



# About This Manual

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This section introduces the *Debug Command Reference* publication audience and scope, organization, use, and conventions.

## Audience and Scope

This publication addresses the network or system administrator who maintains a Cisco gateway, router, or bridge running Cisco Internetwork Operating System (Cisco IOS) Release 11 and earlier software.

Readers should know how to configure a Cisco router and should be familiar with the protocols and media their routers are configured to support. Readers must also be aware of their network topology.

## Document Organization and Use

The *Debug Command Reference* publication provides information about using **debug** commands to troubleshoot Cisco network servers. This manual is most effective when used in conjunction with the *Troubleshooting Internetworking Systems* publication.

Chapter 1, “Using Debug Commands,” explains how you enter **debug** commands; use the **debug ?** and **debug all** commands; and generate and redirect **debug** command output. It is important that you read this chapter first before proceeding to Chapter 2, “Debug Commands.”

Chapter 2, “Debug Commands,” presents reference information on commands you use to debug your internetwork. The chapter includes command function descriptions, sample output displays, and explanations of these displays.

Appendix A, “X.25 Cause and Diagnostic Codes,” lists the codes that can appear in output from the **debug x25**, **debug x25 events**, and **debug x25 vc** commands.

Appendix B, “ISDN Switch Types, Codes, and Values,” lists the supported switch types. It also contains the cause codes, cause values, bearer capability values, and progress values that can appear in output from the **debug isdn q921**, **debug isdn q931**, and **debug isdn event** commands.

## Document Conventions

The command descriptions in this manual use these conventions:

- Commands and keywords are in **boldface**.
- Filenames, directory names, and arguments for which you supply values are in *italics*.
- Elements in square brackets ([ ]) are optional.
- Alternative but required keywords are grouped in braces ( { } ) and are separated by vertical bars (|).
- A string is defined as a nonquoted set of characters. For example, when setting up a community string for SNMP to “public,” do not use quotes around the string or the string will be set to “public.”

The samples use these conventions:

- Terminal sessions are printed in a `screen` font.
- Information you enter is in a **boldface screen** font.
- Nonprinting characters are shown in angle brackets (<>).
- Information the system displays is in a `screen` font; default responses are in square brackets ([ ]).

This publication also uses the following conventions:

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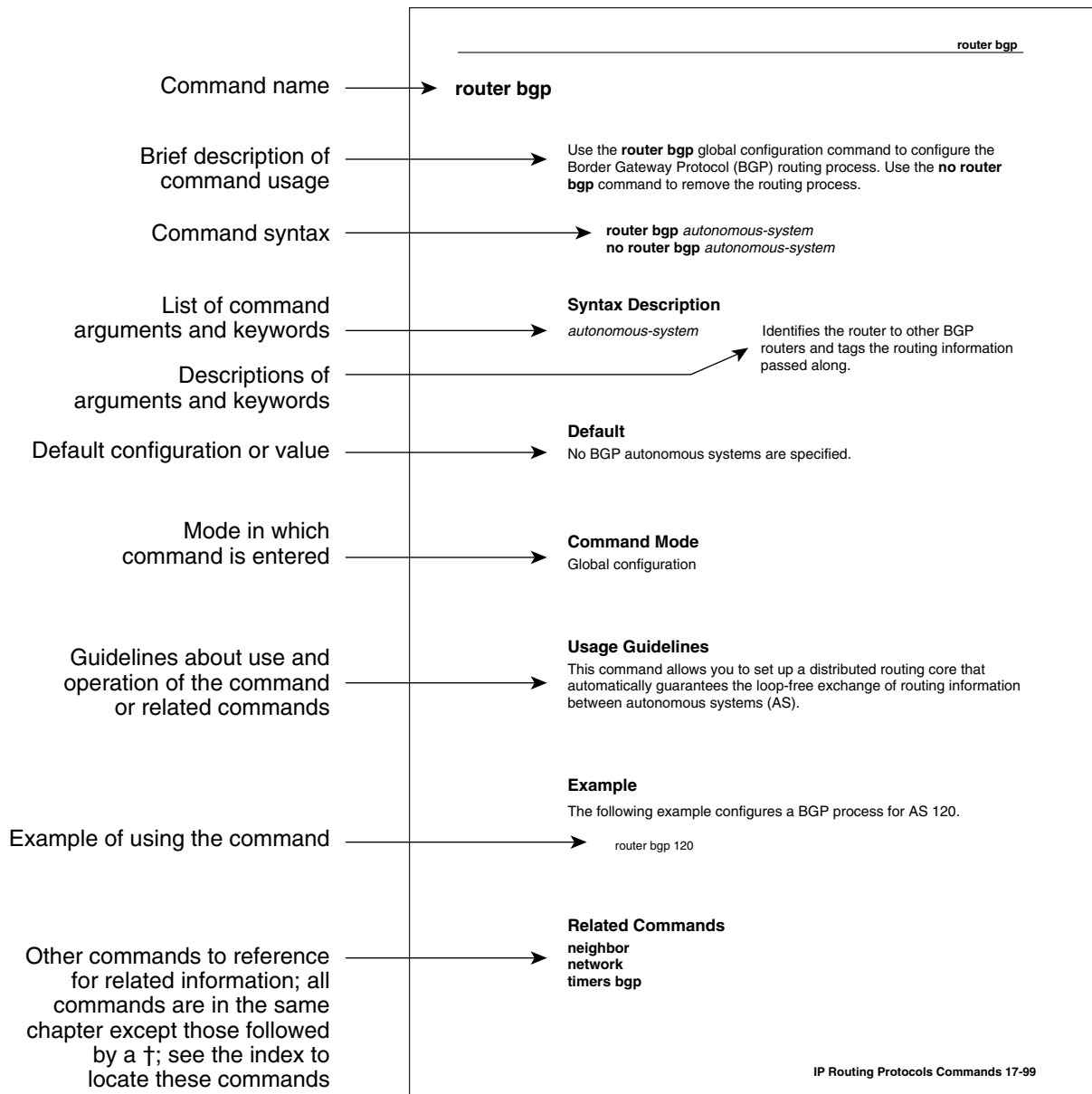
**Note** Means *reader take note*. Notes contain helpful suggestions, or reference to materials not covered in this manual.

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**Caution** Means *reader be careful*. In this situation, you might do something that could result in equipment damage or loss of data.

The following illustration explains the fields on a typical command reference page:



S2822

