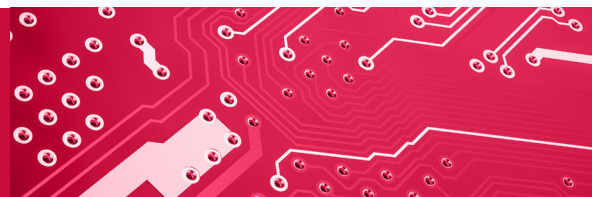# eLab Harlequin RIP® and Development Kit

Cohesive RIP Solution

eLab is a collection of software applications specifically designed for industrial inkjet developers and manufacturers. eLab includes the latest version Harlequin RIP, prebuilt test configurations and an easy-to-use scalable interface. The RIP renders graphics submitted in PDF to a raster format, suitable for delivery to inkjet printheads and includes options specifically suited for the needs of high-speed industrial inkjet print systems.

Without screening   With screening

Advanced Inkjet Screens™

On an inkjet press, there are many factors which determine where a drop might land on the substrate. Often, the system's intended drop location is different from the actual landing point resulting in undesirable effects including mottling and streaking. Advanced Inkjet Screens mitigate this issue, allowing high-speed, high-quality printing. 'Pearl' screens are available for absorbent substrates such as paper and 'Mirror' screens are designed for non-absorbent substrates like plastic.

Scalable

At eLab's core is the latest 64-bit Harlequin RIP, the fastest and most accurate RIP on the market today. Meteor's RIP solution allows multiple RIPs to run cooperatively on one system or across several systems for unparalleled speed.

TIFF Output

The RIP has the ability to output binary and multi-level screening, allowing developers and end users to take full advantage of the latest printhead technologies. Harlequin's advanced 1-bit, 2-bit, or 4-bit per pixel TIFF output is capable of producing 2, 4, or 16 gray levels, making the RIP the perfect solution for greyscale printheads or multi-pass printing. The RIP is also capable of outputting 8-bit per pixel contone TIFF files with 256 grey levels. While Pearl and Mirror Advanced Inkjet Screens are the best solution for many industrial inkjet customers, eLab also includes standard AM and FM screen sets with over 30 different dot shapes.

Built-in Colour Management

eLab includes a sophisticated colour management system called Harlequin ColorPro™. This built-in system allows the use and management of ICC profiles for accurate color.

Reduced Development Time

Meteor's streamlined software can significantly reduce the time it takes to get a newly developed inkjet system to market. Easy to use, simple, command line driven controls make the Harlequin RIP an extremely flexible solution. Screening, speed, input, and output functions allow developers and end users to take full advantage of everything the Harlequin RIP has to offer. A technician with reasonable print experience can have the RIP producing TIFF files ready for printing on a new inkjet system in a matter of hours.

Customisable User Interface

eLab includes an easy-to-use interface, offering an ideal starting point for testing, and configuring output on a new inkjet system. While the interface allows eLab to quickly RIP PDF files to TIFF, it also lays the ground work for learning how it operates. While eLab can be used as a development tool or can be offered as an end-user application, capable of running in a production environment. The software can be offered as a standalone solution or bundled into an existing Digital Front End (DFE) or Workflow. Depending on the application, developers can choose to integrate the ready-to-use interface or build a customised interface tailored to a specific development or production environment.
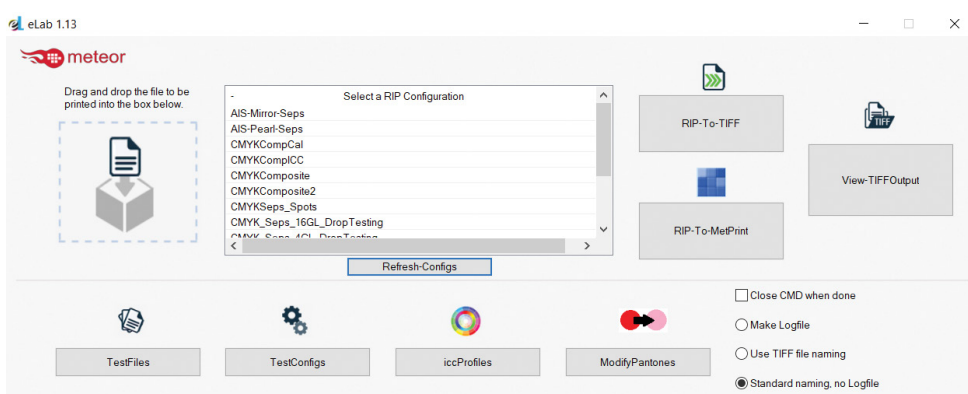
Versatile Controls

Configure input folders, automate spoolfolders, or utilise a drag and drop interface. The Harlequin RIP can manage placement, clipping, rotation, imposition, marks and more. TIFF output configurations also allow for automatic or specialized file naming.

Variable Data & Overlays

Harlequin VariData™ allows for both internal and external Variable Data Processing (VDP). Internal VDP is handled via pre-merged PDFs that have variable elements embedded into the PDF file. External VDP utilises a feature called Dynamic Overlays where external CSV files and/or images can define the variable content. This is then merged with a PDF containing the static content. Some of the most common forms of external variable data are images, QR codes, barcodes, variable text, static text, variable images, static images and sequential numbering.

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