Release Notes

3-Heights™ and Classic PDF Tools

Version 5.9.5

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 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, 2019 – 32 and 64 bit
- Linux 2.6 and later – 64 bit
- macOS 10.10 and later – 64 bit

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

- Document Converter
- PDF Printer

1.4 Compiler Versions

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

Platform	Compiler	Library
Windows	MSVC 14.0	toolset v141_xp
macOS 10.10 x64	clang 10.0.0	
Linux x64 (GLIBC2.17)	gcc 4.8	glibc 2.17
Linux x64 (GLIBC2.27)	gcc 7.3	glibc 2.27

1.5 Runtime Environment

The Windows variants of the components have been compiled with Visual Studio 2015. 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 v141_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 solutions and desktop applications such as the 3-Heights™ Document Converter, the 3-Heights™ Document Assembler and the 3-Heights™ PDF Viewer, are compiled with version 4.5.2 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 .NET components (API), version 2.0 of the .NET Framework is required.

For Java components (API), version 1.6 is required as minimum runtime version.

2 New Features to Classic Products

No functional changes.

3 New Features to 3-Heights™ Products

Some of the documented changes below may be preceded by a marker that specifies the interface technologies the change applies to. E.g. [C, Java] applies to the C and the Java interface.

3.1 3-Heights™ Document Converter

- **New** additional supported operating system: Windows Server 2019.
- **New** option to set a border when converting an image to PDF.
- **New** additional supported Office version: Microsoft Office 2019.
- **New** additional OCR processing options OCR.TEXTMODE, OCR.PAGEMODE, OCR.IMAGEMODE (replaces PDFA.OCRMODE)
- **New** option UpdateFieldsAtPrint to control field update behavior when converting via MS Word's print function
- **Improved** rendering of multiple spaces in HTML mail bodies (as commonly used for indenting)
- Digital Signatures
    - **New** support to get CRLs using HTTPS and via HTTP redirection.

3.2 3-Heights™ Image to PDF Converter

- **New** additional supported operating system: Windows Server 2019.

API `Img2PdfAPI`

- [PHP] **New** extension PHP 7.3 (non thread safe) for Linux.

API `TiffToolsAPI`

- [.NET] **Changed** managed library. Cross-product functionality is outsourced into common library `PdfCommon-NET.dll`.

Interface `Compressor`

- **Improved** MRC background and foreground layer coloring.

Shell `tiffcompress`

- **Improved** MRC background and foreground layer coloring.

3.2.1 Patches

Patch 5.9.4

- **Fixed** import of bitonal TIFF images if photometric representation of black is zero and recompress not used.

3.3 3-Heights™ PDF Analysis & Repair

- **New** additional supported operating system: Windows Server 2019.
- **Changed** error reporting behavior: Errors in the XMP metadata are no longer reported when saving a recovered document.

API `PdfRepairAPI`

- [PHP] **New** extension PHP 7.3 (non thread safe) for Linux.

Shell `pdfrepair`

No functional changes.

Service `PdfRepairSvr`

No functional changes.

3.4 3-Heights™ PDF Extract

- **New** additional supported operating system: Windows Server 2019.

API `PdfExtractAPI`

- [PHP] **New** extension PHP 7.3 (non thread safe) for Linux.

Shell `pdfextract`

- **New** option `-ldss` to list all items of the document security store (DSS).
- **Improved** option `-ls`:
    - Return the number of the document revision that contains the signature.
    - Return the name of the signing certificate.

3.4.1 Patches

Patch 5.9.1

- **Fixed** a shift-by-one error that can occur for certain documents in extracted outline's destination page numbers.

Patch 5.9.2

- **Fixed** wrongly extracted text bounding box for certain corrupt fonts.

3.5 3-Heights™ PDF Merge Split

- **New** additional supported operating system: Windows Server 2019.

API `PdfSplMrgAPI`

- [PHP] **New** extension PHP 7.3 (non thread safe) for Linux.

3.6 3-Heights™ PDF OCR

- **New** additional supported operating system: Windows Server 2019.
- **Improved** wording of warning messages. The new messages do not contain the words "warning" nor "error", such that they can be used as both warning and error message.
- **New** warning, if signatures were removed.
- **New** version of OCR plugin `"barcodes"` with QR Code recognition improvements.

API `PdfOcrAPI`

- **Improved** extraction of recognized barcodes to extract their type.
- [.NET] **Changed** managed library. Cross-product functionality is outsourced into common library `PdfCommon-NET.dll`.

Shell `pdfocr`

- **Improved** option `-obx` to extract the type of recognized barcodes.

3.6.1 Patches

Patch 5.9.5

- **Improved** encoding of font for symbolic OCR text.

3.7 3-Heights™ OCR Service

Plugin `service`

- **New** additional supported operating system: Windows Server 2019.
- **Improved** robustness of the service in case of internal errors in the OCR engine.
- **New** element `<TotalPageCredits>` in status XML.

Plugin `abbyy11`

No functional changes.

Plugin abbyy10

No functional changes.

3.8 3-Heights™ PDF Optimizer

- **New** additional supported operating system: Windows Server 2019.
- MRC improvements
  - **Improved** MRC background and foreground layer coloring.
  - **Changed** default value for MRC layer compression quality to 20 [previously 10].
  - **Changed** MRC behavior: monochrome (gray-scale) images are treated as entire photographic regions (cut-out pictures).
  - **Improved** MRC pre-processing: conversion to RGB is now possible.
  - **Changed** optimization profile mrc: Now includes color conversion to RGB.
- **Changed** behavior: Invisible annotations are not removed anymore by default.
- **New** option -sia to remove invisible annotations.

API PdfOptimizeAPI

- [PHP] **New** extension PHP 7.3 (non thread safe) for Linux.
- [.NET, C, COM, Java, PHP] **New** method GetInfoEntry for extracting Info-dictionary entries.

Shell pdfoptimize

No functional changes.

Service PdfOptimizeSvr

No functional changes.

3.8.1 Patches

Patch 5.9.1

- **Fixed** an infinite loop that can occur when optimizing images for certain corrupt documents.

Patch 5.9.2

- **Fixed** erroneous generation of font widths for certain types of fonts.
- **Fixed** graphic distortion for certain types of XObjects.
- **Improved** performance for writing very long PDF name objects.

Patch 5.9.5

- **Fixed** color complexity reduction for a certain type of image masks.

3.9 3-Heights™ PDF Printer

- **New** additional supported operating system: Windows Server 2019.

API `PrinterOCX`

- **Changed** opening of remote printers to not use locally cached data but retrieve effective data from printer.

Shell `pdprint`

- **Changed** return code to 2 if there is an error linking a grouped print job (option `-g`).

Service `PdfPrintSvr`

No functional changes.

3.9.1 Patches

Patch 5.9.4

- **Fixed** printing of image-masks on PostScript printers, if PostScript injection is disasbled.

3.10 3-Heights™ PDF Security

- **New** additional supported operating system: Windows Server 2019.
- Digital Signatures
  - **New** support to get CRLs using HTTPS and via HTTP redirection.

API `PdfSecureAPI`

- [PHP] **New** extension PHP 7.3 (non thread safe) for Linux.

Interface `PdfSignature`

- **New** properties `Text1Color` and `Text2Color` to set the color of the signature appearance's text.

Shell `pdfsecure`

- **New** options `-atc1` and `-atc2` to set the color of the signature appearance's text.

Service `PdfSecureSvr`

- **New** options `-atc1` and `-atc2` to set the color of the signature appearance's text.

3.10.1 Patches

Patch 5.9.2

- **Improved** performance for writing very long PDF name objects.

Patch 5.9.5

- **Improved** reading of certain AES-V3 encrypted streams.

3.11 3-Heights™ PDF to Image Converter

- **New** additional supported operating system: Windows Server 2019.

API Pdf2ImgR2API

- [PHP] **New** extension PHP 7.3 (non thread safe) for Linux.
- **New** enum value `eOptionExtendedFitPaths` to fit linear clipping paths to pixel grid.

Shell pdf2imgR2

- **New** option `-ofe` to fit linear clipping paths to pixel grid.

Service Pdf2ImgSvrR2

No functional changes.

3.12 3-Heights™ PDF to PDF/A Converter

- **New** additional supported operating system: Windows Server 2019.
- Digital Signatures
  - **New** support to get CRLs using HTTPS and via HTTP redirection.
- **New** support for ZUGFeRD 2.0 hybrid electronic invoices.
- **Improved** log output for conversion events. Now all conversion events are written to the log file.

API Pdf2PdfAPI

- [PHP] **New** extension PHP 7.3 (non thread safe) for Linux.

Interface Pdf2Pdf

- [.NET, C, Java] **New** method `ConvertStream` to convert a stream to PDF/A.
- **New** methods `AddInvoiceXml` and `AddInvoiceXmlMem` to add XML invoice files with additional options.

- **Deprecated** methods `AddZUGFeRDXml` and `AddZUGFeRDXmlMem` (replaced by `AddInvoiceXml` and `AddInvoiceXmlMem`).
- **Changed** behavior of methods `AddZUGFeRDXml` and `AddZUGFeRDXmlMem`: In case of an error, `PDF_E_IN-VOICEXML` is signaled during conversion instead of `PDF_E_ZUGFERDXML`.

Shell `pdf2pdf`

- **New** option `-ai` to add XML invoice files with additional options.
- **Deprecated** option `-az` (replaced by `-ai`).

Service `Pdf2PdfSvr`

No functional changes.

3.12.1 Patches

Patch 5.9.1

- **Improved** conversion of transparent objects to PDF/A-1.

Patch 5.9.2

- **Improved** performance for writing very long PDF name objects.

Patch 5.9.4

- **Improved** conversion of fonts used for text clipping.
- **Improved** conversion of embedded files with invalid file name.

Patch 5.9.5

- **Fixed** a crash that could occur when converting a document with embedded files on platforms other than Windows.
- **Improved** encoding of font for symbolic OCR text.

3.13 3-Heights™ PDF Toolbox API

- **New** additional supported operating system: Windows Server 2019.
- [.NET] **Changed** managed library. Cross-product functionality is outsourced into common library `PdfCommon-NET.dll`.
- [.NET, C, Java] **New** interfaces `FileReference` and `FileReferenceList` for embedded and associated files.
- [.NET, C, Java] **New** enumeration `TextAlignment`.
- [.NET, C, Java] **New** interfaces for extracting, creating, and filling out AcroForm form fields:
  - `FormFieldNodeMap`
  - `AnnotationList`
  - `WidgetList`
  - `Annotation`

- ▪ `Widget`
- ▪ `FormFieldNode`
- ▪ `SubForm`
- ▪ `FormField`
- ▪ `TextField`
- ▪ `GeneralTextField`
- ▪ `CombTextField`
- ▪ `PushButtonField`
- ▪ `CheckBoxField`
- ▪ `RadioButton`
- ▪ `RadioButtonList`
- ▪ `RadioButtonField`
- ▪ `ChoiceItem`
- ▪ `ChoiceItemList`
- ▪ `ChoiceField`
- ▪ `ListBoxField`
- ▪ `ComboBoxField`
- ▪ **New** interface `StringMap` for supporting custom metadata entries.
- ▪ [.NET, C, Java] **New** interfaces for extracting and creating outline items:
  - ▪ `OutlineItem`
  - ▪ `OutlineItemList`
  - ▪ `Destination`
  - ▪ `NamedDestination`
  - ▪ `DirectDestination`
  - ▪ `LocationZoomDestination`
  - ▪ `FitPageDestination`
  - ▪ `FitWidthDestination`
  - ▪ `FitHeightDestination`
  - ▪ `FitRectangleDestination`
- ▪ **New** license feature `Annotation`.

Interface Document

- ▪ [.NET, C, Java] **New** property `AssociatedFiles` for adding associated files.
- ▪ [.NET, C, Java] **New** property `EmbeddedFiles` for extracting and adding embedded files.
- ▪ [.NET, C, Java] **New** property `FormFields` for extracting form fields.
- ▪ [.NET, C, Java] **New** property `OpenDestination` for extracting and setting the destination that is displayed when opening the file.
- ▪ [.NET, C, Java] **New** property `OutlineItems` for extracting and adding outline items.
- ▪ [.NET, C, Java] **New** method `CreateFileReference` for creating embedded or associated files.
- ▪ [.NET, C, Java] **New** method `CreateSubForm` for creating sub forms.
- ▪ [.NET, C, Java] **New** method `CreateGeneralField` for creating general text form fields.
- ▪ [.NET, C, Java] **New** method `CreateCombField` for creating comb text form fields.
- ▪ [.NET, C, Java] **New** method `CreateCheckBoxField` for creating check box form fields.
- ▪ [.NET, C, Java] **New** method `CreateRadioButtonField` for creating radio button form fields.
- ▪ [.NET, C, Java] **New** method `CreateListBoxField` for creating list box form fields.
- ▪ [.NET, C, Java] **New** method `CreateComboBoxField` for creating combo box form fields.
- ▪ [.NET, C, Java] **New** method `CreateField` for creating form fields.
- ▪ [.NET, C, Java] **New** method `CreateNamedDestination` for creating new named destinations.
- ▪ [.NET, C, Java] **New** method `CreateOutlineItem` for creating new outline items.
- ▪ [.NET, C, Java] **New** method `CopyFormFieldNode` for filling out form fields.

Interface `Metadata`

- [.NET] **Deprecated** property `CreationDate`.
- [.NET] **New** property `CreationDate2` supersedes `CreationDate`.
- [.NET] **Deprecated** property `ModificationDate`.
- [.NET] **New** property `ModificationDate2` supersedes `ModificationDate`.
- [.NET, C, Java] **New** property `CustomEntries` to access custom document info entries.

Interface Page

- [.NET, C, Java] **New** property `Annotations` for extracting annotations and form field widgets.

Interface `TextFragment`

- [.NET, C, Java] **Removed** property `Transformation`.
- [.NET, C, Java] **New** property `Transform` to replace removed property `Transformation`.

3.13.1 Patches

Patch 5.9.1

- **Fixed** the number of annotations reflected in `AnnotationList`s.

Patch 5.9.2

- **Improved** performance for writing very long PDF name objects.

3.14 3-Heights™ PDF Validator

- **New** additional supported operating system: Windows Server 2019.
- Custom Validation Profiles
  - **New** key `Linearization` in section `File` to check whether files are linearized.
  - **New** keys `ImageMaxDPI` and `ImageMinDPI` in section `Graphics` to validate the resolution of images.

API `PdfValidatorAPI`

- [PHP] **New** extension PHP 7.3 (non thread safe) for Linux.

Shell `pdfvalidator`

No functional changes.

3.14.1 Patches

Patch 5.9.1

- **Improved** validation of inline image name abbreviations.

Patch 5.9.4

- **Improved** validation error description for certain corrupt fonts.
- **Improved** validation of subtype entry of fonts with embedded font program in the Compact Font Format (CFF).

Patch 5.9.5

- **Improved** stability validating certain JBIG2 compressed streams.

3.15 3-Heights™ PDF Web Viewer

- **New** additional supported operating system: Windows Server 2019.
- **New**: Sample shows notification of the incompatibility of the Web Viewer with IE11.
- **New**: Stamp annotations are now rotateable.
- **New** Feature: Enable opening of a FDF file with an associated PDF file.
- **New** dialog introduced that indicates that a file is being loaded and opened.
- **New**: Locked annotations are not now protected from editing: Locked annotations cannot be moved, resized, edited or deleted.
- **New** distinct color palettes for background, foreground and highlight colors. Set defaults for each palette or even for each annotation differently.
- **New** API methods: `setFitmode`, `setPageLayoutMode`, `setRotation`

3.16 3-Heights™ Scan to PDF Server

- **New** additional supported operating system: Windows Server 2019.

4 Licensing, Copyright, and Contact

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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.

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