

# Tools, Maintenance, and Troubleshooting Tips for Cisco IOS Software

Some sites require user registration for access. The sites for registered users are noted beside the link. Click [here](#) to become a registered user.

## Tools:

You must log in to Cisco.com before accessing the following tools.

[IOS Command Lookup Tool](#) (available to registered Cisco.com users)  
Search for commands in configuration guides and command references  
– [IOS Command Lookup Tool for Release 12.3](#)

[Error Message Decoder Tool](#) (available to registered Cisco.com users)  
Research and resolve error messages

[Output Interpreter](#) (available to registered Cisco.com users)  
Generate output analysis of **show** commands and decode the stack trace generated by a router during a hardware failure.

[Software Advisor](#) (available to registered Cisco.com users)  
Compare Cisco IOS releases and determine which release supports your hardware

[Software Bug Toolkit](#) (available to registered Cisco.com users)  
Search for known caveats by software version, feature set, and keyword

[MIB Locator](#) (available to registered Cisco.com users)  
Obtain a list of MIBs included in a specific Cisco IOS release

## Router and Cisco IOS Maintenance:

- [How to Choose a Cisco IOS Software Release](#)
- [How to Copy a System Image from One Device to Another](#)
- [How to Protect Your System Against the Nimda Virus](#)
- [Capturing Text Output from Hyperterminal](#)
- [Xmodem Console Download Procedure Using ROMmon](#)
- [Software Installation and Upgrade Procedures](#)
- [Password Recovery Procedures](#)
- [Standard Break Key Sequence Combinations During Password Recovery](#)

## Understanding Error Messages:

- [Troubleshooting Cisco IOS Software Scheduler-Related Error Messages](#)
- [What Causes %SYS-3-CPUHOG Messages?](#)
- [Spurious Accesses and Alignment Errors](#)

## Troubleshooting:

- [Hardware Troubleshooting Index Page](#)
- [Troubleshooting Bus Error Crashes](#)
- [Why Does My Router Lose Its Configuration During Reboot?](#)
- [Troubleshooting Router Hangs](#)
- [Troubleshooting Memory Problems - SYS-2-MALLOCFAIL](#)
- [Troubleshooting High CPU Utilization on Cisco Routers](#)
- [Troubleshooting Router Crashes](#)
- [Using CAR During DOS Attacks](#)