

## Product Brief

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IPS PDFt, Zoran's embedded PDF (Portable Document Format) interpreter, provides users the ability to directly send a PDF file to the printer without requiring the document to be opened by an application first. IPS PDFt is offered as part of Zoran's rich-featured embedded foundation technology—IPS. IPS PDFt is ideal for network connected workgroup printers in a workflow

or print-on-demand environment. The PDF standard enables users to fill in forms, transmit, distribute and print while retaining the look and feel of the document. IPS PDFt supports the transparent imaging model introduced in PDF 1.4 (Acrobat 5), as well as the newest PDF advancements introduced in PDF 1.5 (Acrobat 6) and PDF 1.6 (Acrobat 7)

### Benefits

- Delivers a robust, integrated PDF printing solution
- Enables an unopened PDF file to be sent directly to the printer
- Significantly reduces network traffic in workgroup printing environments
- Source code availability provides design flexibility and facilitates value-added customization
- Integrated with Zoran's OnImage™ common display list technology to support multi-bit and contone output devices

### Description

#### The PDF Standard

PDF has emerged as a standard file format that preserves documents with all the fonts, graphics, colors and layout of the source document regardless of the application or platform on which it was created. This format provides a practical method for transmitting documents for easy viewing and printing across diverse applications, platforms and printer devices.

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

IPS PDFt is integrated with IPS to offer a total solution for high performance print and multifunction peripheral controllers. With its layered architecture and application programming interface (API), IPS reduces time-to-market and development costs. The image processing model of IPS PDFt is fully integrated with IPS PS3 for improved compatibility in an efficient memory footprint.

#### Transparent Imaging Model

Zoran's innovative OnImage common display list technology has been extended to support native transparency rendering for greatest fidelity to documents created in Acrobat 5.0, 6.0 and 7.0 and other applications used by creative professionals.

### Key Features

- Full compatibility with PDF 1.6, including transparency and JBIG2/JPEG 2000 compression
- True native PDF interpreter; not a converter
- Supports Monotype Imaging UFST 4.2 (TrueType, PostScript, CFF, MicroType and Asian Compression for TrueType) fonts, resident CID fonts, UTF-8 encoding and Monotype Imaging Multiple Master Gold fonts
- Supports variable print resolutions up to 1800 dpi
- Can be combined with the other languages in IPS—IPS FIVE, IPS PS3, IPS XLC and IPS XPS—for complete print functionality

#### Enhanced Security

IPS PDFt supports 128-bit decryption and the ability to restrict printing of PDF documents. IPS PDFt is fully integrated with RSA BSAFE cryptographic software from RSA Security Inc. OEMs have the option to sublicense RSA decryption technology directly from Zoran. Users can encrypt a PDF file with either the AES algorithm or with proprietary RC4 encryption supplied by RSA.

#### Reduced Network Traffic

With embedded HTTP support, IPS PDFt gives users the option to send a PDF file directly to the printer rather than opening the document first on the PC. This allows the file to travel only once on the network instead of once to the PC and again to the printer.

#### Host Application

Zoran provides a reference host application to browse and select URLs, send the target URL to the printer and initiate the IPS PDFt print process. The application allows the user to drag a URL to the host application's icon and drop to initiate a single-copy print process.

## Portable Document Format Interpreter

### Product Brief

#### Description (continued)

##### Specifications

###### Compatibility

- Direct Color PDF as implemented in the Xerox Phaser 6350
- Direct Monochrome PDF as implemented on the Xerox Phaser 5500
- Adobe Acrobat 7.0 (for PDF 1.6 features)

###### 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

- Monotype Gold Multiple Master Fonts
- Microtype

##### Memory Requirements

- Minimum: 48 MB (600 dpi, 1-bit color)
- Recommended: 256 MB (600 dpi, 1-bit color, transparency)

##### Paper Size

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

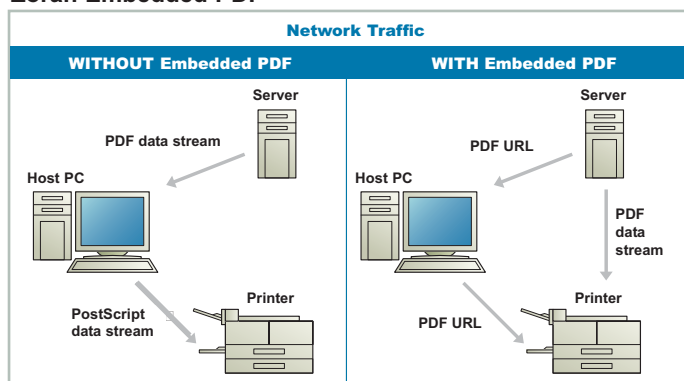
##### Duplex Printing Support

##### N-up Printing Support

##### Quality Assurance

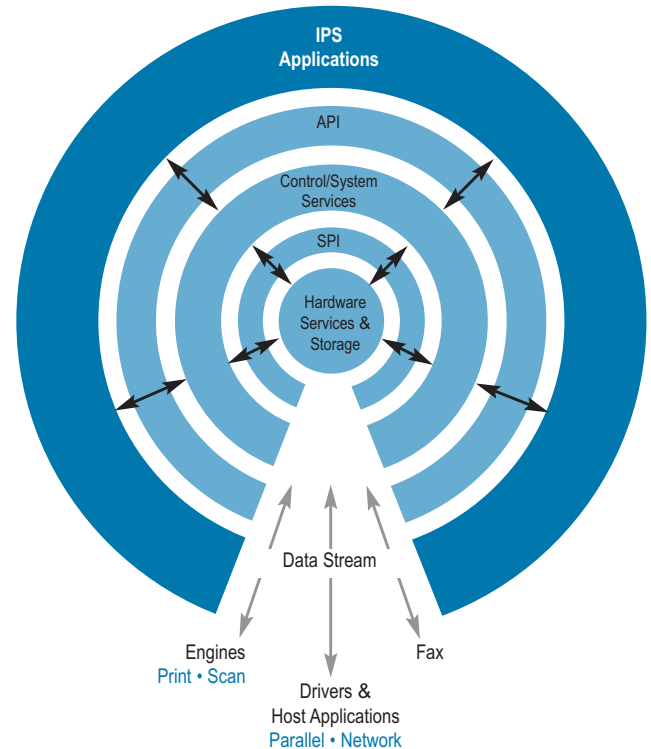
- QualityLogic ATS and FTS

#### Zoran Embedded PDF



#### 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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