

Screening and calibration

Nexus supports a very wide range of screening and calibration techniques protected by several patents.

Standard Screening

Nexus supports several families of conventional (AM) screens with optimizations for different printing technologies. Virtually any dot shape exists with a wide range of rulings and angles. Moiré patterning is minimized, and both dot centred and open centred rosette patterns are available.

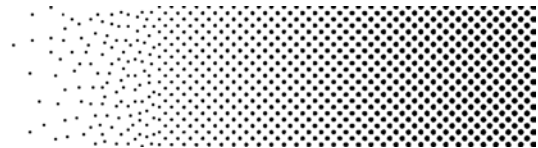
Stochastic Screening

Organic Screening provides a set of up to date second generation stochastic (FM) screening patterns designed for high quality printing applications.

Hybrid Screening and PerfectHighlights

Specially for flexography, NexusRIP supports the industry-standard solution for avoiding highlight breaks. In the low percentages, both the size, the positioning and the number of dots is modulated to get the best results:

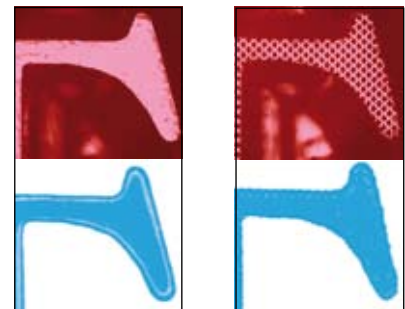
- Invisible transition
- Selectable dot sizes allow tweaking to your process
- Dots move away from their position for a more natural look and less artifacts



PlateCell Patterning and Groovy Screens

Also for flexography, NexusRIP supports screening of the solid areas. This patented technology optimizes solid ink transfer and improves overall print quality. You can use cell patterns or line patterns (groovy screens) with a wide range of pattern frequencies and angles.

- Dark smooth solids
- Elimination of halo
- Sharper type
- Ink savings
- Open reverses
- Dark smooth shadows



*Print from
Normal Flexo Plate*

*Print from
Cell Pattern Plate*

Concentric Screening for Offset

Concentric Screening is a revolutionary technology targeted at quality litho printing applications. Concentric has been proven to increase color saturation and image detail and smoothness. At the same time it improves press stability and significantly reduces ink usage - a factor alone which can provide a quick return on investment in this product.

- Color gamut is expanded
- Sharpness is better than with a conventional screen with the same ruling
- Far less dot gain than stochastic screening
- Reduces ink layer thickness and therefore reduces ink consumption

Certified PDF



The Nexus workflow fully supports Enfocus Certified PDF technology, which guarantees not only a quality label but provides users with a full edit and history trail on the PDFs they are treating in their workflow or have to exchange with other people. As Nexus has adopted Certified PDF in a unique way, it means that the traceability of the incoming PDF — even though the file may undergo changes through the workflow on the NexusEdit or ArtPro workstation — will never be broken.

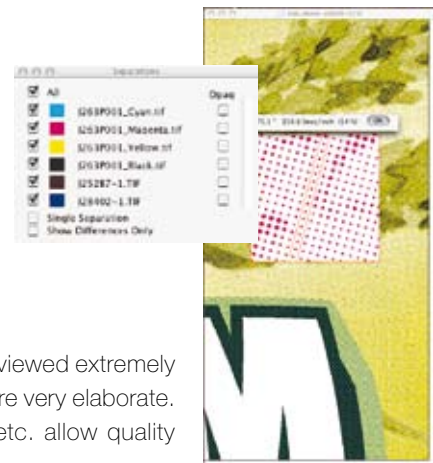
JDF (CIP4)



Nexus uses JDF (Job Definition Format) as the preferred jobticket format for inter-connectivity applications, such as audit trail reporting, with MIS systems or other database and information systems. Nexus equally embraces JDF driven step & repeat workflows.

NeXML

NeXML is Nexus' XML gateway that allows automation and workflow control from MIS systems or other database systems through XML jobtickets. NeXML can be set up and maintained by an experienced user or a system administrator.



DotSpy Quality Assurance

With DotSpy digital plates and films produced by NexusRIP can be opened and viewed extremely fast, even if the data is not on the same computer as DotSpy. Viewing capabilities are very elaborate. Zooming up to dot level and measuring screen ruling, dot angles, distances, etc. allow quality control departments to find errors before actual plate imaging.

Interactivity through WebWay



WebWay is a standalone product that can be connected to a Nexus system. WebWay provides convenient, secure, cost-effective and internet-based communication between print buyer and production plant or between different departments within one company.

Inside a very user-friendly collaboration space, project managers can create projects and setup teams. Projects can be populated, monitored and discussed by the team members. Team members can use a standard internet browser to view projects, make annotations and approve or reject projects.

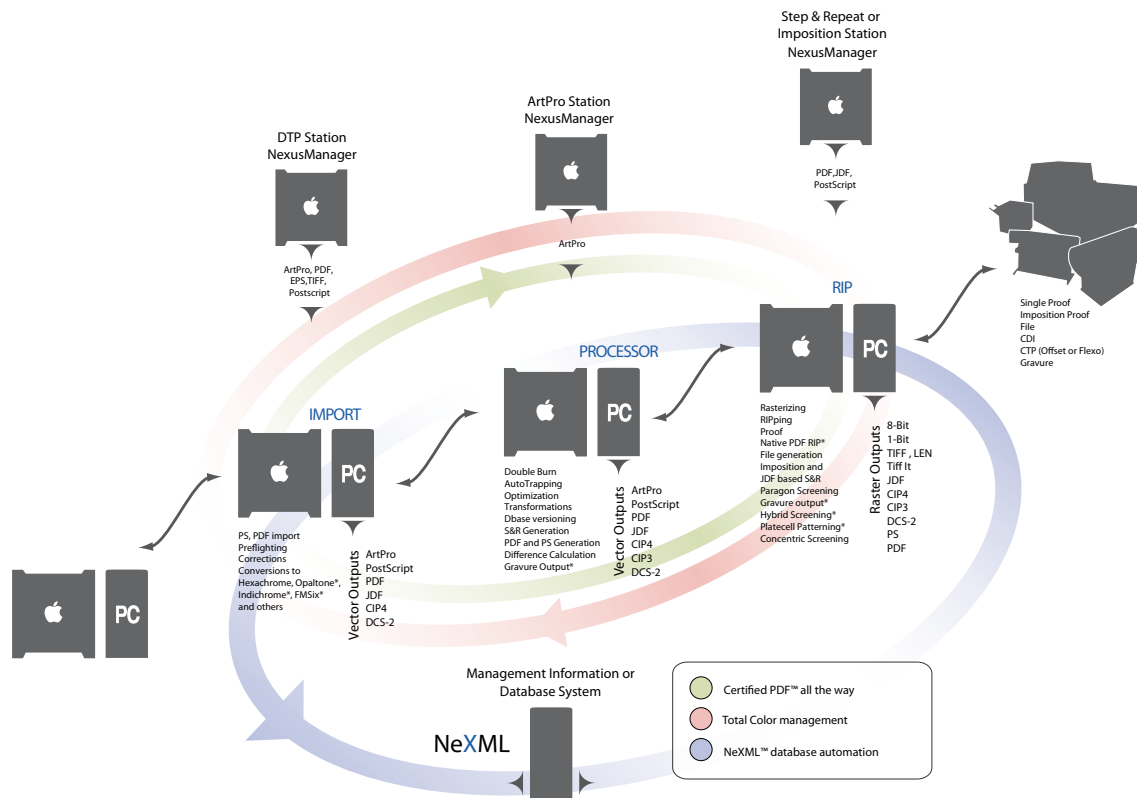
High-end workflow solutions



Nexus

Nexus is a comprehensive high-end workflow solution for label and packaging pre-production. Nexus increases your productivity through automation of human-intensive front-end and RIP tasks.

Nexus is a modular system with three core modules: NexusIMPORT, NexusPROCESSOR and NexusRIP. Each module can run on separate hardware, so you can configure the system to your own needs of functionality, throughput and security.

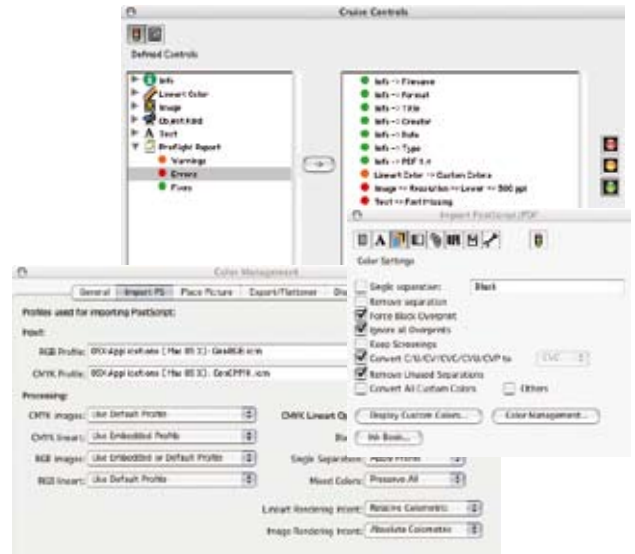


Highlights

- Wide range of input file formats
- Wide range of output file formats
- Automate **ArtPro** tasks
- High productivity
- Very strong workflow automation
- High quality screened output
- Easy to integrate
- Tuned for **labels & packaging**

NexusIMPORT

NexusIMPORT converts incoming files into editable ArtPro or NexusEdit files. The import mechanism supports many file formats (see matrix). During import, files can be pre-flighted and fixed if necessary. You can also convert towards multi-separation systems like PANTONE® Hexachrome®, Opalstone®, Indichrome, FMSix® or any other system for which the user has an appropriate color conversion table at hand. RGB images can be converted to CMYK using ICC profiles, OPI links can be retained or relinked, etc. Output of NexusIMPORT goes automatically to NexusPROCESSOR or NexusRIP, or to a number of industry standard formats like PostScript, DCS, PDF, CertifiedPDF or EPS.



Input and Output formats

Each of the Nexus modules can input a variety of industry standard formats, and output to a variety of formats, depending on the typical functionality of the module exporting the format.

	Nexus IMPORT	Nexus PROCESSOR	Nexus RIP		Nexus IMPORT	Nexus PROCESSOR	Nexus RIP
IMPORT							
ArtPro	•	•		ArtPro	•	•	
PostScript	•		•	PostScript	•	•	•
PDF	•		•	PDF	•	•	•
Certified PDF	•		•	Certified PDF	•	•	•
DCS-2	•	•	•	DCS-2	•	•	•
CAD (CF2, DDES, VLM)		•		TIFF/IT			•
TIFF/IT		•	•	1-BIT TIFF			•
1-BIT TIFF	•	•	•	8-BIT TIFF		•	•
8-BIT TIFF		•	•	LEN			•
JDF (CIP 4)		•	•	CIP 3		•	•
ColorSync ICC support	•	•	•	JDF (CIP 4)	•	•	•
				ColorSync ICC support	•	•	•

NexusPROCESSOR

NexusPROCESSOR automates many of the time-consuming or repetitive content-related tasks, resulting in a high productivity increase.



NexusPROCESSOR accepts data from an ArtPro (NexusEdit) workstation or directly from NexusIMPORT.

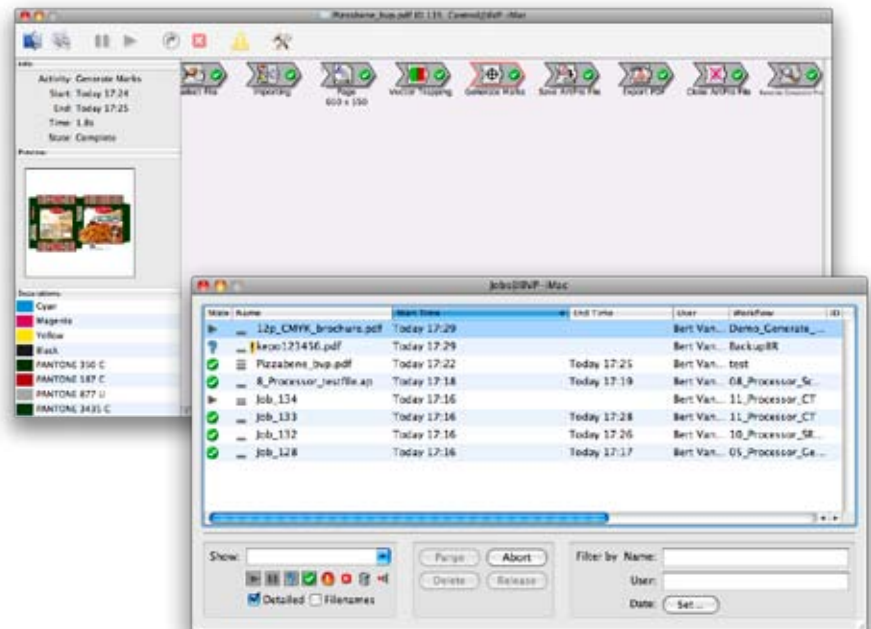
NexusPROCESSOR can run independently from NexusRIP, outputting vector-based PostScript or PDF data to any remote site, printer, proofer or platemaker.

Just to name a few of the many powerful features:

- Output generation for print or proofing applications
- File generation (CIP 3, CIP4, PDF...)
- Step & repeat
- Automation
- Difference calculations (comparing two jobs for differences)
- Warping distortions
- 3D rendering of packaging
- Automatic trapping
- Automatic generation of good-for-print panels
- Automatic marks generation
- Automatic generation of variations (line extensions, languages, ...)

Total control using NexusManager

NexusManager is Nexus' control application (unlimited license) which allows users from inside or outside the company to monitor job progress and workflows from an Apple workstation over TCP/IP. Job workflow parameters can be altered and retries triggered if necessary. Data going through the Nexus workflow can easily be checked out as the necessary files can automatically be located and opened with the appropriate edit application (for example ArtPro, NexusEdit or DotSpy) from within NexusManager.



Editing

NexusEdit — In commercial environments, or when In-RIP trap viewing is a must, NexusEdit will be used to edit the Nexus workflow files. NexusEdit can be used for last minute corrections of text, color, traps and separations. At any time a WYSIWYG preview of the files being processed is guaranteed.

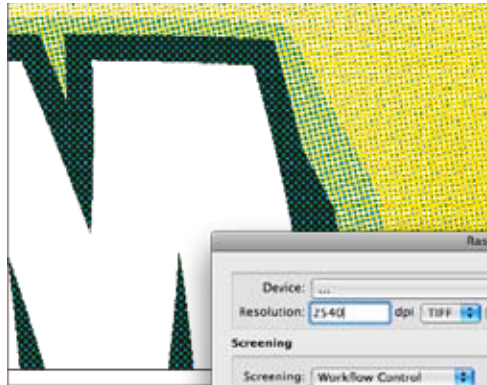
ArtPro — ArtPro is Nexus' preferred editor in packaging and label environments. ArtPro contains an elaborate pallet of productive tools to edit and control files being processed by NexusIMPORT and NexusPROCESSOR.

Nexus PDF Processor

Nexus PDF Processor makes Nexus a 100 % native PDF workflow application. All operations are done with the same high productivity without ever converting the PDF file to another format. This guarantees high speed, high compatibility and standardization. Output can be sent to any PDF RIP or any other application supporting PDF. Of course, the best performance and automation is reached in combination with the Nexus PDF RIP. Features include Enfocus PitStop based preflight, extensive automatic file corrections, multi-page to single page and vice-versa, JDF imposition, flattening, auto-trapping, marks generation, connection to web-based approval etc.

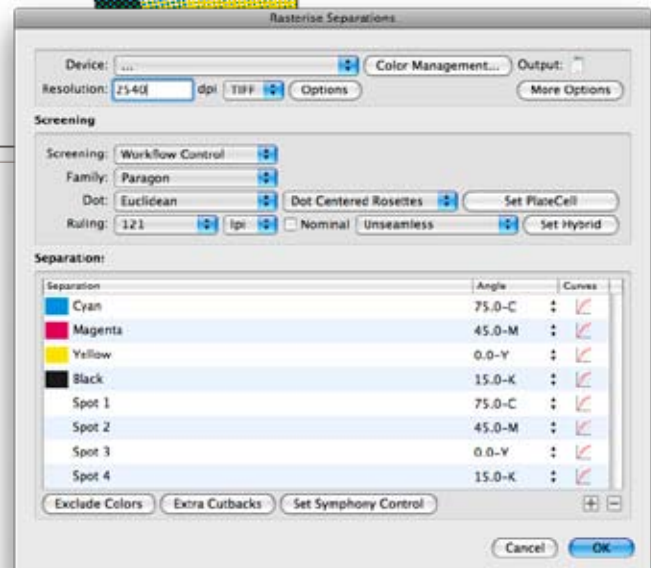
NexusRIP

NexusRIP contains a native PDF RIP kernel, which can accept PDF input from NexusIMPORT, NexusPROCESSOR, or direct from Artpro, PackEdge and other PDF-compliant applications. Using PDF throughout the workflow promotes efficiency and reliability, avoiding time consuming and error-prone "flattening" of file content to PostScript and other legacy formats.



The screening engine of NexusRIP provides a wide range of industry leading technologies for flexo and offset printing.

A comprehensive library of output drivers ensures that you can connect up virtually any proofer, imagesetter or platesetter to NexusRIP, delivering proof to press consistency. A direct connection to FlexProof/E allows color managed contract proofing to most inkjet printers, including accurate simulation of spot colors.



Output to gravure

The Gravure output option to the RIP adds the ability to generate high quality unscreened output (with anti-aliasing and sharpening) for direct driving of gravure engravers. The "classic" extension to the RIP adds input and output of CT/LW formats such as PSTI and TIFF/IT as well as support for a number of other legacy formats.