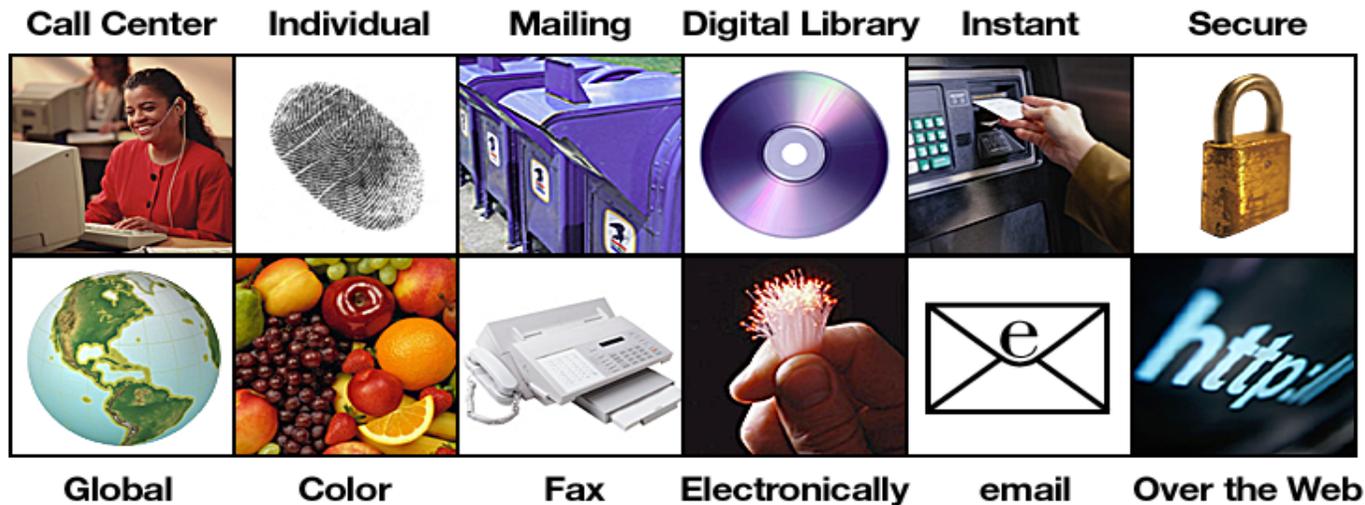


V5R2 and e-Output and Printing

What is e-Output?

Output is communications, "e-Output" is the output of e-business

- Ability to create and distribute electronic pages of information in the desired format



Notes: What is e-Output?

In the old days--before e-business--it was sufficient to print documents and distribute the hardcopy. This is no longer enough. Today, it is necessary to distribute documents immediately in electronic format in the desired datastream to the desired destination. This is "e-output".

e-Output means the ability to create pages of communications and deliver those pages to the required destination in the appropriate format. That could mean printing the pages and distributing in hardcopy format. It could also mean Web access, PDF, e-mail, archival and retrieval, fax, and related methods.

Why e-Output Solutions

Necessary for providing a total end-to-end e-business solution

iSeries is an excellent print server

Helps customers avoid moving critical functions off the iSeries

Notes: Why e-Output Solutions

Customers business processes are changing and they want to deliver faster and quicker service to their customers. To enable this they have made their applications web enabled but the outputs still need to be mailed to them.

For example, a dealer might place an order with his company via the web but he has to wait for the hardcopy order acknowledgment. Using e-output it is possible to deliver this quickly and in electronic format. This makes the customers business a more complete e-business solution.

The iSeries is an excellent print server. With e-output solutions you further enhance these capabilities. Printing is a core function of any business and so using these enhanced capabilities it helps the customer to have one server which can do everything.

Traditional output of the iSeries

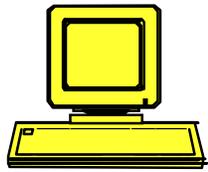


Notes: Traditional output of the iSeries

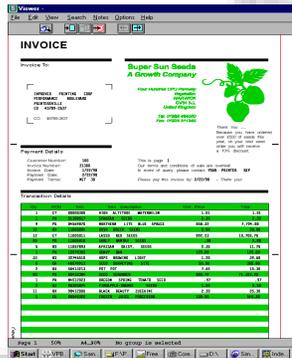
Applications on the iSeries create output -- also called spooled files -- that are written to iSeries output queues. With the print data in the queue, there are three print drivers to deliver the output to a printer. For simple output, the twinax print driver supports line-mode printers (SCS). For PCL printers, there is a driver shipped with OS/400 called Host Print Transform. For IPDS printers, the print driver/manager is Print Services Facility/400 (PSF/400).

Host Print Transform is the simplest driver. PSF/400 is the most advanced.

How e-output fits into the iSeries equation



Infoprint Designer



Infoprint Server
ASCII
Transforms

PDF



IPP



Infoprint Server
Image
Transforms

Infoprint Server
AFP Web and
Indexing

Infoprint Server
PDF

Infoprint Server
Integrated
E-mail

E-mail
PDF
Web



iSeries Access
for the web



Notes: How e-output fits into the iSeries equation

With V5 onwards the output capabilities of the iSeries have been greatly enhanced.

Infoprint Server for iSeries (5722-IP1) has 5 components and is focused on providing electronic delivery. You can now convert the documents to PDF and even e-mail them. It can help generate AFP documents in a Web-ready format and, the ability to transform Web image formats to iSeries format.

You can now take fully electronic output pages sitting in iSeries output queues and deliver them electronically, inbound via client or browser or outbound via e-mail.

A component of Infoprint Server is the ASCII transform server. This enables the iSeries to extend its role as a print server, taking jobs that are being produced in non-iSeries formats (i.e.. PCL, Postscript, and PDF) and converting them to AFP for iSeries-managed printing. These jobs could reside on network clients/servers, or on iSeries applications (such as ERP) that create ASCII data streams.

The Infoprint Designer for iSeries (5733-ID1) makes it easier to compose documents and reports. More importantly, it composes fully graphical, electronic documents -- for example, a customer statement with electronic forms, images, bar-coding, and graphics.

With V5R2, these functions have been significantly enhanced. Infoprint Designer has more capabilities and the Infoprint Server has big changes in PDF functions and in e-mail options. More on that further in the presentation.

Also, Infoprint Server functions are now integrated with other standard iSeries interfaces, including iSeries Navigator and Web Access.

Infoprint Server for iSeries - 5722-IP1

Extends the reach of iSeries as enterprise print server

New easy-to-use interface to Infoprint Server PDF and e-m

Expanded control over e-mail content

PDF font embed options

Support for virtually any mail server

PDF indexing

Integration with iSeries Access and iSeries Web Access



Notes: Infoprint Server for iSeries - 5722-IP1

Infoprint Server for iSeries provides the key elements to extend the creation and management of output into e-business, Internet, and network applications. It enhances the value of the iSeries Server in general and the capabilities of the iSeries for print and output management. Customers can evolve from a purely print-centric output environment to one in which information is distributed in the most efficient form - print, fax, e-mail, or Web.

New output management capabilities let you re-engineer your application output distribution to convert standard iSeries print files into Portable Document Format (PDF) for printing, e-mailing or archiving. The new easy-to-use iSeries Access, Graphic User Interface for PDF makes it easy for the creation and distribution of electronic mail and iSeries out queue.

You can now customize virtually all elements of the e-mail--To list, carbon copies, blind carbon copies, reply to, subject, and message text. It supports multiple attachments per e-mail of any kind of file, including HTML, sound, and image. Infoprint server 5.2 lets you generate a PDF file without embedded fonts. This allows you to build small and very efficient PDF files that protect network performance.

You can automatically send application output to customers and suppliers as e-mail via the transform to PDF. It support for virtually any mail server, including Domino. This allows a lot many customers to take advantage of PDF and e-mail output functions.

When transforming a file to PDF, Infoprint Server can now place index tags at group boundaries and return one PDF file. This lets you easily navigate the file when viewing it on your workstation.

Infoprint Server for iSeries, together with iSeries Access, lets you use the fully graphical iSeries command interface to run PDF and e-mail functions interactively. Send output by e-mail in one step. Write single or multiple output files to the integrated file system. Infoprint Server for iSeries, when installed with iSeries Access, enables direct PDF printing from your browser.

Infoprint Designer for iSeries - 5733-ID1

Provides a fully graphical document design system for the iSeries

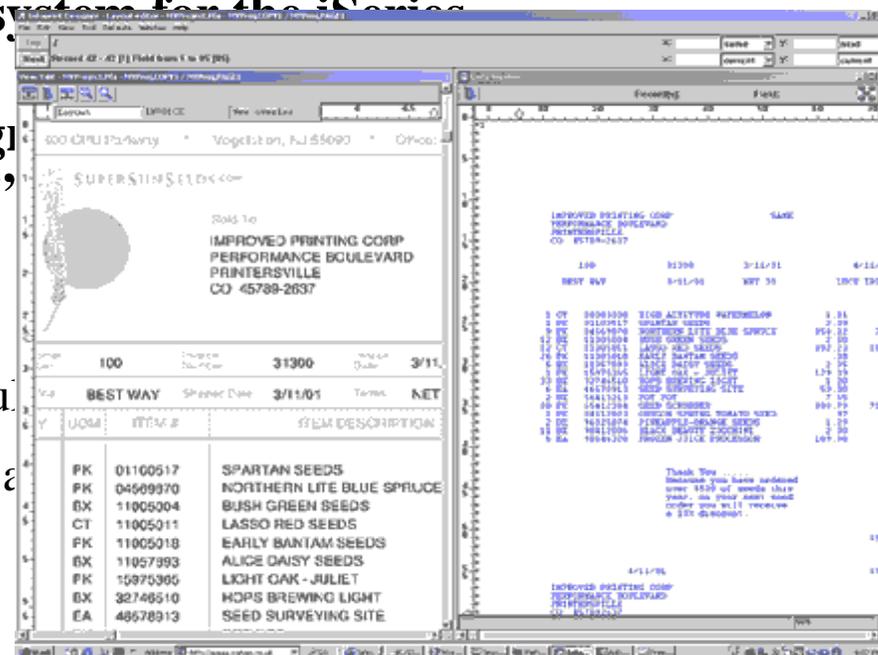
Designed for the non-programmer and Integrated from design through printing and “e-output”

Design Wizard for complex applications

- Provide GUI Wizard that guides use through multiple steps
- Significantly enhances ease-of-use for complex applications

Additional National Language support

- Planned availability August 2002



Notes: Infoprint Designer for iSeries - 5733-ID1

IBM Infoprint Designer for iSeries provides a fully graphical, application-independent document composition interface to the iSeries printing system. Infoprint Designer enables you to control not only the quality of your communications pieces, but also the processes of producing those pieces. Powerful and easily integrated, this document composition software contributes to a total solution that helps you produce e-business output quickly and easily.

Infoprint Designer consists of three integrated components — forms, image, and layout editors — creating a seamless design workbench. This enables you to design new output applications or to re-engineer existing applications with ease. Infoprint Designer gives you professional control over fonts, positioning, orientation and more. Because the software is application independent you do not need to change line of business programs; upload and download functionality streamlines the entire process. With Infoprint Designer for iSeries, you can build complex print applications easily. It enables you to design image components, design electronic forms, automatically retrieve current application data or spooled files, design the final page layout, and upload all component resources to the iSeries-AS/400 so the application can be put into production. The entire interface is designed for a non-technical user.

Infoprint Designer enhancements are being delivered in PTF releases. The planned changes include enhanced interface for complex design (conditional wizard) and additional national language support.

iSeries Access enhancements for e-Output

New interface in iSeries Navigator for PDF and e-mail functions

- New PDF option, active if Infoprint Server is installed
- Select single or multiple print files
- Define action and action parameters
 - PDF to e-mail, to IFS, to output
 - E-mail IDs, IFS file name, output queue

Web Access

- Web Printer Emulator uses PDF for output delivery to browser
- TIFF output is standard
- PDF output is generated if Infoprint Server is installed

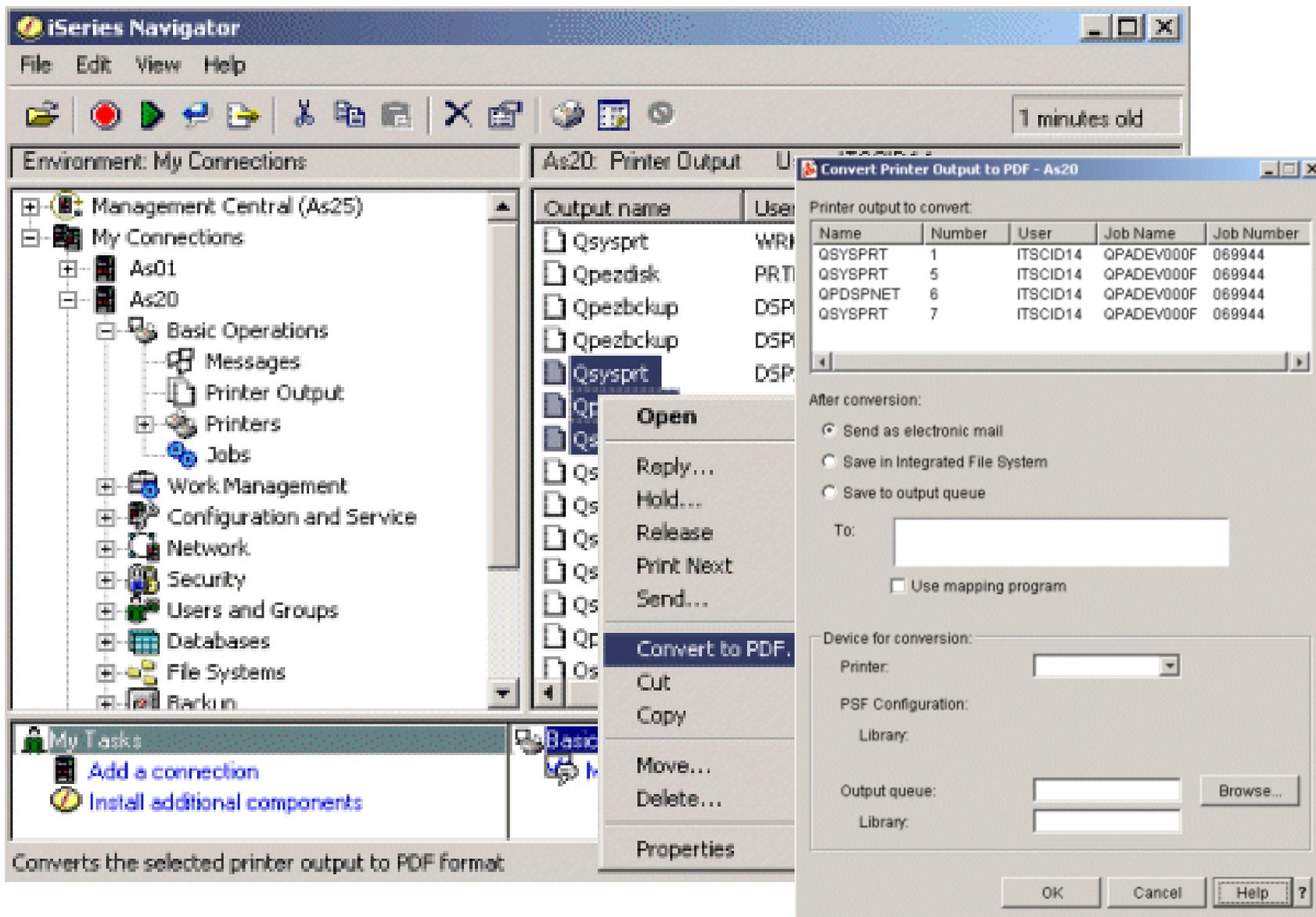
Notes: iSeries Access enhancements for e-Output

V5R2 has several enhancements for iSeries Navigator (part of iSeries Access). The GUI interface that work with output queues and print files have been expanded and include ad hoc access to PDF and e-mail functions. This functions is enabled when iSeries Navigator detects that Infoprint Server is installed.

Web Access also makes use of the PDF services. From the Web Access browser, customers can select output files and display and/or print them. The delivery mechanism employed by Web Access is to pass the selected file to the PDF subsystem, get back the PDF file, then pass the PDF to Acrobat which automatically opens the file in the browser.

The technique to interface to PDF and e-mail functions used by iSeries Navigator and Web Access is also available as an systems API. This enables customers and ISVs to tap into PDF and e-mail services dynamically.

iSeries Navigator convert to PDF dialog box



Notes: iSeries Navigator convert to PDF dialog box

The iSeries Navigator's Convert to PDF dialog helps convert iSeries output files (spool files) to PDF format. You can select a single or multiple files at the same time. You can then send them as e-mail, save them as stream files in the Integrated File System, or save them as printer output files

Other Printing Enhancements for V5R2

Print Services Facility for OS/400 (PSF/400)

- New printer support, including the Infoprint 85 and Infoprint 105 cutsheet family
- 2D Barcode support

Internet Print Protocol (IPP)

- Client IPP is now available with V5R2
 - Send iSeries output to IPP printers (using URL)

Notes: Other Printing Enhancements for V5R2

Print Services Facility (PSF/400) has been enhanced for V5R2. PSF/400 is the AFP system manager and IPDS printer manager for iSeries. It now supports the two most recent printer announcements, the Infoprint 85 and Infoprint 105.

One dimensional barcodes such as UPC are a pattern of bars and spaced that are read across with a scanner. This results in reading 5-15 characters of data. In contrast, 2D barcodes are a complete two-dimensional pattern that is read completely by the scanner. This results in reading up to 4000 characters of data. The fastest growing 2D barcode in terms of use is UPS Maxicode. UPS is encouraging companies that ship with UPS to use Maxicode. Maxicode encodes all of the shipping information for a parcel in the barcode. PDF417 and Datamatrix are two other widely used 2D barcodes. Support has been added in DDS, PSF/400, and in new IPDS printers for these capabilities.

Internet Print Protocol (IPP) is the emerging standard for Internet printing. While IPP is a complete architecture, the key difference is that IPP printers (and devices) are communicated to via URL, not a specific TCP/IP address. This means that a customer does not need a physical connection to the target printer but only a connection to the Internet. With the printer defined with a URL address, any printer can be accessed. Newer printers have built-in web servers that provide this address to the Internet and thus make it a target printer to the iSeries. IPP printing requires an IPP server handling requests from a variety of IPP client devices. IPP server is available since V5R1. With V5R2 you now have the IPP client as well.

IPP has evolved from LPD/LPR and is a replacement for LPR (Line Printer Requester) which is known on iSeries and remote output queue support.

New Printers

The IBM printer family for the iSeries

- Ideal for iSeries printing
- Different capacities to suit your needs
 - from 8 to over 1000 pages per minute



Thermal	Industrial	Workgroup	Midrange	Production
IBM 4400 Series	IBM 4230 Dot Matrix	IBM Infoprint 1116	Infoprint 60	Infoprint 3000
	IBM 4232 Dot Matrix	IBM Infoprint 1120	Infoprint 62	Infoprint 4000
	IBM 4247 Multiform	IBM Infoprint 1125	Infoprint 70	Infoprint 4100
	IBM 6400 Line Matrix	IBM Infoprint 1130	Infoprint 85	Infoprint Color 130
		IBM Infoprint 1140	Infoprint 105	
		IBM Infoprint 1145	Infoprint 2000	
		IBM Infoprint 1220 Color		
		IBM Infoprint 1228 Color		

Notes: The IBM printer family for the iSeries

IBM variety of printers for the iSeries which specializing in e-business printing solutions that deliver "Power to the Printer". These printers are ideal for the iSeries. Most of them support AFP/IPDS and for the mid to high end printers, this support is built into the printer controller. The product line goes from 8 to more than 1,000 pages per minute. Along with the different designing and printing software, irrespective of whether a company is a large organization with a lot of remote locations or a small enterprise, you can choose the printer and configuration suitable for your needs.

Workgroup and Distributed printers:

These printers have a capacity from 8 to 70 pages per minute and offer reliable and mission-critical output. They support most of the popular datastreams and features such as remote printer management and status monitoring and so are ideal for small, medium and distributed printing

Industrial printers

These are dot/line matrix and impact printers. They have a capacity from 200cps to up to 2000 lpm, support different font sizes and have the capacity to print bar codes.

Midrange and Production Printers

These are the heavy duty production laser printers. Operating at high speed and delivering superior quality, they have various options like cutsheet or continuous stationery and also a color option.

The most recent printer announcements are the Infoprint 85/105 and the IBM 6400, both rolled out in April 2002. The Infoprint 85/105 is an 85 or 105 page-per-minute cutsheet printer/copier. It provides an affordable high-speed printer in a production footprint and are built to drive up to 800,000 pages per month. Have full AFP/IPDS support and full reproduction system. The new IBM 6400 is a 2000 line-per-minute impact printer.

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AFP	CODE/400	HTTP Server for AS/400	Net.Commerce	PowerPC	VisualAge for RPG
AIX	DataGuide	IBM	Net.Data	PowerPC AS	WebSphere
AnyNet	DB2	IBM Logo	Netfinity	Print Service Facility	WebSphere Advanced Edition
Application Development	DB2 Extenders	IBM Network Station	NetView	pSeries	WebSphere Commerce Suite
APPN	DB2 UDB for AS/400	Information Warehouse	NUMA-Q	PSF	WebSphere Development Tools for AS/400
AS/400	DB2 Universal	Integrated Language Environment	OfficeVision	S/390	WebSphere Standard Edition
AS/400e	e-business logo	Intelligent Printer Data Stream	OS/2	SanFrancisco	Workpad
AT	e(logo) Server	IPDS	Operating System/400	Screen Publisher	xSeries
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