XITRON®

PRINT • SOFTWARE • INNOVATION

White Paper

Abstract

There's room for improvement when it comes to prepress workflow. A comprehensive, economical package that doesn't rely on outdated methodologies or "bolt together" solutions would be a welcome asset to thousands of printers whose aging software requires too much operator interaction, costly workarounds, or replacement through expensive subscription and SaaS models.

Problem Statement

Prepress workflows have advanced little in the past two decades. This stagnation can be attributed to several factors, including perceived product maturity, software providers exiting the market, and developers paying more attention to new technologies such as digital output. Also of concern are “fashionable” pricing models such as subscription and SaaS, which advertise convenience but can hook the user into monthly payments that never end.

Background

Much of the prepress workflow software in use today was developed after the widespread acceptance of computer to plate devices early in the century. Prior to CTP becoming de rigueur, there was no unified approach because the prepress process was still very manual. When digital plate prices stabilized and ROIs improved, CTP engines began replacing imagesetters and the need for “plate-ready” artwork increased exponentially.

Eventually, workflow products that combined most of the steps necessary for output began appearing, which offered to make prepress operator’s lives easier. Products like Rampage, Fujifilm Celebrant, Agfa Apogee, Screen Trueflow, and Creo Prinergy combined prepress functions with RIP and output capability. With the exception of Rampage these systems were proprietary; meaning they drove only the CTP devices their companies produced. (Xitron bridged this gap early on and produced software and interfaces that allowed printers to choose their workflow and CTP independently, but that’s a story for later.)

Several years went by with minor improvements, and many of these packages disappeared entirely or were replaced by second generation releases. Rampage, long a favorite of prepress operators, saw its last update over 13 years ago. Celebrant was replaced by the widely popular XMF, which is now at end-of-life. Apogee has remained consistent for the most part, but the majority of new features revolve around web-based connectivity such as store front and web-based proofing, along with developments designed specifically for digital work.

Prinergy (and the Kodak imposition application Preps) is arguably the most well-known prepress workflow, but similarly suffers from lack of advancement. In an attempt to broaden its market, most new features are designed to improve compatibility with flexo, digital, and gravure processes, which require different feature sets than those required by offset lithography. Making matters worse for users, upgrades require expensive service contracts to be maintained, and many customers are being forced to move to subscription and/or cloud-based solutions. This means they will never stop paying for the software, effectively buying the equivalent of a new system every two and a half years.

To be fair, one could argue that subscription and cloud-based solutions ensure the user is always on the latest version of the software, and that justifies the additional cost. However, if the advancements contained in the new releases do not apply to the printer’s type of work, what advantage is there to writing a monthly check?

There's no doubt that the offset printing market has suffered losses in the last 20 years as more and more things get published online instead of on paper. Coupled with that, new digital technology has also taken market share from commercial offset printers (though far less than you might think). To that end, it's somewhat understandable why the number of prepress software developers has diminished, and by extension, the number of available workflow offerings.

But think about this:

According to recent surveys, offset printing still accounts for over 40% of all print being produced, followed by flexo, screen printing, and digital. In that order. A May 2024 article published on industry news website *whattheythink.com* noted,

"...conventional offset lithography remains the bedrock of graphic reproduction wherever print is manufactured and consumed."

Does that sound like a market to be ignored?

Solution

Xitron believes in offset litho, and recently announced the development of "K2." The industry's first new offset prepress workflow to be introduced in nearly two decades offers a full suite of production tools for any offset commercial printer.

K2 works with virtually any CTP engine in use today. For example, if a Prinergy user has a Kodak Achieve platesetter, K2 can take the place of Prinergy with no additional interface requirements. Similarly, if the CTP comes from Screen, Fuji, Agfa, or Heidelberg, K2 can still drive it. Using Xitron's USB interface technology, K2 can replace any existing workflow and bring all the advantages of a unified, single application approach to prepress job preparation. Operators can even create hybrid workflows capable of handling digital and offset assets in the same project.

Why K2?

As mentioned, K2 is full-featured and incorporates the latest technologies from Hybrid Software, Global Graphics, ColorLogic, and Xitron. After years of supporting commercial offset printers, Xitron began development with a wish list common to most shops. It starts with a Harlequin v14 RIP core, which is the same RIP technology that has resulted in over 45,000 Xitron Navigator RIP installations worldwide.

PDF Optimization

Embedded within K2's workflow infrastructure is Global Graphics' Mako Core for job submission and PDF creation. Delivering flawless preflight and PDF optimization along with ink remapping, the workflow quickly and accurately checks incoming jobs for errors and delivers a clean PDF for next stage processing. All jobs stay in PDF format right up until interpretation and rasterization.

Job Management

The output, management and integrity of source PDFs is important. K2's job submission application makes overall control simple by allowing PDFs to be introduced into the system as a "project." Project components and PDF run lists can quickly and easily be assigned to different workflows for output while keeping the jobs together within one application. For example, a 32-page brochure might require the cover in one PDF to be plated as a 2-up layout, while the internal pages from a separate PDF go to an 8-up press as 16-page signatures. In other systems, these might be submitted separately and have no connection with each other, losing project integrity, while making tracking and scheduling difficult for production.

Trapping

While most workflows handle trapping during the RIPing process, K2 does not. Using the Intellitrap module (which has its roots in Hybrid Software's Packz), trapping in K2 is PDF-based and interactive. Operators can check trap results almost instantly instead of waiting for the RIP process to complete. This greatly reduces the amount of time spent trapping files, and speeds up overall throughput. When common trap parameters are identified, the system can be configured to apply these settings in an automated format.

Color Management

Also part of K2's infrastructure is color management technology from ColorLogic. This is where K2 gets support for the industry standard Color Exchange format, also known as CxF. Supporting CxF is a critical function when it comes to correctly communicating color, along with support for ICC profiles, Device Link ICC profiles, and tone curves.

Imposition

A simple imposition interface has been designed within the workflow. This means the user doesn't have to leave the workflow and go through a separate application to impose jobs. K2's dynamic approach to imposition layouts gives the operator wide latitude when it comes to scheduling jobs for press. Impositions are created so quickly and easily that if an operator needs to move a job to a different size press it can be handled in seconds. Imposition Presets can be saved so that imposition of PDFs can be fully automated.

Of special note, K2 operates in a Client-Server environment, which means up to five operators (Mac and/or PC) can be processing work through the system at any time. (Additional five-Client license packs are available.) Prepress operators now have imposition control from their workstation without the exorbitant cost of standalone imposition seat licenses. ◆

Conclusion

Offset printing is not going away. It currently accounts for over 40% of all print production. With software vendors increasingly directing development efforts to other technologies, offset prepress workflows have not been significantly advanced, and no new workflows have been introduced in many years. Xitron's K2 has been developed to fill this significant void at an extremely economical price point — with perpetual licensing available — helping commercial printers remain productive and profitable well into the future.

XITRON