



# Release Notes

## 3-Heights™ and Classic PDF Tools

### Version 4.1

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## 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, extraction 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.

## 2 How to Download the Trial Software

The 3-Heights™ PDF tools can be downloaded from the product description pages on our website. There is no charge for downloading evaluation versions (valid for a 30 day period).

<http://www.pdf-tools.com/pdf/products-pdf-pdfa.aspx>

## 3 Technical Support

Please report problems by contacting our support team by mail:

[pdfsupport@pdf-tools.com](mailto:pdfsupport@pdf-tools.com)

## 4 System Requirements

All of the 3-Heights™ PDF tools are available for:

- Windows 2000
- Windows XP
- Windows Vista
- Windows 7
- Windows Server 2003
- Windows Server 2003 R2
- Windows Server 2008
- Windows Server 2008 R2

Windows 9.x and NT 4 are no longer supported by this version.

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Most of the tools are also available for the following platforms, and will run also on newer versions of the same OS family:

- IBM AIX 5.1
- Sun Solaris / SPARC 5.8
- HP-UX 11i incl. IA64
- SunSolaris / Intel 5.10
- Linux 2.4 (RedHat)
- Mac OS X 10.4 x86 / x64
- Linux 2.6 (SuSE)

Other platforms are available on request. Please refer to the individual product pages to obtain information on supported operating system platforms.

## 5 Compiler Versions

The release kits are generated with the following compiler versions for C/C++ (for Java, version 1.2 is required as a minimum):

Platform	C/C++
Windows	MSVC 8.0
MAC OS/X 10.5 x86	gcc 4.0.1
SuSE Linux/Intel	gcc 4.1.2
Redhat Linux/Intel	gcc 3.2.2
FreeBSD	gcc 3.4.2
Sun Solaris 2.8/SPARC	gcc 3.4.6
Sun Solaris 2.8/Intel	gcc 3.4.6
IBM AIX 5.1	gcc 4.2.4
HP UX 11.i (11.23)	gcc 4.1.2
HP UX 11.23 IA64	gcc 4.6.0

## **6 New Features to all Products**

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

### **6.1 Enhancements to all 3-Heights™ Products**

- All components which support PDF/A-1 and PDF/A-2 conformance now have been enhanced to support the PDF/A-3 as well.
- Many tools can open documents by reading an HTTP stream. The URL to open the stream now supports basic authentication. The URL syntax is as follows: `http://[username:password@]domain[:port][/resource]`.
- The coordinates are now defined consistently among the components (mainly PDF Extract, PDF Viewer, PDF Annotation) in two modes:
  1. Absolute: All coordinates are treated as they are stored in the PDF document.
  2. Relative to the left bottom edge of the crop box: This mode is used, e.g. if the coordinates are transformed according to the rotate attribute.
- All components now support UTF-8 encoded name objects. This is relevant where name objects have a meaning beyond the scope of a PDF document such as the name of fonts, colorants, embedded files etc. Until now, name objects were treated as simple byte strings. In order to support non-UTF-8 names there is a new algorithm to guess the Unicodes using the code pages.
- The color management has significantly been improved. Each document can now have its own color management engine instance which is consistently used within the document.
- The creation of annotation appearances has been improved.
- All components now include a tracing feature which can be enabled to help analyze the tool behavior in customer environments.

### **6.2 Enhancements to all Classic Products**

- No significant enhancements

## **7 New Features to Specific Products**

### **7.1 3-Heights™ Document Assembler**

- New feature 'PDF Quick merge': A new menu item and dialog window has been added which allows for quickly merging a number of PDF documents located in a directory.
- Changed feature: The Open dialog is now restricted to supported file formats in order to avoid the conversion of non-supported formats such as MSG.
- Interoperability: The tool now works together with the 3-Heights™ PDF Producer if 'Spooling' has been enabled.
- User interface: Many small improvements.

### **7.2 3-Heights™ AFP to TIFF Conversion Utility**

- No functional changes.

### **7.3 3-Heights™ Font to PDF Utility**

- No functional changes.

### **7.4 3-Heights™ Image to PDF Converter**

- Enhanced switch '-cl': The switch now supports the compliance levels pdf1.x (where x stands for 1 to 7), pdfa-1b, pdfa-1a, pdfa-2b, pdfa-2u, pdfa-2a, pdfa-3b, pdfa-3u, and pdfa-3a. The default is pdf1.7.
- Enhanced property 'Compliance': see switch '-cl' above.
- Enhanced property 'InfoEntry': This property now supports Unicode strings for the 'key' parameter (refer to UTF-8 encoded name objects in section 7.2).

### **7.5 3-Heights™ Image Compare Utility**

- No functional changes.

### **7.6 3-Heights™ JPM to PDF Converter**

- No functional changes.

### **7.7 3-Heights™ Document Converter**

- New Stamping feature

- HTML conversion based on Internet Explorer's printing function
- S/MIME support for converting encrypted and/or signed mails
- Mixed Raster Content compression
- Various minor feature extensions

### **7.8 3-Heights™ OCR Add-on**

- The shell tool pdfocr now offers two new switches:
  1. Switch 'oci': Inhibits the deskewing of the original image but transforms the text.
  2. Switch 'oca': Rotates the page according to the rotation detected by the OCR engine.

### **7.9 3-Heights™ PDF Compare Utility**

- The tool can now compare the Unicode strings of name objects (refer to UTF-8 encoded name objects in section 7.2).
- The tool now supports embedded files which are encrypted using a default password.

### **7.10 3-Heights™ PDF to EMF Converter**

- No functional changes.

### **7.11 3-Heights™ PDF to Image Converter R2**

- No functional changes.

### **7.12 3-Heights™ PDF to Image Converter**

- New error code 5: If a rendering error occurs then the shell tool and the service returns this new error code.
- The pdf2pdfimg shell tool and the service offer three new switches:
  1. Switch 'nl': Inhibits the copying of links.
  2. Switch 'no': Inhibits the copying of outlines.
  3. Switch 'nv': Inhibits the copying of viewer preferences.



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- The Pdf2PdfImgOCX API now offers the following new properties:
  1. Property 'RetainText': If true the text and fonts are copied from the input to the output document and thus retained in its original form. Otherwise the text is converted to a raster image. Default: false.
  2. Property 'CopyLinks': see switch 'nl' above. Default: true.
  3. Property 'CopyOutlines': see switch 'no' above. Default: true.
  4. Property 'CopyViewerPreferences': see switch 'nv' above. Default: true.

### **7.13 3-Heights™ PDF to PDF/A Converter**

- New switch 'cno': This switch is used in conjunction with the 'ci' switch and allows for specifying the issuer's serial number (as a hex number string) to select the certificate.
- New switch 'cfp': This switch is used to select a certificate by its sha1 fingerprint (a 20 byte hex number string).
- Enhanced switch 'cl': This switch now supports the compliance levels pdfa-1b, pdfa-1a, pdfa-2b, pdfa-2u, pdfa-2a, pdfa-3b, pdfa-3u, and pdfa-3a. The default is pdfa-2b.
- Enhanced switch 'cem': The conversion error mask has been extended by the value 4096 which causes a conversion error if the input file is corrupt.
- Modified switch 'cr': Text may contain arbitrary Unicodes, e.g. for Japanese text.
- New property 'SignerFingerprint': see switch 'cfp'.
- New property 'FlattenSignatures': If set to 'true' the converter keeps the appearance of existing signatures and merges it with the page content (flattening). The cryptographic part of the signature is removed.
- New method 'Terminate': This method must be called in the application to free the resources of a PKCS#11 library if it has been used for signing. If this method is called then the converter prevents from unexpected behavior such as locked security tokens or application crashes.
- Enhanced property 'Compliance': see switch 'cl'.
- Enhanced property 'InfoEntry': The property now supports Unicode strings for the 'key' parameter (refer to UTF-8 encoded name objects in section 7.2).
- DocMDP Signatures (Certifying Signatures) can now have an appearance.
- Property 'SignatureReason': see switch 'cr'

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- Configuration file 'fonts.ini' allows to customize the font embedding process.

### **7.14 3-Heights™ PDF Annotation API**

- No functional changes.

### **7.15 3-Heights™ PDF Creator Library**

- Enhanced method 'NewDocument': This method has been extended to allow for creating PDF/A-3 conforming documents in addition to PDF/A-1 und PDF/A-2.
- Enhanced methods 'NewInstalledFont', 'NewSeparationColorSpace', 'InfoEntry': These methods now support Unicode strings as its parameters (refer to UTF-8 encoded name objects in section 7.2).
- Identical fonts created with 'NewFont' and 'NewInstalledFont' are automatically merged.

### **7.16 3-Heights™ PDF Extractor**

- New switch 'raw': This switch instructs the tool to extract resources in raw format rather than a converted format. Without this switch, e.g. font resources are converted to an installable format.
- New switch 'uf' in the 'pdtxt' tool: The switch is used to update the Unicode tables of a font in order to make text extractable.
- New methods 'GetXMPMetadata' and 'GetXMPMetadataMem': By means of these methods the document metadata stream can be extracted and stored in a file or a memory block.
- New property 'TextExtConfiguration': The value of this property controls the way how the text is extracted. Various flags from the 'TPDFTextExtractConfiguration' enumeration can be used to selectively control the text extraction algorithm. This property deprecates the 'BreakWords' property.
- New property 'BaseName' in the 'Font' interface: The property now supports Unicode strings as base names (refer to UTF-8 encoded name objects in section 7.2).

### **7.17 3-Heights™ PDF Optimizer**

- No functional changes.

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### **7.18 3-Heights™ PDF Producer**

- New driver features:
  1. The component can now produce PDF/A-3 conforming documents in addition to the formats supported by earlier versions.
  2. The driver now supports the 'Scale' property of the device mode. The property can now be set in the printer settings dialog.
- New port monitor features:
  1. In addition to the %FILE% macro and the system wide environment variables the command line now expands the macros %COPIES% and %COLLATE% which are replaced by their corresponding values from the device mode (i.e. printer settings).
  2. The 'Prompt for file name' dialog has now been extended to allow for saving the file to the desktop, storing it to a selected disk directory, passing it to the registered email client, and merge it with previously produced files. The latter function is accomplished by passing the file to the 3-Heights™ Document Assembler, which must be installed to use this function.
- Office Add-In: no functional changes
- Installer features:
  1. Desktop Producer MSI contains SDK components, such as include files, documentation and samples as optional installable feature
  2. Extended control via MSI properties for customizing bulk installations (PRINTDIRECT, PORTPOOLSIZE)

### **7.19 3-Heights™ PDF Printer**

- Special support for legacy PCL and HPGL2 printer drivers has been included.
- The accuracy of the glyph positioning for low resolution devices has been improved.

### **7.20 3-Heights™ PDF Repair**

- No functional changes.

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## **7.21 3-Heights™ PDF Security**

- New switch `cno`: This switch is used in conjunction with the `ci` switch and allows for specifying the issuer's serial number (as a hex number string) to select the certificate.
- New switch `cfp`: This switch is used to select a certificate by its sha1 fingerprint (a 20 byte hex number string).
- New switch `fe`: This switch allows for the encryption of PDF/A conforming input files. The output file's conformance is downgraded to an ordinary PDF.
- New switch `nc`: This switch disables the cache for CRL and OCSP responses.
- New switch `s`: This switch receives an XML file as a parameter and allows for applying stamps to the output file. This switch is usually used in conjunction with digital signatures.
- Modified switch `k`: The value of this key is ignored if an encryption filter is specified which implies a specific key length. Otherwise the key length is checked for valid values.
- Modified switch `at1` and `at2`: Text may contain arbitrary Unicodes, e.g. for Japanese text.
- New property `SignerFingerprint`: see switch `cfp`.
- New method `Terminate`: This method must be called in the application to free the resources of a PKCS#11 library if it has been used for signing. If this method is called then the converter prevents from unexpected behavior such as locked security tokens or application crashes.
- New method `AddStamps`: see switch `s`.
- New property `ForceEncryption`: see switch `fe`.
- Enhanced property `InfoEntry`: The property now supports Unicode strings for the `key` parameter (refer to UTF-8 encoded name objects in section 7.2).
- DocMDP Signatures (Certifying Signatures) can now have an appearance.
- Properties `Text1` and `Text2`: see switches `at1` and `at2`

## **7.22 3-Heights™ PDF Page Split Tool**

- No functional changes.

## **7.23 3-Heights™ PDF Merge / Split**

- Enhanced property `InfoEntry`: The property now supports Unicode strings for the `key` parameter (refer to UTF-8 encoded name objects in section 7.2).

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### **7.24 3-Heights™ PDF Studio Utility**

- The tool now accepts dropped files.
- The display of color spaces has been improved to support various color space types.

### **7.25 3-Heights™ PDF Thumbnail Utility**

- No functional changes.

### **7.26 3-Heights™ PDF Uncompress Utility**

- No functional changes.

### **7.27 3-Heights™ PDF Validator**

- Enhanced switch `\cl`: This switch now supports the compliance levels pdfa-1b, pdfa-1a, pdfa-2b, pdfa-2u, pdfa-2a, pdfa-3b, pdfa-3u, and pdfa-3a. The default is pdfa-2b.
- Enhanced methods `\Open` and `\OpenMem`: see switch `\cl`.

### **7.28 3-Heights™ Java Document Viewer**

- New method `\setMarked` in the `\Text` interface: If set to `\true` then the text will appear marked (i.e. displayed inverted) on the page.
- New property `\isMarked` in the `\Text` interface: This method returns `\true` if the text was marked by the `\setMarked` method.
- New method `\dispose` in the `\TextFinder` interface: This method releases allocated resources.
- New property `\Color` in the `\TextFinder` interface: The property returns the color which is used to mark found text.

### **7.29 3-Heights™ PDF Viewer**

- The viewer shell tool now can graphically compare two documents. Identical areas are displayed in gray scale and different areas in red (difference view).
- New switch `\d`: This switch allows for specifying two documents on the command line which are displayed in the compare mode.
- New method `\CompareDocuments`: see switch `\d`.

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### **7.30 3-Heights™ Text to PDF Converter**

- New switch `\wn'`: This switch is used to insert line breaks if the line length exceeds the given value. It can be used for text files with a fixed line format without line breaks or to limit the line length to a specific value.

### **7.31 3-Heights™ TIFF Tool Suite**

- `tiff2pdf`:
  1. New switch `\u'`: This switch allows for specifying the user units (in multiples of points = 1/72 inch).
  2. The tool now supports the enhanced MRC algorithm of `\tiffcompress'` and `\tiffocr'`.
  3. The tool has been improved to support a wider range of TIFF formats.
- `tiffcompress`:
  1. Enhanced switch `\s'`: The mixed raster content (MRC) algorithm has been improved to support two background, a mask and multiple foreground layers.
- `tiffimp`:
  1. New switch `\d'`: This switch allows for specifying a default resolution (in DPIs) which is used if the resolution is missing in the input image.

### **7.32 3-Heights™ XMP Generator**

- Enhanced switch `\pcl'`: The tool now supports metadata conforming to PDF/A-3.

### **7.33 Classic Command Line Suite**

- `pdcat`:
  1. Handle empty bookmarks
- `pdform`:
  1. New switch `\-la'`: Query NeedAppearances flag (return code 0 if none, 3 if true)

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### **7.34 Classic PDF Prep Tool Suite**

- New property 'NeedAppearances': This property returns true if the appearances of the form fields in the input file are missing or invalid.

### **7.35 Classic PDF Image Compare Tool**

- No functional changes.

## **8 About PDF Tools AG**

PDF Tools AG ([www.pdf-tools.com](http://www.pdf-tools.com)) 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.