Qualcomm

Qualcomm® IPS™ Universal Print Interpreter

The most widely used print language software in the industry, supporting all standard page description languages and their latest features.

Qualcomm IPS Universal Print Interpreter is designed to support all standard page description languages (PDLs) within a common architecture. IPS enables color and monochrome printers and multifunction print devices (MFPs) to be compatible with print jobs from a wide variety of sources: Windows, Mac, Linux, Android and iOS operating systems; office, engineering and graphic arts applications; and enterprise content management systems.

By unifying all print languages into a single solution, IPS allows printer and MFP manufacturers to reduce cost by minimizing the memory footprint for both RAM and flash ROM. In addition, porting efforts and optimizations for performance and image quality can be easily applied across all PDLs.

Qualcomm® DirectOffice™ document conversion software is available as an optional component of IPS. DirectOffice and IPS together enable embedded conversion of Office files right on the printer controller. No need to send documents to the cloud to enable direct printing.

IPS software with optional IPS Integrated Font Solution provides high-quality font rendering for resident and downloaded fonts and provides best compatibility with malformed TrueType fonts found in some print jobs. Combine these two technologies for attractive pricing, consolidated licensing and simplified support for PDLs and fonts.

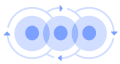
Solution Highlights

Flexible print language options

The IPS Universal Print Interpreter includes page description language interpreters for all modern PDLs, including PostScript, PDF, PCL 5, PCL XL (PCL 6) and XPS. Each language can be licensed individually or in any combination with other PDLs.

Transparent imaging model

IPS software has always supported native rendering for print languages such as PDF that feature transparency, producing true WYSIWYG output and superior performance in a smaller memory footprint compared to implementations that flatten transparent regions to an opaque imaging model.



Multicore concurrency

The innovative display list generation and rendering in IPS are designed to increase parallelization opportunities on modern controllers with two, four or eight cores, achieving measurably higher throughput at lower CPU clock frequencies. IPS software is fully reentrant, so multiple tasks, like printing and previewing a document, can be handled simultaneously by a single program instance.

Portable source code delivery

IPS software is delivered as complete source code with full engineering documentation for complete customization to your specific requirements. With its layered architecture, application programming interface (API) and common display list model, IPS supports reduced time-to-market and development costs.

Proven solution

Our Printers and Imaging team has been focused on print language solutions for over 30 years and billions of pages have been printed on over 100 million printers and MFPs using IPS software.

IPS Page Description Language Software for:

- Monochrome Printers
- Monochrome Multifunction Devices
- Color Printers
- Color Multifunction Devices

Features

- Boasts broadest adoption
  - Over 200M installations worldwide
  - Billions of pages printed
- Implements all major PDLs
  - PostScript
  - PDF
  - PCL 5
  - PCL XL (PCL 6)
  - XPS
- Compatible with modern print standards
  - AirPrint certified by Apple
  - Mopria certified by Mopria Alliance
  - IPP Everywhere (Printer Working Group)
- Supports multiple resident font solutions
  - IPS Integrated Font Solution: low-cost, compatible font data and renderer
  - Monotype UFST: third-party compact font data and renderer
  - HP-compatible 80- and 93-font sets
  - Adobe-compatible 136-font set

Support Services

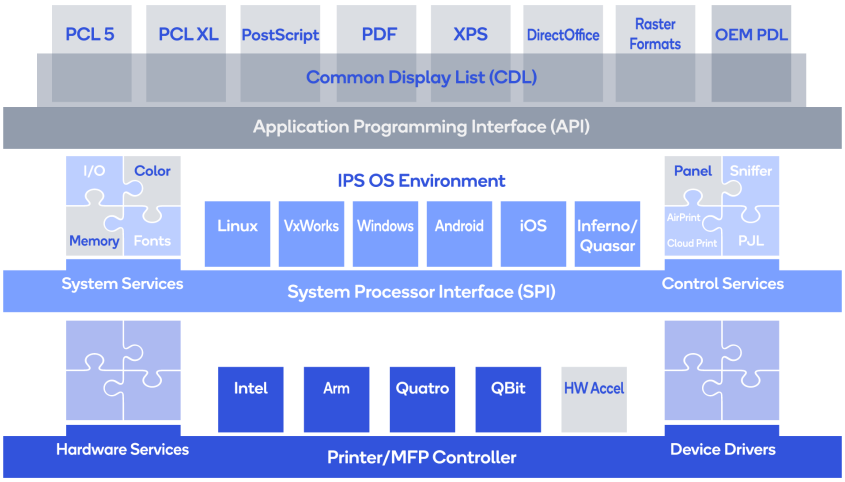
The IPS Source Code Maintenance Program provides training, extended source code support, integration assistance and technical consulting, including informative technical bulletins and software patches and updates. The IPS Engineering Support Program provides direct software integration assistance and design recommendations to optimize the interface between the print language interpreter and the controller.

OEMs may also work with an authorized development partner who has experience in IPS software integration and can offer fixed-cost, turnkey controller development for a range of controller configurations and print engines.

To learn more visit: qualcomm.com

Qualcomm

IPS Universal Print Interpreter



Specifications

Print Resolutions	Up to 1800 dpi (except PCL 5) 300, 400, 600, 1200, and 1200x600 dpi (PCL 5)
Output Color Models	1, 2, 4, and 8-bit pixel depths Monochrome, RGB, and CMYK by plane (except PCL 5) Monochrome, CMY and CMYK by band, RGB by pixel (8-bit)
Memory Requirements (PDF and XPS)	Minimum: 48 MB (600 dpi, 1-bit) Recommended: 256 MB (600 dpi, 1-bit color, transparency)
Memory Requirements (PostScript, PCL 5, XL)	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
Layout Printing Support	Duplex, N-up
Quality Assurance	QualityLogic ATS, FTS, and CET

Related Products

- Qualcomm® DirectOffice™ document conversion software
- Qualcomm® IPS™ Integrated Font Solution
- Qualcomm® Quatro™ 5300 Printer Platform
- Qualcomm® Quatro™ 5500 Printer Platform
- Qualcomm® Print Protocol Middleware

Qualcomm Quatro and Qualcomm Print Protocol Middleware are products of Qualcomm Technologies, Inc. and/or its subsidiaries.

0720A