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, macOS, Linux and Unix, as well as for IBM System i and IBM Z.

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:

- C and C++
- Java
- .NET and .NET Core
- Objective-C (macOS and iOS) and Swift
- Perl
- PHP
- Python
- RPG (IBM System i)
- Ruby

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 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.

About PDFlib GmbH

PDFlib GmbH is completely focused on PDF technology. Customers are using our products since 1997. In 2006 we were one of the founding members of the PDF Association (formerly PDF/A Competence Center). The company closely follows development and market trends such as ISO standards for PDF. PDFlib GmbH products are distributed all over the world with major markets in Europe, North America and Japan.

Contact

Fully functional evaluation versions are available on our Web site. For more information please contact:

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phone +49 • 89 • 452 33 84-0
www.pdflib.com sales@pdflib.com

Additional Features in PDFlib+PDI and the PDFlib Personalization Server (PPS)

PDF input (PDI)	Import pages from existing PDF documents
	Import all PDF versions
	Import encrypted documents
	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 pages from Tagged PDF documents including structure elements
	Import layer definitions (optional content)
pCOS interface	pCOS interface for querying details about imported PDF documents (see separate pCOS datasheet)

Additional Features in the PDFlib Personalization Server (PPS)

Variable Document Printing (VDP)	PDF personalization with PDFlib Blocks which can be filled with text, image, PDF data, or SVG graphics
	Create PDFlib Blocks programmatically with PPS
	Copy PDFlib Blocks from imported documents1
PDFlib Block Plugin	PDFlib Block Plugin for creating PDFlib Blocks interactively with Adobe Acrobat
	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

Color management	ICC-based color with ICC profiles
	Rendering intent for text, graphics, and raster images
	ICC profiles as output intent for PDF/A and PDF/X; multi-colorant profiles for PDF/X-5n
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-3, PDF/X-4, PDF/X-4p, PDF/X-5n
	Embedded or externally referenced output intent ICC profile
	Overprint and text knockout
Variable Document Printing (VDP)	PDF/VT-1 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
	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, SVG graphics, PDF pages, path objects, annotations, and form fields
	Table cells can be formatted with ruling and shading options
	Matchbox concept for referencing the coordinates of placed images or other objects
Vector graphics	Common vector graphics primitives: lines, curves, arcs, ellipses, rectangles, etc.
	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
	Unicode passwords
	Document permission settings, e.g. printing or copying not allowed
Interactive elements	Create form fields with all field options and JavaScript
	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 (comments) 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 Sound and Movie in PDF and control it with JavaScript
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 XMP streams
	User-supplied custom XMP metadata
	Process XMP image metadata in TIFF, JPEG, JPEG 2000 and SVG
Programming	Language bindings for C, C++, Java, .NET and .NET Core, Objective C, Perl, PHP, Python, 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
Embedded Systems	PDFlib Mini Edition (ME) with reduced memory requirements

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
	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: PDF 2.0 (including dated revision ISO 32000-2:2020)
	ISO 15 930: PDF/X-3/4/5 for data exchange the graphic arts industry
	ISO 19 005-1/2/3: PDF/A-1/2/3 for archiving
	ISO 16612-2: PDF/VT-1 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, OTC)
	WOFF fonts (Web Open Font Format)
	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
	Access fonts which are installed on Windows or macOS
	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 (use missing glyphs from another font)
Text output	Text output in different fonts; underlined, overlined, and strikeout text
	Glyphs in a font can be addressed by numerical value, Unicode or glyph name
	Kerning for improved character spacing
	Artificial bold, italic, and shadow text
	Text on a path
	Configurable replacement of missing glyphs
Accessibility	Create Tagged PDF for accessibility
	Tagging of interactive elements, e.g. annotations and form fields
	Automatic table and artifact tagging
	PDF/UA-1 for universal accessibility
Internationalization	Full Unicode support
	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; ICC profiles; CMYK and spot colors in SVG, CSS
Images	Load BMP, GIF, PNG, TIFF, JBIG2, JPEG, JPEG 2000, and CCITT raster images
	Query image information (pixel size, resolution, ICC profile, clipping path, etc.)
	Use clipping path in TIFF and JPEG images
	Use alpha channel (transparency) in TIFF and PNG images
	Image masks (transparent images with a color applied), colorize images with a spot or DeviceN color
Color	Grayscale, RGB (numerical, hexadecimal, HTML color names), CMYK, CIE L*a*b* color
	Integrated support for PANTONE® and HKS® colors
	DeviceN (n-colorant) color space based on process or spot colors
	User-defined spot color
	Color gradients (smooth shadings) between process colors or spot colors, pattern fills and strokes

What's new in PDFlib 9?

PDF/A-2 and PDF/A-3

PDFlib supports two additional 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.

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.

Accessible documents can be created according to PDF/UA-1 (Universal Accessibility). PDF/UA is based on PDF 1.7 and improves Tagged PDF for accessibility.

PDF/X

PDFlib supports PDF/X-3 and PDF/X-4/4p, as well as PDF/X-5n for exchange of n-colorant production files, e.g. in the packaging industry.

PDF/VT

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

Scalable Vector Graphics (SVG)

PDFlib imports vector graphics in the SVG format. SVG is the standard format for vector graphics on the Web. PDFlib supports ICC profiles, CMYK and spot color in SVG.

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
- automatically create UPR font configuration files with all fonts found in an arbitrary number of directories

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

Multimedia contents

PDFlib can create rich media annotations with 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

Enhanced encryption algorithm

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

What's new in PDFlib 9.1, 9.2 and 9.3?

PDFlib 9.1 introduces new features related to color handling:

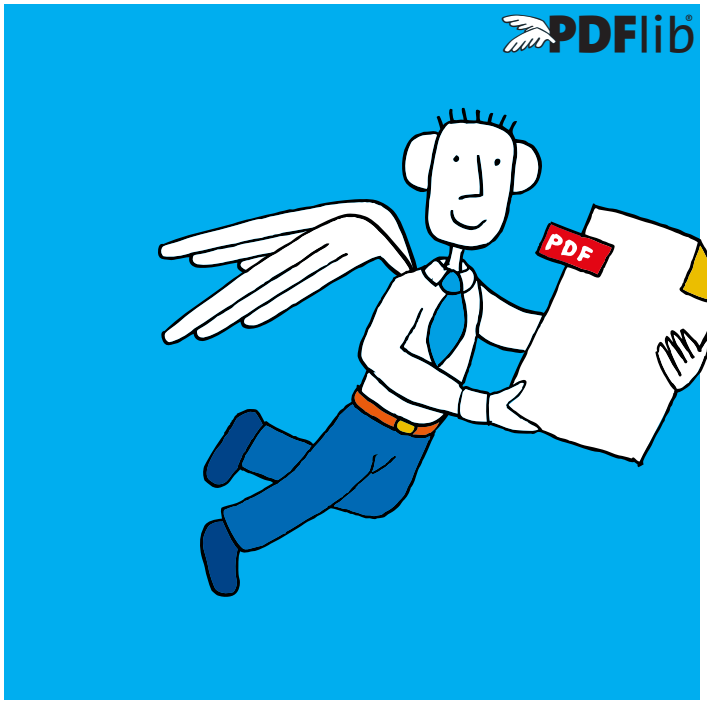
- support for n-colorant color spaces (DeviceN and NChannel)
- PDF/X-5n for exchange of n-colorant production files, e.g. in the packaging industry
- SVG color extension for ICC profiles, spot and DeviceN color as well as Gray/RGB/CMYK device color
- PANTONE Extended Gamut Coated (XGC) spot colors and PANTONE Plus 2016 update
- color gradients with an arbitrary number of stop colors for enhanced color blends
- color gradients between different spot colors, e.g. a blend of PANTONE colors

PDFlib 9.2 introduces additional features:

- .NET Core language binding
- convenience features for PDF/UA and PDF/X creation
- improved import of Tagged PDF pages
- optimized TrueType subsetting with reduced file size
- reduced memory requirements for PDFlib Mini Edition (ME)

PDFlib 9.3 introduces additional features:

- create form field appearances as a requirement for using fields in PDF/A
- improved Tagged PDF import to correctly handle certain constructs which previously triggered errors in PDF/UA validators
- Tagged PDF and PDF/UA-1 enhancements according to the »Tagged PDF Best Practice Guide« published by the PDF Association
- identify all deprecated API features in anticipation of their future removal



datasheet

PDFlib, PDFlib+PDI, PDFlib Personalization Server (PPS) 9.3

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-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-1 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 developer 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