

Product Brief

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The industry-leading IPS PS3 interpreter, based on Zoran's powerful embedded foundation technology—IPS— provides PostScript 3 compatibility for color and monochrome printers and multifunction peripherals. IPS PS3 enables OEMs to develop high-quality peripherals that support the PostScript 3 standard. IPS PS3 supports the PostScript language as

implemented in color and monochrome products from Hewlett-Packard. The software also supports the PostScript operators specified in the PostScript Language Reference Manual, Third Edition and provides additional functionality available in popular print controllers for color copiers and MFPs.

Benefits

- Provides a high quality PostScript 3 compatible printing solution for color and monochrome devices
- Source code availability provides design flexibility and facilitates value-added customization
- Value-added color and grayscale halftone screening technologies enhance printed output
- Integrated with Zoran's OnelImage™ common display list technology to support multi-bit and contone output devices

Key Features

- Offers the greatest compatibility with Hewlett-Packard printers
- Supports Monotype Imaging UFST 4.2 (TrueType, PostScript, CFF, MicroType and Asian Compression for TrueType) fonts, resident CID fonts and UTF-8 encoding
- Supports variable print resolutions up to 1800 dpi
- Can be combined with the other languages in IPS—IPS FIVE, IPS XLC, IPS PDFt and IPS XPS—for complete print functionality

Description

Scalable Software Design

IPS PS3 implements an extensible graphics kernel and is designed for maximum portability to operate with virtually any CPU architecture, memory configuration and I/O interface. This scalable software design supports a wide range of printer price and performance targets.

Zoran provides complete source code for the IPS PS3 interpreter and a full set of engineering documentation to allow OEMs to customize the interpreters for specific market requirements.

The interpreters are integrated with Zoran's rich-featured foundation technology—IPS—to offer a total solution for high performance print and multifunction peripheral controllers. With its layered architecture, application programming interface (API) and common display list model, IPS reduces time-to-market and development costs.

Image Quality Enhancements

IPS PS3 features patented color and grayscale image screening technologies that enhance the printed PostScript image. Color image quality is enhanced by functions to allow black overprint (avoids registration errors), pure black (optimizes text, graphics and image output quality), named color matching (used with illustration

applications), native ICC profile support (simplifies color calibration) and press simulation. Optional support for JBIG2 and JPEG 2000 compression reduces file sizes.

Zoran Engineering Support Services

Zoran offers Source Code Maintenance and Engineering Support Programs that can shorten development cycles and ensure that the latest PostScript language features are available as new controllers are developed. The IPS PS3 source code license includes technical support, software integration training and source code maintenance. The Source Code Maintenance Program provides extended source code maintenance and technical consulting, including informative technical bulletins and software patches and updates.

Zoran's Engineering Support Program provides direct software integration assistance and design recommendations to optimize the interface between the PostScript-compatible interpreter and the controller. OEMs can also work with a Zoran-authorized development partner. These companies have experience in IPS PS3 software integration and can offer fixed-cost, turnkey controller development for a range of controller configurations and print engines.

PostScript 3 Interpreter

Product Brief

Description (continued)

Specifications

Compatibility

- Monochrome PostScript 3 as implemented in HP's LaserJet 4250 series
- Color PostScript 3 as implemented in HP's Color LaserJet 5500 series
- Monochrome Adobe PostScript 3 as implemented in the Xerox Phaser 5500
- Color Adobe PostScript 3 as implemented in the Xerox Phaser 6350

Print Resolutions

- Up to 1800 dpi

Output Color Models

- 1,2,4 and 8-bit pixel depths
- Monochrome, RGB, CMY and CMYK by plane
- Monochrome CMY and CMYK by band
- RGB by pixel (8-bit only)

Fonts

Resident Fonts

- MicroType
- 2-byte Asian fonts (Type 0 OCF and CID)

Downloaded Fonts

- Type 1, Type 42 (TrueType)
- 2-byte Asian fonts (Type 0 OCF and CID)

Minimum Memory Requirements

- Monochrome: 4 MB (600 dpi, 1-bit)
- Color: 8 MB (600 dpi, 1-bit)

Paper Size

- Executive, letter, legal, ledger, A3, A4, B4, B5, envelope, others

Duplex Printing Support

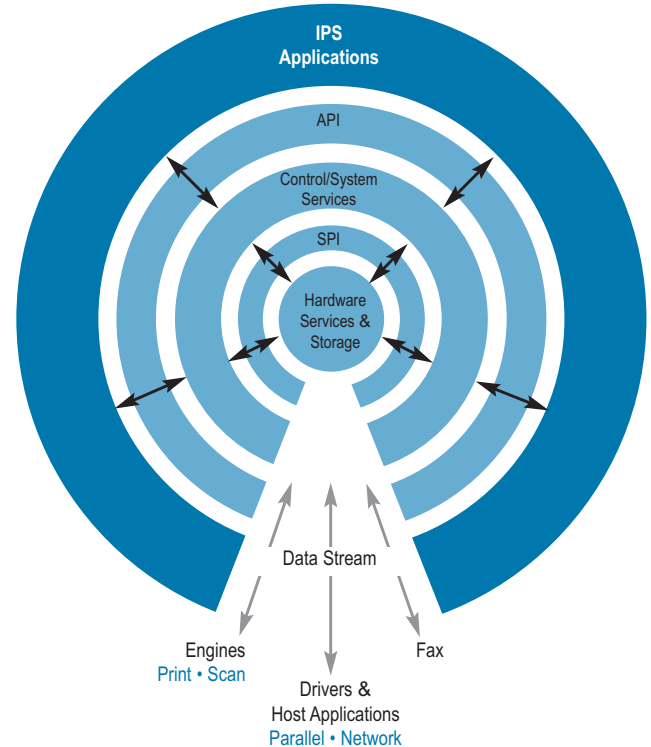
N-up Printing Support

Quality Assurance

- QualityLogic ATS, FTS and CET

IPS Architecture

This diagram illustrates the layered components of Zoran's embedded foundation software technology—IPS.



Zoran's IPS Applications

- IPS PS3
- IPS PDFt
- IPS FIVE
- IPS XLC
- IPS XPS

(API) Application Programming Interface

Control Services

- Control Program Interface
- State Manager
- Custom Control
- Fax Channel
- Net Administration
- PJJ
- Remote Control Panel

System Services

- Queue Manager
- Memory Manager
- File System
- Time
- Color Management
- Image Processing
- Image Nodes
- Image Flow
- Image Store
- Input/Output
- Output Drivers
- Connectivity
- Compression

(SPI) System Programming Interface

Hardware Services

- Basic
- Tasker messaging
- RTOS Kernel Interface
- Front Panel
- Compress
- Image Processing
- Custom

Storage

- RAM
- ROM
- NVRam
- Flash
- Disk

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