

Production Workflow Solutions Consulting Service Production Workflow Solutions Consulting Service Europe

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JDF Enabler Module for Harlequin RIP and the CIP4 JDF Marketplace

The JDF Enabler Module

Global Graphics, the developer of Harlequin and Jaws RIPs and Jaws PDF technologies, will introduce its new "JDF Enabler" module for the Harlequin RIP at Drupa 2004. This introduction adds to the numerous JDF-related announcements prepared for the show, which has already been hyped as the "JDF Drupa."

This analysis will discuss the JDF Enabler module and its connections to industry-wide JDF initiatives. This development is important because it demonstrates JDF as a production tool, beyond its perceived job ticketing feature.

If the name doesn't give it away, the JDF Enabler module enables the Harlequin RIP to accept and process JDF files. JDF information is submitted to the Enabler module through a hot folder mechanism or via JMF (job messaging format) commands. The JDF Enabler module parses the JDF file, transforms the job ticket data to RIP configuration information, transmits the data to the RIP, updates the JDF file with audit data, and handles the communication to other third-party components, such as Management Information Systems (MIS). The communication to the Harlequin RIP is handled through Harlequin's SOAR (Scalable Open Architecture RIP) interface, which is external to the Harlequin RIP and enables communication between the RIP and other components (See Figure 1 on the following page).

As a new module, the JDF Enabler is optional on the Harlequin Eclipse Release (SP4) and is compliant to the 1.1a version of the CIP4 JDF specification. The module also integrates with Harlequin RIP running on Windows (NT, 2000, XP, Server 2003), Mac OS X, and Linux platforms (based on Red Hat 9).

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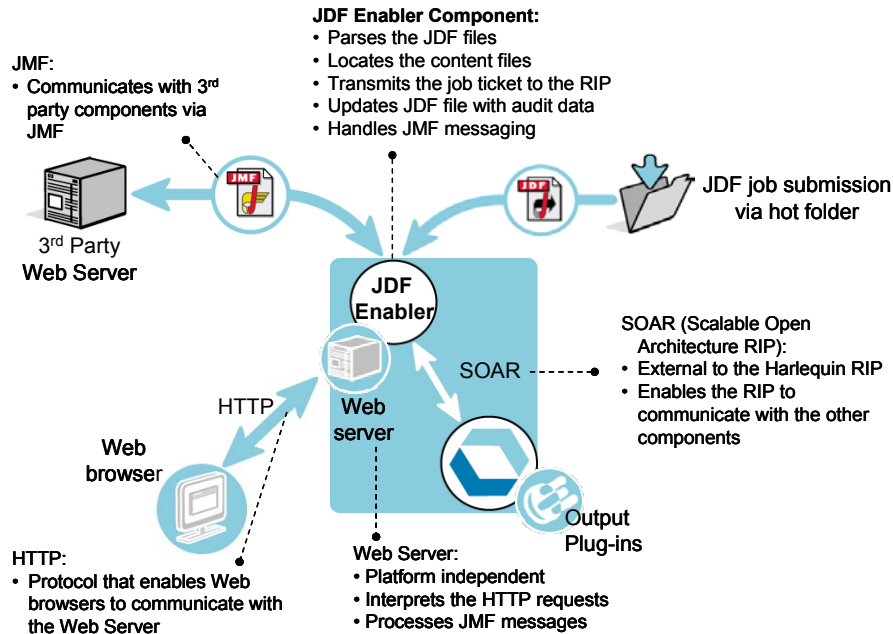
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Figure 1: JDF-Enabled Harlequin RIP



Source: Global Graphics

A New Opportunity for Harlequin RIP

Having sold its hardware division two years ago and transformed itself into a software-only business, Global Graphics has focused its software development efforts around the Harlequin and Jaws RIPs as well as its Jaws PDF technologies. Recent deals with Konica Minolta and Sharp represented big wins for the company's Jaws RIP product in the distributed print segment of the digital printing market. The introduction of the JDF Enabler module is intended to draw more attention to the Harlequin RIP in the conventional offset print market.

Global Graphics has been at the forefront of the JDF standard development through its involvement in CIP4. (Martin Bailey, CEO of CIP4, is a Senior Technical Consultant with Global Graphics.) At this year's Drupa event, Global Graphics will demonstrate the JDF-enabled Harlequin RIP in a live workflow in PrintCity. The company will have a presence in the CIP4 JDF Parc booth, as well as in the NGP (Networked Graphic Production) booth, Software Innovation Parc, and the stands of over 30 of its OEMs. These heavy involvements are not without good reason. Considering the large installed base of the Harlequin RIP in the offset print environment, JDF represents a big opportunity for Global Graphics. The new module can be viewed as an important feature upgrade for the Harlequin RIP compared to the Eclipse version from 2002. The new module will be very appealing to current and potential OEM customers that are looking to quickly introduce a JDF-enabled workflow, as it removes the need to write another controller interface to the RIP, hence reducing time to market.

Global Graphics positions the new JDF-Enabled Harlequin RIP as a component that can be used in any workflow that supports the JDF standard. The positioning suggests an open and interoperable system that is typical of an OEM offering.

Additionally, according to Global Graphics, its JDF Enabled Harlequin RIP has been tested for interoperability with other JDF-enabled components, such as:

- Job Management: Agfa Delano & DALiM MISTRAL
- Imposition: Creo Preps, Dynagram Dynastrip, One Vision Speedflow Impose, and Screen Flatworker
- Management Information System: ppi Media Printnet & OCSL Optimus

Pushing the JDF Envelope

There are two basic categories of input data for JDF job tickets: Intent and Process. One preserves the customer intent, while the other specifies production-related information. With the JDF Enabler module, Harlequin RIP will be one of the first RIP products to use the Process information inside the JDF file. This is significant because it finally demonstrates how the JDF job ticket information can go beyond simple job ticket functions and used to drive the output process.

With the new module, JDF job ticket information can now be used to configure the RIP for a specific job setting. Settings such as page size, screening, trapping, imposition, calibration, and color management can be included in the JDF file and be processed at the RIP. Having the JDF file as a placeholder for process-related parameters will enable users to set these parameters early in the process and modify them without much effort, as the job goes through production.

With the above capability, users can immediately realize the benefits of JDF in their current production workflow. One example of these benefits can be seen in the imposition process. Putting the imposition information in the JDF file eliminates the need to generate large, imposed files for output. A JDF-enabled RIP processes the page files and incorporates the imposition information from the JDF file during the RIPping process. It also eliminates the need to re-impose all of the page files when new changes occur in one of the pages. The user can simply re-send the new pages and use the previously determined imposition information in the JDF file.

Many print providers still view JDF as a simple job ticketing tool that preserves job information and limits manual re-keying. While these features are important, the incremental benefits from having a new "job ticketing" system sometimes do not justify the additional investment. Some smaller printers may consider JDF irrelevant because they do not run MIS systems or because they only have 20 - 30 employees. Demonstration of JDF as a Process tool will bring more clarity to users about the "real" benefits of JDF on their production floor. The imposition example above is one of many scenarios that suggest immediate process improvements in speed and efficiency through a simple JDF implementation in one production step. Users will begin to realize that they do not need a full-blown implementation to begin taking proper advantage of JDF. Most of the time, a simple implementation within one production step will do the trick.

Global Graphics is well-positioned to take an early lead in the implementation of JDF workflows. With its large installed base and open system approach, the JDF Enabled Harlequin RIP will be very appealing to OEMs that are looking to assemble a JDF workflow offering for their end-users. With the current RIP architecture, Global Graphics will be able to include the new module as a standard option in the next major RIP release or sell the module separately as a JDF enabler for other technologies.

Additionally, having a JDF-enabled RIP is an important milestone for the standard. With a tie to the RIP, users will start seeing the immediate benefits of using JDF as a repository for all process-driven information. The immediate process-related benefits will speed up adoption of the JDF standard on the print production floor.

The CIP4 JDF Marketplace

Earlier this month, CIP4, the JDF standard governing body, published the first edition of "JDF Marketplace," a directory of JDF-enabled products and services. With the flood of JDF announcements expected to be made this year, particularly during Drupa, the publication of the directory provides some clarity to what is available to the marketplace in terms of JDF-Enabled products and services. Print service providers and vendors who are thinking about JDF workflow but are currently a bit puzzled about which products are JDF enabled and which aren't should find this directory to be a useful reference.

Designed as a quarterly publication, the directory has over 120 products and services, which are listed under categories such as Creative, Preflighting and Asset Transfer, Prepress, or MIS, Workflow, & Production. The range of products and services available is very encouraging, considering the standard has only been actively pursued by vendors since 2001. Major vendors such as EFI, Creo, Agfa, Heidelberg, and Océ dominate this list with offerings across many different categories.

Within the directory document, CIP4 emphasized the importance of understanding JDF as a common language that can support and drive a print job across the different production steps, beyond its well-known job ticket functionality. It also highlighted the “handshake automation” function, new to the JDF 1.2 version of the specification. This “handshake” is needed when adding a new device or capability to a JDF workflow. Creating a handshake is necessary to communicate a set of JDF elements supported by a new device to the existing MIS or workflow system. For example, in a JDF workflow, the MIS system will need to know the types of folds that a newly-added stitcher supports.

Prior to JDF 1.2, the handshake was reconciled between individual vendors, hence the emergence of groups such as Networked Graphic Production (NGP) or PrintCity. Within the group, vendors are constructing the handshake amongst themselves, creating best of breed JDF integration among the participating members’ devices. In JDF 1.2, the handshake will be automatic, introducing the concept of plug-and-play interoperability, hence removing the need of additional integration. Unfortunately, the market will have to wait before taking advantage of the above function, as most products available are based on the 1.1 or 1.1a version of the specification.

CIP4 notes that enterprise-wide JDF implementation is probably not achievable in the short term. Print service providers will need to figure out ways to phase JDF into the operation while realizing a quick Return on Investment from the limited implementation. The JDF Marketplace directory will help speed the standard adoption as it further educates the printing industry. JDF Marketplace is available as a free PDF on the CIP4 Web site at <http://www.cip4.org>. To download this PDF, visit http://www.cip4.org/marketplace/The_JDF_Marketplace.pdf.

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