



User Guide

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Title page 1

Use this page to introduce the product

by IPDS Printing Solutions SV

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This page intentionally starts on an odd page, so that it is on the right half of an open book from the readers point of view. This is the reason why the previous page was blank (the previous page is the back side of the cover)

User Guide

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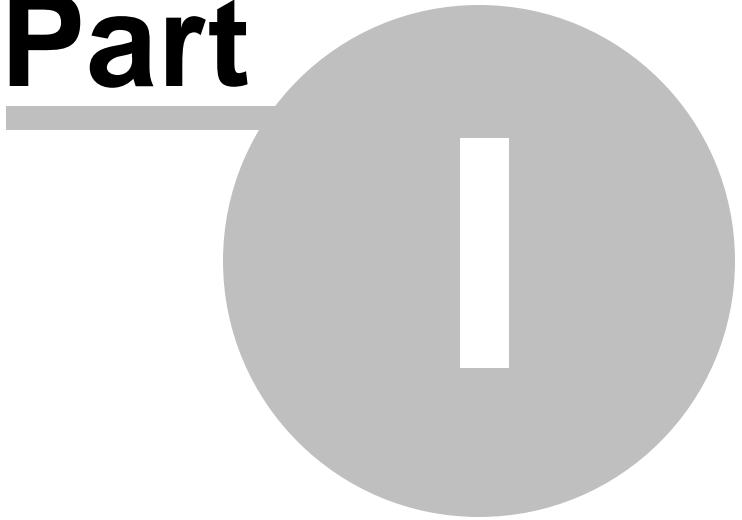
Foreword

This is just another title page
placed between table of contents
and topics

Top Level Intro

This page is printed before a new
top-level chapter starts

Part



1 Introduction

User's Guide

for

AFP to PS Converter
AFP to PCL Converter
AFP to PDF Converter

AFP to TIFF Converter
AFP to Image Converter

AFP to XML Converter
AFP to RTF Converter
AFP to Text Converter
AFP to HTML Converter

AFP Conversion Suite



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*Designed for Windows 10/8.1/8/7/Vista/XP/2000
and Windows Server*

1.1 Overview

IPDS Printing Solutions SV offers software solutions specifically designed for high performance AFP document conversion. Powered by our leading AFP to PDF transform and conversion technology, users can quickly convert IBM MO:DCA (AFP, IOCA and PTOCA) documents to searchable PDF. Unlike other software solutions that simply rasterize the AFP document to full-page images, AFP to PDF Converter maintains all document objects such as graphics, searchable text, tables and live forms, uniquely within the generated PDF for easy access by Adobe Reader X or any other PDF viewers.

This document is intended for customers, business partners, and systems specialists who need to understand the fundamentals of AFP2PDF conversion on Microsoft Windows.

1.1.1 What is AFP

Advanced Function Printing (AFP) is a document format and presentation architecture originally developed by IBM to drive its printers and support the production of variable data printing on laser printers, and later provides for document and information presentation independent of specific applications and devices.

The first software program to produce this format and to drive the IBM printers was the so called Print Service Facility (PSF), which is still until today found in IBM's Mainframes. PSF is fed with the input data to be printed and the definitions on how to organize the data on the page, i. e. PAGEDDEF (Page Definition) and FORMDEF (Form Definition). It allows electronic forms to be printed on named OVERLAYS.

PSF is not only able to format the documents, but also to drive the AFP printers, or the Intelligent Printer Data Stream (IPDS) compatible printers to be more precise. IPDS is a host-to-printer data stream used for AFP subsystems that provides an attachment-independent interface for controlling and managing.

IPDS format is a bidirectional format where the software is constantly in control of the printer and knows at all times the status of the pages that were sent to the printer, making it an ideal format for high volume production printers, that print hundreds of pages within a minute.

IBM also offered the PSF software to drive the IPDS printers using the AFP format not only on the mainframe, but also on all of the their platforms, so there were PSF/390 (for the OS/390 mainframe), PSF/6000 (for the RS/6000 AIX9), PSF/400 (for the AS/400) and PSF/2 running under OS/2. Unfortunately all of these behaved slightly different and IBM renamed PSF then into IBM InfoPrint Manager.

In 1984 when storage space was still an expensive commodity, the AFP format was designed to be very small, which is why still today it is a very popular format for data exchange that seconds to Adobe Portable Document Format (PDF) and to manage high volumes of documents, such as banks, telecoms and insurances. The format originates from the MVS environment so it typically uses the EBCDIC based codepages. As with all page description languages (like PostScript, PDF, and PCL) it is necessary to use a viewer, usually it's the widely-used viewer, IBM AFP Workbench Viewer, in order to display the pages.

One of the more notable features of AFP printers is that output data can be placed at any addressable point on a page. This capability is called all points addressability (APA). APA gives AFP prints the freedom to create output anywhere on a page, as opposed to being limited to just line and character positions.

1.1.2 What is AFP Architecture

The AFP architecture consists of a number of sub-architectures:

MO:DCA-P (Mixed Object:Document Content Architecture-Presentation):

MO:DCA-P is occasionally called AFPDS (AFP Data Stream), which is a PDL (Page Description Language) file format that describes the text and graphics on a page. The 'Mixed Object' moniker refers to the fact that a MO:DCA file can contain multiple types of objects, including text, images, vector graphics, page separators, patch code, and barcodes. An application can simply include a string of digits along with controls that identify a specific type of barcode, and the rendering of bars will be performed on the output platform via either physical printer hardware or software emulation. A MO:DCA document consists of a sequential, ordered hierarchy of independent objects - documents, pages, data objects, and such resource objects as fonts and ICC profiles. Each object is delimited by one or more begin/end structures, and objects to be rendered specify presentation parameters and resource requirements in structures called "environment groups". Since the pages in MO:DCA documents are organized in sequential order, presentation can start as soon as the first page is received. The MO:DCA format is comparable to other PDLs such as Adobe PDF that specify distinct pages.

IPDS (Intelligent Printer Data Stream)

Known as a bi-directional protocol used between the host and the printer, IPDS is used to send the page-level data to the printer and to signal errors and accounting information back to the host server. The IPDS protocol, comparable to protocols like IPP (Internet Printing Protocol), allows the server to query a printer's available resources such as available memory, fonts, input trays, etc.

BCOCA (Bar Code Object Content Architecture)

BCOCA is used to describe and generate barcodes such as PDF417.

CMOCA (Color Management Object Content Architecture)

CMOCA defines resources that carry color management information, such as ICC profiles, tone transfer curves, and halftones.

AFP GOCA (Graphics Object Content Architecture for AFP)

AFP GOCA is used to define and generate vector graphics.

IOCA (Image Object Content Architecture)

IOCA is used to define and generate raster images.

PTOCA (Presentation Text Object Content Architecture)

PTOCA is used to define and generate text.

AFP also supports other industry-standard data formats using the concept of AFP object containers; examples are TIFF, GIF, JPEG (JFIF), EPS, and PDF. These objects can be mixed as peer objects on an AFP page with native AFP objects such as BCOCA, AFP GOCA, IOCA, and PTOCA objects.

1.1.3 What is AFPDS

AFPDS stands for Advanced Function Printing Data Stream, which is a data stream for advanced function printers independent of operating systems, independent of page printers, and portable across environments.

AFPDS is a structured data stream divided into components called objects. AFPDS includes text, images, graphics, and barcodes and references AFP resources (for example, overlays, page segments, and fonts).

1.1.4 Why use AFP

AFP (Advanced Function Printing) enables users to control formatting, the form of paper output, how a document is to be printed or viewed, and manage document storage and access in a distributed network

across multiple operating system platforms. AFP is primarily employed in large enterprises for production variable data printing (VDP).

AFP applications allow users or print room operators to distribute print jobs among a group of printers or in a printer farm, and to designate backup printers when one fails, which is called failover. In publishing AFP is considered to be a cornerstone of electronic document management (EDM) applications such as print-and-view, archive and retrieval, and Enterprise Report Management (ERM).

1.1.5 AFP and IPDS

AFP print management architecture uniforms the interaction with printers by using IPDS protocol. AFP is device-independent and object-oriented whereas IPDS is device-dependent.

AFP data stream is converted into an IPDS data stream by the PSF (Print Service Facility) once AFP incorporates the MO:DCA (Mixed Object Document Content Architecture) elements when a job is ready for printing.

AFP uses MO:DCA to define a document's presentation in that MO:DCA allows various data types, such as images, graphics, text, and bar codes, to be incorporated into the final print job.

1.2 Features

AFP Conversion Suite features include,

General Overview

- Convert AFP to PDF, PS, EPS, PCL, FAX, TIFF, JPEG, GIF, PNG, BMP, RTF, TXT, HTML, XML
- Create PDF, PostScript and Encapsulated PostScript with searchable text
- Transform AFP to other format directly without conversion to IPDS by the PSF (Print Services Facility)
- Optimize AFP transform either by speed or by quality
- Speedy conversion to efficiently handle production sized jobs
- Maintain directory tree structure for AFP conversion
- Delete or keep input files after conversion
- Customize output file name with date and time information as prefix or suffix

Color and Imaging

- Support 32bit full color conversion
- Support RGB, CMYK, Device Gray color model
- Support ICM intent and method
- Sharpen image and graphics in output
- Anti-aliasing for text and graphics

- Image rotation
- Adjustable image resolution for AFP to image conversion
- RLE and DeltaRow Compression for Bitmap and PCL
- Support for AFP to PCX, AFP to PSD, AFP to PBM, AFP to PGM, AFP to PNM, AFP to PPM conversion
- Compress monochrome TIFF files with LZW Compression and PackBits Compression
- Output 8-bit Grayscale, 12-bit RGB, 24-bit RGB, 48-bit RGB TIFF
- Output 32-bit CMYK, 64-bit CMYK
- Color separation of AFP page into four process colors, Cyan, Magenta, Yellow, Black, in four TIFF images
- Support G4 Gray separation for AFP document page
- Define Maximum Strip Size for FAX (G4 Encoding TIF)
- Auto Adjust Width to align with standard paper sheets for FAX
- Legacy support for CCITT RLE (G3 with EOL), G3 Encoding without EOL, and 2-D G3 Encoding
- Support monochrome, grayscale, 16-color, 256-color, 24-bit (16.7 million color), 32-bit (true color) bitmap
- Create 1-bit bitmap for CMYK separation
- Create 8-bit bitmap for CMYK separation
- Output Adobe Photoshop PSD file in either RGB or CMYK color space
- Support 1-bit (bitonal), 4-bit (16 colors), 8-bit (grayscale), 8-bit (256 colors), 24-bit PNG images
- Create transparent PNG files (RGBA color with transparency, 32-bit)
- Define custom background color for RGBA PNG
- JPEG Quality support for JPG and JPEG files

Text, RTF, HTML and XML

- Extract text from AFP files
- Support Western European, Central European, Arabic, Cyrillic, Greek, Hebrew, Thai, Turkish, UTF-8 encoding
- Extended support for CJK fonts including Simplified Chinese, Traditional Chinese, Japanese, Korean
- Preserve hyperlink
- Remove bookmark and frames
- Keep line breaks between paragraph
- Output hidden text
- Output HTML with images in preferred format
- Zoom AFP document before conversion
- Define EOL (End-Of-Line) style among Windows, DOS, Mac, and Unix.
- Create complex document with complicated components
- Generate RTF files fully compatible with Microsoft Word (.doc) format for editing

PostScript and PDF

- Support PostScript language Level 1, Level 1.5, Level 2 and Level 3
- Translate inline form in AFP document to fill-able form in PDF file

- Import AFP files from Windows local or network shared folders
- Produce high fidelity PDF to the original print in AFP format
- Generate live hyperlink, vector-based graphics, and searchable text in PDF file
- Embed host fonts from IPDS/AFP document into PDF file
- Support font mapping and AFM and PFB fonts
- Process page segments, medium overlays, graphical overlays and inline forms
- Provide PDF creation intents such as print, screen, and prepress optimization
- Support PDF resolution from 72 dpi to 4800 dpi
- Encrypt PDF output for security and limited access
- Password protection with RC4 128-bit
- Redefine paper sheet size and page orientation in PDF file
- Support custom paper size definition
- Support PDF meta data such as title, subject, author, keywords
- Support PDF compatibility options from PDF version 1.1 to 1.7
- Support graphics scaling
- Generate PostScript files as intermediate of the AFP to PDF conversion
- Compact PDF files as smaller as possible
- Up to 2540x2540 dpi printing resolution

1.2.1 AFP to PS Converter

AFP to PS Converter features include,

- Convert AFP to PS
- Convert AFP to EPS
- Create PostScript and Encapsulated PostScript with searchable text
- Transform AFP to PS and EPS directly without conversion to IPDS by the PSF (Print Services Facility)
- Optimize AFP transform either by speed or by quality
- Speedy conversion to efficiently handle production sized jobs
- Customize output file name with date and time information as prefix or suffix
- Delete or keep input files after conversion
- Support PostScript language Level 1, Level 1.5, Level 2 and Level 3
- Import AFP files from Windows local or network shared folders
- Embed host fonts from IPDS/AFP document into PostScript and EPS file
- Support font mapping and AFM and PFB fonts
- Process page segments, medium overlays, graphical overlays and inline forms
- Maintain directory tree structure for AFP to PDF conversion
- Compact PS and EPS files as smaller as possible

1.2.2 AFP to PCL Converter

AFP to PCL Converter features include,

- Convert AFP to PCL
- Convert AFP to PCL-XL
- Convert AFP to PCL5
- Convert AFP to PCL6
- Transform AFP to PCL directly without conversion to IPDS by the PSF (Print Services Facility)
- Optimize AFP transform either by speed or by quality
- Speedy conversion to efficiently handle production sized jobs
- Maintain directory tree structure for AFP conversion
- Delete or keep input files after conversion
- Customize output file name with date and time information as prefix or suffix
- Support 32bit full color conversion
- Support RGB, CMYK, Device Gray color model
- Sharpen image and graphics in output
- Anti-aliasing for text and graphics
- Image rotation
- RLE and DeltaRow Compression
- Optimized conversion for monochrome PCL XL
- Adjustable image resolution for AFP to PCL conversion
- Compliant to HP PCL, PCLXL specification

1.2.3 AFP to TIFF Converter

AFP to TIFF Converter features include,

- Convert AFP to TIFF
- Transform AFP to TIFF formats directly without conversion to IPDS by the PSF (Print Services Facility)
- Support for AFP to PCX, AFP to PSD, AFP to PBM, AFP to PGM, AFP to PNM, AFP to PPM conversion
- Optimize AFP transform either by speed or by quality
- Speedy conversion to efficiently handle production sized jobs
- Maintain directory tree structure for AFP conversion
- Delete or keep input files after conversion
- Customize output file name with date and time information as prefix or suffix
- Support 32bit full color conversion
- Support RGB, CMYK, Device Gray color model
- Support ICM intent and method
- Sharpen image and graphics in output
- Anti-aliasing for text and graphics
- Image rotation

- Adjustable image resolution for AFP to TIFF conversion
- RLE and DeltaRow Compression for Bitmap and PCL
- Define Maximum Strip Size for FAX (G4 TIF)
- Auto Adjust Width to align with standard paper sheets for FAX
- Compress monochrome TIFF files with LZW Compression and PackBits Compression
- Output 8-bit Grayscale, 12-bit RGB, 24-bit RGB, 48-bit RGB TIFF
- Output 32-bit CMYK, 64-bit CMYK
- Color separation of AFP page into four process colors, Cyan, Magenta, Yellow, Black, in four TIFF images
- Support G4 Gray separation for AFP document page

1.2.4 AFP to Image Converter

AFP to Image Converter features include,

- Convert AFP to JPEG
- Convert AFP to PNG
- Convert AFP to BMP
- Convert AFP to TIFF
- Convert AFP to GIF
- Convert AFP to FAX
- Convert AFP to PSD
- Convert AFP to PCX
- Transform AFP to other formats directly without conversion to IPDS by the PSF (Print Services Facility)
- Support for AFP to PBM, AFP to PGM, AFP to PNM, AFP to PPM conversion
- Optimize AFP transform either by speed or by quality
- Speedy conversion to efficiently handle production sized jobs
- Maintain directory tree structure for AFP conversion
- Delete or keep input files after conversion
- Customize output file name with date and time information as prefix or suffix
- Support 32bit full color conversion
- Support RGB, CMYK, Device Gray color model
- Support ICM intent and method
- Sharpen image and graphics in output
- Anti-aliasing for text and graphics
- Image rotation
- Adjustable image resolution for AFP to image conversion
- RLE and DeltaRow Compression for Bitmap and PCL
- Compress monochrome TIFF files with LZW Compression and PackBits Compression
- Output 8-bit Grayscale, 12-bit RGB, 24-bit RGB, 48-bit RGB TIFF
- Output 32-bit CMYK, 64-bit CMYK

- Color separation of AFP page into four process colors, Cyan, Magenta, Yellow, Black, in four TIFF images
- Support G4 Gray separation for AFP document page
- Define Maximum Strip Size for FAX (G4 Encoding TIF)
- Auto Adjust Width to align with standard paper sheets for FAX
- Legacy support for CCITT RLE (G3 with EOL), G3 Encoding without EOL, and 2-D G3 Encoding
- Support monochrome, grayscale, 16-color, 256-color, 24-bit (16.7 million color), 32-bit (true color) bitmap
- Create 1-bit bitmap for CMYK separation
- Create 8-bit bitmap for CMYK separation
- Output Adobe Photoshop PSD file in either RGB or CMYK color space
- Support 1-bit (bitonal), 4-bit (16 colors), 8-bit (grayscale), 8-bit (256 colors), 24-bit PNG images
- Create transparent PNG files (RGBA color with transparency, 32-bit)
- Define custom background color for RGBA PNG
- JPEG Quality support for JPG and JPEG files

1.2.5 AFP to XML Converter

AFP to XML Converter features include,

- Convert AFP to XML
- Transform AFP to XML directly without conversion to IPDS by the PSF (Print Services Facility)
- Optimize AFP transform either by speed or by quality
- Speedy conversion to efficiently handle production sized jobs
- Maintain directory tree structure for AFP conversion
- Delete or keep input files after conversion
- Customize output file name with date and time information as prefix or suffix
- Support Western European, Central European, Arabic, Cyrillic, Greek, Hebrew, Thai, Turkish, UTF-8 encoding
- Extended support for CJK fonts including Simplified Chinese, Traditional Chinese, Japanese, Korean
- Process hyperlink
- Remove bookmark and frames
- Keep line breaks between paragraph
- Output hidden text
- Extract embedded images in preferred image format
- Zoom AFP document before conversion
- Define EOL (End-Of-Line) style among Windows, DOS, Mac, and Unix.
- Generate complex document with complicated components

1.2.6 AFP to Text Converter

AFP to Text Converter features include,

- Convert AFP to Text
- Convert AFP to TXT
- Transform AFP to TXT directly without conversion to IPDS by the PSF (Print Services Facility)
- Optimize AFP transform either by speed or by quality
- Speedy conversion to efficiently handle production sized jobs
- Maintain directory tree structure for AFP conversion
- Delete or keep input files after conversion
- Customize output file name with date and time information as prefix or suffix
- Extract text and embedded images from AFP files
- Support Western European, Central European, Arabic, Cyrillic, Greek, Hebrew, Thai, Turkish, UTF-8 encoding
- Extended support for CJK fonts including Simplified Chinese, Traditional Chinese, Japanese, Korean
- Preserve hyperlink
- Remove bookmark and frames
- Keep line breaks between paragraph
- Output hidden text
- Extract embedded images in preferred image format
- Zoom AFP document before conversion
- Define EOL (End-Of-Line) style among Windows, DOS, Mac, and Unix.
- Generate complex document with complicated components

1.2.7 AFP to RTF Converter

AFP to RTF Converter features include,

- Convert AFP to RTF
- Create Rich-text format content with searchable text
- Transform AFP to RTF format directly without conversion to IPDS by the PSF (Print Services Facility)
- Optimize AFP transform either by speed or by quality
- Speedy conversion to efficiently handle production sized jobs
- Maintain directory tree structure for AFP conversion
- Delete or keep input files after conversion
- Customize output file name with date and time information as prefix or suffix
- Extract text and graphics from AFP files
- Support Western European, Central European, Arabic, Cyrillic, Greek, Hebrew, Thai, Turkish, UTF-8 encoding
- Extended support for CJK fonts including Simplified Chinese, Traditional Chinese, Japanese, Korean
- Preserve hyperlink
- Remove bookmark and frames
- Keep or abandon line breaks between paragraph

- Output hidden text
- Output HTML with images in preferred format
- Zoom AFP document before conversion
- Define EOL (End-Of-Line) style among Windows, DOS, Mac, and Unix.
- Create complex document with complicated components
- Generate RTF document fully compatible with Microsoft Word (.doc) format for editing

1.2.8 AFP to HTML Converter

AFP to HTML Converter features include,

- Convert AFP to HTML
- Create web page with searchable text
- Output HTML with embedded images in preferred format
- Transform AFP to HTML format directly without conversion to IPDS by the PSF (Print Services Facility)
- Optimize AFP transform either by speed or by quality
- Speedy conversion to efficiently handle production sized jobs
- Maintain directory tree structure for AFP conversion
- Delete or keep input files after conversion
- Customize output file name with date and time information as prefix or suffix
- Support Western European, Central European, Arabic, Cyrillic, Greek, Hebrew, Thai, Turkish, UTF-8 encoding
- Extended support for CJK fonts including Simplified Chinese, Traditional Chinese, Japanese, Korean
- Preserve hyperlink
- Keep or remove bookmark and frames
- Maintain or abandon line breaks between paragraph
- Output hidden text
- Zoom AFP document before conversion
- Define EOL (End-Of-Line) style among Windows, DOS, Mac, and Unix.
- Create complex document with complicated components
- Generate RTF document fully compatible with Microsoft Word (.doc) format for editing

1.2.9 AFP to PDF Converter

AFP Conversion Suite features include,

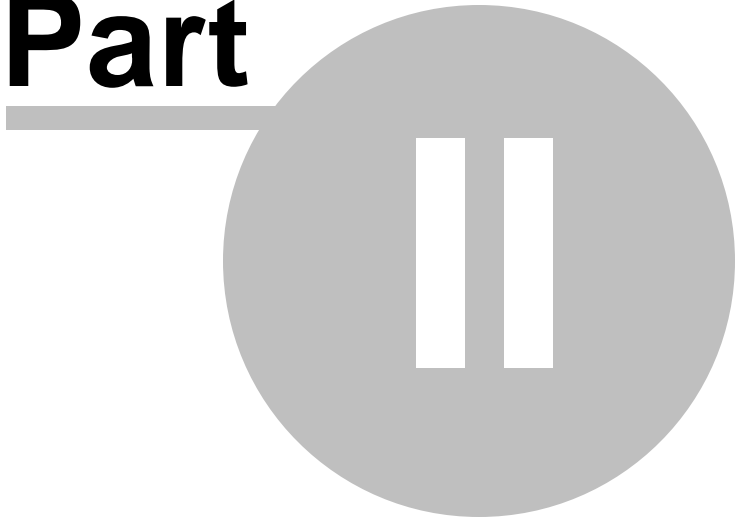
- Convert AFP to PDF in batch
- Create PDF with searchable text
- Transform AFP to PDF directly without conversion to IPDS by the PSF (Print Services Facility)
- Optimize AFP transform either by speed or by quality
- Speedy conversion to efficiently handle production sized jobs

- Maintain directory tree structure for AFP conversion
- Delete or keep input files after conversion
- Customize output file name with date and time information as prefix or suffix
- Support PostScript language Level 1, Level 1.5, Level 2 and Level 3
- Translate inline form in AFP document to fill-able form in PDF file
- Import AFP files from Windows local or network shared folders
- Produce high fidelity PDF to the original print in AFP format
- Generate live hyperlink, vector-based graphics, and searchable text in PDF file
- Embed host fonts from IPDS/AFP document into PDF file
- Support font mapping and AFM and PFB fonts
- Process page segments, medium overlays, graphical overlays and inline forms
- Provide PDF creation intents such as print, screen, and prepress optimization
- Support PDF resolution from 72 dpi to 4800 dpi
- Encrypt PDF output for security and limited access
- Password protection with RC4 128-bit
- Redefine paper sheet size and page orientation in PDF file
- Support custom paper size definition
- Support PDF meta data such as title, subject, author, keywords
- Support PDF compatibility options from PDF version 1.1 to 1.7
- Support graphics scaling
- Generate PostScript files as intermediate of the AFP to PDF conversion
- Compact PDF files as smaller as possible
- Support 32bit full color conversion
- Support RGB, CMYK, Device Gray color model
- Support ICM intent and method
- Sharpen image and graphics in output
- Anti-aliasing for text and graphics
- Image rotation
- Adjustable image resolution for AFP to PDF conversion
- Up to 2540x2540 dpi printing resolution
- Automatic installation and configuration
- Output PDF file can be emailed, saved to a folder on your computer, copied to a network location, uploaded to a FTP Server, or sent to a printer

Top Level Intro

This page is printed before a new
top-level chapter starts

Part



2 Conversion Advantages

AFP is neither editable nor readable on most PC's. The conversion from AFP to other formats makes AFP accessible by more users on Microsoft Windows platforms, Mac platforms, Unix platforms et al.

IPDS Printing Solutions offers the following conversion pairs,

AFP to PS Transform (including AFP to PostScript, AFP to EPS)

AFP to PCL Transform

AFP to PDF Transform

AFP to TIFF Transform

AFP to Image Transform (including AFP to TIFF, AFP to PNG, AFP to BMP, AFP to GIF, AFP to JPEG and more)

AFP to XML Converter

AFP to RTF Converter

AFP to Text Converter (including AFP to TXT, AFP to TEXT)

AFP to HTML Converter (with images support)

If you need all the above transforms, you can simply consider our All-in-One solution, AFP Conversion Suite.

2.1 AFP to PS

AFP to PS Conversion Advantages including but not limited to,

- Reduce printing cost
- Avoid costly changes or replacement of your AFP based print applications
- Archive AFP/IPDS in PostScript format
- Easy integration with document workflow systems
- Eliminate the need for specialized printers
- Avoid new investment on IPDS capable printers
- Save papers and protect the environment
- Accelerate the delivery of reports by email, FTP, and network shared folder
- Lessen storage budget for hard copy reports
- Increase efficiency of information retrieval
- Take snapshot of AFP/IPDS printing in any timeframe
- Reduce risk by geographically distributing data on multiple storage devices
- Distribute transformed AFP/IPDS documents as PostScript files across platforms

2.2 AFP to EPS

AFP to EPS Conversion Advantages including but not limited to,

- Reduce printing cost
- Avoid costly changes or replacement of your AFP based print applications
- Archive AFP/IPDS in Encapsulated PostScript format
- Easy integration with document workflow systems
- Eliminate the need for specialized printers
- Avoid new investment on IPDS capable printers
- Save papers and protect the environment
- Accelerate the delivery of reports by email, FTP, and network shared folder
- Lessen storage budget for hard copy reports
- Increase efficiency of information retrieval
- Take snapshot of AFP/IPDS printing in any timeframe
- Reduce risk by geographically distributing data on multiple storage devices
- Distribute transformed AFP/IPDS documents as Encapsulated PostScript files across platforms

2.3 AFP to PDF

AFP to PDF Conversion Advantages including but not limited to,

- Reduce printing cost
- Avoid costly changes or replacement of your AFP based print applications
- Archive AFP/IPDS in Adobe Portable Document Format
- Easy integration with Microsoft Windows applications
- Eliminate the need for specialized printers
- Avoid new investment on IPDS capable printers
- Save papers and protect the environment
- Accelerate the delivery of reports by email, FTP, and network shared folder
- Lessen storage budget for hard copy reports
- Categorize documents and reports by using PDF metadata
- Increase efficiency of information retrieval
- Take snapshot of AFP/IPDS printing in any timeframe
- Reduce risk by geographically distributing data on multiple storage devices
- Distribute transformed AFP/IPDS documents as PDF files across platforms

2.4 AFP to TIFF

AFP to TIFF Conversion Advantages including but not limited to,

- Reduce printing cost
- Avoid costly changes or replacement of your AFP based print applications
- Archive AFP/IPDS in TIFF image format
- Easy integration with Microsoft Windows applications
- Eliminate the need for specialized IBM AS/400 or Mainframe applications
- Avoid new investment on IBM Certified document workflow
- Distribute AFP reports in image formats across Windows, Mac, Unix, Linux platforms
- Accelerate the delivery of AFP reports page by page
- Lessen storage budget for hard copy reports
- Categorize documents and reports by using ExTiff image metadata
- Increase efficiency of information retrieval
- Take snapshot of AFP/IPDS printing in any timeframe

2.5 AFP to Image

AFP to Image Conversion Advantages including but not limited to,

- Reduce printing cost
- Avoid costly changes or replacement of your AFP based print applications
- Archive AFP/IPDS in popular image formats such as TIFF, JPEG, PNG, GIF, BMP, PCX.
- Easy integration with Microsoft Windows applications
- Eliminate the need for specialized IBM AS/400 or Mainframe applications.
- Avoid new investment on IBM Certified document workflow.
- Distribute AFP reports in image formats across Windows, Mac, Unix, Linux platforms.
- Accelerate the delivery of AFP reports page by page.
- Lessen storage budget for hard copy reports
- Categorize documents and reports by using ExTiff image metadata
- Increase efficiency of information retrieval
- Take snapshot of AFP/IPDS printing in any timeframe

2.6 AFP to PCL

AFP to PCL Conversion Advantages including but not limited to,

- Reduce printing cost
- Avoid costly changes or replacement of your IPDS/AFPDS/AFP based print applications

- Archive AFP/IPDS in HP PCL format
- Eliminate the need for specialized printers
- Avoid new investment on IPDS capable printers
- Easy integration with PCL compatible applications
- Save papers and protect the environment
- Accelerate the delivery of reports by email, FTP, and network shared folder
- Lessen storage budget for hard copy reports
- Increase efficiency of information retrieval
- Take snapshot of AFP/IPDS printing in any timeframe
- Reduce risk by geographically distributing data on multiple storage devices
- Distribute transformed AFP/IPDS reports and documents in PCL across printing systems, OS platforms

2.7 AFP to XML

AFP to XML Conversion Advantages including but not limited to,

- Archive AFP/IPDS in XML format for access by other applications
- Easy integration with XML capable applications
- Eliminate the need for specialized printers
- Avoid new investment on IPDS capable printers
- Reduce printing cost
- Avoid costly changes or replacement of your AFP based print applications
- Save papers and protect the environment
- Accelerate the delivery of reports by email, FTP, and network shared folder
- Lessen storage budget for hard copy reports
- Categorize documents and reports by using XML tags or attributes
- Increase efficiency of information retrieval
- Take snapshot of AFP/IPDS printing in any timeframe
- Reduce risk by geographically distributing data on multiple storage devices
- Distribute transformed AFP/IPDS documents as XML files across platforms

2.8 AFP to RTF

AFP to RTF Conversion Advantages including but not limited to,

- Archive AFP/IPDS in RTF format accessible by Microsoft Word
- Easy integration with Windows rich-text-enabled applications
- Make text in AFP editable and reuse graphics resources
- Eliminate the need for specialized printers

- Avoid new investment on IPDS capable printers
- Reduce printing cost
- Avoid costly changes or replacement of your AFP based print applications
- Save papers and protect the environment
- Accelerate the delivery of reports by email, FTP, and network shared folder
- Lessen storage budget for hard copy reports
- Increase efficiency of information retrieval
- Take snapshot of AFP/IPDS printing in any timeframe
- Reduce risk by geographically distributing data on multiple storage devices
- Distribute transformed AFP/IPDS documents as RTF files across platforms

2.9 AFP to TXT

AFP to Text Conversion Advantages including but not limited to,

- Archive AFP/IPDS in TXT format with Windows, DOS, Mac, Unix EOL
- Easy integration with any applications
- Make text in AFP editable
- Eliminate the need for specialized printers
- Avoid new investment on IPDS capable printers
- Reduce printing cost
- Avoid costly changes or replacement of your AFP based print applications
- Save papers and protect the environment
- Accelerate the delivery of reports by email, FTP, and network shared folder
- Lessen storage budget for hard copy reports
- Increase efficiency of information retrieval
- Take snapshot of AFP/IPDS printing in any timeframe
- Reduce risk by geographically distributing data on multiple storage devices
- Distribute transformed AFP/IPDS documents as text files across OS platforms

2.10 AFP to HTML

AFP to HTML Conversion Advantages including but not limited to,

- Archive AFP/IPDS in popular web page format with images embedded
- Easy integration with any HTML capable applications
- Make text in AFP editable and reuse graphics resources
- Eliminate the need for specialized printers
- Avoid new investment on IPDS capable printers
- Reduce printing cost

-
- Avoid costly changes or replacement of your AFP based print applications
 - Save papers and protect the environment
 - Accelerate the delivery of reports by email, FTP, and network shared folder
 - Lessen storage budget for hard copy reports
 - Increase efficiency of information retrieval
 - Take snapshot of AFP/IPDS printing in any timeframe
 - Reduce risk by geographically distributing data on multiple storage devices
 - Distribute transformed AFP/IPDS documents as HTML files across OS platforms

Top Level Intro

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top-level chapter starts

Part



3 Installing

This chapter introduces the concept of software installation on Microsoft Windows, how to adjust proxy settings in a corporate environment, and how to deploy the AFP Conversion Suite and AFP Converter in a centralized environment.

Before installing the software, please make sure that the following hardware requirements are met,

Intel or AMD processor 1.7GHZ or better
200MB free disk space
1024x768 or higher resolution for Display Monitor
Microsoft Windows 10/8.1/8/7/Vista/XP/2003/2008/2012/2015 Server [32bit/64bit]
Adobe Reader installed

When the software works on Windows 64-bit operating systems, it outperform approximately 30% in performance over 32-bit operating systems.

Note: This conversion software runs on Microsoft Windows NT based operating systems only, and it cannot be launched on OS/390, z/OS, Linux, Solaris, UNIX, or AIX systems.

3.1 Overview

Before installing the software, make sure that you have Windows Print Spooler service enabled. This service is by default enabled by Microsoft Windows, and it is required by the software as well as required by all Inkjet and Laserjet printers.

To enable the Print Spooler service, just click Start->Run, and type in the following command,

SC.EXE start Spooler

The file name of the installer for AFP to ??? Converter is AFP2???_Setup.exe. And the installer installs an evaluation copy of the AFP to ??? Converter for users to try for up to 15 days.

To facilitate the installation, you are required to log on Microsoft Windows as Administrator or a Power User with the rights to install software. After you download AFP2???_Setup.exe from the web or obtain the file from a 3rd-party source, you need to right-click on the file, and choose 'Run As Administrator' on Microsoft Windows 7 and later operating systems to ensure that the installer is executed with elevated privilege so that installation won't fail.

The file name 'AFP2???.exe' is for the evaluation version of the AFP to ??? Converter, and the one for the full retail version differs.

3.2 Silent Install

AFP Converter can be installed in a completely silent way without any user interaction.

To start a silent installation, start the installer with the following switches,

```
AFP2???.exe /SP- /VERYSILENT
```

Sometimes a certain driver file might be in use by an application, and the file has to be replaced during next reboot. In this case, the installer might prompt user to restart the computer. To suppress the information, just use the following switches,

```
AFP2???.exe /SP- /VERYSILENT /NORESTART
```

If you need MSI package for installation, feel free to contact support@ipdsprinter.com.

3.3 Proxy Settings

The installer of AFP Converter always perform a check to see if a new version of the AFP core module is available on the web, and therefore an active Internet connection is highly desired by the installer.

In a corporate environment the users have to specify a proxy server to have access to the Internet in the web browser. The installer of AFP Converter is able to detect the proxy settings specified in Microsoft Internet Explorer.

If you haven't set up your proxy server, you can click Start->Run, and then type in the following command,

```
Rundll32 Shell32.dll,Control_RunDLL Inetcpl,,4
```

and then specify the proxy server name (or IP address), and the proxy server port. If you don't know your proxy server settings, contact your network administrator for help.

3.4 Central Deployment

To deploy AFP Conversion capability across your organizations, you need a server-based product installed on a server.

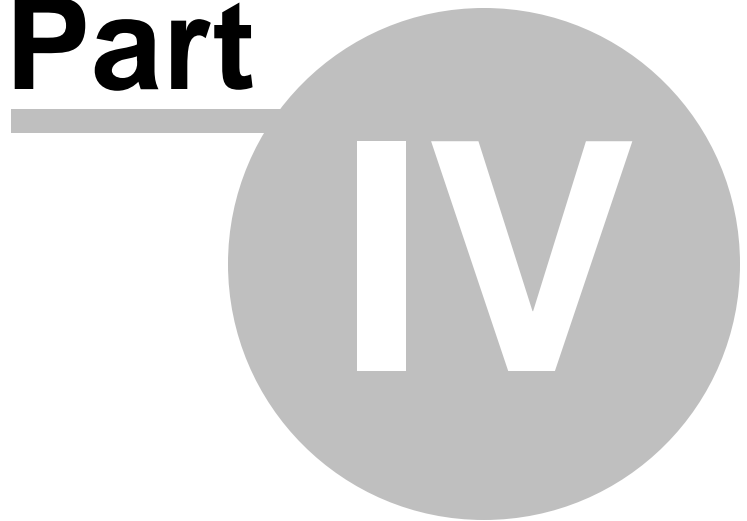
More information on **AFP Transform Server** product can be found on our web site,

<http://www.ipdsprinter.com/afp-transform-server.html>

Top Level Intro

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Part



4 Using

This chapter covers the following topics,

1. Checklist before using the software
2. Get familiar with the user interface
3. Output options
4. Conversion options
5. Advanced options
6. Step-by-step example

In this chapter, we take AFP Conversion Suite as the example. For users of AFP Converter, you can read this chapter, and follow the same instructions to convert your AFP files to a format of your choice.

4.1 Checklist Before Using

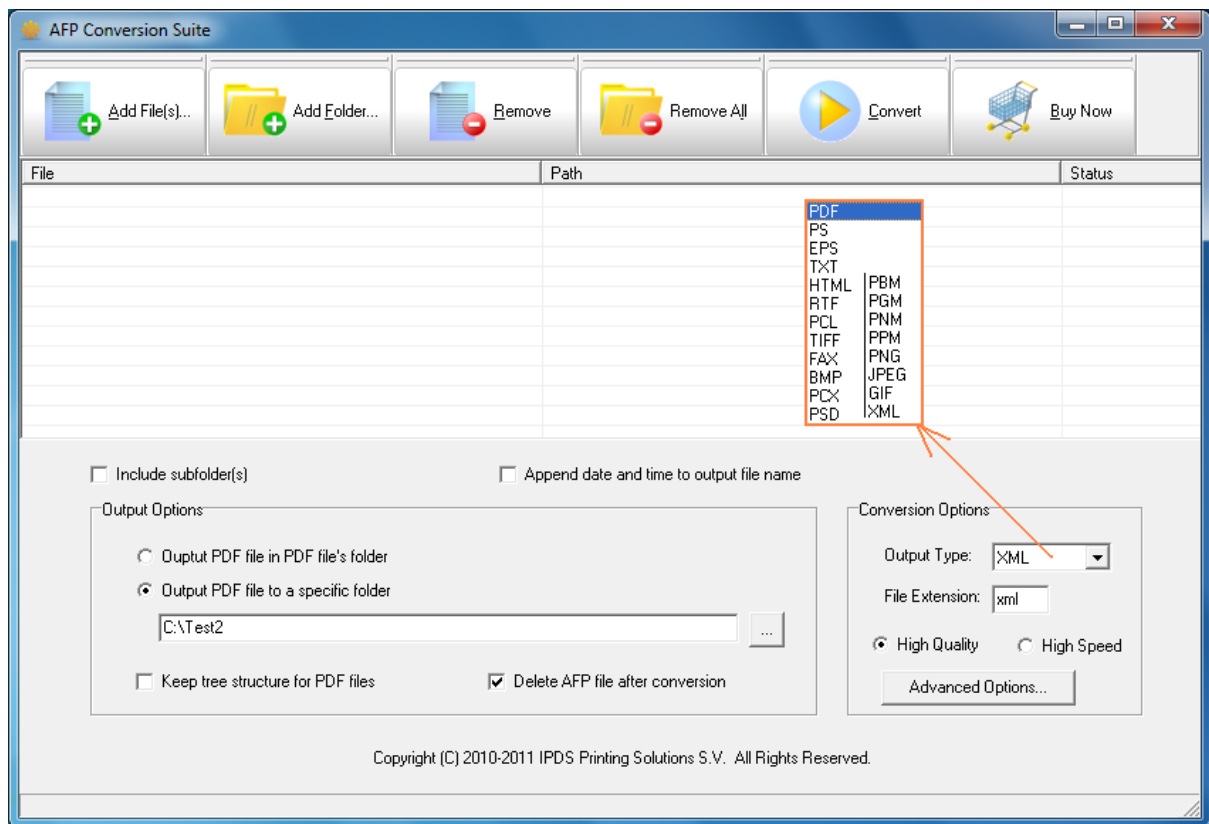
Before the first launch of AFP Conversion Suite or AFP Converter, you need to review the following checklist,

1. Is AFP Workbench Viewer is installed?
2. Have you ever used the AFP Workbench Viewer software and accepted the end-user license agreement?
3. Make sure that you can open and read an AFP file on your computer.
4. Be aware of the two new printers, namely AFP2PDF and AcroPDF, are available in your printer list.
5. Delete all files in your C:\IPDSCache folder only if the folder exists.

4.2 Get Familiar with the UI

Let's get familiar with the graphical user interface on the first launch of the AFP Conversion Suite or AFP Converter after install.

On the top of the user interface, there exist six buttons. The functionality of each can be,



Add File(s)...: Add one or more AFP files. Once this button is clicked, a select file dialog appears, and you can hold the Shift key on your keyboard to select multiple AFP files.

Add Folder...: Add all AFP files in a specified folder. If this button is clicked in the mean time the 'Include subfolder(s)' option is checked, you will see a folder selection dialog, and be able to automatically import all the AFP files in all of the subfolders of the folder that have just specified.

Remove: Delete one or more selected AFP files from the list of the UI. The actual files are not erased from your storage.

Remove All: Delete all AFP files in the list of the UI. The actual files are not erased from your storage.

Convert: Once this button is clicked, the conversion begins, and this button will be changed to a Stop button.

Buy Now: To purchase a license online.

Help: Load this user guide. This button is not available in the evaluation copy.

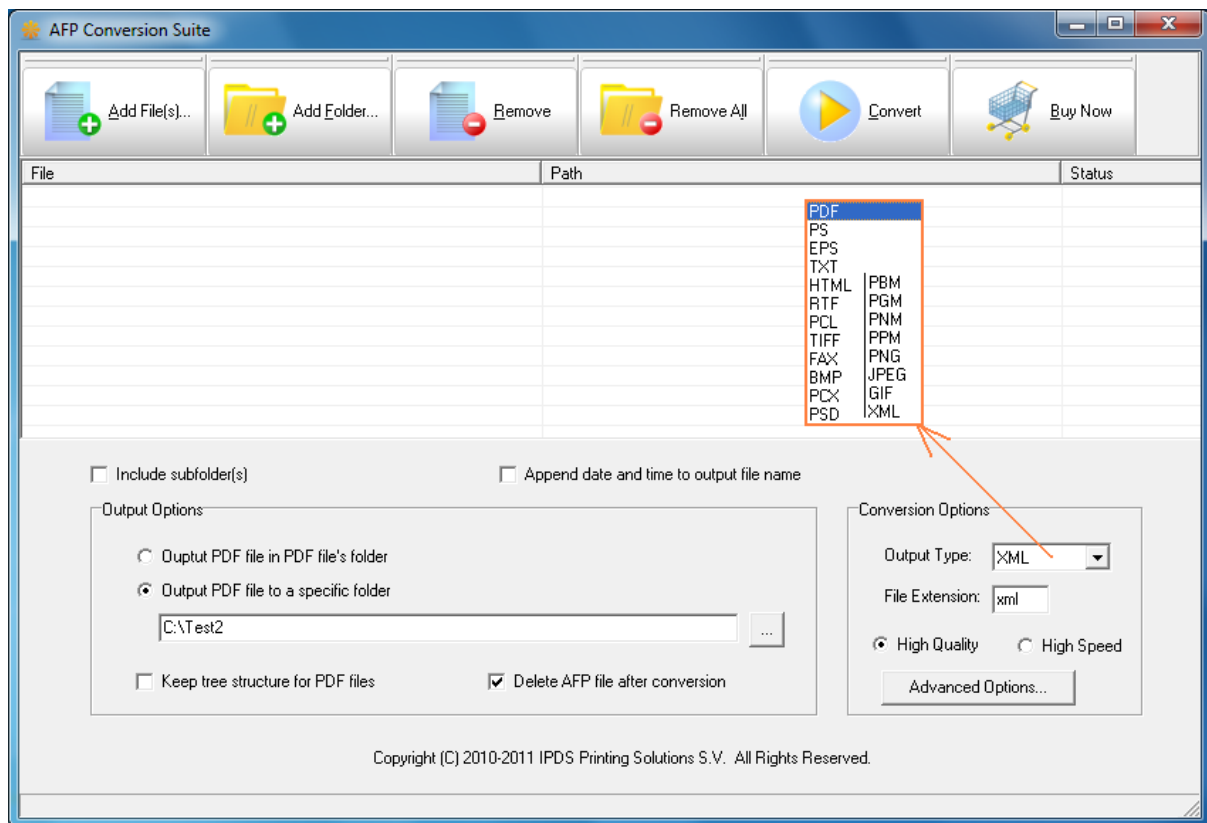
Down the list of AFP files, you see Output Options and Conversion Options. More details will be disclosed in the subsequent topics.

4.3 Output Options

You can choose to output the target files in the same folder of the source AFP files or to output target files to a specific folder of your preferences. This folder is also called destination folder.

Keep tree structure for PDF files. this option enables the output target files to be created with hierarchical folder structure in the target folder.

Delete AFP file after conversion. the source AFP file will be erased once it is converted to other file format.



Append date and time to output file name. Once this feature is enabled, output file name will be appended with a sequence of date and time information. For example, suppose you convert AFP document to TXT, and your AFP document is named Report.AFP, and the output file name would be Report_20110815_155305_929.txt rather than Report.txt. Here the suffix is _20110815_155305_929, 2011 is the year, 08 is month, 15 is the day, 155305 stands for 15:53:05 (hour:minute:second), 929 is the

milliseconds.

4.3.1 Customize Output Filename

You can customize the suffix to any string of your preference if you don't feel like the default file name `<FileName>_yyyyMMdd_hhmmss_zzz.<FileExt>`.

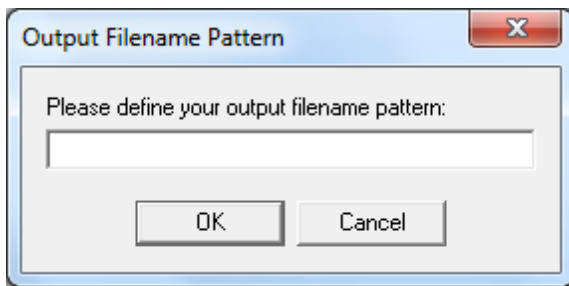
`<FileName>` is the name of the AFP input file without any file extension.

`<FileExt>` is the file extension of the output file.

For example, suppose the input file is `Report.afp`, and you perform AFP to TXT transform, you will have `<FileName>` stood for `Report`, and `<FileExt>` stood for `txt`.

`yyyy` is the year, `MM` is month, `dd` is day, `hh` is hour, `mm` is minute, `ss` is second, `zzz` is milliseconds.

You can customize and create your own file name patterns according to the [syntax](#). To show the output file name customization dialog, you need to click *Append date and time to output file name* option on the user interface, and press *Shift* key on your keyboard, you will see,



In this field, you can input your own file name pattern.

Alternatively, you can remove the `<FileName>` prefix completely, leaving just a sequence of numbers composed of date and/or time information. For example,

`yyyyMMddhhmmsszzz`

In this case, neither `<FileName>` nor `<FileExt>` exists. You will get the output file name like `20110815155305666`, `20110815155308111`, ...

To revert the file name pattern to its default value, you can simply clear the filename pattern and make the field blank.

4.3.2 Syntax for Date and Time Information

The date and time information string can comprise a mix of ordinary characters.

The following western formatting character strings can be used in the string:

```

y   = Year last 2 digits
yy  = Year last 2 digits
yyyy = Year as 4 digits
m   = Month number no-leading 0
mm  = Month number as 2 digits
mmm = Month using ShortDayNames (Jan)
mmmm = Month using LongDayNames (January)
d   = Day number no-leading 0
dd  = Day number as 2 digits
ddd = Day using ShortDayNames (Sun)
dddd = Day using LongDayNames (Sunday)
ddddd = Day in ShortDateFormat
dddddd = Day in LongDateFormat

c   = Use ShortDateFormat + LongTimeFormat
h   = Hour number no-leading 0
hh  = Hour number as 2 digits
n   = Minute number no-leading 0
nn  = Minute number as 2 digits
s   = Second number no-leading 0
ss  = Second number as 2 digits
z   = Milli-sec number no-leading 0s
zzz = Milli-sec number as 3 digits
t   = Use ShortTimeFormat
tt  = Use LongTimeFormat

am/pm = Use after h : gives 12 hours + am/pm
a/p   = Use after h : gives 12 hours + a/p
ampm  = As a/p but TimeAMString,TimePMString
/     = Substituted by DateSeparator value
:     = Substituted by TimeSeparator value

```

Important : if you want to see characters such as dd in the formatted output, placing them in " marks will stop them being interpreted as date or time elements.

In addition to this formatting, various of the above options are affected by the following variables, with their default values :

```

DateSeparator = /
TimeSeparator = :
ShortDateFormat = dd/mm/yyyy
LongDateFormat = dd mmm yyyy
TimeAMString = AM
TimePMString = PM
ShortTimeFormat = hh:mm
LongTimeFormat = hh:mm:ss
ShortMonthNames = Jan Feb ...
LongMonthNames = January, February ...
ShortDayNames = Sun, Mon ...
LongDayNames = Sunday, Monday ...
TwoDigitYearCenturyWindow = 50

```

Examples,

```

d/m/y = 5/6/00
dd/mm/yy = 05/06/00
ddd d of mmm yyyy = Mon 5 of Jun 2000
dddd d of mmmm yyyy = Monday 5 of June 2000
dddddd = 05/06/2000
dddddd = 05 June 2000
c = 05/06/2000 01:02:03

```

```

h:m:s.z = 1:2:3.4
hh:mm:ss.zzz = 01:02:03.004
t = 01:02
tt = 01:02:03
c = 05/06/2000 01:02:03

```

```

dd/mm/yy hh:mm:ss = 05/06/49 01:02:03
mmm = Jun
mmmm = June
ddd = Sat
dddd = Saturday
dddddd = 05/06/2049
dddddd = 05 June 2049
hhampm = 01AM
t = 01:02
tt = 01:02:03
dd/mm/yyyy = 05/06/2049

```

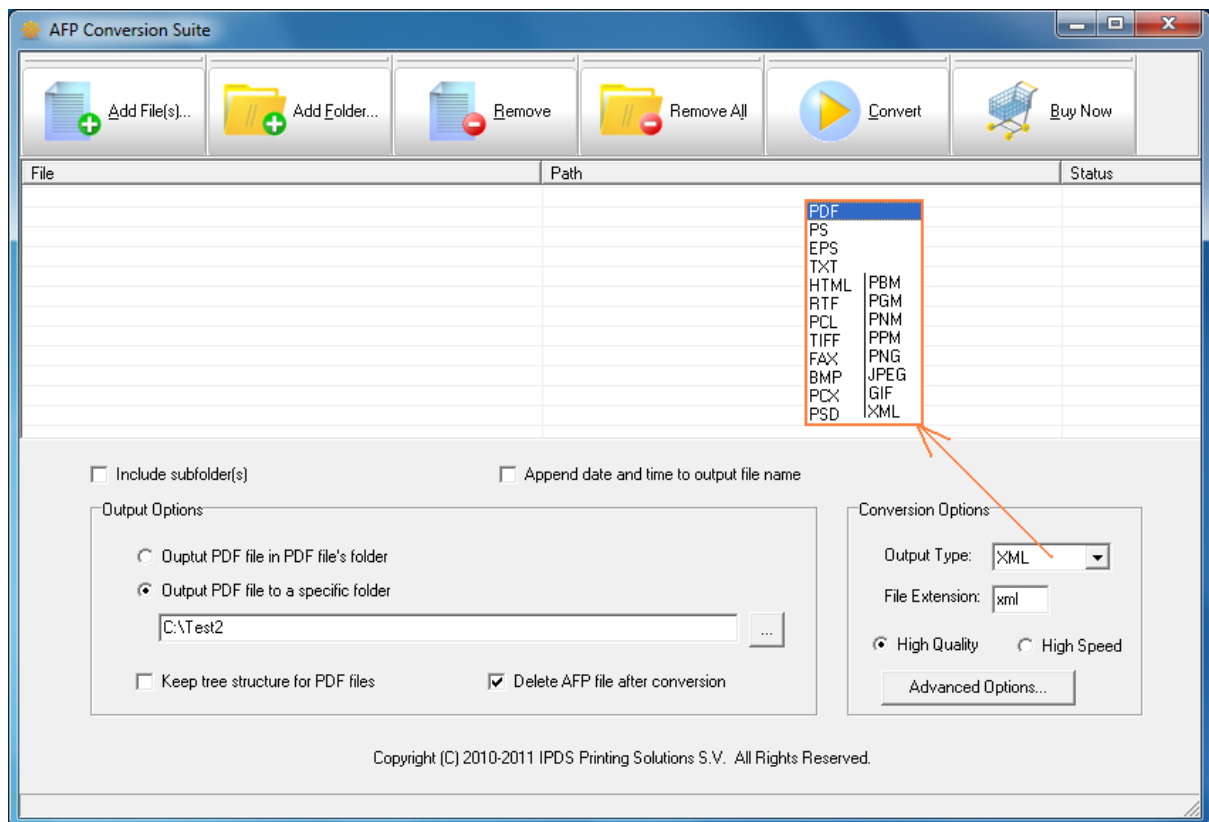
4.4 Conversion Options

In the Conversion Options area, you can customize the file extension for the output file. This feature is frequently used when the output file is JPEG or TIFF format. For instance, some users prefer JPG as the file extension for JPEG; the same could apply to TIF for TIFF.

An important option is the conversion optimization mode; you can choose either High Quality or High Speed.

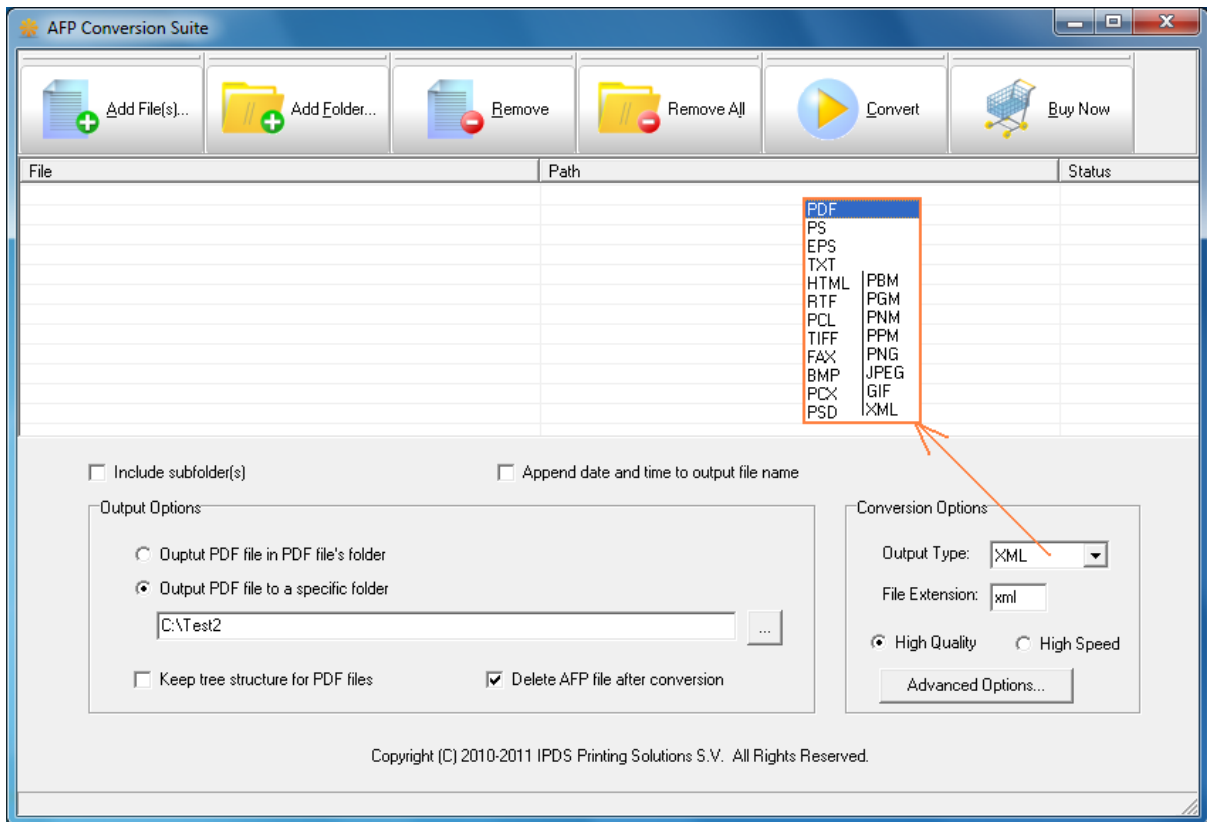
High Quality uses industrial-strength AFP transform algorithms.

High Speed takes the advantage of a lite-weight AFP conversion engine at an incredible high speed.



4.5 Advanced Options

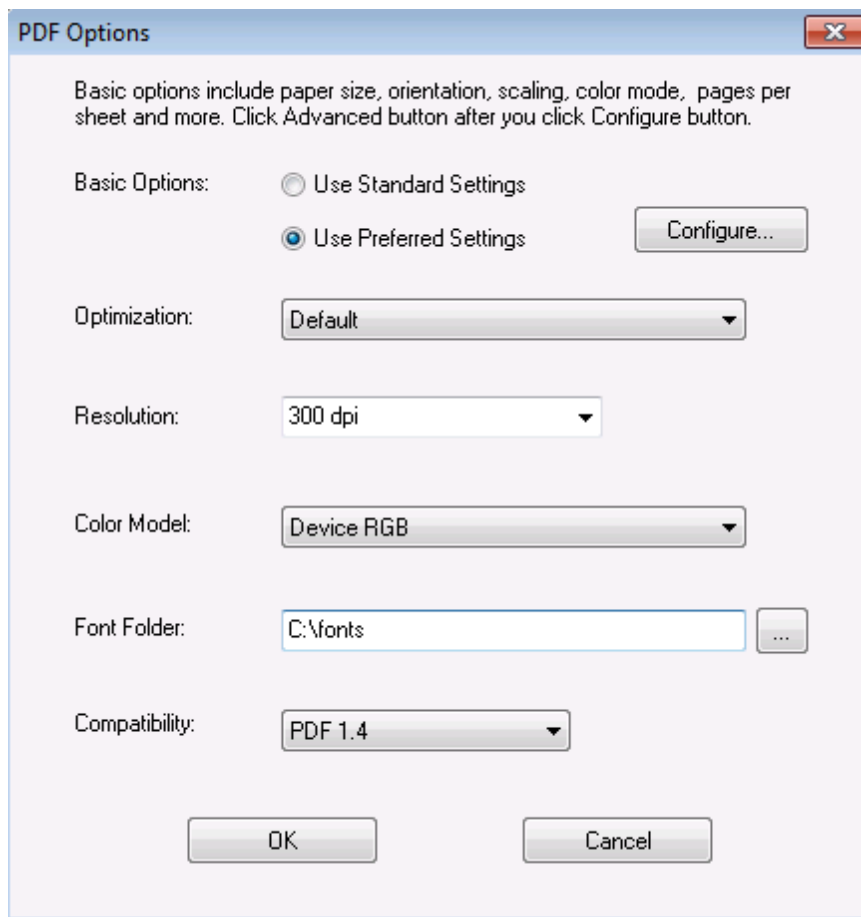
Advanced Options... button resides in the Conversion Options area. Different conversion mode determines different dialog of the advanced options.



4.5.1 PDF Options

If the conversion mode is set to High Speed, the AcroPDF options would appear. For more information on AcroPDF options, read <http://www.acropdf.com/manual.pdf>.

If the conversion mode is set to High Quality, and once this button is clicked, you will see the following dialog,



All the settings in this dialog are for the generation of PDF files. Before you adjust the settings, you are required to set the Basic Options to Use Predefined Settings.

Optimization: Decide what you want the output PDF file to be. For example, you want it to be viewed on screen, be printed, or for prepress purpose.

Resolution: Define the resolution of your PDF document in DPI. Usually, it's 200 DPI or 300 DPI.

Color Model: Specify which color model should be followed to process images and graphics in your AFP documents and get them converted to PDF. It can be Device RGB, Device CMYK, or Device Gray.

Font Folder: You can add fonts to the PDF to AFP transforms, which allows you to print documents with fidelity when the needed font is on your system. Here you can specify the font folder. If you wish to include multiple font folders, use semi comma as the separator. For example, c:\gs\fonts;c:\fontlib

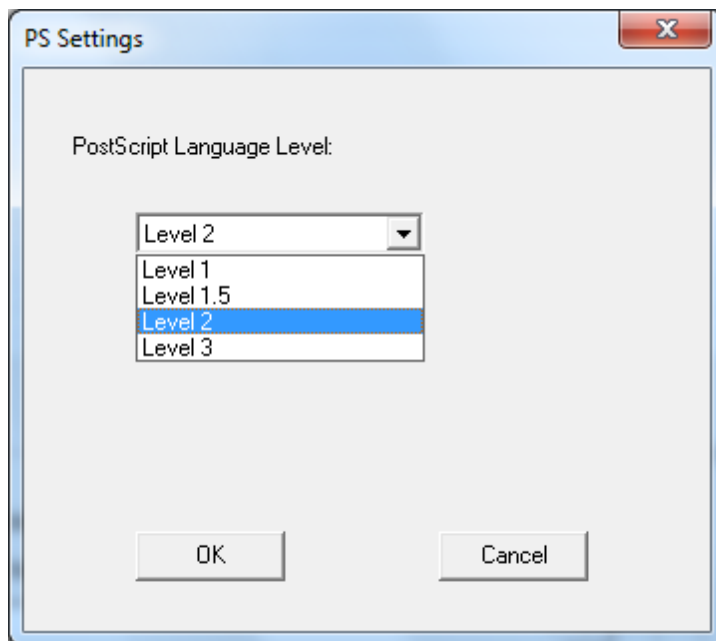
AFM and PFB fonts are supported fonts, you can get the most commonly used fonts package from,

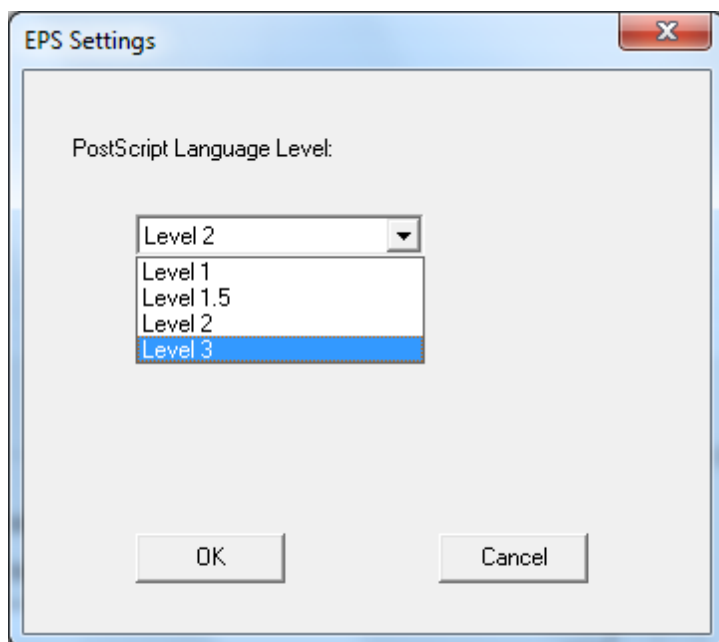
<http://sourceforge.net/projects/gs-fonts/>

Compatibility: Regulate the output PDF version. PDF 1.2 is a relatively low version, supported by Adobe Acrobat and Adobe Reader 3.0 or higher. PDF 1.6 is a relatively high version, supported by Adobe Acrobat and Adobe Reader 7.0 or higher.

4.5.2 PostScript Options

If you perform an AFP to PS conversion or AFP to EPS conversion, you will see this dialog,



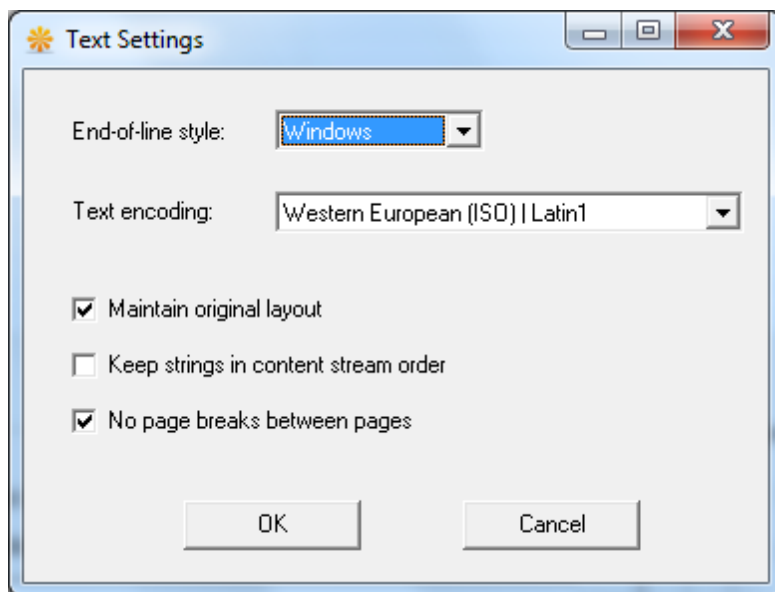


The only setting is the PostScript Language Level ranging from Level 1, Level 1.5, Level 2, to Level 3.

This setting is useful when you create PostScript or Encapsulated PostScript with compatibility concerns.

4.5.3 Text Options

Before you transform your AFP to Text files, you can adjust the text settings to best utilize the conversion,



End-of-line style is usually briefed as EOL, and this option determines

which kind of line break is to be used in the result text file. Here four choices are available, Windows, DOS, Mac, Unix. For example, if you want to convert an AFP to TXT file, and read it on Microsoft Windows 7, you can simply choose Windows style as the EOL style.

Text encoding implies which kind of encoding scheme is to be used to present your result text file. UTF-8 is a common solution for all characters in all languages. However, you can choose other encoding options, such as Arabic, Cyrillic, Western European (Latin1), Central European (Latin2), Greek, Hebrew, Thai, Turkish. If you wish to use Asian encoding such as Simplified Chinese, Traditional Chinese, Japanese, Korean, you need to download a separate CJK fonts package from,

<http://www.ipdsprinter.com/update.html>

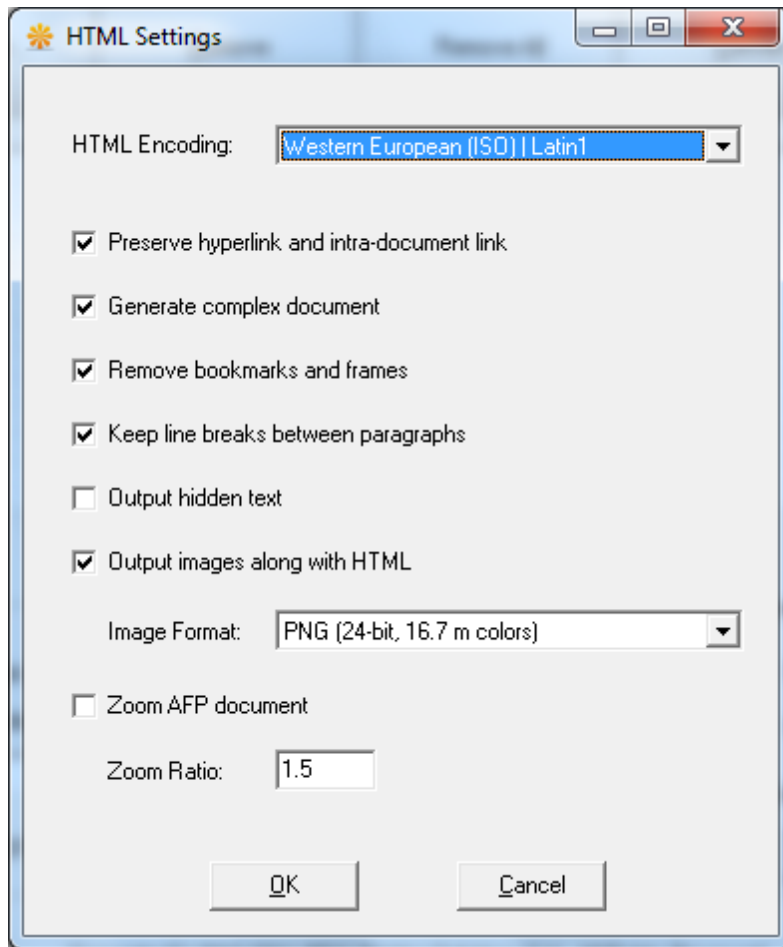
Maintain original layout option is to preserve the look and feel of the original AFP file in as much fidelity as possible.

Keep strings in content stream order option is to keep text in its content stream order.

No page breaks between pages option is to merge paragraphs whenever possible.

4.5.4 HTML, RTF, XML Options

Before you transform your AFP to HTML, RTF, or XML files, you can adjust the relative settings to smooth the conversion. Here we take HTML as an example,



The first option is *HTML Encoding*, which indicates which kind of encoding scheme is to be used to present your web pages. UTF-8 is a common solution for all characters in all languages. However, you can choose other encoding schemes, such as Arabic, Cyrillic, Western European (Latin1), Central European (Latin2), Greek, Hebrew, Thai, Turkish. If you wish to use Asian encoding such as Simplified Chinese, Traditional Chinese, Japanese, Korean, you need to download a separate CJK fonts package from,

<http://www.ipdsprinter.com/update.html>

Preserve hyperlink and intra-document link option is to maintain the hyperlink in the output files.

Generate complex document option is to generate better structured web pages.

Remove bookmarks and frames option is to produce web pages without any navigation panel on the left. Usually bookmark and frame requires

such panel on the left side of the web pages. Most users do not want to keep the panel. Therefore, this option, by default, is enabled.

Keep line breaks between paragraphs option is to avoid merging paragraphs.

Output hidden text option is to output the hidden text in AFP pages in addition to outputting normal text.

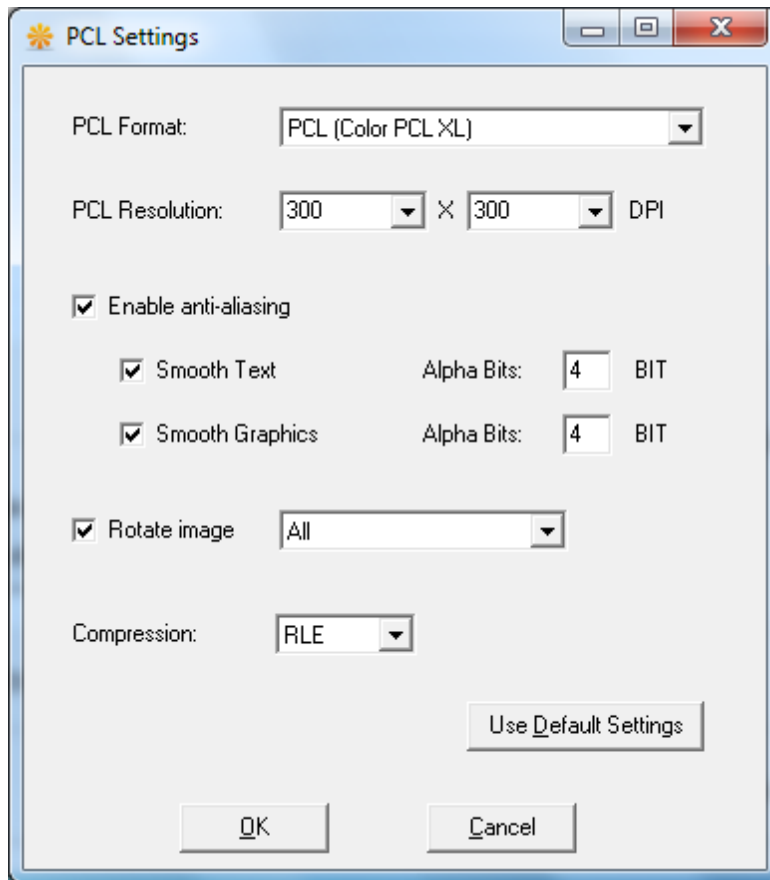
Image Format option is to specify which image format is to be used for embedded images in HTML.

Zoom AFP document option is to enlarge AFP pages before convert it to HTML.

Zoom Ratio option is to set the scale of zoom operation. The default value is 1.5. You can make it larger or smaller.

4.5.5 PCL Options

If you perform an AFP to PCL conversion, you will see this dialog after you click *Advanced Options* button,



PCL Format option can be either Monochrome PCL XL or Color PCL XL.

PCL Resolution is to define the resolution of text and graphics in the output PCL file. The horizontal and vertical resolution, in most cases, are identical.

Enable anti-aliasing option is to enable smoothing for text and/or graphics. By default this option is disabled.

Alpha Bits is the bit value of the alpha channel, which is usually 1, 2, or 4. The default value is 4.

Rotate image option is to rotate AFP pages to align with the orientation of the AFP document, and this option can be Rotate All, Rotate Page By Page, or Rotate None. By default, it's Rotate All.

4.5.6 Image Options

AFP to Image Converter and AFP Conversion Suite enable users to convert AFP pages to various image formats, such as PNG, TIFF, BMP, JPEG, GIF, PCX, PSD, FAX, PPM, PGM, PNM, PBM.

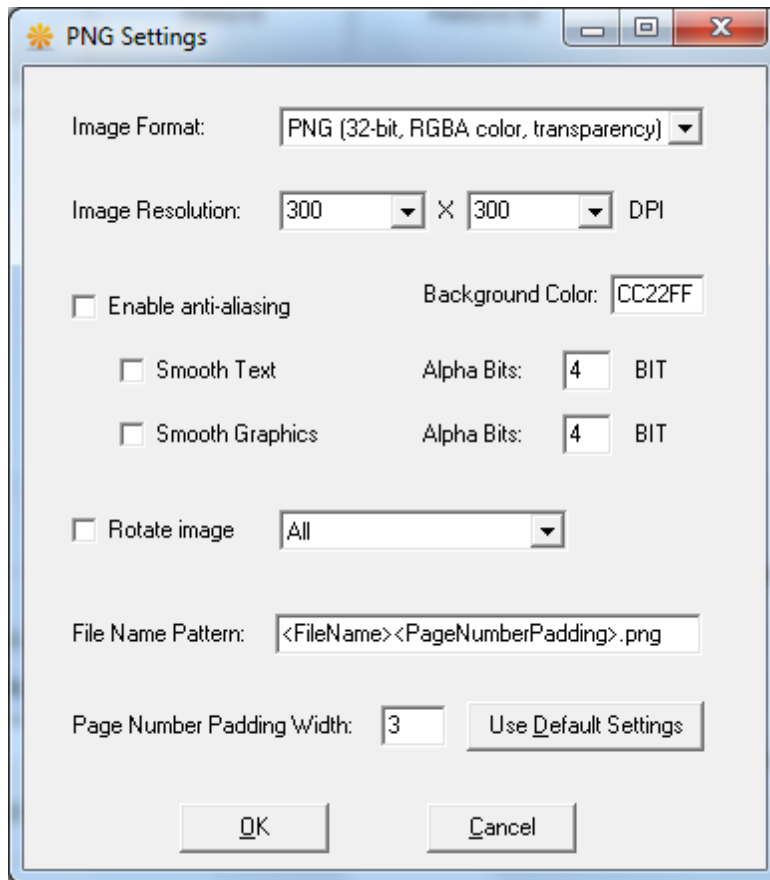


Image Format option is to select the subcategory of a specified image format.

Image Resolution is to define the resolution of images. The horizontal and vertical resolution might not necessarily be identical.

Enable anti-aliasing option is to enable smoothing for text and/or graphics. By default this option is disabled.

Alpha Bits is the bit value of the alpha channel, which is usually 1, 2, or 4. The default value is 4.

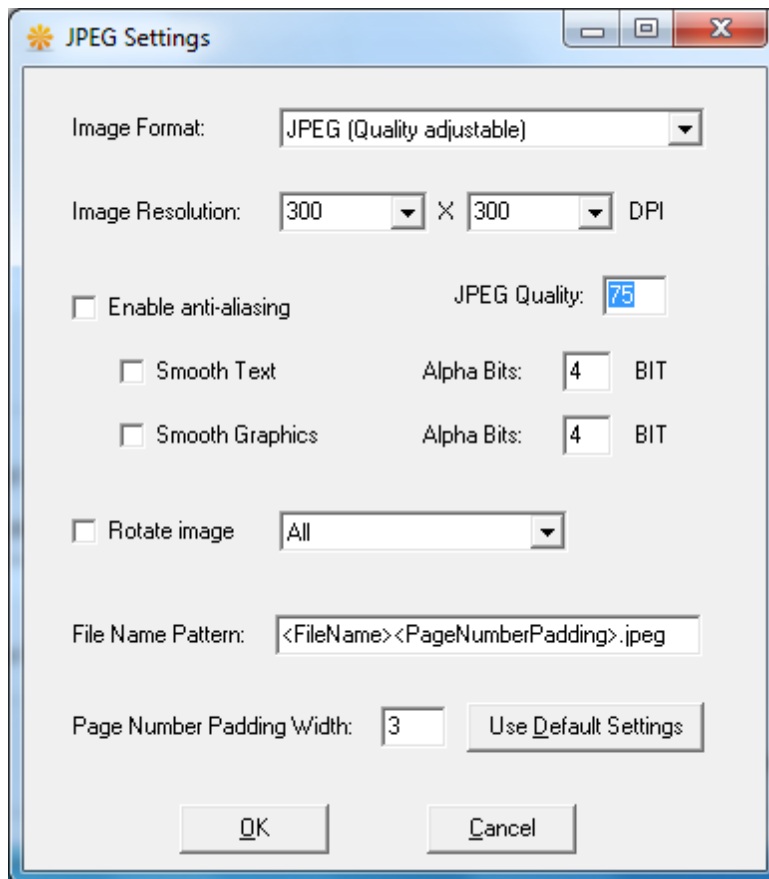
Rotate image option is to rotate AFP pages to align with the orientation of the AFP document, and this option can be Rotate All, Rotate Page By Page, or Rotate None. By default, it's Rotate All.

File Name Pattern option is to define how the output file name looks like. <FileName> stands for the file name without any file extension, <PageNumberPadding> is the page number suffix in certain length as defined in *Page Number Padding Width*. For example, if you set Page Number Padding Width to 3, and the page number suffix will start indexing from 001, and end till 999. Here if the File Name Pattern is

<FileName><PageNumberPadding>.png, and if the input AFP file is named Invoice.AFP, and the output PCL file name will be Invoice001.png, Invoice002.png, ... until the last AFP page number.

4.5.6.1 JPEG Quality

For AFP to JPEG and AFP to JPG conversion, users can specify the JPEG Quality,



The default value is 75. However, you can increase the quality by using a number larger than 75; or you can decrease it by using an integer smaller than 75. The minimum is 0, and the maximum is 100.

4.5.6.2 Color Separation

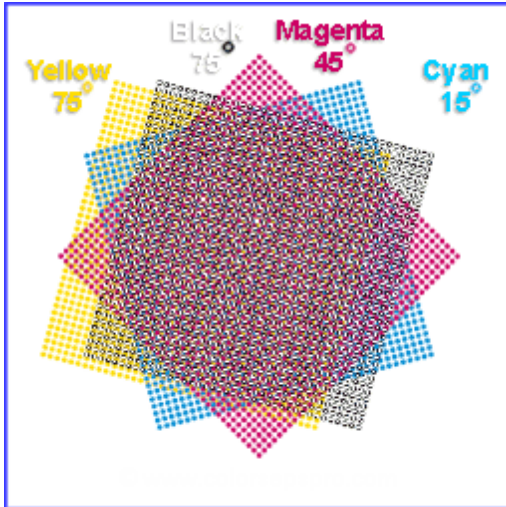
Four-Color Process Screen Printing is a method of printing that uses four colors (Cyan, Magenta, Yellow, and Black) to produce full-color images.

Cyan, Magenta, Yellow and Black are also called Process Colors and are used in Four-Color Printing to reproduce other colors.

AFP to Image Converter and AFP Conversion Suite are able to perform

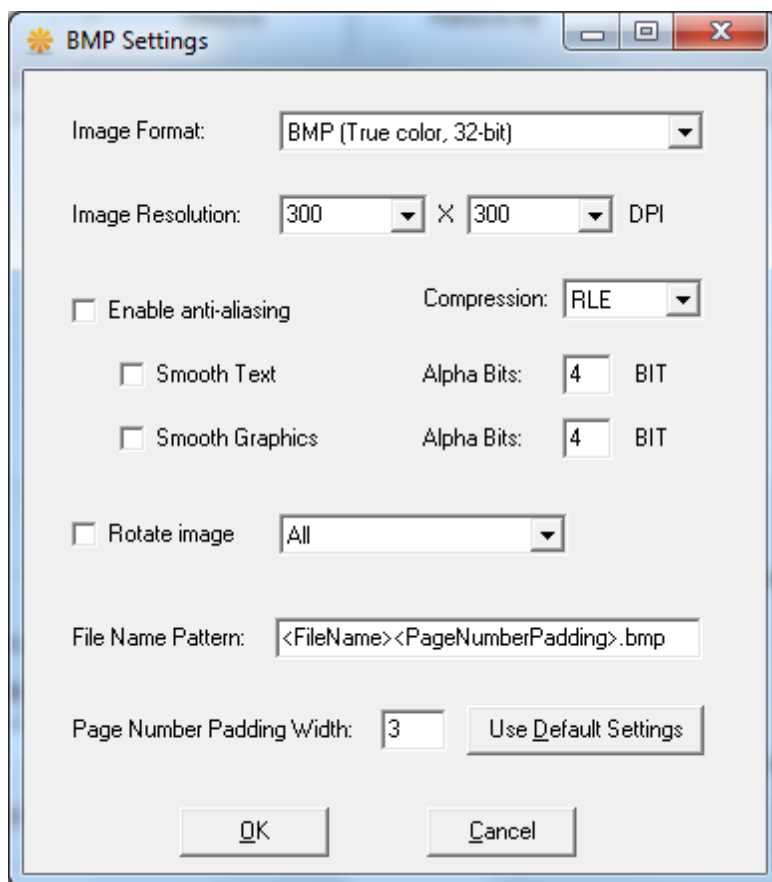
color separation, i.e. to separate colors of an AFP page into four process colors, Cyan, Magenta, Yellow, Black, corresponding in four TIFF images with a suffix .Cyan, .Magenta, .Yellow, or .Black in file name.

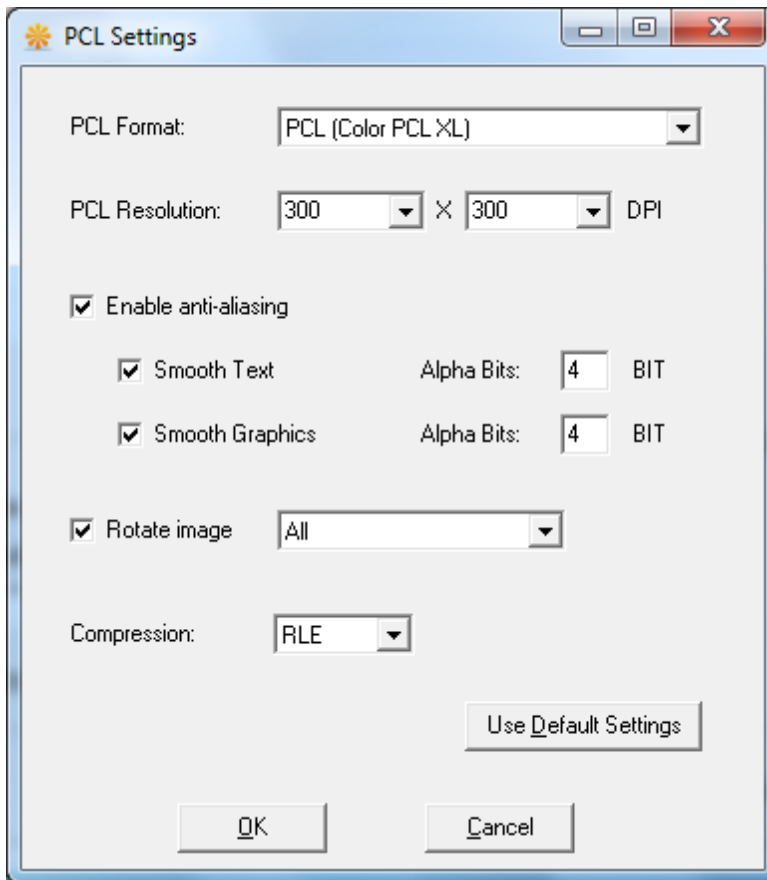
For example, you transform AFP to TIFF (CMYK Separation), and your input AFP file is named MyPhoto.afp, and the output will be four files, MyPhoto.tiff.Cyan, MyPhoto.tiff.Magenta, MyPhoto.tiff.Yellow, MyPhoto.tiff.Black. These files are ready for production in publishing house.



4.5.6.3 Image Compression

When you transform AFP to BMP or transform AFP to PCL, you would have the Image Compression option,





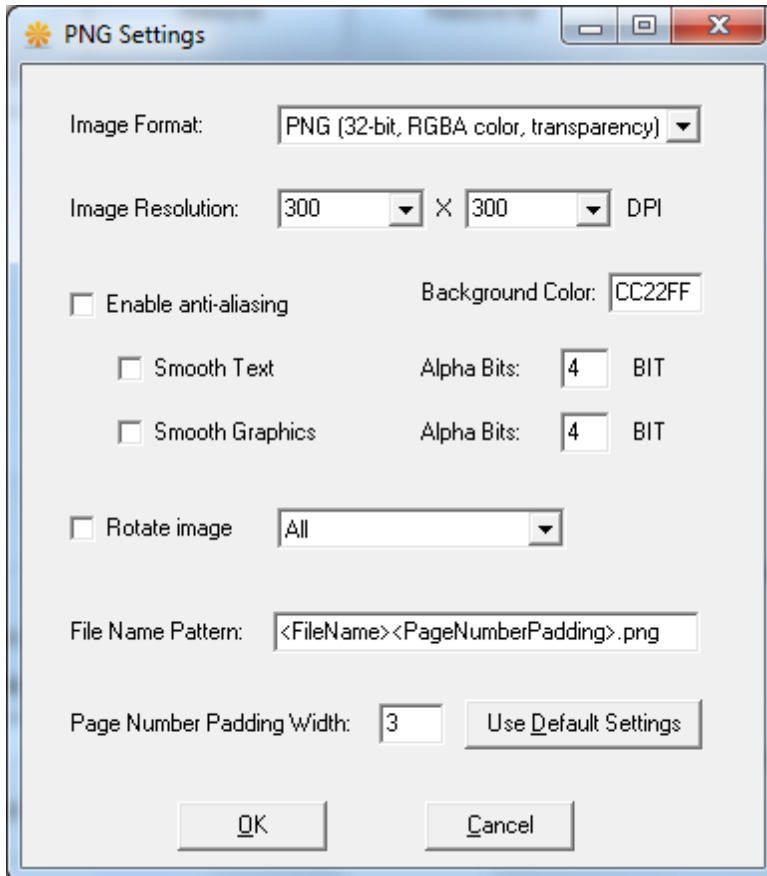
Either RLE or DeltaRow could be selected.

RLE (Run-length encoding) is a very simple form of data compression in which runs of data (that is, sequences in which the same data value occurs in many consecutive data elements) are stored as a single data value and count, rather than as the original run. This is most useful on data that contains many such runs: for example, simple graphic images such as icons, line drawings, and animations. It is not useful with files that don't have many runs as it could greatly increase the file size.

DeltaRow encoding is a way of storing or transmitting data in the form of differences between sequential data rather than complete files; more generally this is known as data differencing. Delta encoding is sometimes called delta compression, particularly where archival histories of changes are required (e.g., in software projects). The differences are recorded in discrete files called "deltas" or "diffs". Because changes are often small – for example, changing a few words in a large document, or changing a few records in a large table – delta encoding greatly reduces data redundancy. Collections of unique deltas are substantially more space-efficient than their non-encoded equivalents.

4.5.6.4 PNG Background Color

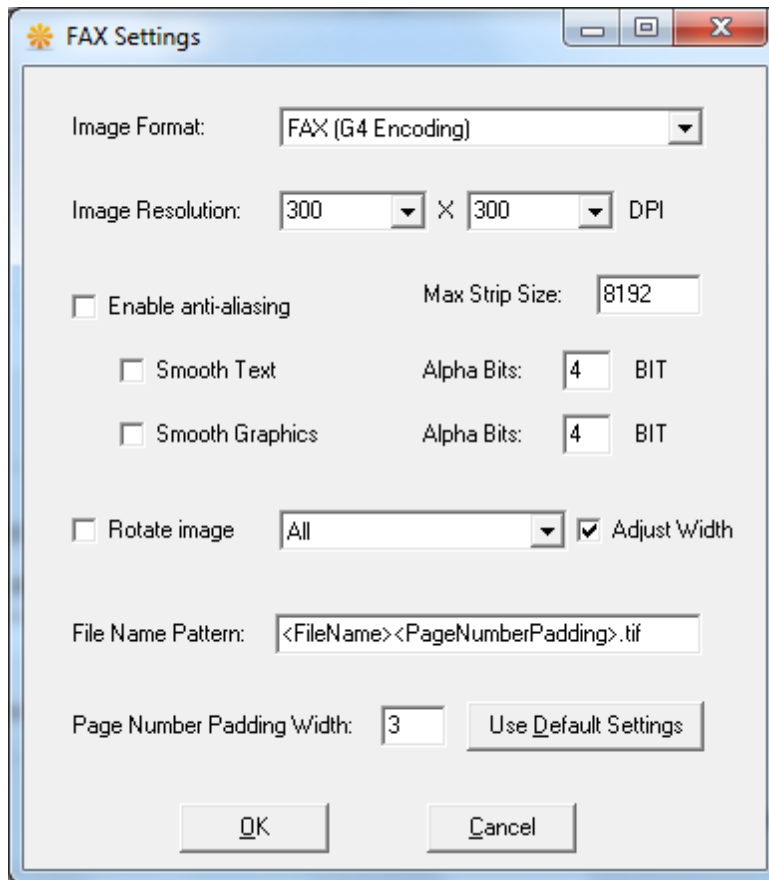
When you transform AFP to transparent PNG (RGBA color with transparency, 32-bit) images, you are allowed to customize background color for your RGBA PNG images.



This value should be a valid RGB value in RRGGBB format. The default value is FFFFFFFF. You can change it to any RGB color, for example, CC22FF, which means Red = CC, Green = 22, Blue = FF.

4.5.6.5 G4 TIFF for FAX

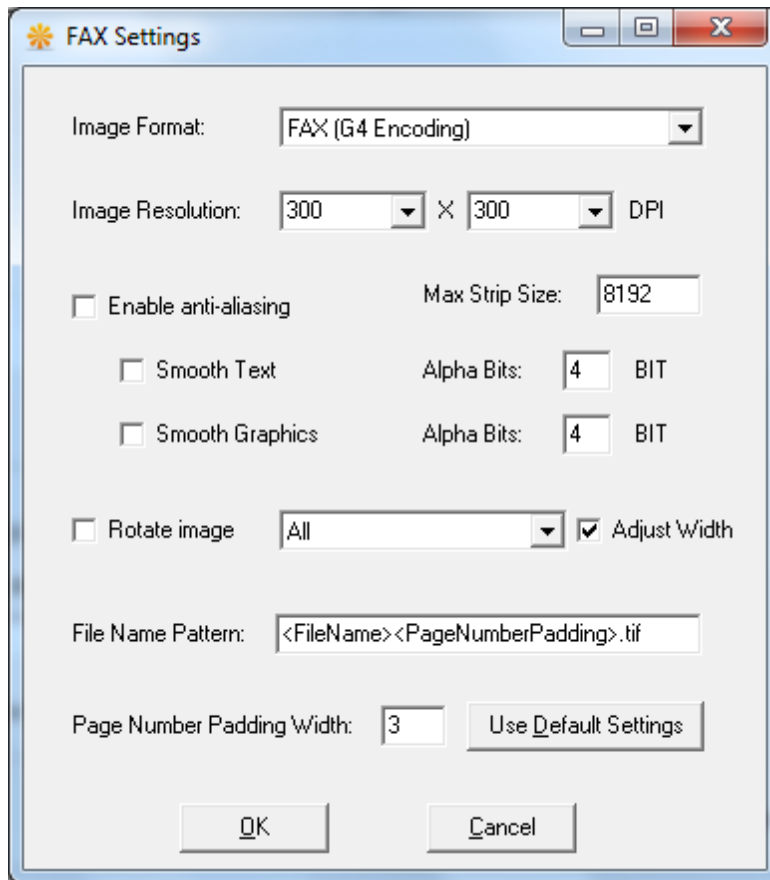
When you transform AFP to FAX, which is G4 encoding compatible, you can define the Maximum Strip Size for your FAX,



The default value is 8192, however, you can make it larger or smaller.

4.5.6.6 Auto Adjust Width

When you transform AFP to TIFF or FAX formats, if the target format is any of the following format, you can enable the Auto Adjust Width option,



TIFF (Monochrome, LZW Compression)
TIFF (Monochrome, PackBits Compression)
FAX (CCITT RLE, G3 with EOL)
FAX (G3 Encoding without EOL)
FAX (2-D G3 Encoding)
FAX (G4 Encoding)

This option allows you to automatically align your image width with the width of the popular paper sheets, such as A4, Letter, B5 et al.

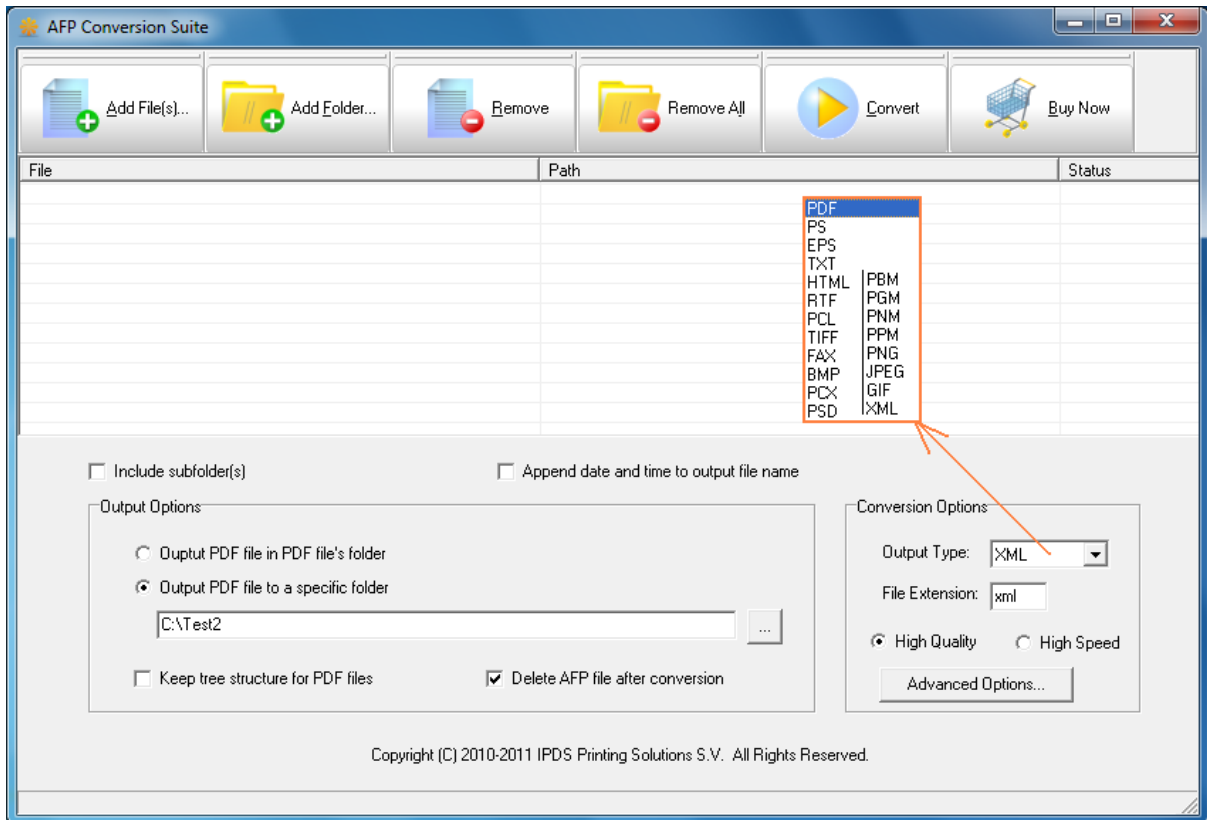
4.6 Step by Step Instructions

Here is an example on how to use AFP Conversion Suite to batch several AFP reports to TIFF images.

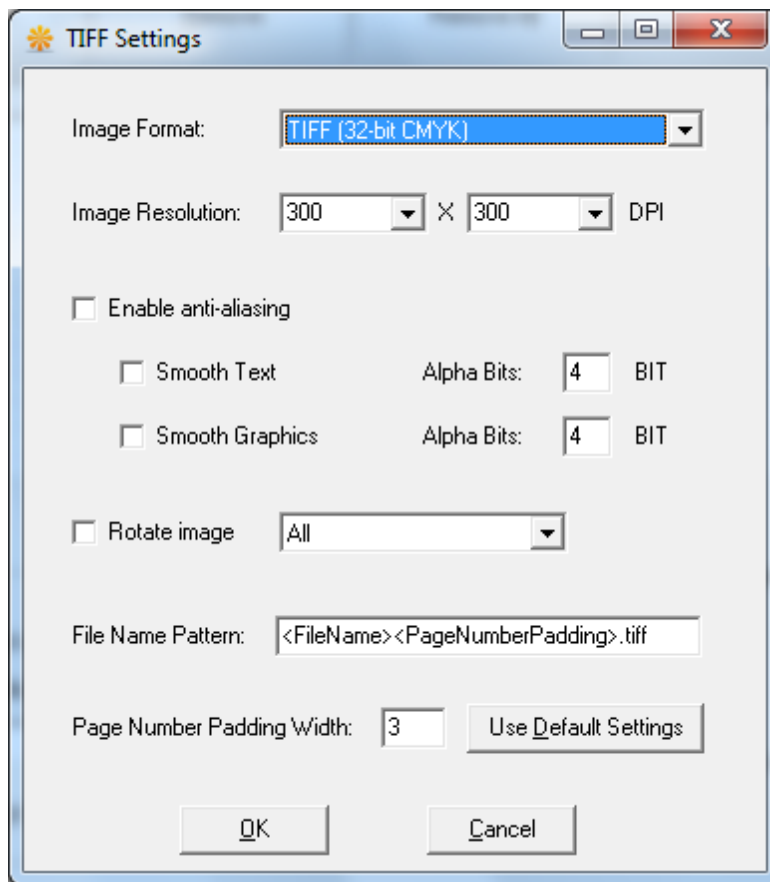
1. Launch AFP Conversion Suite
2. Click 'Add File(s)...' button, select one or more AFP files
3. Repeat Step 2 if you have more AFP files in other locations or you can click 'Add Folder' button to add all AFP files in your selected folder

4. Set the Output Options, Output TIFF files to a specific folder, here the specific folder is D:\test2

5. Set the Conversion Options, High Quality



6. Click 'Advanced Options...' button to select the TIFF image format and adjust the TIFF settings,



7. Click OK button to close this TIFF Settings dialog
8. Now click 'Convert' button to start the AFP to TIFF transform,

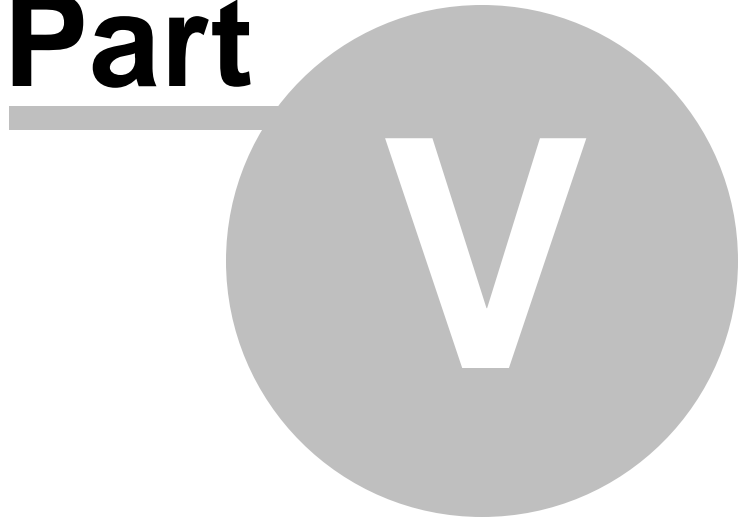
All selected AFP files would be processed and converted to TIFF images in the D:\test2 folder after the AFP to TIFF conversion.

You can click Stop button (Convert button becomes Stop button immediately after the conversion begins) to terminate the conversion process at any time.

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5 Viewing AFP

AFP document, page segment, medium overlay, and overlay can all be viewed by IBM AFP Workbench Viewer, a free program that help you view and print AFP docs.

There exist many 3rd-party AFP viewers, but some of them can not interpret or present AFP data stream correctly.

5.1 IBM AFP Workbench Viewer

IBM AFP Workbench Viewer Plug-in for Microsoft Internet Explorer
<ftp://ftp.infoprintsolutionscompany.com/frominfoprint/Printers/products/workbench/windows/service/gnsp32dm.exe>

IBM AFP Workbench Viewer Standalone application
<ftp://ftp.software.ibm.com/printers/products/workbench/windows/service/ipsafpwb.exe>

Both the plug-in and the standalone application are able to view and print the AFP document, page segment, medium overlay, and overlay with the following file extensions on Microsoft Windows 10/8.1/8/7/2000/XP/2003/Vista/2008/2012/2015 and later operating systems.

Document: *.afp, *.AFP
Page Segment: *.psg, *.PSG
Medium Overlay: *.oly, *.OLY
Overlay: *.oly, *.OLY

The following type of resources are also supported by the IBM AFP Workbench Viewers,

Form Definition: *.fde, *.FDE
JFIF: *.DOR, *.jpg, *.JPG, *.jfif, *.jpeg
GIF: *.DOR, *.gif, *.GIF
TIFF: *.DOR, *.tif, *.TIF, *.tiff, *.TIFF
CHARSET: *.240, *.300, *.OLN, *.oln, *.Oln, *.fnt
CODEPAGE: *.fnt
CODEDFONT: *.FNT

IBM AFP Workbench Viewers only allow you to view and print AFP document but does not create AFP document, page segment, medium overlay, or overlay. To create AFP docs, you are suggested to install the AFP Printer, which can be obtained from,

http://www.afpdriver.com/AFPPrinter_Setup.exe

If you have any question or need help, contact support@afpdriver.com

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6 Purchase

Why to buy?

The evaluation copy of the AFP conversion software expires after 15 days. You can purchase the full version of the software from our resellers worldwide.

For more information on purchasing,

<http://www.ipdsprinter.com/ordernow.html>

Billing & Payment

Billing currency: USD, EUR, GBP, AUD, CAD, JPY, CHF.

Payment options: Credit card, Debt card, PayPal, Wire Transfer, Bank Check, Purchase Order etc.

NOTE: The simplest and fastest way to buy our software is to order it Online.

Benefits of Purchase & Registration

After you purchase the full version, you will receive:

- Use of the software beyond the 15-day trial period
- No registration reminder window
- Free upgrade to future versions
- Product support by e-mail totally free.

Delivery Options

You can choose either of the following delivery methods:

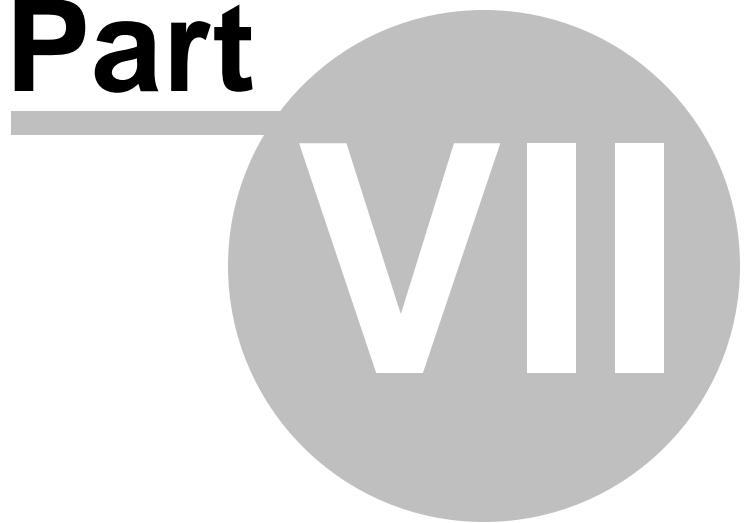
1) Download: You will receive a download link to the full version immediately after your order is processed.

2) Download + CD: You will receive a download link to the full version, and the full version software will also be mailed to you on one CD-ROM.

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7 Registration

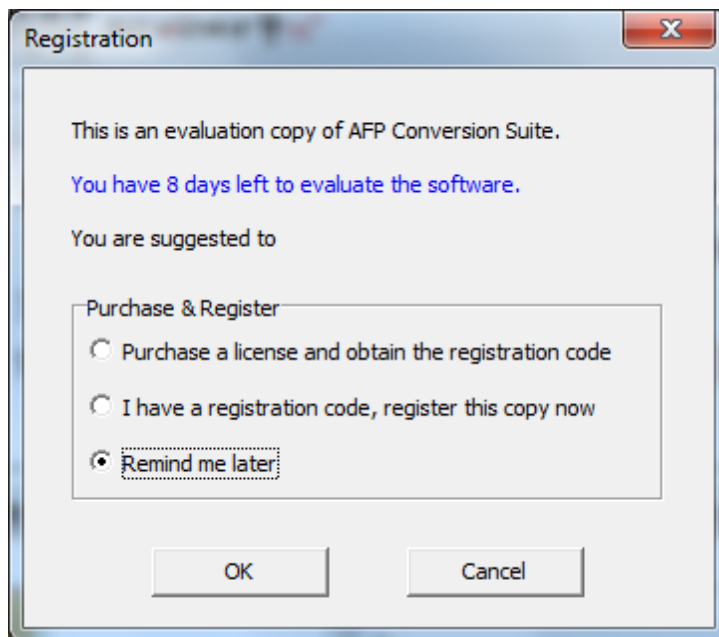
How to register your copy?

Before registration you need to obtain a valid license code to turn your evaluation copy into full version copy. If you don't have a license code, you can purchase one from our store,

<http://www.ipdsprinter.com/ordernow.html>

To register the AFP conversion software with your license key, you should provide your license key in the Registration Reminder window. The license key can be found in the order confirmation email sent by our reseller.

If you do not wish to register, just choose 'Reminder me later'.

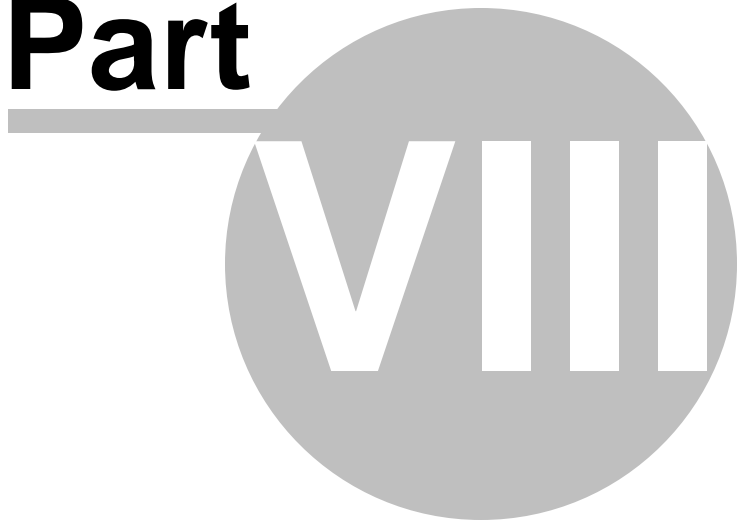


If you have trouble in registering your copy, feel free to contact our support team at support@ipdsprinter.com.

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8 Support

If you have any question, feel free to contact us.

Contact Sales Representative

sales@ipdsprinter.com

Contact Technical Support Staff

support@ipdsprinter.com

Contact Reseller in North American

Share-it
c/o Digital River, Inc.
10380 Bren Road West
Minnetonka, MN 55343
USA

Languages: English

Phone: +1 952 646-5747 (for calls from outside the U.S.) or +1 800 903-4152 (for calls within the U.S.)

Fax: +1 952 646-4552

Contact Reseller in European

Share-it - Digital River GmbH
c/o Digital River Ireland Ltd.
Unit 153
Shannon Free Zone West
Shannon Co. Clare
Ireland

Languages: English, German, French, Italian, Spanish and Portuguese

Phone: +49 221 31088-20

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