Product Description

The Prinergy Direct solution is a remote plating system for distributed printing operations that process files in one location, and use a separate facility for imaging plates and printing. Complete jobs can be efficiently exchanged between remote Prinergy systems. Using automated Job Import and Export features, jobs are transferred using a JDF-compliant job Import/Export file that contains the PDF digital master files, and controls information such as imposition layout, page assignment and geometry. Full job context is retained when jobs are exchanged between systems, so even complex work such as versioned or layered jobs can be transferred rapidly without error. Both on-screen and hard-copy, full imposition proofing can be handled manually, or placed in hot folders for automated processing. Prinergy Direct can be also used as a standalone flat-based workflow, accepting pre-imposed files from Preps, for example. The Prinergy Direct workflow can be expanded incrementally as your needs grow, and can be upgraded to a full Prinergy Connect system.

Features And Benefits

Distributed Print for Ultimate Flexibility

Prinergy Direct™ is a remote plating system that accepts JDF-compatible Job import/export files and efficiently renders this information to drive a broad range of platesetters and proofers. Prinergy Direct is ideal for printers with a distributed printing model. Job import/export allows for the exchange of complete jobs between Prinergy systems. By re-assigning overflow jobs to alternate plant sites, Prinergy Direct provides printers with ultimate flexibility and enables them to guarantee faster turn-around times by ensuring jobs get on press in time to meet tight deadlines.

Streamlined Operations Increase Speed and Productivity

Prinergy Direct™ receives jobs as a single file containing PDF digital masters and associated imposition information, and imports them with job context. As a result, even complex work such as versioned or layered jobs is fast and simple to handle. Output is streamlined with automated hot folder operation to go direct to plate. Printers can set up the system to suit specific needs. Prinergy Direct then executes sequential tasks with a single click and drag. The system includes proofing capability (soft, hard, imposition), which means that proofing steps can be incorporated into the hot folder operation. PostScript and PDF OPI come standard with the system.

Easily Scalable to a Prinergy Connect System

Because it is based on industry standards like Adobe Extreme, PDF, JDF, and PJTF (Portable Job Ticket Format), it is easy for Prinergy Direct to expand to a complete Prinergy Connect system as the needs of your business grow.

Prerequisites

- Network per the *Prinergy Solutions Guide*

- Mac or Windows Hardware for running the optional, additional Prinergy Client Software
  - The Mac or PC must be running:
    - Windows 2000 for Windows Client hardware
    - OS9.1 or later for Mac Client hardware
- Prinergy Client Software requires a minimum of 256 MB of available memory
- Recommend minimum CPU speed for running the Prinergy Client Software is 300 MHz

Recommended prerequisites:

- Internet access
- Modem line

Product Version

Prinergy 2.2

Available Configurations

Single output device: 1-box solution made up of:

- Prinergy Direct software
- 4 logical-processor primary server

Multiple device configurations made up of:

- Prinergy Direct System
- Prinergy RenderStation for each output device

Components

Standard Software

Prinergy Direct software

- 1 Primary Server License
- 1 Single Normalizer
- Prinergy Image Replacement OPI
- 1 Basic Color Management Engine (see Color Mapping section)
- 1 Basic CopyDot JTP
- 1 Import/Export JTP
- 1 Lo-Res Rendering JTP
- 1 Hi-Res Rendering JTP
- Harmony
- 1 English Prinergy Direct client (see details below)
- 1 Proofing Connectivity (Class 1 and Class 2 site license, see proofing connectivity specification for details)

Prinergy Direct Client Macintosh or Windows includes:

Prinergy Direct PrePress Workshop:

- Job Manager (History Log and Separations View)
- Job Finder
- Queue Manager

- Process Plan Editor
- Workshop is localized in the following languages:
  - English
  - German
  - French
  - Spanish
  - Japanese
  - Chinese (Simplified)
- Virtual Proofing System

Prinergy Server License includes:

- Workflow Management Software
- Job Processing Infrastructure Software
- Prinergy Administration User Interface
- Harmony Calibration System as described in the Harmony Product Specification

Documentation Included

- Prinergy Workshop Online Help
- Prinergy Direct Quick Start Guide
- Prinergy System Administration Guide
- Prinergy Upgrade Guide
- Prinergy 2.2 Release Notes
- Creo Color Matcher Release Notes
- Virtual Proofing System User Guide
- Harmony User GuidePrint Console Reference Guide

Training Included

- Purchase of 5-day Startup Assistance package is mandatory.
- All training for Direct systems is provided via 5 days startup assistance.

Options

Optional Software

- Synapse Link (please refer to *Synapse Link Product Specification*)
- Advanced Color Management Engine (see Color Management section)
- Staccato FM screening
- PrintLink for Prinergy
- Online System Backup (see the Online System Backup specification)
- Device connectivity options as described in the Prinergy Output Device Connectivity Specification
- Additional Normalizer JTPs
- Additional Low-Resolution Rendering JTPs
- Additional High-Resolution Rendering JTPs
- Additional Prinergy Direct clients
- CT/LW and TIFF/IT input
- PDF/X-1a output (see *Vector File Output* section)
- Flat rotation (see *Hi-Res Renderer Features* section)

- Web growth compensation (see *Hi-Res Renderer Features section*)
- Font outlining (see *Vector File Output* section)
- CopyDot JTP descreen & resample (see *CopyDot File Handling* section)
- CopyDot JTP tonal calibration (see *CopyDot File Handling* section)
- Basic and Traditional Chinese font support
- Basic and Full Japanese font support
- Korean font support
- Emergency Platemaking

Companion Software

- Preps or Pandora for imposition
- Profile Wizard
- CPS or CPS-HP for improved versioning proofing
- Digital Blueline

Refer to the respective product specifications for further details on these products.

Input

Prinergy supports the following flat-based input file formats:

- PDF 1.2, 1.3,1.4 (PDF 1.4 flattener is integrated into the Normalizer) and 1.5 generated by Adobe Acrobat 3.0.x, 4.0.x, 5.0.x and 6.0.x (PDF 1.2 is subject to known limitations)
- PDF/X-1a
- PDF/X-3
- PostScript Level 1, 2 and 3
- EPS
- DCS 1 & 2
- CopyDot files
- PDF or PS from Preps or Pandora for a flat based workflow
- CT/LW
- TIFF/IT P1
- Prinergy job export files

Output

The following output formats are available:

Vector Formats:

- PostScript Level 3
- PostScript Level 2

Raster Formats:

- Raster DCS
- Raster EPS
- VPS
- TIFF
- CT
- HPRTL
- Epson 5000

- Epson 9000
- Kodak Approval TIFF
- Kodak Approval EPS
- JPEG
- BMP
- IPRF (for Veris connectivity)

The following levels of output device connectivity are available:

- CTP & CTF Connectivity (Trendsetter family, Lotem family, Platesetter family, VLF family, Dolev family)
- CIP3 PPF files (with PrintLink option)
- Prinergy supports a wide variety of proofing devices. Please refer to Prinergy proofing connectivity specification for more information on supported proofing devices.

General Functions

Prepress production management, including:

- Job management, imposition management, queue management

Job processing, including:

- Job import job processing control, digital master creation, CEPS conversion, color management, image merging for PostScript & PDF (OPI), virtual imposition proofing (on-screen), imposition proofing, final output

Administration and configuration, including:

Configurable automation, load balancing, distribution, system administration, error handling

Specific Functions

Job Processing

Job Management

- Create job group
- Create pre-job with standard settings
- Create job: User specifies job group, job name, and location
- When creating job, users can copy image search path, hot folder settings, job toolbars, and font search paths from existing jobs
- Register input files to job, with automatic execution of process plans or workflow plans (see *Automation*)
- Create, save, edit process plans for refining, output and archiving (optional)
- Monitor job progress and job history
- Job history logs time and user name for every recorded action
- System history to view recorded actions for multiple jobs
- Search for jobs in Job Finder and rename jobs
- Destroy job completely to remove job from system
- Prinergy system exchange jobs using the job import/export functions.

  This mechanism collects job pages and imposition job ticket information, and exports a JDF file that can be recognized and imported into job context

by other Prinergy systems

Imposition Management

- Ability to have multiple imposition plans per page set
- View output separations
- Proof layered page sets using Virtual Proofing System or imposed proof output

Process & Queue Management

- Provides status update of processing for a job (for example, refining, output)
- Record status in history log for review
- Highlight errors and warnings for processes
- Change priority of processes in queue
- View the queues for each JTP
- Monitor system processing including percentage complete and error/warning notification
- Generate standard reports using information in database
- Generate customized reports with CDBR (optional)

Job Processing Control & Automation

- Users execute & automate processing steps using process plans
- Prinergy Process Plan Editor is used to create or modify execution parameters within process plans
- Process plans can be chained using workflow plans for advanced automation
- Users choose elements (signatures/surfaces) and select the applicable process plan to initiate job processing: proofing, output, archiving (optional)
- User defined toolbar for initiating processes (workflow toolbar)
- PDF digital master creation
    - Generates production-ready PDF from input files
    - Embeds all images and fonts referenced by input file (configurable search paths per job)
    - Utilizes Adobe Multiple Master technology for font substitution, if selected
    - Utilizes Prinergy Image Replacement to perform OPI on PostScript and PDF input files
    - User chooses whether missing images or fonts are errors or warnings
    - Optimizes contone and monochrome images
- Optional use of PDF/X-1a:2001 as the PDF digital master format

Separated & Composite File Handling

- Input files may be either separated or composite
- Retains files as separated or composite until final output
- Supports mixing separated and composite pages in the same job, signature, and surface
- Individual separations (for example, CMYK and spot colors) can be output for each surface (regardless of whether the pages included on the surface are all composite, all separated or a mixture of both).
- Handle duotone and tritones in composite or separated workflow (Adobe Photoshop 5.02 and later)
- Some features (for example, color management) are limited to composite pages

Copydot File Handling

- Prinergy supports efficient Copydot file handling using the Basic Copydot JTP to perform re-formatting or re-tiling of Copydot data to improve Copydot processing performance
- Prinergy supports descreen & resample of Copydot files to match the resolution of the output format or allow image manipulation (optional)
- Prinergy supports tonal calibration of Copydot files (optional)

Supported Font Formats

- PostScript fonts stored in Macintosh or Windows binary format
- TrueType fonts stored in Macintosh or Windows binary format
- TrueType fonts stored in PFA formats
- Installation of fonts from a Prinergy client (Windows client only)
- Standard font set includes more than 135 base PostScript 3 typefaces
- CID fonts (for example, Chinese, Japanese, Korean)

Prinergy Image Replacement (OPI) [Part of Refining]

- Insertion of hi-res images and replacement of existing image samples referenced from PostScript or PDF
- Configurable image search paths per job
- Supported image references in PostScript inputs: OPI version 1.3, OPI version 2.0, Imagemanager Pro ".lay", Scitex APR ".e", Helios ".lay", ColorCentral ".samp".
- Supported image formats: EPS, TIFF 6.0 Baseline and CMYK and LZW Extensions, DCS Version 1.0, DCS 2.0, Scitex CT Grayscale and CMYK Color
- Supports automatic recombining of Photoshop and Copydot DCS during the OPI process

Color Conversion

- Map spot colors to process
- Set 100% black to overprint
- Set colors to knockout
- Set Overprint CMYK White to Knockout
- Enable Gray Overprint
- Convert RGB to CMYK (see also *Basic Color Management*)
- Pantone library support

BasicColor Management

- Based on ICC standard for defining color spaces and their respective transformation to device independent colors
- User can specify different profiles for different page element types (for example, RGB images, CMYK graphics)
- ICC profiles within PDF input files are automatically regarded
- Color management used within refining process to color match the data with respect to the output device
- Color management not available on pre-separated data or for spot colors
- Can convert color input pages to monochrome gray PDF digital masters

Color Combiner

- Allows for the reproduction of spot colors when outputting on CMYK devices

- Color Combiner uses the spot color's process color information stored in the color database, or from the original file if not in the database, to create the CMYK output.

Spot Color Handling

- Displays custom colors that are present on each surface
- Allows user to selectively control for each surface and each color whether it is:
  - Converted to process (composite only)
  - Retained as a spot color
  - Mapped to another spot color
  - Ignored on output
- Allows to Auto-Resolve spot color names
- Color database defines unique color names' alternative color space values and trapping parameters and screening angle
- A unique color name's database parameter can be overridden on a job-by-job basis
- Output to devices that don't support spot colors handled by user controllable conversion of spots to process. The spots are combined to process after rasterization to allow support for overprinting transparent spot colors.
- Pantone, CMYK, & LAB libraries can be loaded & unloaded into the Prinergy color database

Imposition Proofing Output (on-screen viewing, print spooling, file folder output)

- View imposed flats to verify registration, back-up, trims and bleeds via Virtual Proofing System
- Print imposed flats via print spooling or file folder output to supported output devices (Refer to *Prinergy Output Device Connectivity Specification* for more information)
- Optional color matching for proofing
- Output formats include: 1-bit TIFF, HP-RTL, Scitex CT, EPS Level 2, VPS-TIFF, JPEG, Screened DCS, IPRF (for Veris connectivity)
- For high-resolution proofing refer to the *Prinergy Output Device Connectivity Specification*
- User configures the process plan to select the proofing device, dot-gain calibration and screening (if applicable)
- Staccato FM screening and Solid Screening available for low-res output (<1000 dpi)
- Selection and application of the appropriate Harmony dot gain calibration curves as specified by the user

Vector File Output

- Prinergy can output several vector based file formats for file exchange with 3rd party workflows and RIPs
- Vector output formats include: PostScript 3, Postscript Level 2
- PDF 1.3 and PDF/X-1a output options (Remove Traps, Trim Page, Honor Page Geometry Settings)
- Prinergy supports font outlining, which replaces the font information with vector information, for PDF, PostScript Level 2, and Vector DCS output (optional)

Final Output (output to directly connected devices)

- Print spooling of Job Tickets and pages for final output devices (Refer to *Prinergy Output Device Connectivity Specification* for more information)
- User configures the process plan to specify the device specific parameters (for example, plate, output resolution, etc.), dot-gain calibration, and screening
- Prinergy direct connection to the Prinergy Hi-Res Renderer (See *Prinergy Hi-Res Renderer Features* below)

Hi-Res Renderer Features

- Selection and application of the appropriate Harmony dot gain calibration curves as specified by the user
- Harmony Calibration System records the print characteristic of the final press sheet and matches it to the proof, another press sheet or an industry standard allowing accurate control of dot gain
- Screening setting overrides at the RIP:
  - Screen system
  - Dot shape
  - Nominal screen ruling (AM) or feature size (FM)
- Supported screen systems:
  - Creosettes (only available on Creo devices)
  - Staccato second-order FM screening (optional)
- Supported dot shapes (not all dot shapes are available on all screen systems):
  - Round
  - RoundSquare (Euclidean)
  - Elliptical
  - Heavy Elliptical
  - Light Elliptical
  - EllipticalP
  - SmoothElliptical
  - Checker
  - Line
  - Line1
  - Square
  - Square1
- Creosettes employs rational tangent supercell technology with enhancements to preserve smoothness in vignettes and to ensure tightly controlled rosette formation without screen artifacts
- Full control of screening page and element level via PostScript or PDF input
- Full control of screening page and element level on PDF using DotShop (optional)
- Mixed assignment of stochastic and conventional screens among separations (only available with Staccato)
- Positive or negative image
- Mirror print with screen angle preservation
- Prinergy supports web growth compensation (optional)
- Prinergy supports flat rotation to prevent a ghosting effect on press (optional)

Output 1600 dpi Copydot data on 2400 dpi Thermal head (Creo Thermal head

devices only)

Administration and Configuration

Automation

- Automated processing available through hot folders
- Create, save, edit and re-use process plans among jobs
- Workflow plans enable execution of a sequence of process plans
- Full automation possible with hot folder input to a import/output or refine/output workflow plan

Distribution

- Processing such as normalizing, color management, and rendering, can be distributed among Prinergy primary and secondary servers
- Processing can be pooled to allow automatic ~Round Robin~ load sharing between distributed (multiple servers) or non-distributed (single server) processing engines
- Prepress input files can reside on any server viewable on the network from the job home server
- A job's home server can be any Prinergy or Windows Tertiary server in the network. The home server stores system created files.
- Multiple clients can have the same job open regardless of the job's home server. Each client can have multiple jobs open regardless of the job's home server.

Administration

- Installation wizard leads user through installation process
- Mac and Windows Client Installer for installing Prinergy client software on customer machines
- Distribution of which Prinergy servers can initiate trapping engines, or refining engines, etc., provided by administrative UI
- Start, stop, and monitor server processing
- User defined preferences for user-selectable options

Process Tracking & Error Handling

- Processing summary and errors from all activities (refine, output) available in history log
- History log available in job context
- History log sorted by time or type of activity
- Access to history log from any user's desktop
- The state of each element (for example, error status of individual pages) is captured and displayed on the user's desktop
- System history

Performance

Refer to the *Systems Solution Guide* for recommended configurations and representative performance benchmarks.