Catalyst 2350 Debug Commands

This appendix describes the **debug** privileged EXEC commands that have been created or changed for use with the Catalyst 2350 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 cluster

Use the **debug cluster** privileged EXEC command to enable debugging of cluster-specific events. Use the **no** form of this command to disable debugging.

> **debug cluster** {**discovery** | **events** | **extended** | **http** | **ip** [**packet**] | **members** | **nat** | **neighbors** | **platform** | **snmp** | **vqpxy**}

> **no debug cluster** {**discovery** | **events** | **extended** | **http** | **ip** [**packet**] | **members** | **nat** | **neighbors** | **platform** | **snmp** | **vqpxy**}

Syntax Description		
discovery	Display cluster discovery debug messages.
events	Display cluster event debug messages.
extended	Display extended discovery debug messages.
http	Display Hypertext Transfer Protocol (HTTP) debug messages.
ip [**packet**]	Display IP or transport packet debug messages.
members	Display cluster member debug messages.
nat	Display Network Address Translation (NAT) debug messages.
neighbors	Display cluster neighbor debug messages.
platform	Display platform-specific cluster debug messages.
snmp	Display Simple Network Management Protocol (SNMP) debug messages.
vqpxy	Display VLAN Query Protocol (VQP) proxy debug messages.

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

Defaults   Debugging is disabled.

Command Modes   Privileged EXEC

Command History	Release	Modification
	12.2(46)EY	This command was introduced.

Usage Guidelines   This command is available only on the cluster command switch.

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

Related Commands	**Command**	**Description**
	show debugging	Displays information about the types of debugging that are enabled.
	show cluster	Displays the cluster status and a summary of the cluster to which the switch belongs.
	show cluster candidates	Displays a list of candidate switches when entered on the command switch.
	show cluster members	Displays information about cluster members when executed on the command switch.

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(46)EY	This command was introduced.

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

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

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.

Command Modes   Privileged EXEC

Command History

Release	Modification
12.2(46)EY	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 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.

Note   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(46)EY	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 fastethernet

Use the **debug fastethernet** privileged EXEC command to enable debugging of the Ethernet management port. Use the **no** form of this command to disable debugging.

debug fastethernet {**af** | **events** | **packets**}

no debug fastethernet {**af** | **events** | **packets**}

Syntax Description	af	Display Ethernet management port software-address-filter debug messages.
	events	Display Ethernet management port event debug messages.
	packets	Display Ethernet management port packet debug messages.

Defaults   Debugging is disabled.

Command Modes   Privileged EXEC

Command History	Release	Modification
	12.2(46)EY	This command was introduced.

Usage Guidelines   The **undebug fastethernet** {**af** | **events** | **packets**} command is the same as the **no debug fastethernet** {**af** | **events** | **packets**} command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.
	show controllers ethernet-controller fastethernet	Displays information about the Ethernet management port.

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		
	interface-id	Display debug messages for the specified physical port, identified by module number (always 0) and port, for example **gigabitethernet 0/2**.
	null *interface-number*	Display debug messages for null interfaces. The *interface-number* is always **0**.
	port-channel *port-channel-number*	Display debug messages for the specified EtherChannel port-channel interface. The *port-channel-number* range is 1 to 48.
	vlan *vlan-id*	Display debug messages for the specified VLAN. The *vlan-id* range is 1 to 4094.

Defaults   Debugging is disabled.

Command Modes   Privileged EXEC

Command History	Release	Modification
	12.2(46)EY	This command was introduced.

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

The **undebug interface** command is the same as the **no debug interface** 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 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(46)EY	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

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(46)EY	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(46)EY	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

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   Privileged EXEC

Command History	Release	Modification
	12.2(46)EY	This command was introduced.

Usage Guidelines   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 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(46)EY	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

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(46)EY	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
show debugging	Displays information about the types of debugging that are enabled.

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.

Command Modes   Privileged EXEC

Command History

Release	Modification
12.2(46)EY	This command was introduced.

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

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 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(46)EY	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) Display 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.	

Defaults   Debugging is disabled.

Command Modes   Privileged EXEC

Command History	Release	Modification
	12.2(46)EY	This command was introduced.

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

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**~~ | ~~**stack**~~ | ~~**vacl**~~ | ~~**vlmap**~~ | **warn**}

no debug platform acl {**all** | **exit** | **label** | **main** | ~~**racl**~~ | ~~**stack**~~ | ~~**vacl**~~ | ~~**vlmap**~~ | **warn**}

Syntax Description		
	all	Display all ACL manager debug messages.
	exit	Display ACL exit-related debug messages.
	expand	Display VMR Layer 4 VMR Operation allocation/expansion debug messages.
	fspan	Display ACL FSPAN-related debug messages.
	ipe	Display ACL IPE-related debug messages.
	ipv6	Display ACL IPv6-related debug messages.
	label	Display ACL label-related debug messages.
	limitations	Display ACL limitations-related debug messages.
	main	Display the main or important ACL debug messages.
	odm	Display ODM-related debug messages.
	port acl	Display Port ACL -related debug messages.
	racl	Display router ACL related debug messages.
	stack	Display ACL stack-related debug messages.
	urpf	Display ACL URPF-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.

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Note   Though visible in the command-line help strings, not all of the keywords are supported on the switch.

Command Default   Debugging is disabled.

Command Modes   Privileged EXEC

Command History	Release	Modification
	12.2(46)EY	This command was introduced.

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 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 (RFP) 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

Command History

Release	Modification
12.2(46)EY	This command was introduced.

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 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

Command History	Release	Modification
	12.2(46)EY	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 frontend-controller

Use the **debug platform frontend-controller** privileged EXEC command to enable debugging of front-end controller activity. Use the **no** form of this command to disable debugging.

> **debug platform frontend-controller** {**all** | **image** | **led** | **manager** | **register** | **thermal**}

> **no debug platform frontend-controller** {**all** | **image** | **led** | **manager** | **register** | **thermal**}

Syntax Description

all	Display all the debug messages for front-end controller.
image	Display Image Manager debug messages.
led	Display LED debug messages.
manager	Display front-end-controller manager debug messages.
register	Display Register Access debug messages.
thermal	Display thermal debug messages.

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

Defaults   Debugging is disabled.

Command Modes   Privileged EXEC

Command History

Release	Modification
12.2(46)EY	This command was introduced.

Usage Guidelines   The **undebug platform frontend-controller** command is the same as the **no debug platform frontend-controller** command.

Related Commands

Command	Description
show platform frontend-controller	Displays counter and status information for the front-end controller manager and subordinate applications, and displays the hardware and software information for the front-end controller.
show debugging	Displays information about the types of debugging that are enabled.

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** | **l3mm** | **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: • *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**	**l3mm**	**misc**	**vlan**]	Display IGMP snooping remote procedure call (RPC) event debug messages. The keywords have these meanings:
	• **cfg**—(Optional) Display IGMP snooping RPC debug messages.
	• **l3mm**—(Optional) IGMP snooping Layer 3 multicast router group 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.

Defaults   Debugging is disabled.

Command Modes   Privileged EXEC

Command History

Release	Modification
12.2(46)EY	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 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   Although visible in the command-line help, the **stack** keyword is not supported.

Defaults   Debugging is disabled.

Command Modes   Privileged EXEC

Command History	Release	Modification
	12.2(46)EY	This command was introduced.

Usage Guidelines   The **undebug 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

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(46)EY	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   Although visible in the command-line help, the **stackchg** keyword is not supported.

Defaults   Debugging is disabled.

Command Modes   Privileged EXEC

Command History

Release	Modification
12.2(46)EY	This command was introduced.

Usage Guidelines   The **undebug 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

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: • **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

Command History

Release	Modification
12.2(46)EY	This command was introduced.

■   **debug platform phy**

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

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: • **detail**—Display vector-function details.
rpc [**general** | **oper-info** | **state** | **vectors** | **vp-events**]	Display RPC related-event debug messages. The keywords have these meanings: • **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   Although visible in the command-line help, the **stack**-**manager** keyword is not supported.

Defaults   Debugging is disabled.

Command Modes   Privileged EXEC

Command History

Release	Modification
12.2(46)EY	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

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** | **read** | **write**}

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

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

Defaults   Debugging is disabled.

Command Modes   Privileged EXEC

Command History	Release	Modification
	12.2(46)EY	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 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) hardware memory manager software. Use the **no** form of this command to disable debugging.

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

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

Syntax Description		
	all	Display all QoS and ACL ternary content addressable memory (QATM) manager 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.
	tcam	Display QATM hardware-memory-related events debug messages.

Defaults   Debugging is disabled.

Command Modes   Privileged EXEC

Command History	Release	Modification
	12.2(46)EY	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.

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

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(46)EY	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

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(46)EY	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

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(46)EY	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	Release	Modification
	12.2(46)EY	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	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

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.

Defaults   Debugging is disabled.

Command Modes   Privileged EXEC

Command History	Release	Modification
	12.2(46)EY	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-driver

Use the **debug platform tcam-driver** privileged EXEC command to enable debugging of hardware memory access and lookups. Use the **no** form of this command to disable debugging.

debug platform tcam-driver {**detail** | **log** | **read** | **search** | **shadow** | **trace** | **write**}

debug platform tcam-driver log {**asic** | **clear** | **reset** | **set** | **start** | **stop**}

debug platform tcam-driver read {**fram** | **hash** | **mapping** | **otcam** | **scr** | **tcam**}

debug platform tcam-driver search

debug platform tcam-driver shadow

debug platform tcam-driver trace

debug platform tcam-driver write {**fram** | **hash** | **mapping** | **otcam** | **scr** | **tcam**}

no debug platform tcam-driver {**detail** | **log** | **read** | **search** | **shadow** | **trace** | **write**}

no debug platform tcam-driver log {**asic** | **clear** | **reset** | **set** | **start** | **stop**}

no debug platform tcam-driver read {**fram** | **hash** | **mapping** | **otcam** | **scr** | **tcam**}

no debug platform tcam-driver search

no debug platform tcam-driver shadow

no debug platform tcam-driver trace

no debug platform tcam-driver write {**fram** | **hash** | **mapping** | **otcam** | **scr** | **tcam**}

Syntax Description	log {**asic**	**clear**	**reset**	**set**	**start**	**stop**}	Display TCAM test log debug messages. The keywords have these meanings:
		• **asic**—Specify the ASIC to perform the operation.
		• **clear**—Clear the TCAM log results table.
		• **reset**—Reset the TCAM log criteria.
		• **set**—Specify TCAM log criteria (see cli help for more information)
		• **start**—Continuously capture matching packets in TCAM log.
		• **stop**—Stop capturing packets.

read {**fram** | **hash** | **mapping** | **otcam** | **scr** | **tcam**}	Display hardware-memory-read debug read messages. The keywords have these meanings: • **fram**—Display forwarding RAM read debug messages. • **hash**—Display hash read debug messages. • **mapping**—Display mapping RAM read debug messages. • **otcam**—Display overflow TCAM read debug messages. • **scr**—Display search CAM result read debug messages. • **tcam**—Display hardware-memory-read debug messages.
search	Display supervisor-initiated hardware-memory-search results debug messages.
shadow	Display shadow table debug messages.
trace	Display traceback debug messages.
write {**fram** | **hash** | **mapping** | **otcam** | **scr** | **tcam**}	Display hardware-memory-read debug write messages. The keywords have these meanings: • **fram**—Display forwarding RAM write debug messages. • **hash**—Display hash write debug messages. • **mapping**—Display mapping RAM write debug messages. • **otcam**—Display overflow TCAM write debug messages. • **scr**—Display search CAM result write debug messages. • **tcam**—Display hardware-memory-write debug messages.

Defaults   Debugging is disabled.

Command Modes   Privileged EXEC

Command History

Release	Modification
12.2(46)EY	This command was introduced.

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

Related Commands

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

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:	
	• **events**—Display UDLD RPC events.	
	• **messages**—Display UDLD RPC messages.	

Defaults   Debugging is disabled.

Command Modes   Privileged EXEC

Command History	Release	Modification
	12.2(46)EY	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.	

Defaults   Debugging is disabled.

Command Modes   Privileged EXEC

Command History	Release	Modification
	12.2(46)EY	This command was introduced.

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

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

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.

✎
Note   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(46)EY	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 qos

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

debug qos {**capability** | **event** | **service-policy** | **set**}

no debug qos {**capability** | **event** | **service-policy** | **set**}

Syntax Description

capability	Display QoS capability debug messages.
event	Display QoS-related MPQC event debug messages.
service-policy	Display QoS service-policy debug message.
set	Display QoS packet marking debug message.

Defaults   Debugging is disabled.

Command Modes   Privileged EXEC

Command History

Release	Modification
12.2(46)EY	This command was introduced.

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

Related Commands

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

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** | **etherchannel** | **events** | **exceptions** | **general** | **mstp** | **pvst+** | **root** | **snmp** | **switch** | **synchronization** | **uplinkfast**}

no debug spanning-tree {**all** | **backbonefast** | **bpdu** | **bpdu-opt** | **config** | **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.
	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 Although visible in the command-line help the **csuf/csrt** keyword is not supported.

Defaults   Debugging is disabled.

Command Modes   Privileged EXEC

Command History	Release	Modification
	12.2(46)EY	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

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	Release	Modification
	12.2(46)EY	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	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.	

Defaults   Debugging is disabled.

Command Modes   Privileged EXEC

Command History	Release	Modification
	12.2(46)EY	This command was introduced.

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

Defaults   Debugging is disabled.

Command Modes   Privileged EXEC

Command History	Release	Modification
	12.2(46)EY	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:
	• 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

Release	Modification
12.2(46)EY	This command was introduced.

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: • **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: • **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(46)EY	This command was introduced.

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

Release	Modification
12.2(46)EY	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

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

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: • **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.

Defaults   Debugging is disabled.

Command Modes   Privileged EXEC

Command History

Release	Modification
12.2(46)EY	This command was introduced.

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

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

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:
	• **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.

Command Modes	Privileged EXEC

Command History	Release	Modification
	12.2(46)EY	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	Release	Modification
	12.2(46)EY	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	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

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: • **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(46)EY	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.

Defaults   Debugging is disabled.

Command Modes   Privileged EXEC

Command History

Release	Modification
12.2(46)EY	This command was introduced.

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

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

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.

Command Modes   Privileged EXEC

Command History	Release	Modification
	12.2(46)EY	This command was introduced.

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

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

debug vqpc