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Adobe IntelliSelect™

Adobe now offers language detection software for optional inclusion in Adobe PostScript™ implementations. Devices with IntelliSelect will be able to detect automatically the type of incoming data and switch the device to the correct interpreter or emulator. This technology furnishes a major step forward in Adobe's continued push into the DOS/PC, PC/LAN and heterogeneous computing environments.

Description

Adobe IntelliSelect (AIS) provides the first reliable language sensing software designed for network and printer sharing environments. In these environments the printer receives commingled jobs "back-to-back" or in rapid succession. Popular emulation sensing solutions use time-outs as clues to job boundaries. These systems often fail when mixed language jobs arrive in rapid succession.

Features

Adobe IntelliSelect reliably detects PCL and PostScript language transitions and switches the printer to the correct emulation. Key IntelliSelect features include:

- Detects job boundaries when mixed language jobs are processed one after the other
- Supports PostScript Level 2 data streams
- Detects "Print Screen" data and can be configured to detect "end of job" and "beginning job" of codes (i.e., TBPC and PJJ)
- Has a very low performance overhead
- Can be turned off in well behaved environments
- Can be configured for individual ports

PostScript Language Benefits and PCL Requirements

The power and flexibility of the PostScript language make it possible to precisely render lines, rotate and scale images at will, and manipulate type as a graphic object. This power has made PostScript the page description language of choice for the most demanding environments. PCL (Printer Control Language), while not as powerful as PostScript, has become popular with PC/DOS users due to the success of the Hewlett-

Packard family of LaserJet™ printers. IntelliSelect allows these two languages to seamlessly meet the printing needs of the PostScript and PCL user with one device.

IntelliSelect Environments

Adobe IntelliSelect out performs other detection methods in personal and networked printing environments. It is far superior in managing the mixed language environments of client/server LANs and simple printer sharing. In these LAN and print sharing environments, jobs are typically queued and sent to printer in rapid succession. Systems that depend on time-outs between jobs often fail when placed in these environments.

Other embedded solutions, host TSRs, and appended declarative codes (PJL) have reliability, support and implementation problems. IntelliSelect does not suffer from any of these failings. A printer with IntelliSelect will be more reliable, easier to support and require no application driver modifications. IntelliSelect provides a superior solution to all previous language switching technologies.

IntelliSelect Technical Overview

IntelliSelect is integrated into the front-end of the PostScript interpreter. It scans the incoming data stream for clues to the type of data. IntelliSelect, designed for real-world environments, passed extensive testing with actual driver output from hundreds of PostScript and PCL applications.

Multiple language test data was sent to an AIS prototype with no time outs. IntelliSelect showed superior reliability to other available sensing mechanisms. It is designed to be used with Adobe provided emulators (PCL4, PCL5, etc.) and emulators provided by the OEM.

When IntelliSelect encounters explicit PJJ commands it bypasses the scanning procedure and switches the printer to the correct mode. Once in the correct mode IntelliSelect can ignore control characters in image and binary data. In the first printer implementation of IntelliSelect, the measured performance overhead was less than 1%.