Jobs used for the PostScript to AFP Transform And PCL to AFP Transform White Paper

1/11/2002

R.L. Muir Dept AG6 PSD Performance IBM Boulder

IBM Confidential

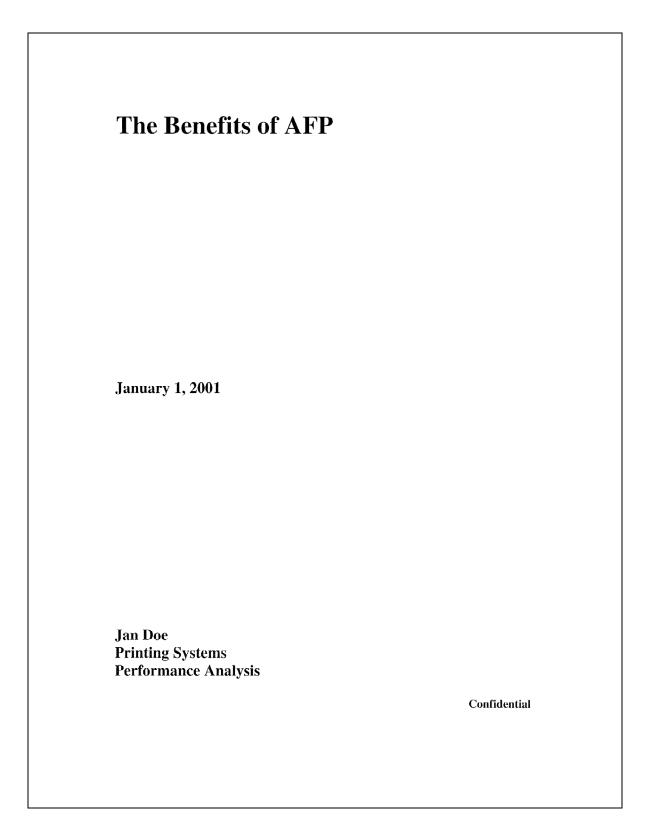
PostScript to AFP and PCL to AFP Transform Performance Jobs

Introduction

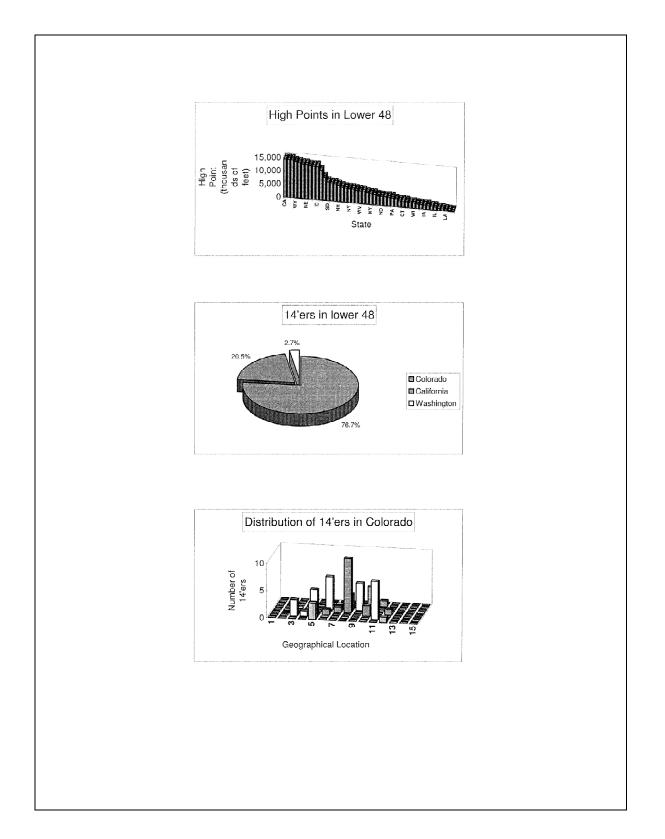
This paper contains exhibits for the "PostScript to AFP Transform And PCL to AFP Transform" White Paper. The following pages show the appearance of each of the application jobs used in that paper. They're shown in the same order as in the paper, as follows:

Cover	Cover sheet with little content (all text)
Frtner	Excel spread sheet containing three graphics
T4	4000 KB/page of text in one font, single column format
Т8	8000 KB/page of text in one font, single column format
T16	16000 KB/page of text in one font, single column format
T32	32000 KB/page of text in one font, single column format
T25	2500 KB/page of text in one font, single column format
T25f	Same as T25 but using many fonts
T25f4	Same as T25F but in four column format
T25f4i	Same as T25F4 but with large image added
T25f4ihf	Same as T25f4i but with images in header and footer

Cover



Frtner

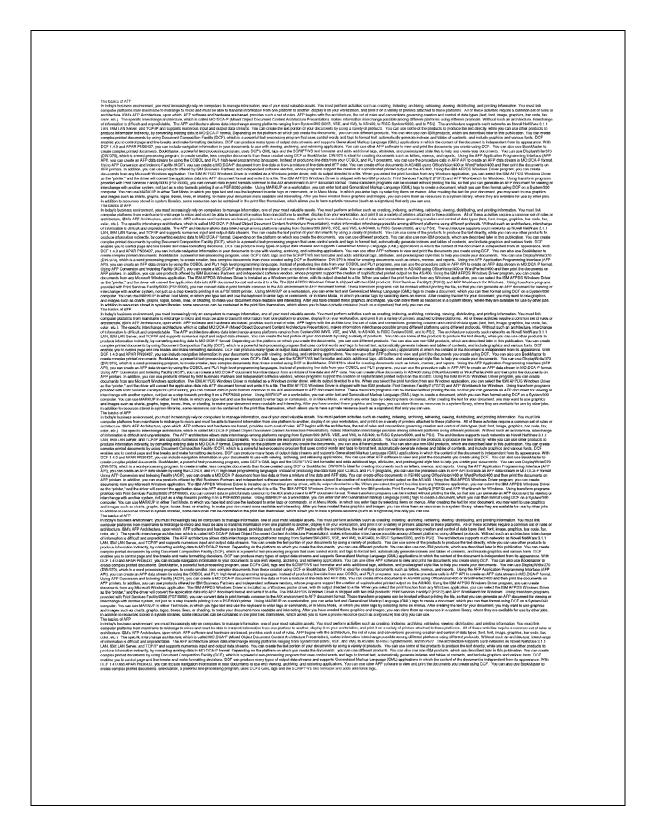


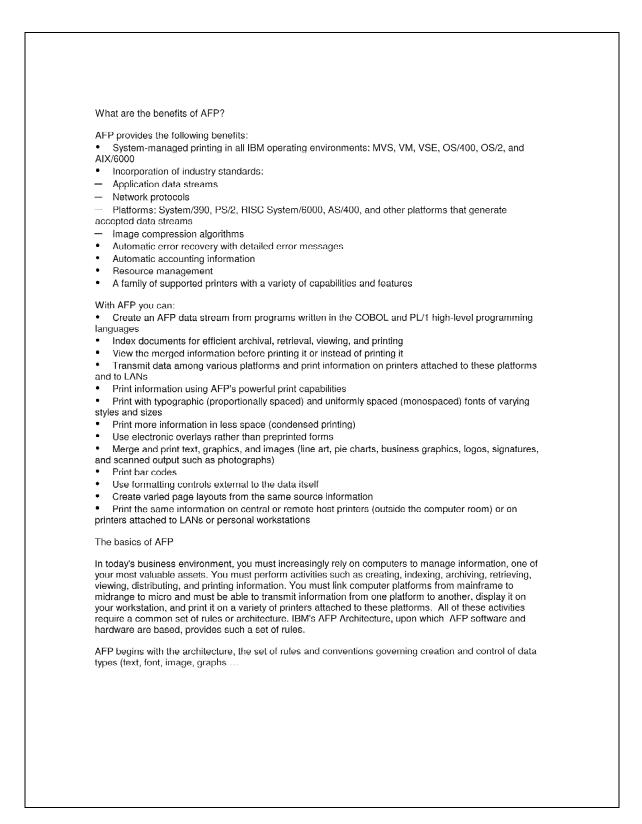


Т8

<text><text><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></text></text>	AFP provides the following benefits: System-maraged printing in all BM operating environments. MVS, VM, VSE, OS/400, OS/2, and AIX/6000 Incorporation of Industry standards: "Application of Industry protocols "Integret protocols Platforms: System/9300, PS/2, RISC System/6000, AS/400, and other platforms that generate accepted data streams "Integret protocols Platforms: System/9300, PS/2, RISC System/6000, AS/400, and other platforms that generate accepted data streams "Integret protocols Platforms: System/9300, PS/2, RISC System/6000, AS/400, and other platforms that generate accepted data streams "Integret accounting information Automatic error rescuery will: defailed error messages Automatic supported printers with a variety of capabilities and features With AFP you con: Create an AFP data stream from programs written in the CODOL and PL/1 high-level programming languages Indox documents for officient archival, rotioval, viowing, and printing i Transmit data among various platforms and print information on printers attached to these platforms and to LANs Print information using AFP poworking print capabilities Print with typoortachic (proportionally spaced) and uniforms yaboed (monspaced) fonts of varying styles and sizes Print with typoortachic (proportionally spaced) and uniforms yaboed (monspaced) fonts of varying styles and sizes Print with typoortachic capabilities Print with typoortachic for the space (fine art, business graphics, logos, signatures, and scanned output such as photographs) Merge and phint bot, graphited, from the same source information Use for wardays tafter than reprinted forms Herester varied acae lavout formation anone source infor
 All provides the following bear with: Provides the	AFP provides the following benefits: Systemmanaged printing in all IBM operating environments: MVS. VM, VSE, OS/400, OS/2, and AIX/6000 Incorporation of Industry standards: "Application of Industry standards: "Application data streams "Hervice for protocols "Intage compression algorithms Automatic accounting information Automatic accounting information A family of supported printers with a variety of capabilities and features With AFP you can: "Create an AFP data stream from programs written in the CODOL and PL/1 high-level programming languages Indox documents for officiont archivel, retrioval, viewing, and printing it Transmit data among various platforms and print ing internation on printers attached to these platforms and to LANs Print information using AFP spower/ul print capabilities Print with Nboorachic (proportionally spaced) and uniformit spaced (monospaced) fonts of varying styles and sizes Print with Nboorachic (proportionally spaced) and uniformit spaced (monospaced) fonts of varying styles and sizes Print with spaced informatics, and images infice active space (information formation formation formation for appression algorithms Print hole, appression adjoint archivel, so appression adjoint information appression space (information formation account of printers) Here a contraine ower all Print preprinter and the data iscelf Create varied acce lavored to form the same source information Here a contraine owersion appression adjoint of the data iscelf Create
 Description of the control of the cont	System Transge of primiting that leak operating environments. MVS. VM, VSE, CSA400, OSE2, and ACX6000 Incorporation of Industry standards: "Application of a streams "Application of a streams" "Application of a streams" "Application of a stream from programs written in the CODOL and PL/1 high-level programming languages "Actionatic accounting to rificion archival, retrieval, viewing, and printing "Free and stream from programs written in the CODOL and PL/1 high-level programming languages "Actionation using APP" poworking into in risted of printing intormation on printing "Transmit data among various platforms and printing intormation on printes attached to these platforms and to LANs "Print Information using APP" poworking intormation on printes attached to these platforms and to LANs "Print Information using APP" poworking intormation on printes attached to these platforms and to LANs "Print Information using APP" poworking into capabilities and streams" "Application contraction of the stream from programs departing "Frint Normation using APP" poworking into capability spaced and uniformity spaced information on printes attached to these platforms and plates "Frint Normation using APP" poworking into capability spaced and uniforms" space (and second printing) "Exercise and space and more optimes attached to these platforms and to LANs Print Information using APP" poworking into capability spaced and uniforms" space (and second printing) "Exercise attached to printe attached to the second platforms" "And application of printes, application acond printing" "Exercise attached tor
 Provide the protocol of the protocol of the protocol of protocol	With AFP you can: Create an AFP data stream from programs written in the CODOL and PL/1 high-level programming languages Index documents for officient arctitival, rotificial, vicwing, and printing View the merged information before printing to r instead of printing it Transmit data among various platforms and print information on printers attached to these platforms and to LANs Print information using AFP's powerful print expatibilitie Print with yourgathic (procordinally spaced) and uniformity spaced (monospaced) tonts of varying styles and sizes Print with yourgathic (procordinal consoled and uniformity) Use electronic overlays rather than preprinted forms Merge and print text, graphics, and images (line art, pic charts, business graphics, logos, signatures, and scanned output such as photographs) Print bit toget aperiods external to the data lized Create varied axel evalue from the same source information
In loday's business environment, you must increasingly rely on computers to manage information, one of your most valuable assets. You must perform activities such as contains, indivitient, activiting, citeting, distinguit, and prinit in a variety of prinites attached to these platforms. All of these activities require u common set of rules or unhitesticuture. IBM of PA Architecture, gone which APP obtigues and hardware and hardware use based, provides such as stord rules. AFP begins with the architecture, the set of rules and conventions governing proteion and control of data types (text, font, image, graphies, bar code, lax, color, etc.). The specific hierothange architecture, the set of rules and conventions governing proteion and control of data types (text, font, image, graphies, bar code, lax, color, etc.). The specific hierothange architecture, protecture, through a variety of protecture, intercomption of the protecture at the data convention and an any protein activities at the architecture and the architecture	
 specific interchange anchitecture, which is called MO DCA-P (Mixed Object Document Content Architecture-Presentation), makes information interchange possible among different platform using different platforms uping different platforms anging from System/390 (MVS, VSE, and VM), to AS/400, to RISC System/4000, and to PS/2. The architecture supports cuch networks as Novell NetWare S 11.1 LAN, Bite LNN Server, and TCPIPE and supports numerous liput and output data streams. You can create the fext portion of your documents by using a variety of products. You can use some of the products to produce the text directly, while you can use other products to produe information indirectly, by converting asking data to MCDCA-P format. Depending on the platform on which you create the documents, you can use other products to produe information indirectly, by converting asking data to MCDCA-P format. Depending on the platform on which you create the documents, you can use other products to produe information indirectly. By converting asking data to MCDCA-P format. Depending on the platform on which you create the documents, you can use other formation indirectly generate indoxes and tables of consists, and include graphics and various forts. DCF enables you to control page and inter basks and make formation in graph and asking in Information in your documents to use with whiching, archiving, archiving applications. You can use ther AFP polytoper text and APAP PRN5477, you can induce navigation information in gar documents to use with viewing, archiving, archiving applications. You can use ther AFP achitecture, use DCFF S GML, Higs and the SCHPTAY text formation and adds addition is a documents to use with viewing, archiving, archiving applications. You can use the producted to the platform on your documents to use with a set of the documents. You can use the producted to the set of and APAP PRN5477, you can include raving DCFF. How can also use DosMater to create complex documents to use of the docume	In today's business environment, you must increasingly rely on computers to manage information, one of your most valuable assets. You must perform activities such as creating, indexing, archiving, retrieving, viewing, disributing, and printing information. You must link computer platforms from mainframe to midrange to micro and must be able to transmit information from one platform to another, display in you your workstation, and print in on a variety of printers attached to these politions: and to these activities require
products to produe information indirectly, by converting existing data to MO:DCA-P format. Depending on the platform on which you create the documents, you can use different products. You can also use non-IBM products, which are described later in this publication. You can create complex printed documents by using Document Composition Facility (DCF), which is a powerful text-processing program that uses control words and tags to tormat tax, automatically generate indexes and tables of contents, and include graphics and various fonts. DCF enables you to control page and line breaks and make formating decisions. DCF can produce many types of output data streams and supports Generalized Markup Language (GML) applications in which the content to the document is independent from its appearance. With DCF 1.4.0 and APAR PN36437, you can include navigation information in your documents to use with wiewing, archiving, and retriving applications. You can use other APP software to view and print the documents you create using DCF. You can also use BookMaster to create complex printed documents. BookMaster, a powerful text-processing program, uses DCFS GML tags and the SCHIPTVS text formatter and adds additional tags, attributes, and predesigned style lites to help you create your documents. You can use DispatyWite/370 (DW370), which is a word-processing program, note able to reate an APF Application. Two 2000 CAP P documents than those create an AFP data stream by using the COBCL and PLY high-text processing and product. Store adds and DCPA P documents that and AFP Application and which and the add and PLY applications. You can use products afford by IBM Business Partners and independent software vendors, whose programs support the creation of sophisticated printed output on the AS/400. Using the IBM APPDS Windows Driver program, you can create documents from any Microsoft Windows application. You can select the IBM APPDS Windows Driver is installed as a Windows printer driver, with its ourput directed to a th	specific interchance architecture, which is called MO_DCA-P (Mixed Object Document Content Architecture=Presentation), makes information interchance possible among different platforms using different protocols. Without such an architecture, interchange of information is difficult and unpredictable. The AFP architecture allows data interchange among platforms ranging from System/390 (MVS, VSE, and VM), to AS/400, to RISC System/6000, and to PS/2. The architecture supports such networks as
tormatt ext, submatically generate indexes and tables of contents, and include graphics and various forus. DCF enables you to control page and line breaks and mako [®] tormating decisions. DCF can produce many types of output data streams and supports Generalized Markup Language (GML) applications in which the content of the document is independent from its appearance. With DCF 1.4.0 and APAR PN36437, you can include navigation information in your documents to use with viewing, archiving, and retriving applications. You can use other APF polymet to view and print the documents you create using DCF. You can also use be BokMaster to create complex printed documents. BokMaster, a powerful tary, processing program, uses DCFS GML tags and the SCHIPTVS tent formatter and adds additional tags, attributes, and prodesigned style filles to help you create your documents. You can use DtepsytWirte370 (DW370), which is a word-processing program, to create an AFP data stream you ing the CABC Lond PL/ high-tevel programming languages. Instead of producing ince data form your COBCL and PL/ programs, you can use the procedure ratis in AFP API to create an AFP data stream in MCHCA-P tormat. Using AFP Conversion and indexing Facility (ACIF), you can eroste all MD.CA-P document from line data or form a mixture of line data and AFP data. You can create office documents in ASI400 using CfficeVision/400 or WordPerfect/400 and then print the document on AFP printers. In addition, you can use producte offered by IBM Business Partners and independent software vendors, whose programs support the creation of sophisticated printed output on the ASi400. Using the IBM AFPDS Windows Driver program, you can eroste documents from any Microsoft Windows application. The IBM AFPDS Windows Driver is installed as a Windows printer driver, with its output directed to a tie. When you select the print function tomas any Microbo Driver is installed as a Windows printer driver, with the output directed to a tie. When you select the print functs common to	products to produce information indirectly, by converting existing data to MO:DCA-P format. Depending on the platform on which you create the documents, you can use
olfered by IBM Business Partners and independent software vendors, whose programs support the creation of sophisticated printed output on the AS400. Using the IBM AFPDS Windows Driver program, you can areate documents from any Microsoft Windows application. The IBM AFPDS Windows Driver is installed as a Windows printer driver, with its output directed to a tile. When you select the print function from any Windows application. The IBM AFPDS Windows Driver is installed as a Windows printer driver, with its output directed to a tile. When you select the print function from any Windows application. Jou can select the IBM AFPDS Windows Driver is installed as a Windows printer driver, with its output directed to a tile. When you select the print function from any Windows application. The IBM AFPDS Windows Driver is an and the driver will convert the application data into AFP document format any two tile it oa file. The IBM AFPDS Windows Driver is application data in print formats common to the AIX onvironment to format. These transform programs provided without printing into file. Do tail you can a convert data in print formats common to the AIX onvironment to format. These transform programs provided without printing into file. Do tail you can a generate an AFP document for viewing or interchange with another system, not just as a step towards printing it on a PS/10000 printer. Using MARKUP on a workstation, you can enter text and Generalized Markup Language (GML) tags to create a document thront and using DCF on a System 2000 oprinter. You can use MARKUP in either Text Mode, in which you type text and use the keyboard to enter tags or commands, or in Monu Mode, in which you entor tags by selecting items on menus. Alter creating the text for your document, your may want to use graphics and images such as charts, graphs, logos, bores, lines, or shading, to make your document more readable and interesting. After you have caracted these graphics and images such as charts, graphs, logos, bores, lines, or sha	tormatt sex, submatically generate indexes and tables of contents, and include graphics and various forts. DCF enables you to control page and line breaks and make [®] formating decisions. DCF can produce many types of output data streams and supports Generalized Markup Language (GML) applications in which the content of the document is independent from tits appearance. With DCF 1.4.0 and APAR PN36437, you can include nargialized Markup Language (GML) applications in which the content of the document is independent from tits appearance. With DCF 1.4.0 and APAR PN36437, you can include nargialized information in your documents to use with viewing, archiving, and retrieving applications. You can use other AFP software to view and print the documents you create using DCF. You can also use BookMaster to create your prodesigned style files to help you create your documents. You can use DisplayWhite/370 (DW/370), which is a workt-processing program. It create smaller, less complex printed indocuments. Using DCF or SoftMaster. Warving You can use DisplayWhite/370 (DW/370), which is a workt-processing program. It create smaller, less complex printed indocuments using DCF or SoftMaster. DW/370 is ideal for exaing documents out as a letters, memos, and reports. Using the AFP Application Fragmanning Interace (AFP API), you can create an AFP data stream by using the CDROL and PL/1 high-level programming languages. Instead of producing line data from your CDROL and PL/1 programs, you can create an AFP data stream by using the CDROL and APF data.
Windows printer driver, with its output directed to a bie. When you select the print function from any Windows application, you can select the IMA AP-D3S Windows Driver is as the "printer", and the driver will convert the application data into APP document format and will be it to a file. The IBM AP-D3S Windows Driver is altopad with two IBM products: Print Services Facility? (PST/2) and ATP Workbench for Windows. Using transform programs provided with two IBM AP-D3S Windows Driver is altopad with two IBM products: Print Services Facility? (PST/2) and ATP Workbench for Windows. Using transform programs provided without printing the IBA, to RDS Windows Driver is altopad with two IBM products: Print Services Facility? (PST/2) and ATP Workbench for Windows. Using transform programs provided without printing the IBA, to RDS works and an AFP document for viewing or interchange with another system, not just as a step towards printing it on a PST/0000 printer. Using MARKUP on a workstation, you can enter text and Generatized Markup Language (GML) tags to create a document, which you can then format using DCF on a System 2000 printer. You can use MARKUP in either Text Mode, in which you type text and use the keyboard to enter tags or commands, or in Monu Mode, in which you entor tags by selecting items on menus. Alter creating the text for your document, you may want to use graphics and images such as charts, graphs, logos, bores, lines, or shading, to make your document more redable and interesting. After you have created these graphics and images, you can create the ma a resources in a system library, where they are available to ruse by other jobs. In addition to resources tored in system IBrarias, come resources can be contained in the print files themselves, which allows you to have a private resource (such as a signature) that assortments of characters of a given size and styles. Fonts are available in different horizontal spacings: – Windod-pitch, or fonts the haracters of a signen sis used in types	offered by IBM Business Partners and independent software vendors, whose programs support the creation of sophisticated printed output on
readable and interesting. After you have éreated these graphics and images, you can store them as resources in a system library, where they are available for use by other jobs. In addition to resources stored in system librarias, some resources can be contained in the print files themselves, which allows you to have a privato resource (such as a signature) that only you can use. The five types of AFP resources are: . Fonts are families of assortments of characters of a given size and site. Fonts are available in different horizontal spacings: — Unitority spaced, such as typewriter fonts or fonts generally printed by line printers — Mixed-pitch, or fonts that have characters of soveral different horizontal widthe — Typographic, or fonts with characters of varing horizontal widths, such as fonts used in typesetting.	Windows printer driver, with its output directed to a tile. When you select the print function from any Windows application, you can select the IMA AFPUS Windows Driver as the "printer," and the driver will convert the application data into AFP document format and will it to a file. The IBM AFPUS Windows Driver is subposed with two IBM products: Print Services Facility? (PST/2) and AFP Workbench for Windows. Using transform programs provided with the IBM products: and the driver will be applied with the IBM products and the applied of the applied with the IBM products and a transform programs provided with the IBM products and products and an AFP document for viewing or interchange with another system, not just as a step towards printing it on a PSIF0000 printer. Using MARKUP on a workstation, you can enter text and Generalized Markup Language (CML) tags to create a document, which you can then format using DCF on a System/30 computer. You can use MARKUP in ether Text
	readable and interesting. After you have executed these graphies and images, you can store them as resources in a system library, where they are available for use by other jobs. In addition to resources stored in system librarias, some resources can be centained in the print files themselves, which allows you to have a private resource (such as a signalure) that only you can use. The fire types of AFP resources can be centained in the print files themselves, which allows you to have a private resource (such as a signalure) that only you can use. The fire types of AFP resources can: . Fonts are tamilies or assortments of characters of a given size and style. Fonts are available in different horizontal spacings: - Unitority spaced, such as typewriter fonts or fonts generally printed by line printers - Mixed-pitch, or fonts that have characters of a given by onitide to the printer of the pr







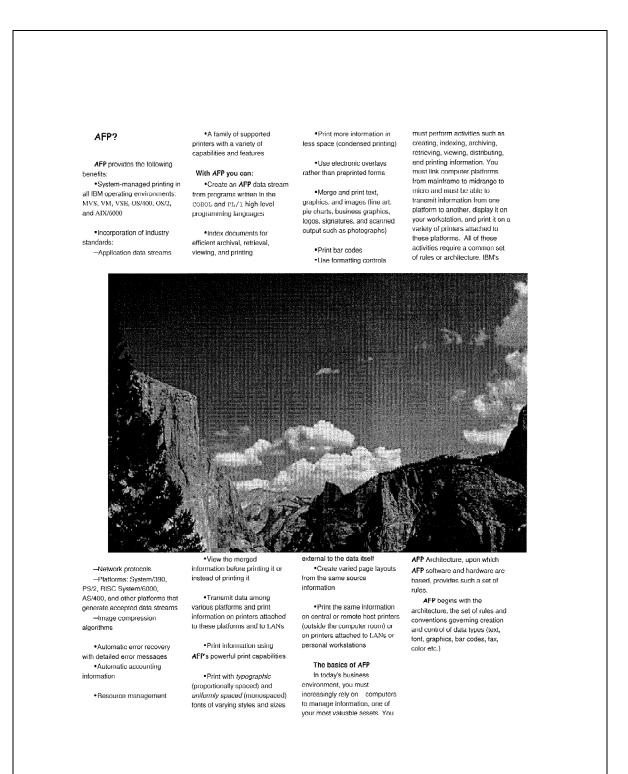
T25f

What are the benefits of AFP? AFP provides the following benefits: System-managed printing in all IBM operating environments: MVS, VM, VSE, OS/400, OS/2, and AIX/6000 Incorporation of industry standards: Application data streams Network protocols - Platforms: System/390, PS/2, RISC System/6000, AS/400, and other platforms that generate accepted data streams Image compression algorithms Automatic error recovery with detailed error messages . Automatic accounting information Resource management A family of supported printers with a variety of capabilities and features With AFP you can: Create an AFP data stream from programs written in the COBOL and PL/1 high-level programming languages Index documents for efficient archival, retrieval, viewing, and printing View the merged information before printing it or instead of printing it Transmit data among various platforms and print information on printers attached to these platforms and to LANs Print information using AFP's powerful print capabilities Print with typographic (proportionally spaced) and uniformly spaced (monospaced) fonts of varying styles and sizes Print more information in less space (condensed printing) . Use electronic overlays rather than preprinted forms Merge and print text, graphics, and images (line art, pie charts, business graphics, logos, signatures, and scanned output such as photographs) Print bar codes Use formatting controls external to the data itself Create varied page layouts from the same source information Print the same information on central or remote host printers (outside the computer room) or on printers attached to LANs or personal workstations The basics of AFP In today's business environment, you must increasingly rely on computers to manage information, one of your most valuable assets. You must perform activities such as creating, indexing, archiving, retrieving, viewing, distributing, and printing information. You must link computer platforms from mainframe to midrange to micro and must be able to transmit information from one platform to another, display it on your workstation, and print it on a variety of printers attached to these platforms. All of these activities require a common set of rules or architecture. IBM's AFP Architecture, upon which AFP software and hardware are based, provides such a set of rules. AFP begins with the architecture, the set of rules and conventions governing creation and control of data types (text, font, image, graphs ...

T25f4



T25f4i



T25f4ihf

