

datasheet

PDFlib, PDFlib+PDI, PDFlib Personalization Server (PPS) 9

What is PDFlib?

PDFlib is the leading developer toolbox for generating and manipulating files in the Portable Document Format (PDF). PDFlib's main targets are dynamic PDF creation on a Web server or any other server system, and to implement »Save as PDF« in existing applications. You can use PDFlib to dynamically create PDF documents from database contents, similar to dynamic Web pages. PDFlib has proven itself in a wide range of other use cases as well. Application programmers need only decent graphics or print output experience to be able to use PDFlib quickly. Since PDFlib frees you from the technicalities of the PDF file format, you can focus on acquiring the data and arranging text, graphics, and images on the page.

The PDFlib product family is available in three different flavors: PDFlib, PDFlib+PDI (PDF Import), and the PDFlib Personalization Server (PPS) with the PDFlib Block Plugin for Adobe Acrobat.

PDFlib

PDFlib offers all functions required to generate PDF documents with text, graphics, images, and interactive elements such as annotations or bookmarks. Use PDFlib for the following and many other tasks:

- ▶ add »Save as PDF« capability to your application
- ▶ create PDF documents on a Web server in real time
- ▶ create database reports in PDF
- ▶ take advantage of advanced typography and full Unicode and encoding support for text output
- ▶ advanced color management functionality
- ▶ convert TIFF, JPEG, or other image formats as well as SVG graphics to PDF
- ▶ automatically format tables with all kinds of cell contents
- ▶ create PDF/X-1/3/4/5 documents for commercial printing
- ▶ create PDF/A-1/2/3 for archiving
- ▶ Create PDF/VT for transactional printing
- ▶ create Tagged PDF and PDF/UA for accessibility

PDFlib+PDI (PDF Import)

PDFlib+PDI includes all PDFlib functions, plus the PDF Import Library (PDI). With PDI you can open existing PDF documents and incorporate some pages into the PDFlib output. Use PDFlib+PDI for all PDFlib tasks plus the following:

- ▶ impose multiple PDF pages on a single sheet for printing
- ▶ add text, such as headers, footers, stamps, or page numbers to existing PDF pages
- ▶ place images, e.g. company logo, on existing pages
- ▶ add barcodes to existing PDF pages
- ▶ assemble existing PDF pages
- ▶ add content to PDF/A, PDF/X or PDF/UA documents

PDFlib Personalization Server (PPS) and PDFlib Block Plugin

The PDFlib Personalization Server (PPS) includes PDFlib+PDI plus additional functions for variable data processing using PDFlib Blocks. PPS makes applications independent from layout changes. The designer creates the page layout and converts it to PDF. She takes into account areas as placeholders for variable text and images. In Acrobat she drags a rectangular Block for each area using the PDFlib Block Plugin. Each Block contains a variety of Block properties, such as font size, color, image scaling. The PDFlib Block Plugin offers a Preview feature which shows the results of filling Blocks according to the specified properties.

The programmer writes code to fill PDFlib Blocks with text, images, vector graphics or PDF pages. He doesn't need to know the formatting or position of a Block. Use PPS for all PDFlib+PDI tasks plus the following:

- ▶ customize direct mailings with text and images
- ▶ fill templates for transactional and statement processing
- ▶ personalize promotional material with address data
- ▶ generate individual parts catalogs from a database
- ▶ produce customized documentation for multiple products

What's new in PDFlib 9?

Create PDF/A-2 and PDF/A-3

PDFlib supports two new parts of the PDF/A standard for archiving. PDF/A-2 is based on PDF 1.7 and supports transparency, JPEG 2000 compression, layers, and many other features. While PDF/A-2 allows embedding of PDF/A-1 and PDF/A-2 documents, PDF/A-3 allows embedding of arbitrary file types.

Create Tagged PDF and PDF/UA

Creating Tagged PDF is much easier through various convenience features, such as abbreviated tagging and automatic tagging of Artifacts. PDFlib's table formatter automatically tags tables. Tagged PDF documents including structure elements can be imported with PDI.

Accessible documents can be created according to the PDF/UA standard (Universal Accessibility). PDF/UA is based on PDF 1.7 and improves Tagged PDF for accessibility similar to WCAG 2.0 (Web Content Accessibility Guidelines) in the Web world.

Create PDF/VT

PDF/VT is a standard for optimized PDF for variable and transactional printing. PDFlib can create output which conforms to PDF/VT-1, PDF/VT-2 or PDF/VT-2s according to ISO 16612-2 for Variable Document Publishing (VDP). Document Part Metadata (DPM) can be attached according to the PDF/VT standard.

Import Scalable Vector Graphics (SVG)

PDFlib imports vector graphics in the SVG format. SVG is the standard format for vector graphics on the Web, and is supported by all mainstream browsers.

Font handling and text output

PDFlib's font engine and text processing have been enhanced in several ways:

- ▶ ideographic variation sequences (IVS) for CJK variant glyphs;
- ▶ WOFF fonts (Web Open Font Format), a new container format for TrueType and OpenType fonts specified by the W3C
- ▶ SVG fonts, i.e. vector fonts specified in SVG format
- ▶ CEF fonts (Compact Embedded Font), a variant of OpenType used for embedding fonts in SVG graphics
- ▶ support for all Unicode normalization forms (NFC, NFKC etc.)
- ▶ automatically create UPR font configuration files with all fonts found in an arbitrary number of directories

Import PDF documents with PDFlib+PDI

The following features are new in the PDF Import library PDI:

- ▶ Tagged PDF documents including structure elements can be imported.
- ▶ Layer definitions can be imported.

PDFlib Personalization Server (PPS) and Block Plugin

The following features are new in PPS:

- ▶ The new Block type »Graphics« can be used to fill PDFlib Blocks with SVG graphics.
- ▶ PDFlib Blocks can be imported with PPS in addition to the Block Plugin.
- ▶ A few new Block properties have been introduced.

Create PDFlib Blocks programmatically

In addition to creating PDFlib Blocks interactively with the PDFlib Block Plugin, PDFlib Blocks can be created programmatically with PPS. Existing PDFlib Blocks in imported documents can be copied to the generated PDF output. These features enable advanced document composition workflows where templates for PPS can themselves be built programmatically.

PDF Object Creation API (POCA)

POCA provides a set of methods for creating low-level PDF objects which are included in the generated PDF output. POCA can be used for the following purposes:

- ▶ create Document Part Metadata (DPM) for PDF/VT
- ▶ programmatically create PDFlib Blocks for use with PPS
- ▶ create argument lists for rich media annotations (e.g. Flash)

Embed multimedia content

PDFlib can create rich media annotations with Flash, Sound, Movie, or 3D content. The multimedia content can be controlled with JavaScript and PDF actions. The following new multimedia features are available:

- ▶ rich media annotations
- ▶ rich media execute actions
- ▶ Flash-based navigators for custom presentation of PDF portfolios

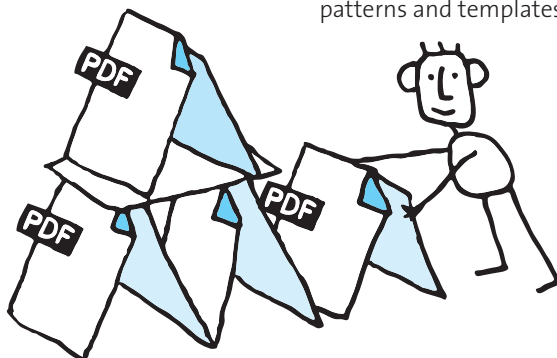
Enhanced encryption algorithm

PDFlib supports PDF document encryption according to Acrobat X/XI. This encryption scheme is based on AES-256 and is specified in PDF 1.7 Adobe extension level 8 and PDF 2.0 according to ISO 32000-2.

Other enhancements

The following enhancements have been implemented:

- ▶ improvements in the Table and Textflow formatters
- ▶ several convenience functions for creating path objects with geometric shapes
- ▶ enhanced support for importing JPEG 2000 raster images
- ▶ query details of files in the PDFlib Virtual Filesystem (PVF)
- ▶ Removed most restrictions related to function scopes, e.g. pages, patterns and templates can now be nested arbitrarily.



Common Features in PDFlib, PDFlib+PDI, and the PDFlib Personalization Server

PDF flavors	PDF 1.4 – PDF 1.7 extension level 8* and PDF 2.0 (Acrobat 5–XI)
	Linearized (web-optimized) PDF for byteserving over the Web
	High-volume output and arbitrary PDF file size (beyond 10 GB)
ISO standards for PDF	ISO 32 000-1: standardized version of PDF 1.7
	ISO 32 000-2 (draft): PDF 2.0*
	ISO 15 930: PDF/X-1/3/4/5 for the graphic arts industry
	ISO 19 005-1/2/3: PDF/A-1/2/3 for archiving*
	ISO 16612-2: PDF/VT-1/2 for variable and transactional printing*
	ISO 14289-1: PDF/UA-1 for universal accessibility*
Fonts	TrueType (TTF and TTC) and PostScript Type 1 fonts
	OpenType fonts with PostScript or TrueType outlines (TTF, OTF)
	WOFF fonts (Web Open Font Format), a W3C-specified container format for fonts on the Web*
	CEF fonts (Compact Embedded Font), a variant of OpenType used for embedding fonts in SVG*
	SVG fonts, i.e. fonts which use the SVG format for describing glyph outlines*
	Support for dozens of OpenType layout features for Western and CJK text output, e.g. ligatures, small caps, old-style numerals, swash characters, simplified/traditional forms, vertical alternates
	Directly use fonts which are installed on the Windows or Mac system («host fonts»)
	Font embedding for all font types; subsetting for TrueType, OpenType, and Type 3 fonts
	User-defined (Type 3) fonts for bitmap fonts or custom logos
	EUDC and SING fonts (glyphlets) for CJK Gaiji characters
	Fallback fonts (pull missing glyphs from an auxiliary font)
Text output	Text output in different fonts; underlined, overlined, and strikeout text
	Glyphs in a font can be addressed by numerical value, Unicode value, or glyph name
	Kerning for improved character spacing
	Artificial bold, italic, and shadow text
	Create text on a path
	Configurable replacement of missing glyphs
Accessibility	Create Tagged PDF for accessibility, page reflow, and improved content repurposing
	Simplified tagging by directly supplying tagging information to all content placement functions*
	Automatic table and artifact tagging*
	PDF/UA for universal accessibility, WCAG 2.0 (Web Content Accessibility Guidelines)*
	Additional structure element types and attributes*
Internationalization	Unicode strings for page content, interactive elements, and file names; UTF-8, UTF-16, and UTF-32 formats; support for all Unicode normalization forms*
	Support for a variety of 8-bit and legacy multi-byte CJK encodings (e.g. Shift-JIS; Big5)
	CJK fonts and CMaps for Chinese, Japanese, and Korean text
	Ideographic variation sequences (IVS) for CJK variant glyphs*
	Vertical writing mode for Chinese, Japanese, and Korean text
	Character shaping for complex scripts, e.g. Arabic, Thai, Devanagari
	Bidirectional text formatting for right-to-left scripts, e.g. Arabic and Hebrew
SVG vector graphics	Import vector graphics in SVG format*
Images	Embed BMP, GIF, PNG, TIFF, JBIG2, JPEG, JPEG 2000, and CCITT raster images
	Query image information (pixel size, resolution, ICC profile, clipping path, etc.)
	Interpret clipping paths in TIFF and JPEG images
	Interpret alpha channel (transparency) in TIFF and PNG images

	Image masks (transparent images with a color applied), colorize images with a spot color
Color	Grayscale, RGB (numerical, hexadecimal strings, HTML color names), CMYK, CIE L*a*b* color
	Integrated support for PANTONE® (incl. PANTONE® Goe™ and PANTONE+)* and HKS® colors
	User-defined spot colors
Color management	ICC-based color with ICC profiles; support for ICC 4 profiles
	Rendering intent for text, graphics, and raster images
	ICC profiles as output intent for PDF/A and PDF/X
Archiving	PDF/A-1a/1b, PDF/A-2a/b/u and PDF/A-3a/b/u
	XMP extension schemas for PDF/A
Graphic arts	PDF/X-1a, PDF/X-3, PDF/X-4, PDF/X-4p, PDF/X-5p, PDF/X-5pg
	Embedded or externally referenced output intent ICC profile
	External graphical content (referenced pages) for PDF/X-5p and PDF/X-5pg
	Settings for overprint, text knockout, etc.
Variable Document Printing (VDP)	PDF/VT-1, PDF/VT-2, and PDF/VT-2s for variable and transactional printing*
Textflow Formatting	Format text into one or more rectangular or arbitrarily shaped areas with hyphenation (user-supplied hyphenation points required), font and color changes, justification methods, tabs, leaders, control commands
	Advanced line-breaking with language-specific processing
	Flexible image placement and formatting
	Wrap text around images or image clipping paths
Table formatting	Table formatter places rows and columns, and automatically calculates their sizes according to a variety of user preferences. Tables can be split across multiple pages.
	Table cells can hold single- or multi-line text, images, vector graphics*, PDF pages, path objects, annotations, and form fields
	Table cells can be formatted with ruling and shading options
	Flexible stamping function
	Matchbox concept for referencing the coordinates of placed images or other objects
Graphics	Common vector graphics primitives: lines, curves, arcs, ellipses, rectangles, etc.
	Smooth shadings (color blends), pattern fills and strokes
	Transparency (opacity) and blend modes
	External graphical content (Reference XObjects) for variable document printing
	Reusable path objects and clipping paths imported from images
Layers	Optional page content which can selectively be displayed
	Annotations and form fields can be placed on layers
Security	Encrypt PDF document or attachments with 128/256-bit AES* or RC4 128-bit encryption
	Unicode passwords
	Document permission settings (e.g. printing or copying not allowed)
Interactive elements	Create form fields with all field options and JavaScript
	Create barcode form fields
	Create actions for bookmarks, annotations, page open/close and other events
	Create bookmarks with a variety of options and controls
	Page transition effects, such as shades and mosaic
	Create all PDF annotation types, such as PDF links, launch links (other document types), Web links
	Named destinations for links, bookmarks, and document open action
	Create page labels (symbolic names for pages)
Multimedia	Embed 3D animations in PDF
	Embed Flash, Sound, Movie, and 3D content in PDF and control it with JavaScript*

	Flash-based navigators for custom presentation of PDF portfolios*
Georeferenced PDF	Create PDF with geospatial reference information
Metadata	Document information: common fields (Title, Subject, Author, Keywords) and user-defined fields
	Create XMP metadata from document info fields or from client-supplied XMP streams
	Process XMP image metadata in TIFF, JPEG, JPEG 2000 images and SVG graphics*
Programming	Language bindings for Cobol, COM, C, C++, Objective C, Java, .NET, Perl, PHP, Python, REALbasic, RPG, Ruby
	Virtual file system for supplying data in memory, e.g., images from a database
	Generate PDF documents on disk file or directly in memory (for Web servers)
* New or considerably improved in PDFlib/PDFlib+PDI/PPS 9	

Additional Features in PDFlib+PDI and the PDFlib Personalization Server

PDF input (PDI)	Import pages from existing PDF documents
	Import all PDF versions up to PDF 1.7 extension level 8 (Acrobat X/XI) and PDF 2.0
	Import documents which are encrypted with any of PDF's standard encryption algorithms*
	Query information about imported pages
	Clone page geometry of imported pages (e.g. BleedBox, TrimBox, CropBox)
	Delete redundant objects (e.g. identical fonts) across multiple imported PDF documents
	Repair malformed input PDF documents
	Copy PDF/A or PDF/X output intent from imported PDF documents
	Import Tagged PDF documents including structure hierarchy*
	Import layer definitions (optional content)*
pCOS interface	pCOS interface for querying details about imported PDF documents
*New or considerably improved in PDFlib+PDI and PPS 9	

Additional Features in the PDFlib Personalization Server (PPS)

Variable Document Printing (VDP)	PDF personalization with PDFlib Blocks for text, image, PDF data, or SVG vector graphics*
PDFlib Block Plugin	PDFlib Block plugin for creating PDFlib Blocks interactively in Acrobat on Windows and Mac
	Create PDFlib Blocks programmatically with PPS
	Copy PDFlib Blocks from imported documents1
PDFlib Block Plugin	PDFlib Block plugin for creating PDFlib Blocks interactively in Acrobat on Windows and Mac
	Preview PPS Block filling in Acrobat
	Copy Blocks to Preview file*
	Snap-to-grid for interactively creating or editing Blocks in Acrobat
	Clone PDF/X or PDF/A properties of the Block container*
	Convert PDF form fields to PDFlib Blocks for automated filling
	Textflow Blocks can be linked so that one Block holds the overflow text of a previous Block
	PANTONE® and HKS® spot color names integrated in the Block plugin*
*New or considerably improved in PPS 9	

Supported Development Environments

PDFlib is everywhere – it runs on practically all computing platforms. We offer 32- and 64-bit variants for all common flavors of Windows, Mac OS X, Linux and Unix, as well as for IBM iSeries/i5 and zSeries mainframes.

The PDFlib core is written in highly optimized C code for maximum performance and small overhead. Via a simple API (Application Programming Interface) the PDFlib functionality is accessible from a variety of development environments:

- ▶ COM for use with VB, ASP, etc.
- ▶ C and C++
- ▶ Cobol (IBM zSeries)
- ▶ Java, including servlets and JSP
- ▶ .NET for use with C#, VB.NET, ASP.NET, etc.
- ▶ Objective-C (Mac OS X, iOS)
- ▶ PHP
- ▶ Perl
- ▶ Python
- ▶ REALbasic
- ▶ RPG (IBM iSeries/i5)
- ▶ Ruby, including Ruby on Rails

Benefits of using PDFlib Software

Rock-solid Products

Tens of thousands of programmers worldwide are working with our software. PDFlib products meet all quality and performance requirements for server deployment. All products are suitable for robust 24x7 server deployment and unattended batch processing.

Speed and Simplicity

PDFlib products are incredibly fast – up to thousands of pages per second. The programming interface is straightforward and easy to learn.

PDFlib Products all over the World

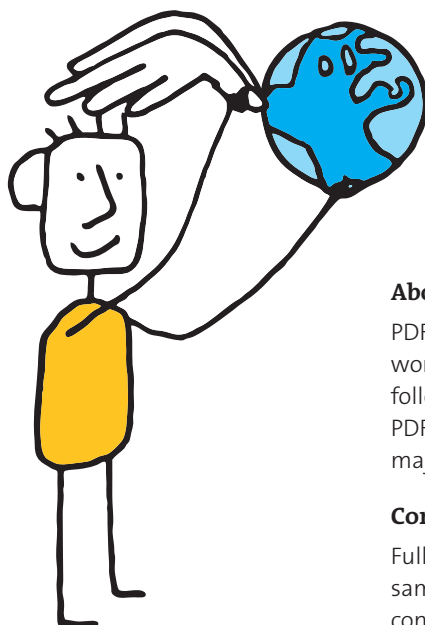
Our products support all international languages as well as Unicode. They are used by customers in all parts of the world.

Professional Support

If there's a problem, we will try to help. We offer commercial support to meet the requirements of your business-critical applications. By adding support you will have access to the latest versions, and have guaranteed response times should any problems arise.

Licensing

We offer various licensing programs for server licenses, integration and site licenses, and source code licenses. Support contracts for extended technical support with short response times and free updates are also available.



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