KODAK 900 PRINT MANAGER
DIGITAL FRONT END FOR ROLLFED INKJET PRESSES

EXCEPTIONAL PERFORMANCE AND PRODUCTIVITY

The KODAK 900 Print Manager is an innovative digital front end designed to drive high-speed digital inkjet presses powered by KODAK ULTRASTREAM inkjet technology. This powerful solution batches multiple jobs into a single run, and can spool, process and print static or Variable Data Print (VDP) jobs of up to 1245 mm (49 in) at press-rated speeds of thousands of pages per minute (up to 152 mpm or 500 fpm). It is ideal for a wide range of applications including commercial, book, direct mail, transactional, newspaper and packaging printing.

Its high-performance architecture employs 2 print servers with multiple RIP nodes. Optional Accelerator units can be added for even more RIP nodes. Custom-made Fusion Imaging boards increase system performance using fewer expensive servers, helping reduce overall cost, system footprint and energy consumption. This architecture, combined with Kodak's advanced processing techniques, maximizes RIP performance while maintaining outstanding output quality.

SCALABILITY AND ACCESSIBILITY
The 900 Print Manager is based on a flexible, scalable architecture, combining cutting-edge software and hardware, caching of reusable elements and load balancing for ultra-fast printing. Kodak ensures that efficient VDP files will print at engine speed, and offers file preparation guidance and support to help users maximize productivity when printing VDP jobs. Innovative software features do the job of customized hardware making the system more reliable and simplifying maintenance. Industry standard high performance server hardware with enterprise grade solid state drives provide peak performance while retaining a compact footprint. Additional accelerator units can be added to increase processing power for the most complex applications.

BUSINESS-BUILDING COLOR AND IMAGE QUALITY
With Kodak's color expertise, the 900 Print Manager makes it easy to achieve superb color and image quality right out of the box. An advanced object-oriented color engine offers sophisticated color control options, ICC profile support, and text enhancement. Target spot colors can be evaluated and adjusted with ease and repeatability.

OPEN CONNECTIVITY, WORKFLOW CAPABILITIES AND EASE OF USE
The 900 Print Manager supports many workflow capabilities, including industry-standard PDL formats and complex transactional workflows. It can seamlessly import AFP and resources directly, eliminating the need for an intermediate AFP production server.

The system supports open standards, offering open connectivity through JDF/JMF to all digital print systems. With a standard MICROSOFT WINDOWS operating system and an intuitive user interface, the 900 Print Manager is easy to learn, use and maintain, helping reduce training costs and the potential for errors.

AREAS OF EXCELLENCE:
- Print static or VDP jobs at full-rated press speed
- Rich suite of productivity and workflow tools
- High performance with complex VDP
- Offset-class color and quality
- Transactional printing workflows
- Ease of use
- Open connectivity

The KODAK 900 Print Manager delivers a powerful combination of high-value and unique capabilities that can help you improve productivity and expand business opportunities.

Open connectivity and Page Description Languages (PDL) using File Submission Mode

Feature	Benefits
File Submission Mode	Receive jobs from the most commonly used static and variable PDL formats. Print service providers can accept customer files without time-consuming and error-prone transforms.
Drag and Drop	Jobs can be dragged from the desktop/folder and dropped right into the appropriate queue
Local and Remote DFE Workspace	Manage jobs at the press or enable distributed DFE access from remote client workstations (PC and Macintosh). Easy-to-use, language localized interface increases productivity with minimal training.
Virtual Printer / Hot Folders	Intelligent workflow setup using a "local job ticket" gives labor-saving automated operation. Job parameters are defined once and automatically reused each time a job is submitted to the virtual printer's hot folder.
JDF/JMF Connectivity	CIP4-compliant Job Definition Format (JDF) enables connectivity to external job sources using job tickets. Job Management Format (JMF) returns valuable information to the controlling server to monitor operation status.
KODAK Unified Workflow Solutions	Kodak's Unified Workflow provides end-to-end solutions. Complementary features between KODAK PRINERGY Workflow and the 900 Print Manager provide optimized integrations that can uniquely blend offset and digital workflows.
Proofing and Reprint	Export Post-RIP, raster or screened data as a TIFF or PDF. This provides a true representation of the final document for soft-proof validation, hard copy proofing, detailed review of the exact data that will be printed or short run reprints from an offline printer.
Job Estimation Tool	Calculate ink usage, paper usage and estimated printing time for every job in advance.
Production Tracking	Production, resource, and event data help analyze productivity, optimize resource utilization and press allocation, monitor preventative maintenance tasks, and provide information for MIS and report applications.

Powerful color control and optimal image quality

Feature	Benefits
Hardware Screening	Custom error diffusion algorithm with decades of inkjet optimization is accomplished through hardware to give the best possible dot placement with a natural sharpening effect at no cost to performance.
ICC Profiles	Color profiling provides accuracy and consistency in output quality. Supports ICC Version 2 & 4.
Preserve Pure Colors	Removes stray colors from elements that should be black only, improving quality and saving on ink consumption.
Predefined Color Libraries	Improved accuracy of spot colors through expanded gamut using Pantone®, DIC, HKS, and Toyo color systems. Import spot definitons from Kodak Spotless Software.
Output Emulation	Makes the output consistent with other devices via profiling of common color spaces. Provides the best possible match to common ICC-based color standards: SWOP, GRACoL, SNAP, FOGRA, Japan Color, etc. (Note: technology difference in many cases prevents exact duplication.)
Color Gradation Tool	Make post-RIP adjustments to color balance, brightness and contrast at the press.
Spot Color Editing	Select from the existing color libraries or make fine adjustments to specific colors. Unique edits can be made and saved for each substrate. Edits can be exported and imported.
Color Resource Packages (CRP)	A single place to maintain all the necessary resources for each different print condition. CRPs are organized on the DFE and information is automatically passed to the systems that require the data. Color resources are filtered based on CRP selection, making Job Ticket creation a breeze.

High productivity for increased throughput, reduced down time and greater revenue potential

Feature	Benefits
RIP	Supports the latest Adobe APPE RIP including native PDF rendering and transparency, and PDF/VT support.
Snapshots	Enables quicker make-ready for paper changes and job changes. Stores all press controller settings for a particular type of printing.
Job Queue Management	Easy-to-use job flow that best delivers on schedule commitments. Allows the right jobs to be queued together in an efficient order. When a rush job comes in or a reprint is necessary, adjusting queue order is quick and easy.
Job Batching	Batch jobs together to minimize machine downtime due to gaps in data flow. Supports variable length jobs and changing copies while printing.
Job Preflight	Detect errors early in the process—before RIPing. Prevents delays due to missing resources.
Concurrent Processing	Simultaneous job downloading, processing and printing reduces delays.
AFP Direct	Import AFP files directly from the network or any media, enabling seamless flow for AFP files as for any other PDL input.
Continuous Print	Print seamlessly from one page to the next while in a simplex mode configuration. This is crucial for packaging applications and documents that require edge-to-edge print.
Surface Rendering	Surfacing rendering minimizes any differences between what is seen in an on screen rendering of the PDF and the print.
Cached VDP Content	Reusable variable data content can be RIPped once and cached, saving processing time.
Built-in Imposition	Provides common setups and adjustments of impositions used in the hardware-assisted imposition engine, boosting productivity by imposing jobs faster and easier. Robust capabilities include Cut & Stack, Step & Repeat and Step & Continue. Includes a unique imposition template builder for creating custom impositions.
Job Preview 　• **Pre-RIP or Post-RIP (RTP)**	Review content using either the original PDL files or from the post-RIP RTP format. Eye-dropper allows for inspection of color recipes.

Diagnostics and data integrity

Feature	Benefits
Enhanced data verification of transmission	Verification of the data transmitted between subcomponents happens real-time in the system before print begins to avoid any digital errors.
Active thermal monitoring	All hardware in the cabinets is actively being monitored to avoid overheating. Precautions are automatically taken if an out of range value is detected.
Active SSD life monitoring	Disk health and status is constantly monitored and preventative measures are taken if an error is detected.
Active fusion board monitoring	Pro-actively checks the status of the fusion boards to reduce downtime.
Image disks	Highly efficient SSDs allow for a non-RAID configuration which means better fault isolation and quicker recovery.
End-to-end processing verification	From creation of the RIP data through to print, the system is verifying print will be what was intended.

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General Specifications

Printer support (speed, resolution)	• KODAK PROSPER ULTRA C520 Press - Up to 152 mpm (500 fpm) @ 200 lpi • KODAK PROSPER ULTRA P520 Press - Up to 152 mpm (500 fpm) @ 200 lpi
Input data formats (standard)	• PPML & PDF — Kodak-enhanced RIP based on Adobe's PDFL11 SDK; supports PDF transparency; accepts data from PDF 1.2 thru 2.0, PDF/X-1a, PDF/X-3, PDF/X-4, PDF/X-5 and PDF/VT
Input data formats (optional add-ons)	• AFP (MO:DCA)
Software tools (included)	• Color Gradation Tool • Substrate Manager • Spot Color Editor • Imposition Builder • Resource Manager • Job Preview Tool • Job Estimator (ink and paper) • ENFOCUS PITSTOP Software • ADOBE ACROBAT PRO Software
Support options (sold separately)	• Color Toolkit featuring KODAK COLORFLOW Technology • Continuous Print (Simplex only)
Security	Uses standard MICROSOFT WINDOWS operating systems that support the latest anti-virus software, protecting data and minimizing downtime. OS updates and hot fixes are available immediately, making it easy and cost-effective to keep the system up-to-date and secure.
Connectivity	• 10G Ethernet, TCP/IP • KODAK PRINERGY Workflow via Digital Connect & Job Ticket Creator • JDF/JMF interface • CIP4 compliant JDF

	Primary Cabinet	**Secondary Cabinet**

Cabinet physical characteristics	• Height: without monitor - 41" (104.1 cm)
	• Width: top work surface - 28.5" (72.4 cm)
	• Depth: doors closed - 44" (111.8 cm)
	          doors open - 76.5" (191.8 cm)
	• Weight: 678 lb (308 kg) without monitor
		• Height: without monitor - 41" (104.1 cm)
		• Width: top work surface - 28.5" (72.4 cm)
		• Depth: doors closed - 44" (111.8 cm)
		          doors open - 76.5" (191.8 cm)
		• Weight: 675 lb (306 kg) without monitor

Cabinet configurations and power consumption	• Primary cabinet contains: Press Controller, DFE control station and up to 3 AUs. 15 amps max, 8 amps (typical operating) • Secondary cabinet contains: 2 Print Servers (PS). 15 amps max, 5.9 amps (typical operating) • *Print servers* contain: 8 Core INTEL XEON SILVER 3.0 GHz Processors, 48 GB DDR4 RAM, 100GB Ethernet, 9 SSDs: 240 GB system storage and 13.6 TB for image processing, MICROSOFT WINDOWS Embedded 11 OS • *Control server* contains: Dual 12 Core INTEL XEON GOLD 3.7 GHz Processors, 48 GB DDR4 RAM, 100GB Ethernet, 3 SSDs: 240 GB system storage and 6.4 TB job storage, MICROSOFT WINDOWS SERVER 2019 OS, 8 RIP nodes • *Accelerator Units* contains: Dual 12 Core INTEL XEON GOLD 3.7 GHz Processors, 48 GB DDR4 RAM, 100GB Ethernet, 1 SSD: 240 GB system storage, MICROSOFT WINDOWS Embedded 11 OS, 8 RIP node each • *Press controller* contains: 4 Core INTEL XEON E3-1225 3.3 GHz Processor, 8 GB DDR3 RAM, 1 GB Ethernet, 1 SSD: 480 GB system storage, MICROSOFT WINDOWS 11 Enterprise LTSB OS • All cabinets: Voltage / Frequency 200-240 VAC, 50/60 Hz • Optional cabinet for 4+ AUs • Optional leaf to extend surface work space • 22" widescreen LED monitor for DFE • 22" widescreen LED touch screen monitor for Press Controller
Environmental	• Operating temperature: 60°F–85°F (16°C–30°C) at relative humidity 10%–90% non-condensing or temperature: 85°F–104°F (30°C–40°C) at relative humidity 10%–60% non-condensing • Worldwide agency compliance for safety, EMC, EMI, and RoHS

Efficient VDP files will run at engine-rated speed. Contact Kodak for best practices on efficient file preparation.

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