

Inside This Manual

What You Can Learn From This Manual

This manual describes the PCL 5 commands used to print color on the HP Color LaserJet printer family and the other Hewlett-Packard PCL 5 color printers. Some of the main topics include an overview of the color printing process, using palettes, choosing color modes, adjusting output color to meet your requirements, printing color raster graphics, and HP-GL/2 vector graphics. Examples are provided which demonstrate the use of the PCL 5 color commands.

Note

All commands described in this manual are not necessarily supported by all printers. See the *PCL 5 Comparison Guide* for feature support information for each printer.

This manual is written primarily for users that are already familiar with PCL 5 printer features. For information on using PCL 5, see the *PCL 5 Printer Language Technical Reference Manual*.

Manual Organization

This manual contains seven chapters and four appendices. Chapters 2 through 4 describe command usage for the HP Color LaserJet 4500 and 8500 printers. Appendices A through D describe how these functions are achieved on the HP Color LaserJet, Color LaserJet 5, 5M, and the DeskJet 1200C and 1600C printers. Chapters 5 through 7 pertain to all the color printers described in this manual. A brief description of each chapter is provided below.

Chapter 1. Color Printing Overview

This chapter explains background information about printing color documents using PCL 5. Topics include palettes, color selection, pixel encoding, color modes, and color matching.

Chapter 2. Using Color Modes

Chapter 2 defines the color modes and describes how to use them, including descriptions of sending color raster data using different pixel encoding modes and color spaces.

Chapter 3. Using Palettes

This chapter describes the palettes associated with the color modes and explains how palettes are created, saved, and modified.

Chapter 4. Modifying Output Color

This chapter explains the options for modifying the output color: the Render Algorithm command, the Monochrome Print Mode command, Driver Configuration command, and Finish Mode command.

Chapter 5. The PCL Print Model

Chapter 5 describes the print model and how it determines the printed outcome when various patterns, colors, and images are applied together on a page. This chapter discusses the role that logical operations and transparency modes have on this process.

Chapter 6. Raster Graphics

This chapter describes the raster graphics commands and also compressing raster graphics images using various compression methods.

Chapter 7. Color Vector Graphics (HP-GL/2)

This chapter discusses printing color pages using HP-GL/2, the vector graphics language included on all PCL 5 printers. The chapter describes new and/or modified HP-GL/2 commands and how they are used to print with HP color printers.

Appendix A. Color Printing Overview (Color LaserJet, 5, 5M, DeskJet)

Appendix A explains background information about printing color documents using PCL 5. Topics include palettes, device-dependent vs. device-independent color, color selection, pixel encoding, color modes, and color matching.

Appendix B. Using Color Modes (Color LaserJet, 5, 5M, DeskJet)

Appendix B defines the color modes for the HP Color LaserJet, Color LaserJet 5, 5M, and the DeskJet 1200C and 1600C printers, and describes how to use them. It includes descriptions of sending color raster data using different pixel encoding modes and color spaces.

Appendix C. Using Palettes (Color LaserJet, 5, 5M, DeskJet)

Appendix C describes the use of palettes for the HP Color LaserJet, 5, and 5M, and DeskJet 1200C and 1600C printers. It explains the palettes associated with the color modes and explains how palettes are created, saved, and modified.

Appendix D. Modifying Output Color (Color LaserJet, 5, 5M, DeskJet)

Appendix D describes how to modify output color for the HP Color LaserJet, Color LaserJet 5, 5M, and the DeskJet 1200C and 1600C printers. This chapter explains how color can be optimized by compensating for different conditions, such as variations in color due to light sources, limitations of the original artwork and variations in viewing monitors. The chapter details the use of halftone rendering algorithms, color lookup tables, gamma correction, and viewing illuminant commands. These commands are provided so that users can request and receive color output that matches their expectations.

Index

An index offers quick access to PCL command information.

Related Documents

The following documents provide related information about Hewlett-Packard PCL 5 printers.

PCL 5 Printer Language Technical Reference Manual

The *PCL 5 Printer Language Technical Reference Manual* provides a description of the printer command language that controls PCL 5 printers. The manual provides explanations of each PCL command, and has examples demonstrating how the commands are used to manipulate the printer. A large portion of the manual is devoted to HP-GL/2, the vector-based graphics language in PCL 5 printers.

PCL 5 Comparison Guide

This document provides printer-specific information on paper handling, internal fonts, PCL command support, and control panel information. It identifies feature differences between the various PCL 5 printers, and how the printers implement the commands described in the *PCL 5 Printer Language Technical Reference Manual*.

Printer Job Language Technical Reference Manual

This manual describes PJP, the HP printer job language used on many of the Hewlett-Packard printers. PJP is used for switching printer languages, requesting status information, changing display messages, inquiring about feature settings, and other job-level functions.

PCL/PJP Technical Quick Reference Guide

This booklet is designed to provide quick access to the syntax of each PCL and PJP command. The commands are grouped by their function so that those familiar with PCL and/or PJP can find the syntax of a specific command without opening the manual.