub-block creation
- Fiber-port status changes

- State change indications from the port manager software
- MAC address registry calls

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled.
show udld	Displays UDLD administrative and operational status for all ports or the specified port.

debug vqpc

debug vqpc

Use the **debug vqpc** privileged EXEC command to enable debugging of the VLAN Query Protocol (VQP) client. Use the **no** form of this command to disable debugging.

debug vqpc [all | cli | events | learn | packet]

no debug vqpc [all | cli | events | learn | packet]

Syntax Description	all (Optional) Display all VQP client debug messages.
cli	(Optional) Display the VQP client command-line interface (CLI) debug messages.
events	(Optional) Display VQP client event debug messages.
learn	(Optional) Display VQP client address learning debug messages.
packet	(Optional) Display VQP client packet information debug messages.

Defaults	Debugging is disabled.
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Command Modes	Privileged EXEC
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Command History	Release	Modification
	12.2(25)SEF	This command was introduced.

Usage Guidelines	The undebug vqpc command is the same as the no debug vqpc command.
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Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.