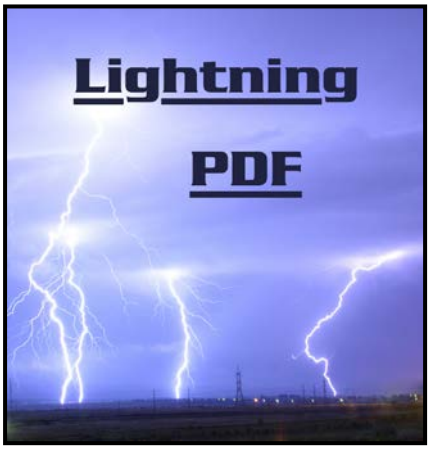
Lightning PDF Data Sheet



Lightning PDF is a high performance PDF output plugin for the Harlequin RIP[1] that is designed to replace the standard PDF raster plugin. As well as providing a significant number of additional features, its main benefit is its lightning fast performance; users should see anything up to a 5x (or more) overall improvement in performance and throughput when it is used, depending on output mode, compression mode, resolution, screening, job content and platform.

The high performance that the Lightning PDF output plugin achieves is obtained through a unique method for implementing CCITT compression, along with a significant number of code optimisation techniques that have been applied to all the various compression modes. In addition, Hamillroad engineers have built in the use of advanced multi-threading software techniques, which when used with the latest multi-core CPUs, such as the Intel Core i3 / i5 / i7, provide a near linear additional increase in performance.

The results of this are the creation of PDF raster files at extremely high speed, allowing for both greatly increased throughput and faster last minute production of time critical plates.

Highlights

- High performance compression algorithms
- Multi-threaded on multi-core CPUs
- Provides a wide range of data formats
- Offers a wide choice of compression formats
- Conventional and (extended) template naming
- Advanced file and job scripting capabilities
- Fully optimised 64-bit version for HMR-10/11

Features and Benefits

High Performance Compression

At the heart of Lightning PDF is a wide range of highly optimised, high performance algorithms for implementing the standard compression methods required to create PDF raster files. These along with the multi-threading capabilities make Lightning PDF the output plugin of choice for the most demanding users and applications.

Multi-Threading

Taking advantage of the latest multi-core CPUs, Lightning PDF is multi-threaded so as to provide maximum performance on today's hardware. This offers the highest performance possible, for last minute production of time critical jobs.

Data Formats

As well as the data formats supported by the standard PDF plugin, Lightning PDF also supports "ASCII (Hex)" encoded PDF.

Compression Formats

As well as the compression formats supported by the standard PDF plugin, Lightning PDF also supports CCITT Fax Group 4, CCITT Fax Group 3 1D & 2D, LZW and Packbits.

Conventional and (extended) Template Based Naming

In addition to the options provided by the standard PDF raster plugin, Lightning PDF provides additional controls for conventional based naming (the ability to place all output from a given job into its own folder and the ability to use the file name instead of the job name) and an extended set of template variables for template based naming.

Advanced File and Job Scripting

In addition to per file post-processing, Lightning PDF also provides per job post-processing. This combined with the ability to place all output from a job into its own unique folder allows for sophisticated customisation by writing post-processing scripts to perform additional tasks.

1 The Harlequin RIP is a trademark of GlobalGraphics Software Ltd. All other names are trademarks of their respective owners.

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Specification

Image Formats

- Monochrome (Halftone) - 1 bit per pixel.
- Monochrome (Contone) - 8 bits per pixel.

- CMYK[1] Separations (Halftone) - 1 bit per pixel.
- CMYK[1] Separations (Contone) - 8 bits per pixel.

- CMYK[1] Composite (Halftone) - 1 bit per pixel.
- CMYK[1] Composite (Contone) - 8 bits per pixel.

[1] Includes any additional spot colors, enabled in the Harlequin RIP in the usual way.

PDF Formats

- PDF 1.4
- PDF/X 1a:2003 (PDF 1.4) - PDF Reference sixth edition v1.7, Section 10.10.4[2]

[2] Also reference ISO 15930-1:2001, Graphic technology -- Prepress digital data exchange.

Compression Formats

- None
- LZW - PDF Reference sixth edition v1.7, Section 3.3.3
- Flate (ZIP) - PDF Reference sixth edition v1.7, Section 3.3.3
- Packbits - PDF Reference sixth edition v1.7, Section 3.3.4
- CCITT Fax Group 3 1D - PDF Reference sixth edition v1.7, Section 3.3.5
- CCITT Fax Group 3 2D - PDF Reference sixth edition v1.7, Section 3.3.5
- CCITT Fax Group 4 - PDF Reference sixth edition v1.7, Section 3.3.5

- Support for TIFF Predictor 2 - allows for increased compression

Data Formats

- Binary
- ASCII (Hex) - PDF Reference sixth edition v1.7, Section 3.3.1
- ASCII (85) - PDF Reference sixth edition v1.7, Section 3.3.2

RIPs Supported

- Harlequin RIP version 5
- Harlequin RIP version 6 (Eclipse Release)
- Harlequin RIP version 7 (Genesis Release)
- Harlequin RIP version 8 (Plus Server RIP)
- Harlequin RIP version 9 (Plus Server RIP)
- Harlequin RIP version 10 (Multi-RIP, both 32-bit and 64-bit)
- Harlequin RIP version 11 (Multi-RIP, 64-bit only)

Operating Systems Supported:

- Windows XP / Vista / 7 / 8 / 8.1 / 10
- Mac OSX (Intel) 10.2 - 10.10

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