# The only AI-accelerated, inline Digital Front End for high-speed, single-pass, roll-to-roll inkjet presses

SmartDFE™ for Labels and Packaging is an award-winning collection of innovative and market-proven components that enable your engineering team to get to market quickly whilst giving them the space and capability to add their own value.

**SUPPORTS INDUSTRY 4.0**

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SmartDFE is a full software stack for high-speed, single-pass, label and packaging inkjet presses. It includes everything from job creation and pre-press workflow through to printhead drive electronics. It includes print intelligence, giving you industry-leading quality without the PhD and secure connectivity to power Industry 4.0 scenarios.

## SMART WORKFLOW AND PREPRESS TOOLS
### Transform customer requirements into press-ready PDFs

Smart Workflow is a comprehensive solution that optimizes and automates labels and packaging workflows, enhancing inkjet press productivity. Our expert team uses STEPZ® and CLOUDFLOW® from HYBRID Software to create customized workflows that seamlessly integrate with SmartDFE. We also collaborate with HYBRID Software's services groups to integrate workflows with MIS and ERP systems at your customers' locations, resulting in improved production processes, operational efficiency, and customer satisfaction.

## SMART CONTROL
### Your own brandable inline RIP controller

Experience the power of a fully customizable Digital Front End (DFE) that adapts to your brand requirements. This solution provides a seamless entry into the market, enabling swift integration. Operating in server (headless) mode, it also effortlessly complements your existing front end setup. Seamlessly integrate with the Smart Print Controller through the OPC UA API, enhancing connectivity.

## SMART CONNECTIVITY
### Connect to existing User Interfaces or craft new ones

SmartDFE enables secure communication within printing presses, factories, and the Cloud. It enables Original Equipment Manufacturers (OEMs) to quickly market products using standard press controllers or custom front ends that integrate with existing systems. At its core, the Smart Connectivity layer, powered by OPC UA, ensures robust and secure interactions with devices and applications in the press, Cloud and on mobile, supporting features like remote monitoring and predictive maintenance. SmartDFE incorporates print communication standards (JDF and JMF) for enhanced interoperability and efficiency in print production workflows.

## SMART PERFORMANCE
### Boost productivity using AI-based RIP tuning

In the printing industry, even pages that look the same can take different amounts of time to process, which can be a problem. Our Streamline Autotune™ AI technology helps predict how long a job will take to RIP. It gives operators a clear signal - green means it's safe to print, amber means be cautious, and red means there might be problems. Autotune also enhances performance automatically by adjusting jobs and RIP processes, leveraging our dual ownership of the RIP and PDF analysis technology.
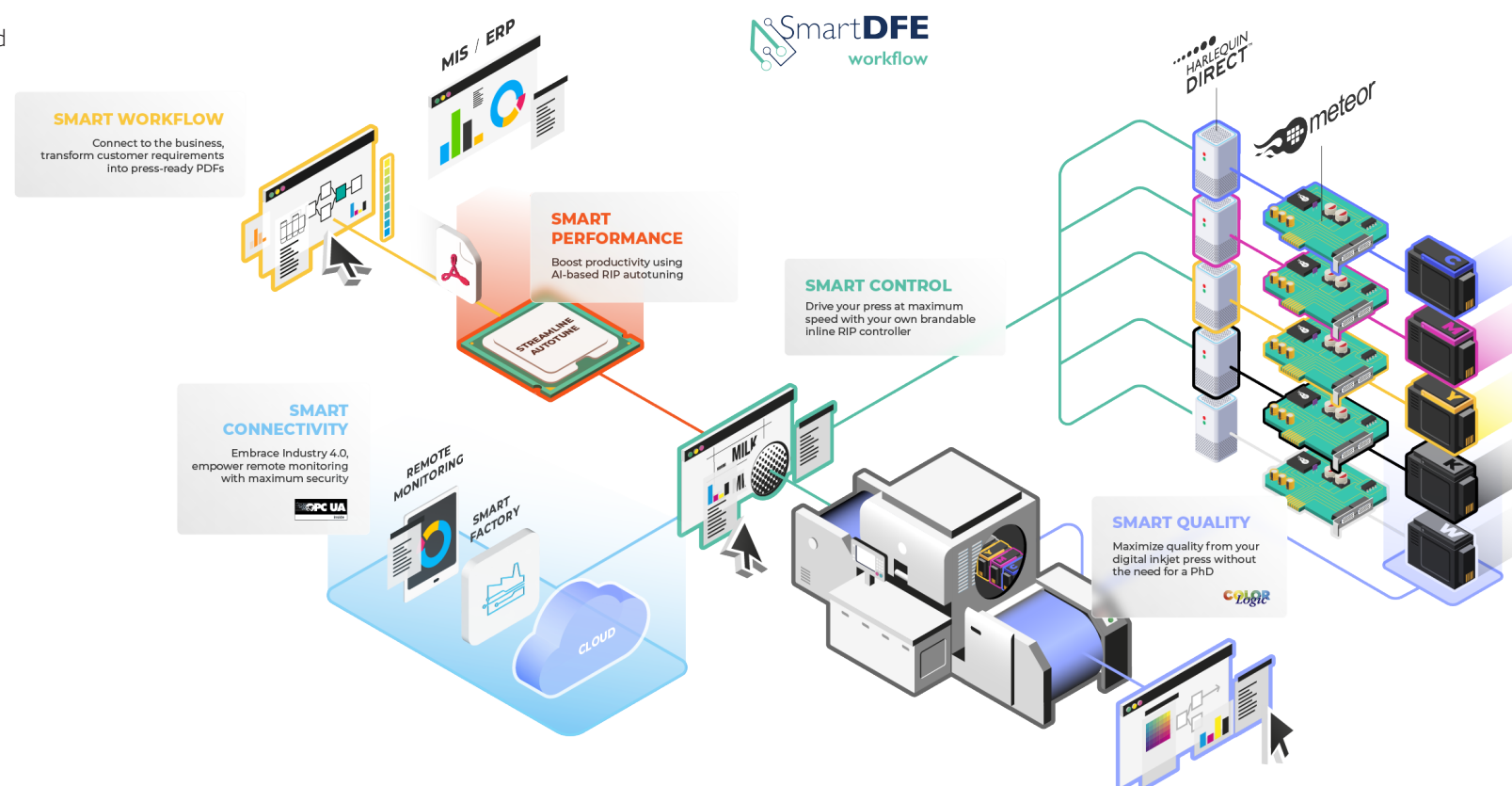
## SMART QUALITY
### Achieve top-quality output without the need for a PhD

In today's printing landscape, achieving top-quality prints and precise colors often relies on skilled print operators. However, there's a shortage of these experts. This is especially noticeable in industries integrating print into broader processes, where non-specialists take on printing tasks. To address this, Smart Quality combines advanced technologies like PrintFlat™, ScreenPro™, and ColorLogic into a user-friendly system, making it easier for any operator to achieve excellent print quality.

## SMARTQI
### Synchronize SmartDFE with advanced vision systems

Incorporating an additional RIP Server PC into your system establishes a direct link with a vision system for quality assessment using SmartQI™. This server is adept at delivering RGB composite images to your inspection system, ensuring they are in sync with the rasters sent to the press. Such synchronization is crucial for uniform control of both the printing and inspection processes.



**SMART WORKFLOW**
Connect to the business, transform customer requirements into press-ready PDFs

**SMART PERFORMANCE**
Boost productivity using AI-based RIP autotuning

**SMART CONNECTIVITY**
Embrace Industry 4.0, empower remote monitoring with maximum security

**SMART CONTROL**
Drive your press at maximum speed with your own brandable inline RIP controller

**SMART QUALITY**
Maximize quality from your digital inkjet press without the need for a PhD

*SmartDFE is a full software stack that includes everything from job creation and pre-press workflow through to printhead drive electronics.*

# UNIVERSAL SUPPORT FOR PRINTHEAD DRIVE ELECTRONICS

SmartDFE works with any printhead drive electronics and supports various file types like PRT and TIFF. Quick support for new electronics or formats is often available within weeks through a BreakThrough project. It's already compatible with printhead drive electronics from Meteor Inkjet, known for its wide support in industrial inkjet printing. This allows easy integration of different printheads, even from various manufacturers, in one press.

# STREAMLINE YOUR SMARTDFE SOLUTION WITH A SINGLE SUPPLIER

Our approach combines the convenience of a single supplier for SmartDFE components with the flexibility to choose different options, supported by our 30 years in printing. We use open standards like OPC UA for better compatibility. Committed to innovation, we offer key components as SDKs, allowing customization to meet your unique market needs.

# ACCELERATE TO MARKET WITH OUR FREE BREAKTHROUGH SERVICE

Our business model, centered on partnering with you, offers SmartDFE licenses linked to your printer sales, starting when your product is ready for the market. Our objective is to help you launch quickly. Our BreakThrough service adds our expert engineers and scientists to your team, accelerating your product's market launch. You can buy this service in blocks of days, and the cost will be balanced against SmartDFE licenses once your press ships, effectively making it free. This service is part of our commitment to your success, aiming to reduce challenges and speed up your market entry, benefiting both of us.

SmartDFE
for labels and packaging

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