

# Lightning TIFF Data Sheet

Lightning TIFF is a high performance TIFF output plugin for the Harlequin RIP<sup>1</sup> that is designed to replace the standard TIFF 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 4x (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 TIFF 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 TIFF 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 TIFF is a wide range of highly optimised, high performance algorithms for implementing the standard compression methods required by all high-end workflows. These along with the multi-threading capabilities make Lightning TIFF the output plugin of choice for the most demanding users and applications.

### Multi-Threading

Taking advantage of the latest multi-core CPUs, Lightning TIFF 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.

### Image Formats

As well as the image formats supported by the standard TIFF plugin, Lightning TIFF also supports tiled, single-file CMYK + Spot color and single-file frame-interleaved TIFF.

### Compression Formats

As well as the compression formats supported by the standard TIFF plugin, Lightning TIFF also supports CCITT Fax Group 3 1D/2D and Flate.

### Conventional and (extended) Template Based Naming

In addition to the options provided by the standard TIFF plugin, Lightning TIFF 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 TIFF 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.

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

## Specification

### Image Formats

- Striped TIFF (both single and multiple) - TIFF revision 6.0, Section 3
- Tiled TIFF - TIFF revision 6.0, Section 15
- Bilevel Images (monochrome) - TIFF revision 6.0, Section 3
- Grayscale Images - TIFF revision 6.0, Section 4
- RGB Full Color Images - TIFF revision 6.0, Section 6
- CMYK Images - TIFF revision 6.0, Section 16
- CMYK + Spot Color Images - TIFF revision 6.0, Section 16
- 1 bit per pixel
- 8 bits per pixel
- Separated (single file per separation)
- Composite – pixel interleaved
- Composite – band interleaved
- Composite – frame interleaved

### Compression Formats

- None
- Packbits - TIFF revision 6.0, Section 9
- Modified Huffman - TIFF revision 6.0, Section 10
- CCITT Bilevel Fax Group 3 1D - TIFF revision 6.0, Section 11
- CCITT Bilevel Fax Group 3 2D - TIFF revision 6.0, Section 11
- CCITT Bilevel Fax Group 4 - TIFF revision 6.0, Section 11
- LZW - TIFF revision 6.0, Section 13
- Flate (ZIP) - TIFF Specification Supplement 2 (2002)
- Support for TIFF Predictor 2 - allows for increased compression

### 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

