

AGFA APOGEE

The PDF-based Production System

- Apogee Pilot
- Apogee RIPs
- Apogee PrintDrive



The Open Digital Workflow

Agfa Apogee is the first PDF-based production system. Unlike anything before, Apogee uses Adobe's industry standard PDF format as the native file format of the system. This one format can be used for both production and imaging, and eliminates the need to convert to intermediate file formats. In Apogee, PDF becomes the "digital master" a single file format that can be used to produce the same content in print, on a digital press, on the Web or CD-ROM.

AGFA 
The complete picture.

AGFA APOGEE PRODUCTION SYSTEM

Using the PDF Digital Master

PDF and the Digital Master

Agfa Apogee is a production system solution that utilizes the PDF data format as a truly, reliable digital master.

With the Job Ticket implementation based on Adobe Portable Job Ticket technology, important job and printing information is carried along with the PDF file. By keeping formatting information separate from PDF content, it is easy to make late production changes, and publish the PDF file in other print or electronic forms.

Designers, service bureaus, and printers can easily prepare and process production jobs for various output types. Using the PDF, flexibility for last minute content editing and easy remote revisions are always maintained.

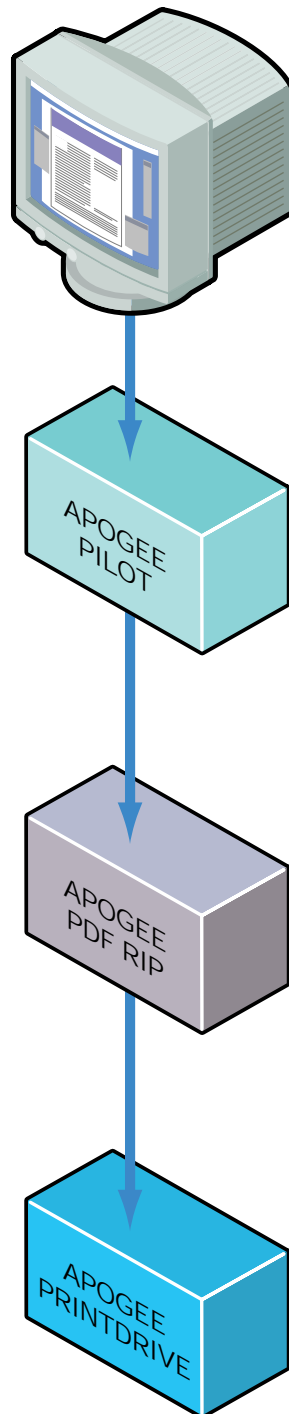
On top of this, the compact, streamlined PDF format travels with ease throughout the production flow, reducing transfer and processing loads on the network and the hardware platform.

Apogee System Components:

Agfa's Apogee Publishing Production System ideally includes

- the APOGEE PILOT, a PDF production manager;
- one or more APOGEE PDF RIPS, and
- the APOGEE PRINTDRIVE, an engine output manager.

Handling both PDF and PostScript files, the Apogee Production System easily adapts to any open platform environment.



Creating the content

- Any application on any platform
- Output PostScript or PDF

Normalize into PDF Digital Master

- Apogee CEPSTLink
- Apogee Normalizer
- Apogee PageStore
(Remote viewing and approving, proofing, editing,...)
- Job Ticket Editing
(Job Info, Page Selection, Process definition, Output definition)
- Apogee Imposition
- Apogee OPI

Render into Print Image Files

- Separation
- Color Management
- Trapping
- Screening
- Output to proof, film, plate

Manage the Print Image Files

- Multiple RIP input
- Print Image File Management
- Output device management
- Output to proof, film, plate

APOGEE PILOT

Normalize into PDF Digital Masters

FEATURES & BENEFITS

The Apogee Pilot is the operational center in the production process. It uses a three step approach to organize the workflow: normalizing the files into PDF Digital Masters; edits the Job Tickets; and processing the PDF file as instructed in the Job Ticket.

All incoming files are normalized into Digital Masters in PDF format. This happens only once and is similar to the interpretation phase of a RIP. It makes the resulting Digital Master highly efficient, regularly structured and compact.

Job information, workflow routing, page and formatting settings for the production processes are specified with the Job Ticket Editor and stored in separate Adobe's Portable Job Tickets (PJTF).

To output films or plates, the Job Ticket instructions are processed, pages are retrieved from the PageStore, imposed, and if needed, high resolution images are exchanged with OPI. Using Acrobat Exchange or any other PDF editing tool, changes can be implemented on an object, page or flat level until the last minute prior to rasterizing.

Finally, the Apogee RIP renders the flat a "Print Image File" for the final output device, including screening, trapping, color separations and color management.

Print Image Files or PIFs, contain the exact dots you will ultimately see on your film or plate. With the "RIPping" done in the normalizing step in Apogee Pilot, rendering the PIFs is quick. Apogee PrintDrive manages these Print Image Files offering proofing, archiving and output production automation.

Unique PDF-based workflow

The Apogee Pilot takes advantage of all PDF benefits.

- Agfa's unique normalizer generates fully predictable PDF, using them as digital masters.
- Agfa's normalizer includes specific solutions to handle bleeds, in-RIP trapping, Duotone and Tritone settings, etc.
- The PDF format guarantees compact, fully viewable, editable, searchable and portable documents.

Job Ticket controlled workflow

- Job Tickets automatically instruct the system components to perform specific actions.
- Apogee's Job Tickets are compatible with Adobe's Portable Job Ticket Format specification standard.

Completely integrated workflow

- Integrated imposition, OPI, trapping, screening, and proofing guarantee seamless production and a short learning curve.
- Every step uses PDF-based, non-proprietary tools.

Input Compatibility

- The Apogee Pilot directly processes PDF and PostScript jobs.
- As an option, CEPS data formats can be converted into PDF files.

Output Flexibility

Apogee Pilot outputs jobs:

- as PDF or PostScript Level 2 files,
- as imposed "flats" or a continuous stream of pages,
- with extra compression or downsampling for proofing or CD-ROM/ Internet/ Intranet publishing.

Easy integration

- As a Windows NT based product running on Intel platforms, Apogee Pilot can easily be integrated into existing workflows and systems.

Productivity

With PDF Digital Masters you receive:

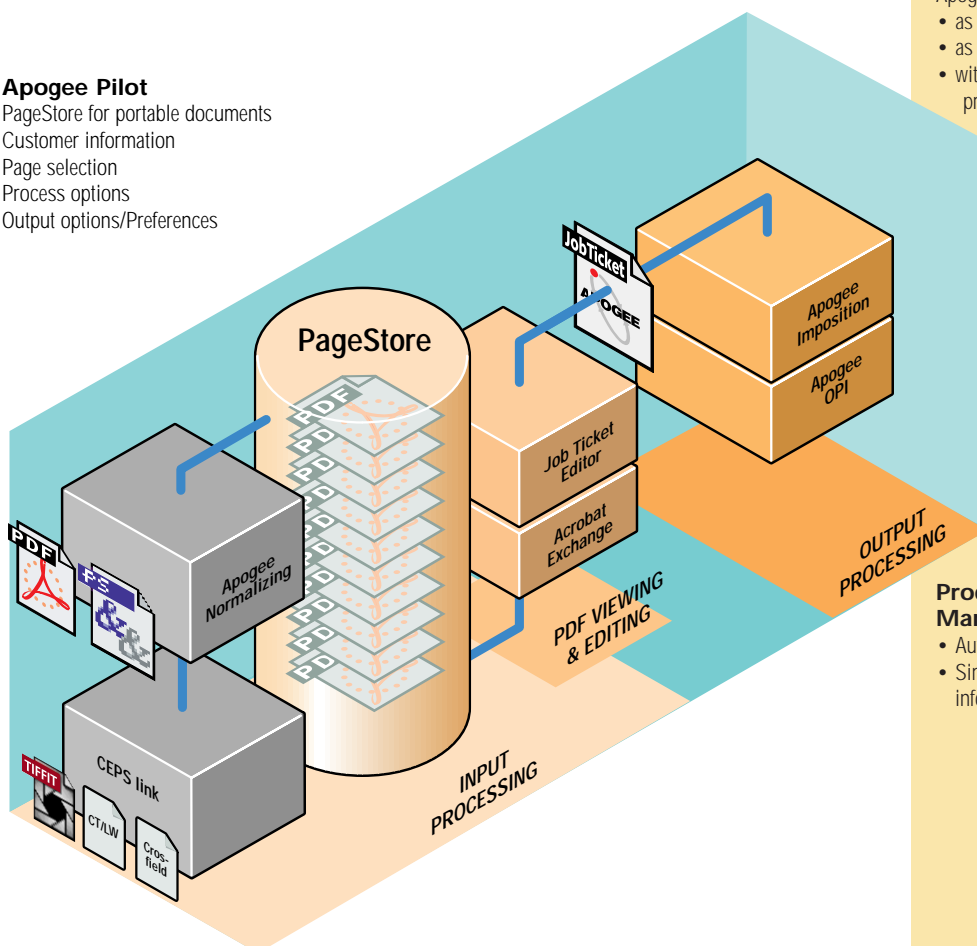
- Predictable results to avoid costly remakes.
- Short and easy correction cycles for higher productivity.
- Changes made at the last minute are done in PDF, so your digital master remains up-to-date for repurposing.

Process and Information Management

- Automatic extracting and cataloging of job data.
- Simple queries allow for extensive process and information management.

Apogee Pilot

PageStore for portable documents
Customer information
Page selection
Process options
Output options/Preferences



APOGEE PILOT

Processing steps

Normalizing the files

All incoming files are normalized into PDF to guarantee complete predictability and compatibility. Agfa's normalizer, based on Adobe technology, includes specific solutions to handle bleeds, in-RIP trapping, Duotone and Tritone settings, etc. A check verifies if all resources needed for output are available.

If some source pages are in CEPS formats, the optional Apogee CEPStLink component handles the conversion of TIFF/IT-P1, CT/LW or Crosfield Textran formats prior to normalizing into PDF.

Once normalized, the PDF files are moved to the central PageStore as individual PDF pages and become the digital PDF masters to create all production versions.

PDF Editing

One of the major advantages of Apogee Pilot is that anytime during the process prior to final rendering, changes or corrections can be made. Commercially available PDF applications or Adobe

Acrobat Exchange plug-ins offer a variety of tools to conveniently edit layout, text, images or graphic objects of most any kind. And as a digital master, changes made in the PDF file at any stage of production are retained for reuse in additional print or electronic versions. Being PDFs, the digital masters can easily be used for remote viewing, proofing, approval and editing.

Job Ticket Creation

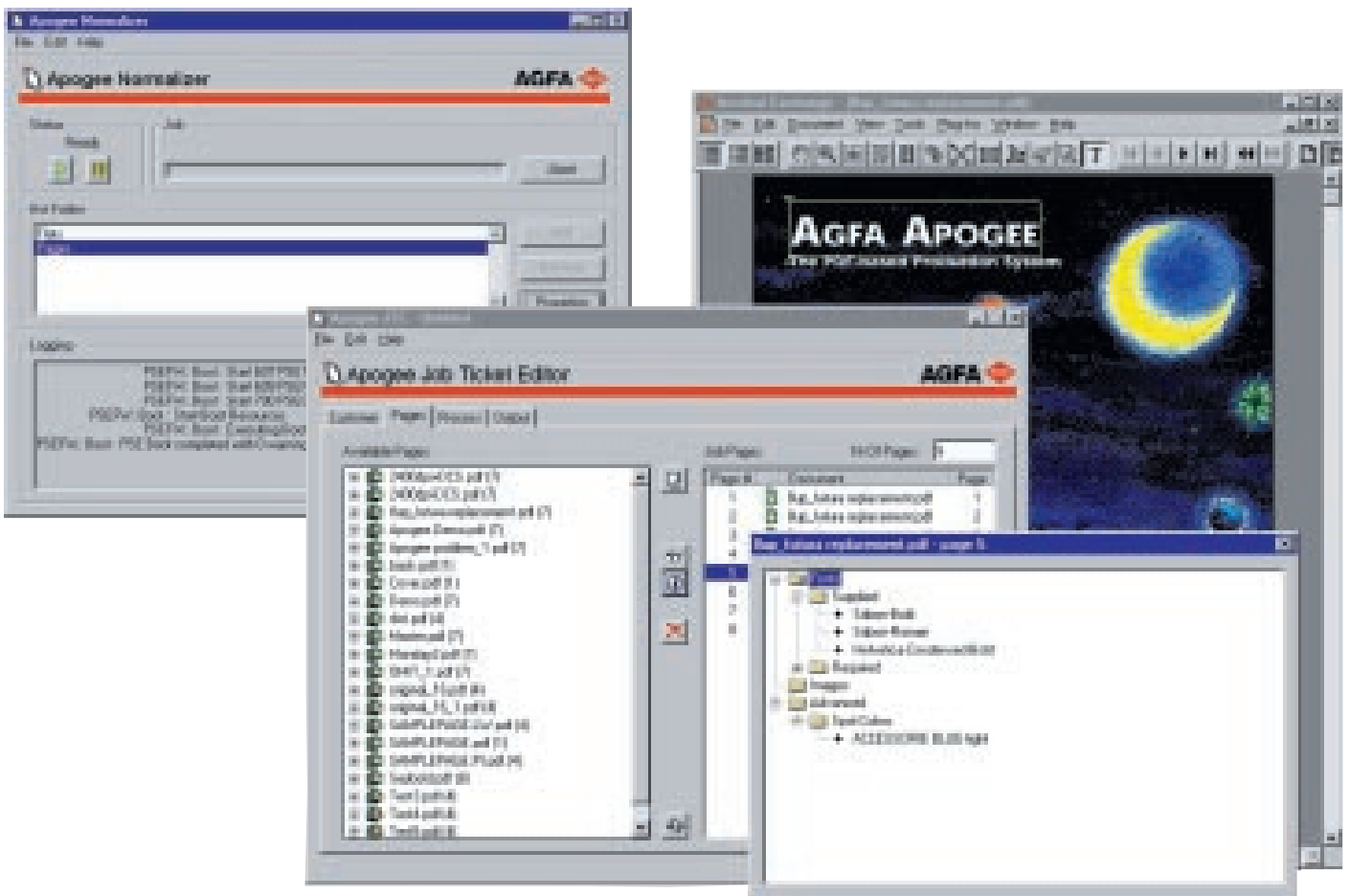
In the Apogee Pilot, Job Tickets provide detailed production instructions. The Job Ticket is independent of the PDF digital master file and can be created, edited and saved separately. It can be re-used with other jobs, just as the jobs could be processed on a different Job Ticket. Additionally, if changes need to be made late in the production process, a simple click on a button allows you to edit the Job Ticket.

Creating the Job Ticket is very simple. First you enter general job information, such as the job name, client and invoicing information. A special section is available to add production notes.

The second step is page selection from the PageStore. PDF digital master pages can be easily exchanged, moved, added or deleted. Using a PDF preview function like Adobe Acrobat, jobs can be checked visually for content. Additionally, one click of the information button provides a comprehensive list of all elements, such as fonts, spot colors and embedded file formats.

Next you select process options such as imposition, trapping, and separation, including special settings for spot colors and screening techniques, all according to specific device requirements.

Finally you define device-specific output options such as media type or plate size, and output options. After that the job can be submitted for automatic processing.



Job Ticket Processing

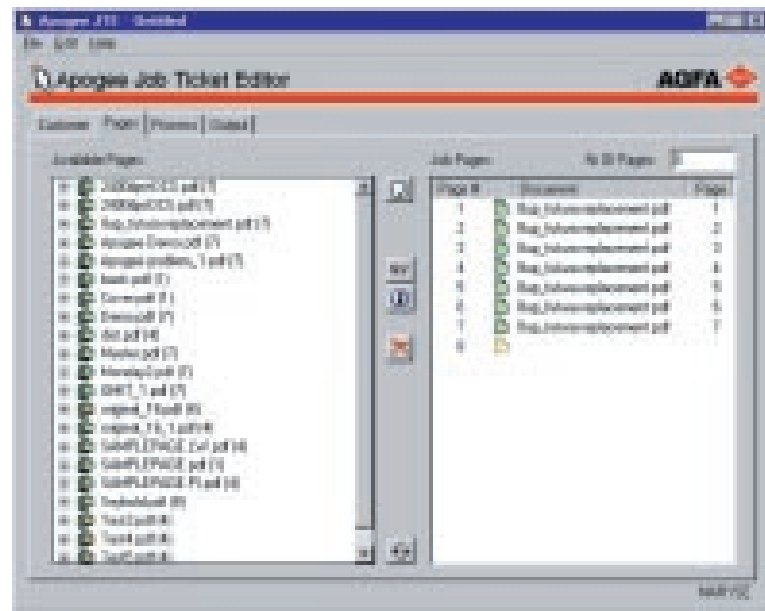
Based on the Job Ticket settings, Apogee Pilot routes the digital masters to the appropriate output process.

Apogee Imposition

Imposition is handled automatically by selecting one of the many pre-designed imposition templates accessible from the Job Ticket Editor. As required, interactive imposition adjustment is also possible prior to output.

Apogee OPI

Apogee offers an optional NT-based OPI package. The component is completely integrated in the workflow and provides additional features such as high resolution image checking. For users with existing OPI solutions, Apogee Pilot can automatically direct files to an outside server queue. In either case, low-resolution images are replaced prior to routing to the Apogee PDF RIP. Alternatively, users can retain PSF or PS files with, or without, high resolution images for archiving or other applications.



Output Options

Early in the development process, Agfa realized that any new workflow could create legacy equipment challenges for customers. The Apogee Pilot can output PDF or "Normalized" PostScript files to maintain compatibility with almost any PostScript-compatible system from Agfa – and even other vendors. Pilot can output files of imposed flats or a continuous stream of pages. And digital masters can be specially created for proofing, with high or low resolution images, or for publishing on the Web or CD-ROM.



Preview of imposed files

This preview shows how Apogee Pilot delivers an 8-up imposed PDF file ready for

- remote approval
- imposition proofing
- native PDF RIPPING in Apogee PDF RIPs.

FEATURES & BENEFITS

PostScript 3 RIP architecture

- Apogee PDF RIPs include an Adobe PostScript 3 interpreter to process native PDF and PostScript files and to render them for specific devices.
- Each comes with extended font sets, and can drive most any Agfa engine.

Performance

- Apogee PDF RIPs are multithreaded to take full advantage of modern NT multiprocessor architecture.
- Performance can be further increased by adding more RAM, a second CPU or using advanced storage technologies.

Remote User Interface

- Convenient client/server technology
- From any MAC or PC system on the network, the user can control the RIP, check logs, preview Print Image Files and approve them for production.

Unique Buffer and Preview

- Print Image Files can be stored to disk for preview and approval.
- Users can preview single and multi-page or imposed jobs or multiple views of a single page at different resolutions.
- Tools are available to zoom in to the dot level of color planes. What you look at are the real dots as they will appear on proof, film or plate. One more feature to reduce errors and cost.

Full Compatibility

- Apogee PDF RIPs support Accuset, SelectSet, Avantra imagesetters and Galileo, Antares and Polaris platesetters.
- Included are the professional Agfa PS Companion tools.
- Screening choices include the standard Agfa Balanced Screening and Adobe Accurate screens or the optional CristalRaster, Flexo and Gravure screens.

Flexibility

- Apogee RIPs are offered bundled with platforms, or packed to run on your own Macintosh or PC platform.

APOGEE PDF RIP Rendering into Print Image Files

Apogee Pilot normalizes the incoming files into PDF, collects the pages, imposes, does OPI image exchange and sends this imposed "digital flat" to an Apogee PDF RIP.

In the context of Apogee, the PDF RIP takes the device and format independent PDF digital master, and renders (rasterizes) it exactly for the selected output device. The result is a "Print Image File" (PIF), that contains all the dots that will appear on the film or plate. It also contains necessary engine control information. With PDF or PS interpretation of the file done upfront in the Apogee Pilot normalizing step, rendering is quick.

While rendering the PDF performs many tasks that were once in standalone graphic arts crafts. As instructed, the PDF RIP may perform screening, trapping and color separations. Specifications are controlled in Apogee Job Tickets.

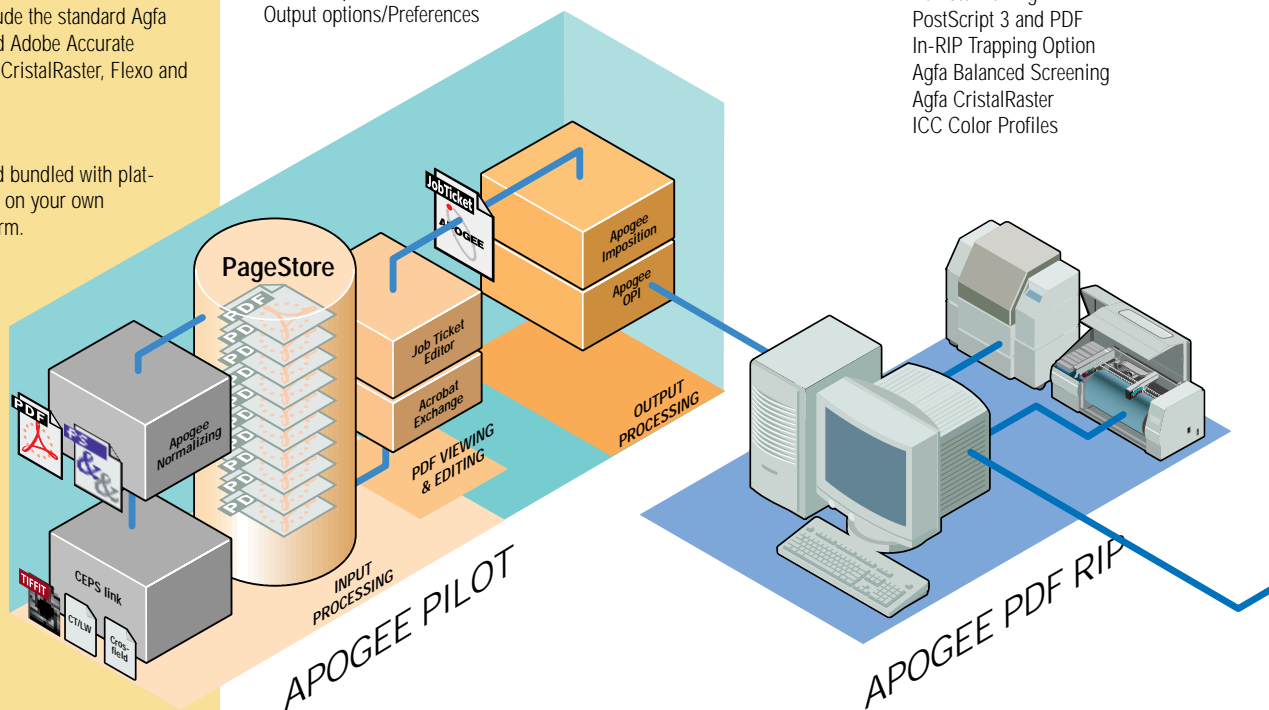
For color management, Apogee PDF RIPs are fully compatible with the use of ICC profiles. Based on Agfa ColorTune technology, professional profiles can be created and used in the RIP, to tune the output to the color characteristics of the chosen output process and device. A decisive asset in an all digital workflow.

Apogee Pilot

- PageStore for portable documents
- Client information
- Page selection
- Process options
- Output options/Preferences

Apogee PDF RIP

- Remote viewing
- PostScript 3 and PDF
- In-RIP Trapping Option
- Agfa Balanced Screening
- Agfa CristalRaster
- ICC Color Profiles



APOGEE PRINTDRIVE

Manages the Print Image Files

For "direct-to" production, Agfa developed an output manager that is almost a system by itself: the Apogee PrintDrive.

Apogee PrintDrive manages the Print Image Files (PIF) output by one or more RIPs, and controls output flow to a variety of output devices including Agfa imagesetters, proofers, and platesetters.

These PIF files are managed by PrintDrive amount to "digital film" because like film, they contains every dot that will appear on the plate, and is 100% final and ready to image. They are the equivalent of the final films you used in a conventional workflow to expose printing plates.

Apogee PrintDrive allows you to do the things you were used to do with film...in a completely digital way! You can preview the jobs on-screen, right to the dots to check angles and traps, proof on a wide-format printer and quickly remake plates.

Apogee PrintDrive

Multiple RIP input
Compression/Decompression
Buffering and Back-up
Print Image File management
Imagesetter or platesetter output
Fast remakes
Double burn
QuickFix
Remote viewing
Page and imposition proofing

The optional QuickFix/DoubleBurn allow for last minute patch corrections, and plate-image assembly.

Jobs can be automatically queued and organized by priority and media. Image Files are stored in a compressed format, speeding network transmission times and reducing disk storage requirements. Typical configurations hold several shifts of work on-line, more with extra disks or network storage.

For volume applications, can be fed by multiple PDF RIPs over a TCP/IP network. This unique feature allows you to physically separate the rendering from the actual plate production, so your PDF RIP can be in the desktop department and the PrintDrive can sit next to the output device, even in another town. It also ensures that your platesetter is running at full capacity.

Apogee PrintDrive also supports input from existing Agfa PostScript Level 2 RIPs, and even some 3rd party systems.

FEATURES & BENEFITS

Performance and Productivity

Apogee PrintDrive offers:

- input by multiple RIPs over the TCP network,
- a "RIP-ahead" workflow to productively create finished jobs that can be grouped by media or priority and imaged later, even unattended.
- the storage of Print Image Files for engines or media that are not physically connected or immediately available.
- absolute reduction of idle time: RIPs are never waiting for the engine to free, nor is the engine waiting for the RIP. Everything runs at full capacity.
- immediate plate remakes.

Remote User Interface

- Modern and convenient client/server technology
- From any MAC or PC system on the network, the user can control the PrintDrive, check logs, preview Print Image Files and approve them for production.

Preview and "see the dots"

- Users can preview single and multi-page or imposed jobs or multiple views of a single page at different resolutions. • Tools are available to zoom in to the dot level of color planes. What you look at are the real dots as they will appear on proof, film or plate. One more feature to reduce errors and cost.

Print Image Files are like Film

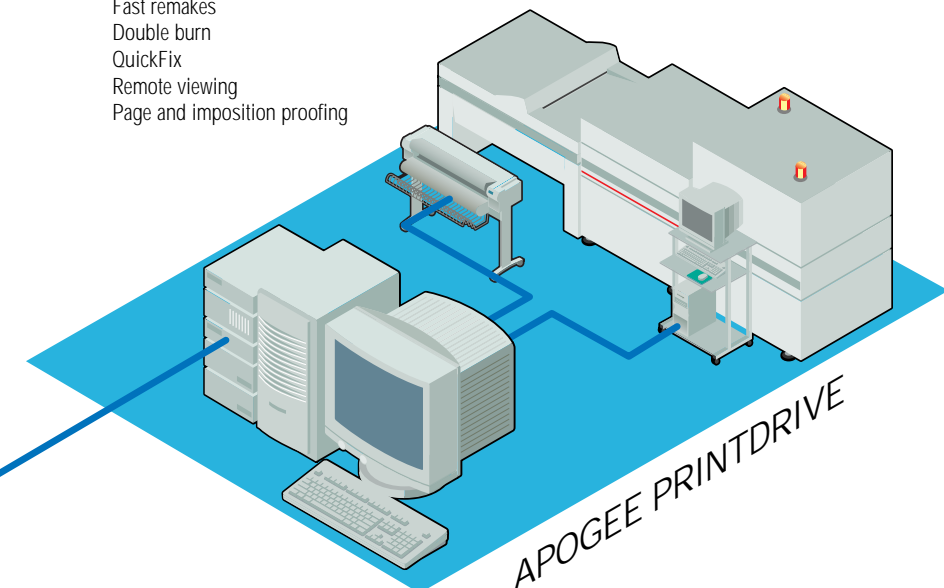
- Print Image Files are compressed to ease network traffic and save disk space.
- You can archive on disk cartridge, CD or any server on the network.

Digital Imposition Proofing

- Print Image Files that are pages or flats can be proofed on wide-format proofers for imposition proofs or "blue-lines". Once approved, the same file can be sent for output without re-rasterizing.

Last minute corrections

- The optional QuickFix/DoubleBurn lets you digitally combine plate images and "cut in" last minute changes without re-rendering.





Apogee PDF-based Production System

Full Scope of Industry Know-how and Technology

Agfa developed Apogee by working closely with key suppliers in the graphics industry for imposition, OPI, and file conversion.

Leading technology includes:

- Adobe Acrobat, PDF, and CPSI technology.
- Apogee PDF RIPs
- Agfa ColorTune to create and use ICC profiles,
- Agfa CristalRaster, Agfa Balanced Screening
- Agfa software and hardware output technology.

Agfa Apogee - Working with You...

Agfa backs-up this new technology with full service and support. Agfa consultants will explain the various options and suggest the best possible bundles for your prepress environment. Your Apogee system will be installed and customized to your specific prepress environment by Agfa. Additionally, Agfa Apogee experts are available on-line on the Agfa Website.

Have a question? Wondering what Apogee can do for your particular situation? Just check us out on Apogee on-line...www.agfa.com.

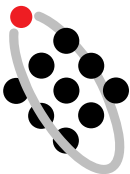
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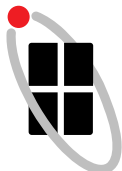
APOGEE



APOGEE PILOT



APOGEE RIP



APOGEE PRINTDRIVE



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The complete picture.