Release Notes

3-Heights™ and Classic PDF Tools

Version 4.9

PDF-TOOLS.COM
Premium PDF Technology

Contents

1 Overview

The 3-Heights™ PDF tools represent the most recent product line from PDF Tools AG. The 3-Heights™ PDF tools are available as programming libraries (APIs), command line tools and Windows services. The tools allow for a wide variety of manipulation of PDF files including viewing, printing, extracting of information, conversion, digitally signing, validation, repairing, and optimization.

The Classic PDF Tools (formerly known as GLANCE Tools) represent the original product line from PDF Tools AG. Similar to the 3-Heights™ product line the Classic PDF Tools are available as programming libraries (APIs) and command line shell versions but not Windows services. The tools are packaged in two products, the Command Line Suite and the Prep Tool Suite.

1.1 How to Download the Trial Software

The 3-Heights™ PDF tools can be downloaded from the product description pages on `https://www.pdf-tools.com/`. There is no charge for downloading product kits and evaluation license keys (valid for a 30 day period).

1.2 Technical Support

Please report problems by contacting our support team by mail: `pdfsupport@pdf-tools.com`

1.3 Operating Systems

Most of the products are available for the following operating systems:

- Windows 7, 8, 8.1, 10 – 32 and 64 bit
- Windows Server 2008, 2008 R2, 2012, 2012 R2, 2016 – 32 and 64 bit
- HP-UX 11i and later PA-RISC2.0 – 32 bit
- HP-UX 11i and later ia64 (Itanium) – 64 bit
- IBM AIX 6.1 and later – 64 bit
- Linux 2.6 – 32 and 64 bit
- Oracle Solaris 2.8 and later, SPARC and Intel
- FreeBSD 4.7 and later (32 bit) or FreeBSD 9.3 and later (64 bit, on request)
- macOS 10.4 and later – 32 and 64 bit

Windows Vista is no longer supported by this version.

Some tools are only available on Windows platforms. These are:

- PDF Producer
- Document Converter
- The components which are based on the GDI-based rendering engine: PDF Viewer, PDF Printer, PDF to EMF Converter

Some GDI-based tools have been ported to the new rendering engine which is available on all platforms. These tools have the suffix R2 in their names such as the PDF-to-Image Converter R2.

Other platforms are available on request. Please refer to the individual product information on the website or in the respective manual to obtain information on supported operating system platforms.

1.4 Compiler Versions

The release kits are generated with the following compiler versions for C/C++:

Platform	C/C++
Windows	MSVC 12.0
macOS 10.5 x86	gcc 4.0.1
Linux Intel/x86	gcc 4.1.2
Linux Intel/x64	gcc 3.4.6
Linux Intel/x64	gcc 4.5.0
FreeBSD Intel/x64	gcc 4.1.2
Oracle Solaris 5.10/SPARC	gcc 3.4.6
Oracle Solaris 5.10/Intel	gcc 3.4.3
IBM AIX 6.1	gcc 4.2.4
HP UX 11.i (11.23)	gcc 4.1.2
HP UX 11.23 IA64	gcc 4.6.0
Raspian 7/Linux 3.18 ARMv7	gcc 4.6.3

1.5 Runtime Environment

The Windows variants of the components have been compiled with Visual Studio 2013. The C++ based components are statically linked so there is no need for a redistributable package.

The C++ code has been compiled and linked using the v120_xp toolset. Although, the software may run on Windows XP systems we only provide support for operating systems which are listed under system requirements.

.NET based components such as the 3-Heights™ Document Converter, the 3-Heights™ Document Assembler and the 3-Heights™ PDF Viewer, are compiled with version 2.0 of the .NET Framework. Although the code has been developed using C#, these components may require a C++ redistributable package as they are combined with native C++ code.

For Java, version 1.6 is required as minimum runtime version.

2 New and Enhanced Products

2.1 3-Heights™ Document Converter Client

New Document Converter Client GUI application that offers these features:

- Define profiles using a set of Document Converter options.
- Support Window Modes **NoDialog**, **OutputDialog** and **PreviewDialog**.
- Support Connection Modes **Network** or **Webservice** (Connection to the Document Converter)
- Output document preview including text selection, navigation, zoom and page layout.
- Manipulate pages (merge documents, delete single pages, change page order).

2.2 3-Heights™ PDF Producer

- Support for color profiles (Output Intent).

2.3 3-Heights™ PDF Tools PHP5.6 Extension

The 3-Heights™ PDF Tools PHP5.6 Extension provides a PHP interface for the 3-Heights™ PDF Merge Split, the 3-Heights™ PDF Optimizer and the 3-Heights™ PDF to PDF/A Converter. This product is supported for PHP 5.6 (Non Thread Safe) on Windows and Linux environments.

2.4 3-Heights™ PDF Tools PHP7.0 Extension

The 3-Heights™ PDF Tools PHP7.0 Extension provides a PHP interface for the 3-Heights™ PDF Merge Split, the 3-Heights™ PDF Optimizer and the 3-Heights™ PDF to PDF/A Converter. This product is supported for PHP 7.0 (Non Thread Safe) on Windows and Linux environments.

3 New Features to all Products

The following enhancements affect all components and solutions unless otherwise noted.

3.1 Enhancements to all 3-Heights™ Products

- Improved support for and robustness against corrupt input PDF documents.
- Improved repair of embedded font programs that are corrupt.
- Support OpenType font collections in installed font collection.
- Improved metadata generation for standard PDF properties.
- [C] **Changed** return value `pfGetLength` of `TPDFStreamDescriptor` to `pos_t`[1].

3.2 Enhancements to all Classic Products

No functional changes.

---

[1] This has no effect on neither the .NET, Java, nor COM API

4 New Features to Specific Products

4.1 3-Heights™ AFP to TIFF Conversion Utility

No functional changes.

4.2 3-Heights™ Certificate Store Utility for PKCS#11

No functional changes.

4.3 3-Heights™ PDF Document Assembler

- **New** feature PDF optimization (requires a valid license of 3-Heights™ PDF Optimizer API)

4.4 3-Heights™ Document Converter

- **New** Document Converter Client application
- **New msg2eml** conversion tool, improves the performance and stability of Outlook Mail conversions.
- **New HTML Optimization Tool**, improves the performance and flexibility for HTML conversions.

4.5 3-Heights™ Font to PDF Utility

No functional changes.

4.6 3-Heights™ Image Compare Utility

No functional changes.

4.7 3-Heights™ Image to PDF Converter

Shell img2pdf

- **New** option -h: Set the dithering algorithm.
- **New** option -b: Set the color depth. Available: Bi-tonal: 1. When using 1 bit per pixel, it is suggested to set a suitable dithering algorithm.

Service Img2PdfSvr

- **New** option -h: Set the dithering algorithm.
- **New** option -b: Set the color depth. Available: Bi-tonal: 1. When using 1 bit per pixel, it is suggested to set a suitable dithering algorithm.

API `Img2PdfAPI`

- [.NET, C, COM, Java] **New** property `Dithering`: Get or set the dithering algorithm.
- [.NET, C, COM, Java] **Changed** property `BitsPerPixel`: Get or set the color depth. Available: Bi-tonal: 1. When using 1 bit per pixel, it is suggested to set a suitable dithering algorithm.

4.8 3-Heights™ JPM to PDF Converter

No functional changes.

4.9 3-Heights™ OCR Enterprise Add-on

No functional changes.

4.10 3-Heights™ PDF Analysis & Repair

- Improved support for recovering certain corruption types.

4.11 3-Heights™ PDF Annotation API

No functional changes.

4.12 3-Heights™ PDF Checker API

No functional changes.

4.13 3-Heights™ PDF Compare Utility

No functional changes.

4.14 3-Heights™ PDF Color

Shell `pdfcolor`

- **New** option `-oi`: list and accept color values as integers.

4.15 3-Heights™ PDF Creator Library

No functional changes.

4.16 3-Heights™ PDF Extract

API PdfExtractAPI

Interface Document

- [.NET, C, Java] **New** method OpenStream().

Interface Content

- [.NET, C, COM, Java] **Un-Deprecated** properties ConvertPathToImage, PathImageAntiAlias, PathI-mageBGColor, and PathImageResolution. The "paths as images" feature has been fully re-implemented with the rendering engine R2.

4.17 3-Heights™ PDF Merge Split

Shell pdfsplmrg

The tool allows adding of embedded or associated files by means of the following new options:

- **New** option -ae
- **New** option -aea
- **New** option -aed
- **New** option -aem
- **New** option -aen
- **New** option -aer
- **New** option -aes

API PdfSplMrgAPI

- [PHP] **New** Interface for Windows and Linux. Supported versions are PHP 5.6 & 7.0 (Non Thread Safe). The Pd-fSplMrgAPI PHP Interface is contained in the 3-Heights™ PDF Tools PHP5.6 Extension and the 3-Heights™ PDF Tools PHP7.0 Extension.

4.18 3-Heights™ PDF OCR API

No functional changes.

4.19 3-Heights™ PDF Optimizer

Shell pdfoptimize

- **Changed** option -pr: The max profile includes color conversion to RGB.
- **New** option -ri: Remove images by replacing them with empty XObjects.
- **New** option -sfs: Allows to flatten the visual appearance of digital signatures. (During optimization, digital signatures are always removed.)

Service `PdfOptimizeSvr`

- **Changed** option `-pr`: The `max` profile includes color conversion to RGB.
- **New** option `-ri`: Remove images by replacing them with empty XObjects.
- **New** option `-sfs`: Allows to flatten the visual appearance of digital signatures. (During optimization, digital signatures are always removed.)

API `PdfOptimizeAPI`

- [PHP] **New** Interface for Windows and Linux. Supported versions are PHP 5.6 & 7.0 (Non Thread Safe). The `PdfOptimizeAPI` PHP Interface is contained in the 3-Heights™ PDF Tools PHP5.6 Extension and the 3-Heights™ PDF Tools PHP7.0 Extension.
- [.NET, C, COM, Java] **New** property `FlattenSignatureFields`: Allows to flatten the visual appearance of digital signatures. (During optimization, digital signatures are always removed.)
- [.NET, C, COM, Java] **Changed** property `Profile`: Setting this property to `eOptimizationProfileMax` sets the property `ColorConversion` to `eConvRGB`.
- [.NET, C, COM, Java] **New** property `RemoveImages`: Remove images by replacing them with empty XObjects.

4.20 3-Heights™ PDF Page Split Tool

No functional changes.

4.21 3-Heights™ PDF Printer

- Size of spool files optimized for pages that contain transparency.

Shell `pdprint`

- **Changed** option `-ob`: New Rendering Engine 2.0 is used.
- **New** option `-st`: Check printer status before printing.
- **Changed** option `-pg`: Negative Integers can be used to address pages from the back of the document. I.e. page -2 is the second to last page.
- **Deprecated** option `-e`: Datatype can now be set using option `-dt`.
- **New** option `-dt`: Option to set datatype to RAW, EMF or inherit default from driver.

Service `PdfPrintSvr`

- **Changed** option `-pg`: Negative Integers can be used to address pages from the back of the document. I.e. page -2 is the second to last page.
- **Deprecated** option `-e`: Datatype can now be set using option `-dt`.
- **New** option `-dt`: Option to set datatype to RAW, EMF or inherit default from driver.

API `PrinterOCX`

- **Changed** option `eOptionBitmap`: New Rendering Engine 2.0 is used.
- [.NET, Java] **New** method `OpenStream()`.
- **Changed** option `DataType`: Datatype can be set to nullto inherit datatype from driver.

4.22 3-Heights™ PDF Producer

- Support for color profiles (Output Intent).

4.23 3-Heights™ PDF Security

- Before signing missing appearance streams of form fields are created, because otherwise Adobe® Acrobat® cannot validate the signature.
- Stamping:
  - **New** tag `<link>` to add interactive web links.
  - **New** tag `<text>` allows to format spans in continuous text using nested `<span>` tags.

Shell Tool `pdfsecure`

- **New** option `-rs` to remove signature fields.
- **New** options `-spc` and `-sps` to create and sign signature preview documents.
- **New** options `-ss` and `-sf` to sign a documents using a signature created by an extrenal cryptographic provider that provides the cryptographic signature as a file.

Interface `Secure`

- [.NET] **New** methods `OpenStream()` and `SaveAsStream()`.
- [.NET, C, Java] **New** methods `GetRevisionFile()` and `GetRevisionStream()`.
- [.NET, C, COM, Java] **New** property `ForceIncrementalUpdate`.

4.24 3-Heights™ PDF Studio Utility

- Improved display of strings.
- Improved display of signatures, form fields and widgets.
- Improved display of annotations and popups.
- Improved display of structure elements.

4.25 3-Heights™ PDF Thumbnail Utility

No functional changes.

4.26 3-Heights™ PDF to EMF Converter

No functional changes.

4.27 3-Heights™ PDF to Image Converter

Shell `pdf2img` and `pdf2imgR2`

No functional changes.

Shell `pdf2pdfimg`

- **New** option `-ob` to render content using Rendering Engine R2.
- **New** option `-oat` to not remove non-transparent text when using Rendering Engine R2.

Services `Pdf2ImgSvr` and `Pdf2ImgSvrR2`

No functional changes.

API `Pdf2ImgAPI`

- [.NET, C, Java] **New** method `OpenStream()`.
- [.NET, C, COM, Java] **New** property `ErrorMessage` to obtain a message about the occurred error in the most recent API call.

4.28 3-Heights™ PDF to PDF/A Converter

- Various new conversion features, e.g. improved conversion of TrueType font programs, ICC color profiles, or creation of annotation appearances.
- Supports bold font simulation if only non-bold font is available in installed font directories.
- The pre-analysis is now more strict, especially in certain corner cases of the PDF/A ISO Standard for which a conversion is strongly advised.
- Improved conversion of .notdef character for PDF/A-2 and PDF/A-3.
- **New** generate conversion error `ePDFConversionErrorVisualDiff` (4):
  - When text in input file is ambiguous.
  - When XFA (XML Forms Architecture) form data is removed.
  - When visual appearance of annotation cannot be created.

`Pdf2PdfAPI`

- [PHP] **New** Interface for Windows and Linux. Supported versions are PHP 5.6 & 7.0 (Non Thread Safe). The `Pdf2PdfAPI` PHP Interface is contained in the 3-Heights™ PDF Tools PHP5.6 Extension and the 3-Heights™ PDF Tools PHP7.0 Extension.

4.29 3-Heights™ PDF Toolbox API

Interface Document

- [.NET, C, Java] **New** method `CreateAlphaPaint`: Create transparent paint using alpha blending that can be used for filling and stroking paths and text.
- [.NET, C, Java] **Changed** method `Create`: The behavior of the parameter `conformance` is now more consistent and predictable.
- [Java] **New**: MemoryStream implementation for Stream interface.

  Previous behavior:
  - If an explicit conformance was given, the value was changed silently if content from an incompatible document was added later.

- If no explicit conformance was given, using certain features would still lead to an error, depending on the currently determined conformance level.

   New behavior:
   - If an explicit conformance is given, the value is always respected.
   - If no explicit conformance is given, the value will always be determined automatically and no errors will occur.

- [.NET, C, Java] **Changed** behavior of methods `CopyPage` and `CopyPageAsForm`:
   These methods will now report an error when trying to copy from a document with a conformance incompatible to the conformance specified in the method `Create`.
- [.NET, C, Java] **Changed** behavior of methods `CreateFont` and `CreateSystemFont`:
   These methods will no longer report an error for non-embedded fonts, if the conformance was **automatically** determined to be PDF/A. The conformance is now changed to a suitable value instead.
   If the conformance was explicitly specified, the error is still reported.

Interface Transformation

- [.NET, C, Java] **New** method `RotateAround` to rotate around a specific point.

4.30 3-Heights™ PDF Uncompress Utility

No functional changes.

4.31 3-Heights™ PDF Validator

No functional changes.

4.32 3-Heights™ PDF Viewer

Desktop `viewer`

- Toggle between the classic rendering engine and R2 with `Ctrl+Shift+2`

API `PdfViewerOCX`

No functional changes.

API `PdfViewerAPI` R2

- [Java] **New** method to set the language of internal strings to a provided locale (e.g. context menu entries): `setLanguage()`. Currently supported languages: English ('en-US'), German ('de-DE') and French ('fr-FR')
- [Java] **New** method to open a file with a byte buffer: `openMem()`
- [Java] **New** method to open a file with a stream: `openStream()`
- [Java] **New** method to open a PDF file together with an FDF file: `openMem2()`
- [Java] **New** method to save file in a stream: `saveToMemory()`

API `PdfViewerWPF`

No functional changes.

4.33 3-Heights™ Scan to PDF Server

Component `Tiff.ConvertToPdf`

- **New** attribute `xmp-path` to add XMP metadata to the PDF.
- **New** attribute `fallback-color-profile-path` to specify a color profile for TIFFs that have none embedded.

Component `Folder.Files`

- **Changed** attribute `filter`: The attribute now accepts multiple filter strings separated by semicolon.
- **New** attribute `regex` to filter filenames by a regular expression.

4.34 3-Heights™ Signature Creation and Verification Service

- New implementation as Windows Communication Foundation (WCF) service.
  - Improved configuration. Note that during upgrade configuration files must be merged manually as described in the user manual.
  - Support multi-threaded operation.
  - Improved performance due to provider session caching.
  - More detailed logging and powerful logging configuration.
  - Upon request, the service is also available as IIS web application, e.g. to support HTTPS or advanced user authenticaion.
- Support provider session properties, e.g. `Proxy` or `LOCKING_OK`.
- New application configuration entry `LicenseKey`.
- Support local machine store of Windows Cryptographic Provider.

4.35 3-Heights™ Text to PDF Converter

No functional changes.

4.36 3-Heights™ TIFF Tool Suite

Shell Tool `tiff2pdf`

- **New** option `-cs`: Set default ICC profile for device-specific color spaces. Switch can be set for one RGB and one CMYK color space.

4.37 3-Heights™ TIFF Toolbox API

Interface Converter

- [.NET, C, Java] **New** method `SetDefaultColorSpace`: This color space is used in the output PDF for pages that have no ICC profile available in the corresponding page in the input TIFF. A default color space profile can be set for both RGB and CMYK.
- [Java] **New**: MemoryStream implementation for Stream interface.

4.38 3-Heights™ XMP Generator

No functional changes.

4.39 Classic PDF Command Line Suite

No functional changes.

4.40 Classic PDF Prep Tool Suite

No functional changes.

5 Licensing, Copyright, and Contact

PDF Tools AG is a world leader in PDF (Portable Document Format) software, delivering reliable PDF products to international customers in all market segments.

PDF Tools AG provides server-based software products designed specifically for developers, integrators, consultants, customizing specialists and IT-departments. Thousands of companies worldwide use our products directly and hundreds of thousands of users benefit from the technology indirectly via a global network of OEM partners. The tools can be easily embedded into application programs and are available for a multitude of operating system platforms.

Licensing and Copyright

This document is copyright protected; it may be copied and given away provided that it remains unchanged including the copyright notice.

Contact

PDF Tools AG
Kasernenstrasse 1
8184 Bachenbülach
Switzerland
http://www.pdf-tools.com
pdfsales@pdf-tools.com