Release Notes

3-Heights™ and Classic PDF Tools

Version 4.8

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 Vista, 7, 8, 8.1, 10 – 32 and 64 bit
- Windows Server 2008, 2008 R2, 2012, 2012 R2, 2016 – 32 and 64 bit
- HP-UX 11 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 XP and Windows Server 2003 (including R2) are 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
Intel/x86 Linux	gcc 4.1.2
Intel/x64 Linux RedHat	gcc 3.4.6
Intel/x64 Linux SUSE	gcc 4.5.0
FreeBSD	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

The release 4.8 concentrates on the improvement of the existing components and solutions and doesn't introduce new products.

2.1 3-Heights™ Document Converter

- Validate Office documents (format 97-2003) using the Microsoft Office Binary File Format Validator.

Corrupt input documents can have several negative impacts on the conversion service, they should be detected as early as possible to avoid unnecessary resource consumption and the delay of subsequent conversion steps. However, for Office documents there is more to it. A corrupt document can crash or freeze the corresponding Office application, causing additional cleanup overhead and blocking precious conversion resource. Multiple corrupt documents can block the entire service so that it seems unavailable for future workloads for a short period of time.

Another issue of corrupt documents are incomplete conversions. Even though the document can be converted successfully without error or warning, content can be missing due to the input data corruption.

To prevent these issues, the Release Notes now validates Office documents (format 97-2003, e.g. `*.doc`) using the Microsoft Office Binary File Format Validator. To prevent crashes and delays, the default option is **strict**, meaning that invalid documents are rejected (corruption error). This option prevents both delays as well as incomplete conversions.

If for some reason this setting is too strict, the option **warn** will validate documents but still try to convert them. In case of a successful conversion, a corruption warning will be return so that the output document can be reviewed. If the conversion fails, a corruption error will be returned. This option does not prevent delays or crashed, but helps to detect incomplete conversions.

If no documents should be validated, use the option **disable**. This is similar to the conversion process in older versions, however we strongly advise against using it for the reasons mentioned above.

2.2 3-Heights™ Extract Tool

The text extraction has been enhance with some important features. It now supports non-standard ligatures and the Unicode processing has been improved.

2.3 3-Heights™ PDF Printer

The recognition of PostScript printer models has been further improved, which allows for better optimization of spool files. Furthermore, watermarks can be applied in the background of a page.

2.4 3-Heights™ Image to PDF Converter

The interfaces of the tool have been extended to provide more conversion options such as the up- and down-sampling of images.

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

- Most APIs now provide a property to query the product version.
- The creation of annotation appearances has been optimized to use less memory and processing time.
- Text extraction has been improved and now supports non-standard ligatures.
- Added repair functionality for TrueType font programs whose glyphs are not ordered correctly.

3.2 Enhancements to all Classic Products

- For further details see Classic PDF Prep Tool Suite and Classic PDF Command Line Suite.

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

- **New** option -lk to set a license key.

4.3 3-Heights™ Document Assembler

- **New** toolbar button for clearing the entire workspace.

4.4 3-Heights™ Document Converter

- **Changed** option TRANSFORM: Add additional parameters as command line arguments to the transform process call.
- **Changed** option FitToPage for Excel: Fit the width of the document or fit width and height of the document.
- **New** option ShowComments: Show or hide comments from Word documents in the output document.
- **New** feature: Basic support for PDF collections, the first document will be converted.
- **New** feature: Validate Office documents (format 97-2003) using the Microsoft Office Binary File Format Validator.
- **New**: Support Windows Server 2016 (RDP security).
- **Changed** option MAILHEADER: New value attach, the mail header will be embedded (PDF output) or added as text document (ZIP output).

API O2PConvAPI

Interface Converter

- [C, COM] **New** property ProductVersion to identify the product version.

API OfficeConverterAPI

Interface OfficeConverter

- [.NET, C, COM] **New** property ProductVersion to identify the product version.

4.5 3-Heights™ Font to PDF Utility

- **New** option -lk to set a license key.

4.6 3-Heights™ Image Compare Utility

No functional changes.

4.7 3-Heights™ Image to PDF Converter

Shell `img2img`

- **New** option `-hp` to set the height of the image in pixel.
- **New** option `-ht` to set the true height of the image in mm.
- **New** option `-wp` to set the width of the image in pixel.
- **New** option `-wt` to set the true width of the image in mm.
- **New** option `-r` to force resampling.
- **New** option `-dd` to set the resolution of input image, if input image has none.
- **Changed** option `-d`, no resampling performed when set only.
- **Deprecated** option `-h`, use now `-hp`.
- **Deprecated** option `-w`, use now `-wp`.

Service `Img2ImgSvr`

- **New** option `-hp` to set the height of the image in pixel.
- **New** option `-ht` to set the true height of the image in mm.
- **New** option `-wp` to set the width of the image in pixel.
- **New** option `-wt` to set the true width of the image in mm.
- **New** option `-r` to force resampling.
- **New** option `-dd` to set the resolution of input image, if input image has none.
- **Changed** option `-d`, no resampling performed when set only.

API `Img2PdfAPI`

Interface **Img2Pdf**

- [.NET, C, COM, Java] **New** property `ProductVersion` to identify the product version.
- [.NET] **Deprecated** method `GetLicenseIsValid`
- [.NET] **New** property `LicenseIsValid`

Interface **Img2Img**

- [.NET, C, COM, Java] **New** property `Height` to set the height of the image in pixel.
- [.NET, C, COM, Java] **New** property `Width` to set the width of the image in pixel.
- [.NET, C, COM, Java] **New** property `TrueHeight` to set the true height of the image in mm.
- [.NET, C, COM, Java] **New** property `TrueWidth` to set the true width of the image in mm.
- [.NET, C, COM, Java] **New** property `AllowResampling` to force resampling.

Interface **PDFCodec**

- [.NET, C, COM, Java] **New** property `DefaultDPI` to set the resolution of input image, if input image has none.

4.8 3-Heights™ JPM to PDF Converter

No functional changes.

4.9 3-Heights™ OCR Enterprise Add-on

- **Updated** ABBYY FineReader Engine 11 to R8 (Version 11.1.19.48)

4.10 3-Heights™ PDF Analysis & Repair

API `PdfRepairAPI`

- [.NET, C, COM, Java] **New** property `ProductVersion` to identify the product version.
- [.NET] **Deprecated** method `GetLicenseIsValid`.
- [.NET] **New** property `LicenseIsValid`.

4.11 3-Heights™ PDF Annotation API

- [.NET, C, COM] **New** property `ProductVersion` to identify the product version.
- [.NET] **Deprecated** method `GetLicenseIsValid`.
- [.NET] **New** property `LicenseIsValid`.

4.12 3-Heights™ PDF Checker API

- [.NET, C, COM, Java] **New** property `ProductVersion` to identify the product version.
- [.NET] **Deprecated** method `GetLicenseIsValid`.
- [.NET] **New** property `LicenseIsValid`.

4.13 3-Heights™ PDF Compare Utility

- **New** option `-lk` to set a license key.
- **New** option `-fs` to activate file size comparison.
- Improved performance when handling large files.

4.14 3-Heights™ PDF Creator Library

Interface `PdfCreator`

- [.NET, C, COM, Java] **New** property `ProductVersion` to identify the product version.
- [.NET] **Deprecated** method `GetLicenseIsValid`.
- [.NET] **New** property `LicenseIsValid`.

4.15 3-Heights™ PDF Extract

- ToUnicode mappings that map characters to sequences of Unicodes (longer than 1) are now supported. This includes special ligatures and surrogate pairs.
- The space width heuristic has been improved. This algorithm is required in order to estimate the width of a space in fonts that contain no space character. The space width is used to detect word breaks for example.

Shell `pdfextract`

- **Changed** option `-ld`: Added document attributes:
  - Report claimed PDF compliance.
  - Report whether document is linearized (fast web view).
  - Report whether document is a collection.

API `PdfExtractAPI`

Interface **Font**

- [.NET, C, COM, Java] **New** property `Font.IsCID`.
- [.NET, C, COM, Java] **New** property `Font.HasUnicodes`.

Interface **Document**

- [.NET, C, COM, Java] **New** property `ProductVersion` to identify the product version.
- [.NET] **Deprecated** method `GetLicenseIsValid`.
- [.NET] **New** property `LicenseIsValid`.

4.16 3-Heights™ PDF Merge Split

Shell `pdfsplmrg`

- **New** warning issued if input page range is outside of the input document's pages.

API `PdfSplMrgAPI`

Interface **OutDoc**

- [.NET, C, COM, Java] **New** property `ProductVersion` to identify the product version.
- [.NET] **Deprecated** method `GetLicenseIsValid`.
- [.NET] **New** property `LicenseIsValid`.

4.17 3-Heights™ PDF OCR API

- [.NET, C, COM, Java] **New** property `ProductVersion` to identify the product version.
- [.NET] **Deprecated** method `GetLicenseIsValid`.
- [.NET] **New** property `LicenseIsValid`.

4.18 3-Heights™ PDF Optimizer

- Improved content stream optimization.

Shell `pdfoptimize`

- **New** option `-rc`: Reduce color complexity for images.
- **Changed** option `-pr`: Profiles `web`, `print`, and `max` now include option `-rc`.

Service `PdfOptimizeSvr`

- **New** option `-rc`: Reduce color complexity for images.
- **Changed** option `-pr`: Profiles `web`, `print`, and `max` now include option `-rc`.

API `PdfOptimizeAPI`

- [.NET, C, COM, Java] **New** property `ReduceColorComplexity`: Reduce color complexity for images.
- [.NET, C, COM, Java] **Changed** property `Profile`: The profiles `eOptimizationProfileWeb`, `eOptimizationProfilePrint`, `eOptimizationProfileMax` now include property `ReduceColorComplexity`.
- [.NET, C, COM, Java] **New** property `ProductVersion` to identify the product version.
- [.NET] **Deprecated** method `GetLicenseIsValid`.
- [.NET] **New** property `LicenseIsValid`.

4.19 3-Heights™ PDF Page Split Tool

No functional changes.

4.20 3-Heights™ PDF Printer

Service `PdfPrintSvr`

- **New** option `-ra` to rotate pages.
- **New** feature "positional arguments", which allows for selected sets of pages within the printed document to be printed using different options.
- **New** option `-wg` to move watermark to background layer.
- **New** option `-wa` to change text alignment of watermark.

Shell `pdprint`

- **New** option `-ra` to rotate pages.
- **New** option `-wg` to move watermark to background layer.
- **New** option `-wa` to change text alignment of watermark.

API PdfPrinterAPI

- [.NET, C, COM, Java] **New** property `Rotate` to rotate pages.
- [.NET, C, COM, Java] **New** property `WatermarkinBackground` to move watermark to background layer.
- [.NET, C, COM, Java] **New** property `WatermarkAlignRight` to change text alignment of watermark.
- [.NET, C, COM, Java] **New** property `ProductVersion` to identify the product version.
- [.NET] **Deprecated** method `GetLicenseIsValid`.
- [.NET] **New** property `LicenseIsValid`.

4.21 3-Heights™ PDF Producer

- Images used for stamping may now have any color space, even if it differs from the output file's output intent.
- **New** feature: Control data can be embedded as metadata and used for post processing (e.g. mail dispatch).
- **New** feature (OfficeConverterAPI): Validate Office documents (format 97-2003) using the Microsoft Office Binary File Format Validator (BFFValidator).

API PdfProducerAPI

- [.NET, C, COM, Java] **New** property `ProductVersion` to identify the product version.
- [.NET] **Deprecated** method `GetLicenseIsValid`.
- [.NET] **New** property `LicenseIsValid`.

API OfficeConverterAPI

- [.NET, C, COM] **New** property `ProductVersion` to identify the product version.

4.22 3-Heights™ Scan to PDF Server

- **New** feature: Merge files from an input subfolder
- **New** component: `<List.SortBy>` to sort a list of items.
- **New** component: `<List.Join>` to flatten nested lists of items.
- **New** component: `<File.Name>` to get the name of a file.
- **New** component: `<Folder.Files>` to extract the content of a folder.

Component ScanServer.Group

- **New** attribute `<InputFolder folders="...">` to scan the input folder for subfolders.
- **New** attribute `<InputFolder trigger="...">` to specify a trigger file.

4.23 3-Heights™ PDF Security

- Images used as signature appearance background or for stamping for PDF/A input files may now have any color space, even if it differs from the input file's output intent.

Shell pdfsecure

- **New** option `-h` to calculate hashes of different object sets of a PDF file.

- **New** option `-vh` to verify object hashes, i.e. detecting changes made to a PDF file.

API PdfSecureAPI

Interface PdfSecure

- [.NET, C, COM, Java] **New** property `ProductVersion` to identify the product version.
- [.NET] **Deprecated** method `GetLicenseIsValid`.
- [.NET] **New** property `LicenseIsValid`.

4.24 3-Heights™ PDF Studio Utility

- Show description and other useful information in the title and tooltip of objects.
- Improved performance when handling large files.

4.25 3-Heights™ PDF Thumbnail Utility

No functional changes.

4.26 3-Heights™ PDF to EMF Converter

Interface Pdf2Emf

- [C, COM] **New** property `ProductVersion`.

4.27 3-Heights™ PDF to Image Converter

Services Pdf2ImgSvr and Pdf2ImgSvrR2

- **New** option `-o` to set the output directory for generated images.

APIs Pdf2ImgOCX and Pdf2ImgAPI and Pdf2PdfImgOCX

- [.NET, C, COM, Java] **New** property `ProductVersion` to identify the product version.
- [.NET] **Deprecated** method `GetLicenseIsValid`.
- [.NET] **New** property `LicenseIsValid`.

4.28 3-Heights™ PDF to PDF/A Converter

- Various new conversion features, e.g. improved conversion of corrupt data such as fonts, text, or form XObjects.
- **New** conversion event (32768, `ePDFConversionErrorActionRemoved`) when interactive elements such as actions or annotations are removed.
- **New** bold font simulation used when substituting bold with non-bold font.

Shell `pdf2pdf`

- Improved error messages when using the verbose option `-v`.

API `Pdf2PdfAPI`

- [.NET, C, COM, Java] **Changed** method `ConvertMem` which now also retuns the output file in case of `PDF_E_CONVERSION` and `PDF_E_POSTANALYSIS`.
- [.NET, C, COM, Java] **New** property `ProductVersion` to identify the product version.
- [.NET] **Deprecated** method `GetLicenseIsValid`.
- [.NET] **New** property `LicenseIsValid`.

4.29 3-Heights™ PDF Toolbox API

> **Note:** All interface wrappers of the 3-Heights™ PDF Toolbox API are now automatically generated from a single source.
> To achieve that goal, we had to rename a few items to make them consistent across all languages.

- [.NET, C, Java] **New** interface `SignatureField` gives access to certain properties of a signature field.
- [C] **Renamed** struct `TPdfRect` to `TPdfRectangle` for consistency reasons.
- [.NET] **Renamed** struct `Rect` to `Rectangle` for consistency reasons.

All interfaces

- [.NET, C, Java] **New** static property `ProductVersion` to identify the product version.
- [.NET] **New** static property setter `LicenseKey`.
- [.NET, Java] **Changed** all property setters to allow throwing exceptions.
- [C] **Changed** all property setters to return a `BOOL` return value.

Interface Document

- [.NET, C, Java] **New** property `SignatureFields` to enumerate the signature fields of the document.
- [.NET, C, Java] **New** property setter for property `Metadata`.
- [.NET, C, Java] **New** function `CopyMetadata`.

Interface Page

- [.NET] **Changed** method `Rotate` to take a parameter of type `Rotation` instead of `int` for consistency reasons.

Interface PageList

- [C] **Renamed** all function prefixes from `PdfPages...` to `PdfPageList...` for consistency reasons.

Interface Page

- [.NET, C, Java] **Removed** property `Mask`, as it was barely useful in its current form.

Struct Size

- [Java] **Renamed** field `w` to `width` for consistency reasons.
- [Java] **Renamed** field `h` to `height` for consistency reasons.

Enum Conformance

- [C] **Renamed** all value prefixes from `ePDF…` to `ePdf…` for consistency reasons.

4.30 3-Heights™ PDF Uncompress Utility

- **New** option `-lk` to set a license key.

4.31 3-Heights™ PDF Validator

API `PdfValidatorAPI`

- [.NET, C, COM, Java] **New** method `Terminate` to terminate and unload all cryptographic providers.
- [.NET, C, COM, Java] **New** property `ProductVersion` to identify the product version.
- [.NET] **Deprecated** method `GetLicenseIsValid`.
- [.NET] **New** property `LicenseIsValid`.

4.32 3-Heights™ PDF Viewer

Desktop `viewer`

No functional changes.

API `PdfViewerOCX`

- [.NET, C, COM, Java] **New** property `ProductVersion` to identify the product version.
- [.NET] **Deprecated** method `GetLicenseIsValid`.
- [.NET] **New** property `LicenseIsValid`.

API `PdfViewerAPI R2`

- [Java] **New** function to create sticky (`eAnnotationText`), highlight (`eAnnotationHighlight`) and freehand (`eAnnotationInk`) annotations. `createAnnotation(TPdfAnnotationType type, int page, Double[] rect)`
- [Java] **New** viewer functionality to move and delete annotations.

- [Java] **New** function to save a document.
- [.NET] **New** field `PageOrder` allows to change the display order of the document pages in the viewer. This is only for viewing purposes and not stored in the document.
- [.NET, C, Java] **New** property `ProductVersion` to identify the product version.
- [.NET] **Deprecated** method `GetLicenseIsValid`.
- [.NET] **New** property `LicenseIsValid`.

APIs `PdfViewerWPF` and `PdfViewerWPF_R2`

- [.NET] **New** property `ProductVersion` to identify the product version.

4.33 3-Heights™ Text to PDF Converter

No functional changes.

4.34 3-Heights™ TIFF Tool Suite

- **New** option `-oi` to set output intent.

4.35 3-Heights™ TIFF Toolbox API

All interfaces

- [.NET, C, Java] **New** property `ProductVersion` to identify the product version.
- [.NET] **New** static property setter `LicenseKey`.

Interface Compressor

- [.NET, C, Java] **New** method `SetOutputIntent` to set the output intent.

4.36 3-Heights™ XMP Generator

- **Changed** options `-t` and `-md` to recognize ecodings other than UTF-8. Accepted are now also UTF-16 and UTF-32, both BE and LE.

4.37 Classic PDF Command Line Suite

No functional changes.

4.38 Classic PDF Prep Tool Suite

No functional changes.

5 Licensing, Copyright, and Contact

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