Release Notes
3-Heights™ PDF Tools

Version 2.1

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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.

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 department by mail:

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

Most of the tools are also available for:

- IBM AIX
- Sun Solaris (2.7 and later)
- HP-UX 11.0 incl. IA64

- Linux
- Mac OS X

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

5   New Products

5.1   3-Heights™ JPM to PDF Converter

The 3-Heights™ JPM to PDF Converter is a shell tool for converting JPM (JPEG-2000 part 6) streams to PDF/A-2 conforming documents. The tool is mainly used for migrating archives containing scanned documents, which were stored in the mixed raster content (MRC) format, to equivalent PDF/A conforming documents without the need of recompressing the image data streams. The tool can correctly handle all kinds of compressions and color spaces. It can optionally repair damaged streams.

5.2   3-Heights™ Text to PDF Converter

The 3-Heights™ Text to PDF Converter is available as a shell tool as well as a programmable component (API). It converts simple text files containing end-of-lines (cr, lf), end-of-page (ff) and tabulation (tab) characters to well formatted PDF documents using a fixed width font. It accepts text in various encodings such as UTF-8, UTF-16 and the current code page. The font (e.g. Courier), the font size, the page dimensions, the page borders and the line wrap mode can be specified.

5.3   3-Heights™ PDF Page Split Tool

The 3-Heights™ PDF Page Split Tool can split large pages either horizontally or vertically into two smaller pages.

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 tools that can create PDF/A-1 conforming documents can now create PDF/A-2 conforming documents as well. This applies to the 3-Heights™ PDF Producer, Image to PDF Converter, PDF to PDF/A Converter and Document Converter. Tools that already were able to read PDF/A-1 can now read PDF/A-2 conforming documents.

- All tools which read PDF content streams can now handle optional content groups. Most of the tools use the default configuration to determine the visibility of page content. With some tools, the visibility can be controlled. These are 3-Heights™ PDF to Image Converter and PDF Extract.

- All tools which read PDF streams can now decrypt content using the strong AESV3 (PDF standard encryption revision 5) method. The corresponding encryption is not yet supported.

- The reading of stream objects now supports all types of crypt filters.

- Appearance streams of text markup, underline and strike-out annotations are now created on-the-fly if they are missing.

- The color conversion to the CMYK color space has been improved.

- The calculation of the resolution of masked images has been improved. This is mainly used in the 3-Heights™ Optimizer.

- The re-sampling of images now supports different factors in x and y direction.

- The calculation of the text width and the bounding box has been improved. This is mainly used in the 3-Heights™ PDF Extract component.

- The reading and on-the-fly repair of TrueType font programs has been improved to increase the interoperability with reading software from another party.

- The JPEG and TIFF output of bitmaps with alpha channel has been improved.

- The conversion from UTF-8 to UTF-32 has been improved.

- The handling of memory allocation failures and the robustness have been improved.

- The zlib compression software library (www.zlib.org) has been upgraded to version 1.2.5.

- The PNG software library (www.libpng.org) has been upgraded to version 1.5.2.

- The Independent JPEG Group's software library (www.ijg.org) has been upgraded to version 8.

- The Little CMS software library (www.littlecms.com) has been upgraded to version 2.1.

- The libxml2 software library (www.xmlsoft.org) has been upgraded to version 2.7.8.

6.2 Enhancements to the 3-Heights™ PDF Rendering Engine

The following enhancements affect all components that use the rendering engine such as PDF Viewer, PDF Printer, PDF to Image Converter, PDF to EMF Converter unless stated otherwise.

- New option 'eOptionNoBackground': With this option set the background (white paper) is not drawn. This is the default with the 3-Heights™ PDF Printer and can be used with the PDF to EMF converter.

- New option 'eOptionPrint': With this option set the behavior of the renderer is as if it was printing. This option is mainly used in conjunction with the 3-Heights™ PDF to Image Converter and the PDF Viewer to display annotation with only the 'print' flag set.

- Enhanced option 'eOptionJPEG': With this option set the JPEG compression method may be used in PostScript (see option 'eOptionDisablePS') spool files in order to reduce their sizes.

- Enhanced option 'eOptionUseUnicodes': The decision whether Unicodes are used or not is now made individually for each character. This is in contrast to the earlier implementation where the decision was made for the whole font.

- Large tiling patterns which do not repeat are converted to simple images in order to reduce interoperability problems due to the complexity of pattern filling operations.

- The processing of transparent content has been optimized to reduce the complexity of the graphics operations, the inherent memory consumption and the spool file size.

- The management of GDI resources has been further improved.

7 New Features to Specific Products

7.1 3-Heights™ Document Assembler

- The assembled output file can now optionally be encrypted, provided the PDF/A option is not set.

7.2 3-Heights™ AFP to TIFF Conversion Utility

- No functional changes.

7.3 3-Heights™ Font to PDF Utility

- The utility now supports the creation of simple fonts using code pages.

7.4   3-Heights™ Image to PDF Converter

- New switches 'ocd' and 'oct': With these switches a re-sampled copy of the image is sent to the OCR engine. If the resolution is higher than the threshold ('oct'), the image is re-sampled to the final resolution ('ocd').

- Enhanced switch 'cl': The converter now additionally supports the compliance levels pdfa-2b, pdfa-2u and pdfa-2a.

- New property 'OCRResolutionDPI' and 'OCRThresholdDPI': With these properties a re-sampled copy of the image is sent to the OCR engine. If the resolution is higher than the threshold, the image is re-sampled to the final resolution.

7.5   3-Heights™ Image Compare Utility

- The tool can now compare images containing alpha channels.

7.6   3-Heights™ PDF Creator Library

- No functional changes.

7.7   3-Heights™ Document Converter

- New support for PDF/A-2 conversion and validation.

   1. PDF/A-2 with conformance levels A, U and B is now the default PDF/A level for new installations.

   2. The conversion of collections (file attachments) is supported; contents of non-PDF files will be removed. The new option "PDF.WARNCOLL" can be configured to suppress warnings when such content is present.

   3. The reporting of conversion errors and warnings has been improved.

- New support for converting JPM documents.

- New support for converting MS Project documents.

- New default configuration of SXI and SXC file extension to convert with OpenOffice.

- New configuration options to control the selection of ZIP and RAR archive members as well as mail attachments (FAILFILES, SKIPFILES, SELECTFILES).

- New processing options for image conversions (page fitting, down-sampling of high resolution images).

- New OCR processing options (OCR.REEMBEDIMAGE, OCR.BITONAL).

- The web service interface has been extended with additional methods to support the passing of parameter data or to support passing documents via file name references.

- New support for periodically cleaning up the temporary directories (CleanupTemp config entry).

- Improved Installer support: the correct number of PDF and TIFF printer entries is now created when upgrading to a newer version.

7.8   3-Heights™ OCR Add-on

- The OCR Service architecture has been extended to support server-based load balancing. A benefit of this change is a simplified and more flexible configuration of the network port (only one port needed regardless of the number of OCR worker processes).

7.9   3-Heights™ PDF Compare Utility

- No functional changes.

7.10 3-Heights™ PDF to EMF Converter

- New property 'PermissionFlags': The property returns the permission flags of the open document.

- New property 'ErrorCode': The property returns the error code of the last operation.

- Extended Method 'CreateSurface' (C interface only): The Method has been extended to allow for passing a reference printer device or, alternatively, a device context handle and an output file name.

7.11 3-Heights™ PDF to Image Converter R2

- New interface 'ocg': With this new interface the information about optional content groups can be retrieved. Furthermore the rendering of optional content groups can be individually controlled by using the 'Visible' property.

7.12 3-Heights™ PDF to Image Converter

- New switch 'oa': This switch is only used if the output format is a PDF file. It instructs the converter to convert all page content except for the text which is placed on top of the raster image.

- New interface 'ocg': With this new interface the information about optional content groups can be retrieved. Furthermore, the rendering of optional content groups can be individually controlled by using the 'Visible' property.

7.13 3-Heights™ PDF to PDF/A Converter

- New switches 'ocd' and 'oct': With these switches a re-sampled copy of the image is sent to the OCR engine. If the resolution is higher than the threshold ('oct'), the image is re-sampled to the final resolution ('ocd').

- New switch 'ocb': With this switch a bi-level copy of the image is sent to the OCR engine.

- New switch 'cem': By means of this switch various conditions can be specified which cause a conversion error.

- Enhanced switch 'cl': The converter now additionally supports the compliance levels pdfa-2b, pdfa-2u and pdfa-2a.

- New property 'ConversionErrors': This property returns a set of detailed conversion errors.

- New property 'ConversionErrorMask': By means of this property various conditions can be specified which cause a conversion error.

- New property 'OCRResolutionDPI' and 'OCRThresholdDPI': With these properties a re-sampled copy of the image is sent to the OCR engine. If the resolution is higher than the threshold, the image is re-sampled to the final resolution.

- New property 'OCRBitonalRecognition': If this property is true a bi-level copy of the image is sent to the OCR engine.

- New method 'ExportText': This method stores the text out of the OCR process in a file.

7.14 3-Heights™ PDF Extractor

- New switch 'lef': This switch lists embedded files.

- New switch 'io': If this switch is set then all content is extracted regardless of its optional content group membership.

- New switch 'ow' in 'pdtxt': This switch is used to write the advance widths in x and y direction to separate columns.

- New interface 'ocg': With this interface the information about optional content groups can be retrieved.

- New interface 'EmbeddedFile': With this interface the information about embedded files can be retrieved.

- New interface 'Object': With this interface the information about low-level objects such as arrays and dictionaries can be retrieved.

7.15 3-Heights™ PDF Optimizer

- New switch 'ff': This switch forces the requested compression even if the resulting image is larger than the original image.

- New switch 'se': This switch is equivalent to specifying all stripping switches. It does not add additional functions and was introduced for convenience.

- New property 'ForceRecompression': If this property is set then the requested compression is applied even if the resulting image is larger than the original image.

7.16 3-Heights™ PDF Producer

- New driver features:

  1. The driver now additionally supports PDF-1.6, PDF-1.7 and PDF/A-2u.

  2. The new settings for the physical offsets x and y define a border on the virtual paper which surrounds the logical page.

  3. The interoperability with legacy applications has been further improved.

- New port monitor features:

  1. A printer can now have multiple ports with the same output folder. This allows for creating files in parallel to the same folder. This is a feature, which is mainly used on terminal and Citrix servers. For this reason, the port name and the folder name are not the same anymore. The folder name can be browsed in the port configuration dialog.

  2. The folder name may now contain environment variables (e.g. %HOMEPATH%) which are substituted by the variables found in the environment of the printing user.

  3. The command line may now contain environment variables, which are substituted by the variables found in the system environment.

  4. The output file name can now optionally be prefixed by the file creation date and time.

- Office Add-In: no changes

7.17 3-Heights™ PDF Printer

- New switch 'sm': This switch defines the largest available paper size when using the automatic paper selection.

- New property 'MaxPaperSize': This property defines the largest available paper size when using the automatic paper selection.

- The output of rotated bitmaps has been significantly improved to increase performance, reduce spool file size and reduce artifacts.

- The output of masked bitmaps has been improved to increase interoperability with legacy printer drivers.

7.18 3-Heights™ PDF Repair

- No functional changes.

7.19 3-Heights™ PDF Security

- Enhanced switches 'fr' and 'fm': These switches now additionally support the AESV3 encryption filter.

- The verification of a signature requires the issuer certificate. If the certificate is not stored on a PKCS#11 token it is now searched for in the Windows Certificate Store (Windows only).

7.20 3-Heights™ PDF Merge / Split

- New properties 'XMPMetadata' and 'XMPMetadataMem': With these properties the document's metadata can be retrieved and stored.

- Enhanced method 'Create' in the 'Output' interface: The method now allows for specifying crypt filters.

7.21 3-Heights™ PDF Studio Utility

- Descendant fonts are not listed as separate fonts anymore.

7.22 3-Heights™ PDF Thumbnail Utility

- No functional changes.

7.23 3-Heights™ PDF Validator

- New switch 'ccl': This switch prints the document's claimed conformance and level to the output.

- Enhanced switch 'cl': The converter now additionally supports the compliance levels pdfa-2b, pdfa-2u and pdfa-2a.

- New property 'FileName' in the 'Error' interface: The property rturns the name of the (embedded) file in which the error occurred.

7.24 3-Heights™ Java Document Viewer

- New property 'hasXFA': Returns true if the document contains XFA forms.

- New property 'needApperances': Returns true if the document may contain form fields without appropriate appearances.

- Revised method transform'ViewportToWindow': The new parameter 'undopagerotation' is used to reverse the effect of the page rotation in the coordinate transformation calculation.

7.25 3-Heights™ PDF Viewer

- New Method 'Goto': This method is used to navigation to a specific page and coordinate using a given zoom level.

- New Method 'GetPageRect': This method returns the visible rectangle of a given page in point units (1 point is 1/72 inch).

- New property 'UILanguage': With this method the language of the user interface can be set and retrieved (default: en-us).

8   About PDF Tools AG

PDF Tools AG (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.