

User Manual



3-Heights® PDF Analysis & Repair Tool

Version 6.27.6



Contents

1	Introduction	3
1.1	Description	3
1.2	Functions	3
1.2.1	Features	3
1.2.2	Formats	4
1.2.3	Conformance	4
1.3	Operating systems	4
2	Installation	5
2.1	Starting the installation process	5
2.2	License agreement	5
2.3	Customer information	6
2.4	Program location	6
2.5	Setup type	7
2.6	Install program	7
2.7	Install completed	8
3	License management	9
4	Getting started	10
4.1	PDF file contains no errors	10
4.2	Repair process	11
4.2.1	Start the repair process	11
4.2.2	Save the repaired file	11
4.2.3	Enter new file name	11
4.3	Recovery process	12
4.3.1	Start the recovery process	12
	Difference between repairable and recoverable	12
4.3.2	Enter new file name	13
4.4	Repair and recovery with the evaluation version	13
5	User guide	14
5.1	Analysis options	14
5.1.1	Analyze objects	14
5.1.2	Analyze pages	14
5.2	Recovery options	14
5.2.1	Recover XREF table	14
5.2.2	Recover lost pages	14
5.3	Rebuild options	15
5.4	Process control	15
5.4.1	Initiate each step manually	15
5.4.2	Run repair process unattended	15
6	Product limitations	16

7 Version history 17

7.1 Changes in versions 6.19–6.27 17

7.2 Changes in versions 6.13–6.18 17

7.3 Changes in versions 6.1–6.12 17

7.4 Changes in version 5 17

7.5 Changes in version 4.12 17

7.6 Changes in version 4.11 17

7.7 Changes in version 4.10 17

7.8 Changes in version 4.9 17

7.9 Changes in version 4.8 18

8 Licensing, copyright, and contact 19

1 Introduction

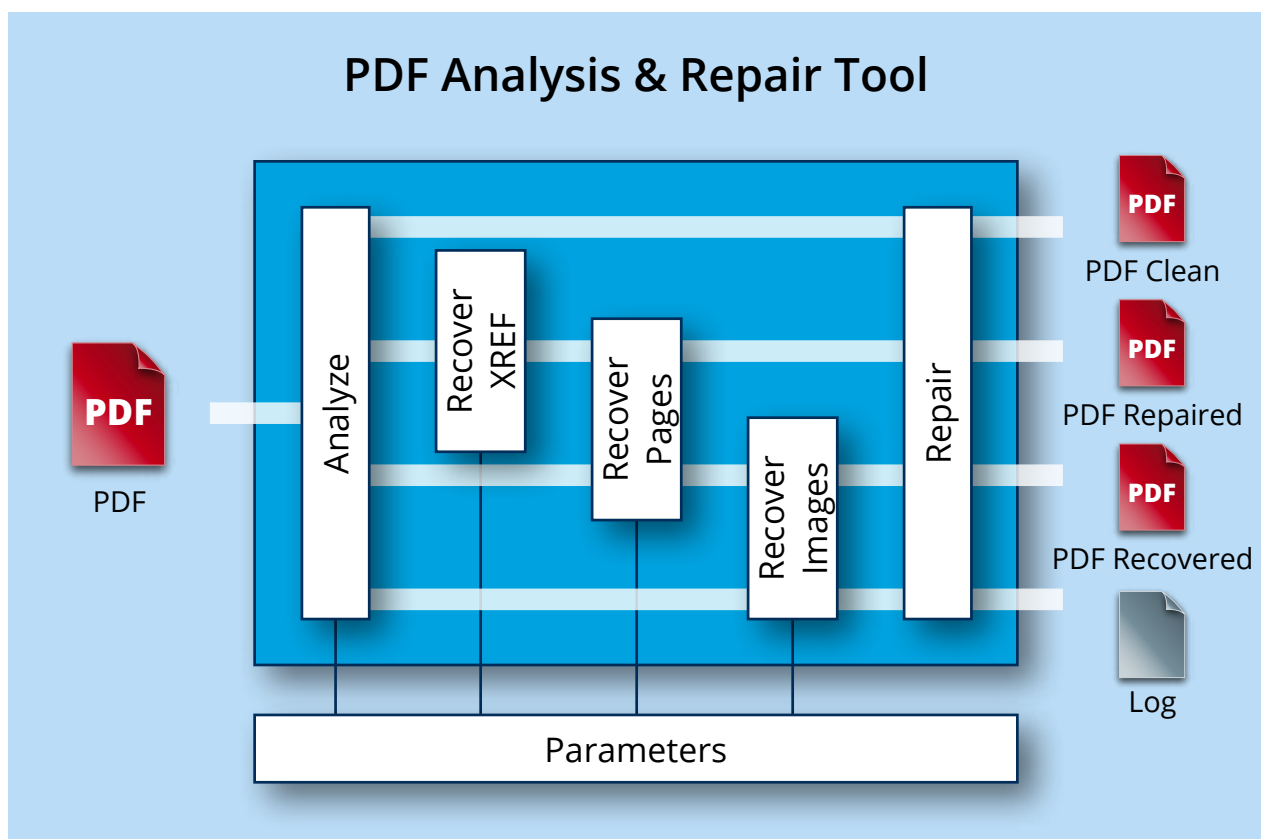
1.1 Description

The 3-Heights® PDF Analysis & Repair Tool tool is used to analyze, repair, and restore the content of corrupt PDF documents.

Unfortunately, the number of corrupt PDF documents is incredibly huge. The cause is usually down to defective generating tools, converters, and other influences such as attempts at manual editing, copying via FTP without correct settings, system crashes during PDF creation, network interruptions, and defective copying on optical media.

The result leads to an enormous loss of important information and to production downtimes caused by corrupt PDF documents.

The 3-Heights® PDF Analysis & Repair Tool analyzes PDF documents with regard to PDF specifications. Defective files are automatically repaired as far as possible and unreadable data is restored.



1.2 Functions

PDF Analysis & Repair Tool is used to check and, where indicated, repair PDF documents. Users can determine customized profiles from a broad range of analysis and repair options. An exact and detailed description is issued for each reported error. The tool is also capable of reading and processing encrypted PDF files without any problems.

1.2.1 Features

- Analyze and/or repair one or more PDF Documents
- Set analysis options, including:

- Objects
- Page tree
- Content stream
- Set repair options, including:
 - Restore data streams
 - Restore fonts
 - Restore XRef table
 - Restore pages
 - Restore images, if pages cannot be restored
- Display error description for every message, including:
 - Type (errors, warnings, information)
 - Error code
 - Text-based description
 - Page number
 - Number of events
- Read encrypted PDF files
- Encrypt restored file and set permission flags
- Set error level to identify whether errors, warnings or merely information occur
- Set reporting level to determine the messages to be issued (errors, warnings, information)
- Differentiate between “Repair” (corrects the errors in the document) and “Restore” (recreates the document based on the remaining legible information)

1.2.2 Formats

Input formats

- PDF 1.x (PDF 1.0, ..., PDF 1.7)
- PDF 2.0
- PDF/A-1, PDF/A-2, PDF/A-3

Output formats

- PDF 1.x (PDF 1.0, ..., PDF 1.7)
- PDF 2.0

1.2.3 Conformance

Standards:

- ISO 32000-1 (PDF 1.7)
- ISO 32000-2 (PDF 2.0)

1.3 Operating systems

The 3-Heights® PDF Analysis & Repair Tool is available for the following operating systems:

- Windows Client 7+ | x64
- Windows Server 2008, 2008 R2, 2012, 2012 R2, 2016, 2019, 2022 | x64

‘+’ indicates the minimum supported version.

2 Installation

2.1 Starting the installation process

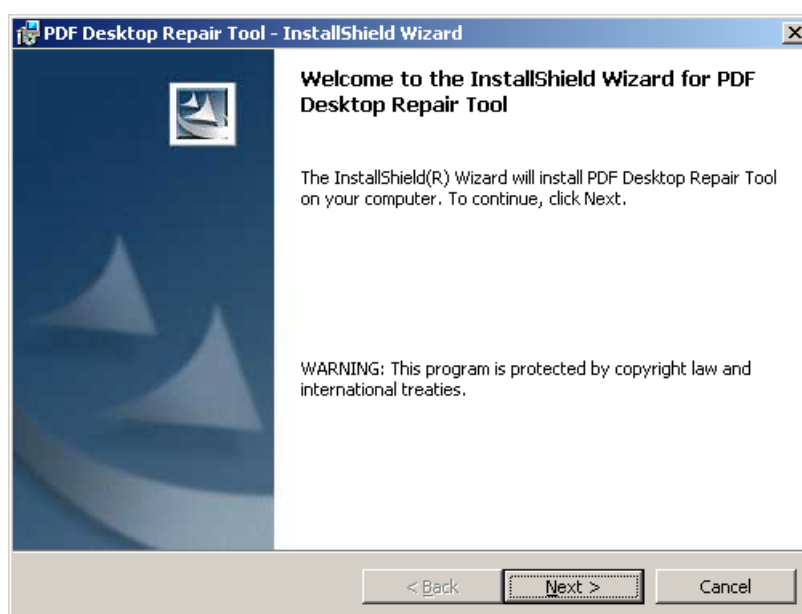
Before installing the 3-Heights® PDF Analysis & Repair Tool, check that all previous versions of the tool have been uninstalled.

All software products from Pdftools can be downloaded from the company website <https://www.pdf-tools.com>.

Once you have downloaded the setup launcher (Setup.exe), double-click on it to start the installation process. The InstallShield Wizard opens.

You can stop the installation process at any stage by clicking “Cancel”.

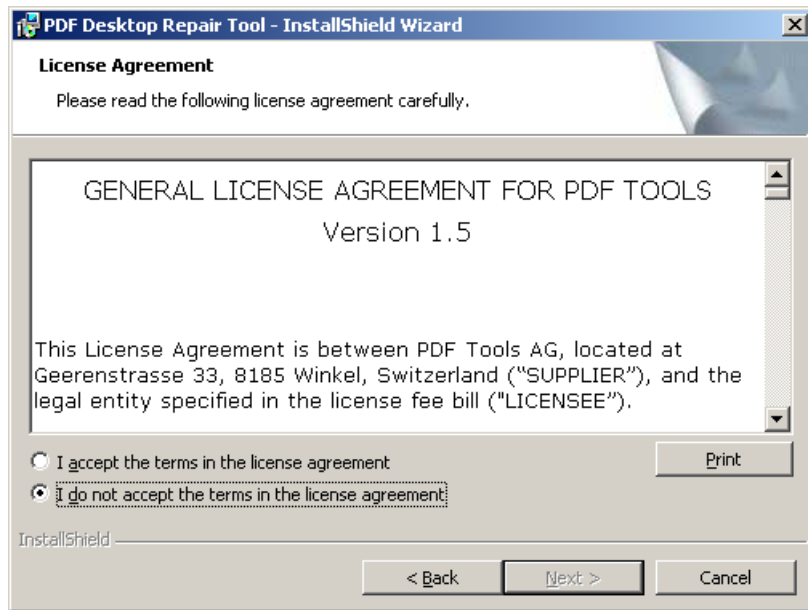
Click “Next >” to start the installation process.



2.2 License agreement

Whether you are installing the production version or an evaluation version of the 3-Heights® PDF Analysis & Repair Tool, you must accept the associated license agreement to proceed with the installation. Please read the license agreement carefully. If you do not wish to accept the license conditions, you must stop the installation process at this point.

If you accept the license conditions, select “I accept the terms in the license agreement”. Then click on “Next” to proceed.

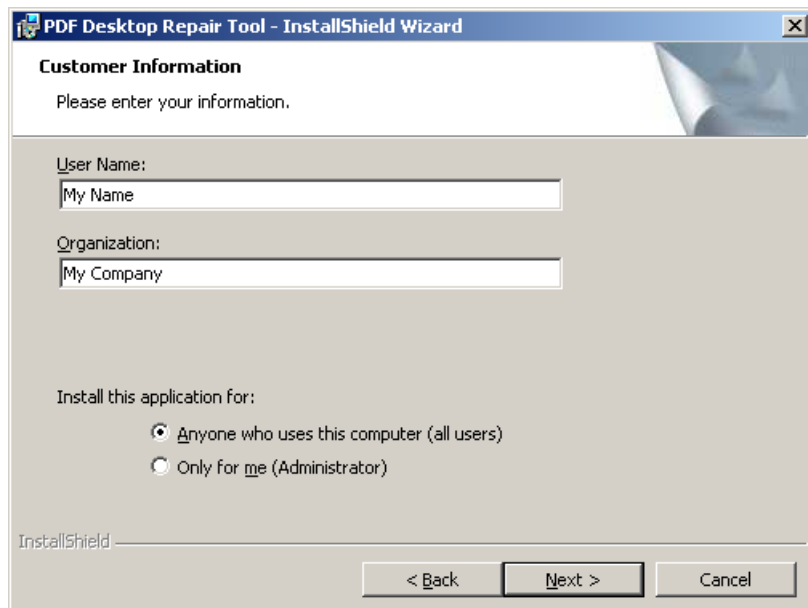


2.3 Customer information

Enter your name and your organization, if applicable.

You can now decide if the 3-Heights® PDF Analysis & Repair Tool is accessible to the currently logged-in user, or for all users who log in to this computer.

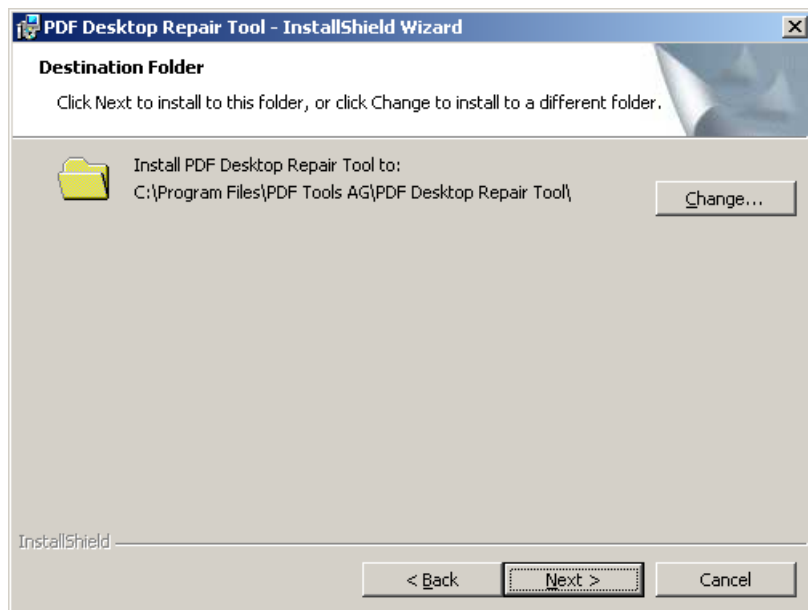
Enter your customer information, then click "Next >" to proceed.



2.4 Program location

You can select the destination folder for the installation. The default folder is: ..\Program Files\PDF Tools AG\PDF Desktop Repair Tool\

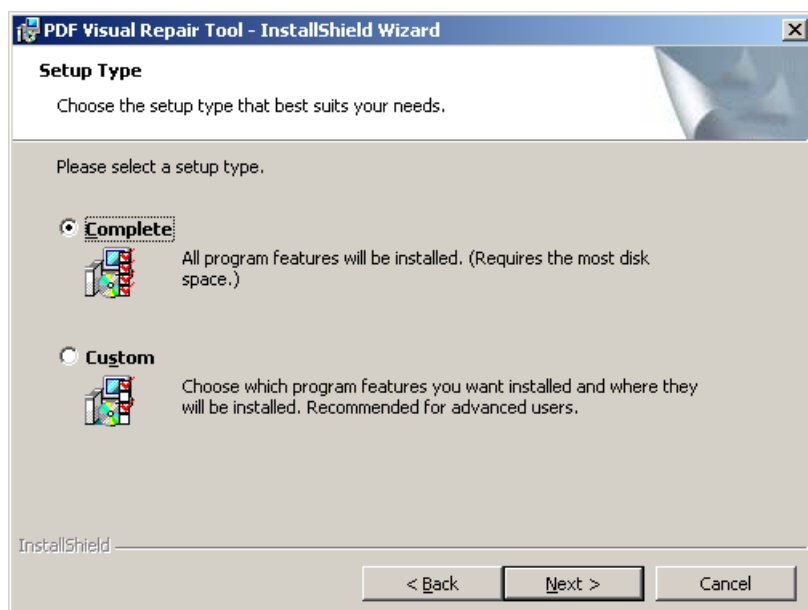
Change the folder if required and then click on "Next >" to proceed.



2.5 Setup type

Select “Complete” or “Custom” setup. With the custom setup, you can opt to not install CJK (Chinese, Japanese and Korean) fonts. This saves approximately 1 MB disk space.

Select the setup type and then click on “Next >” to proceed.

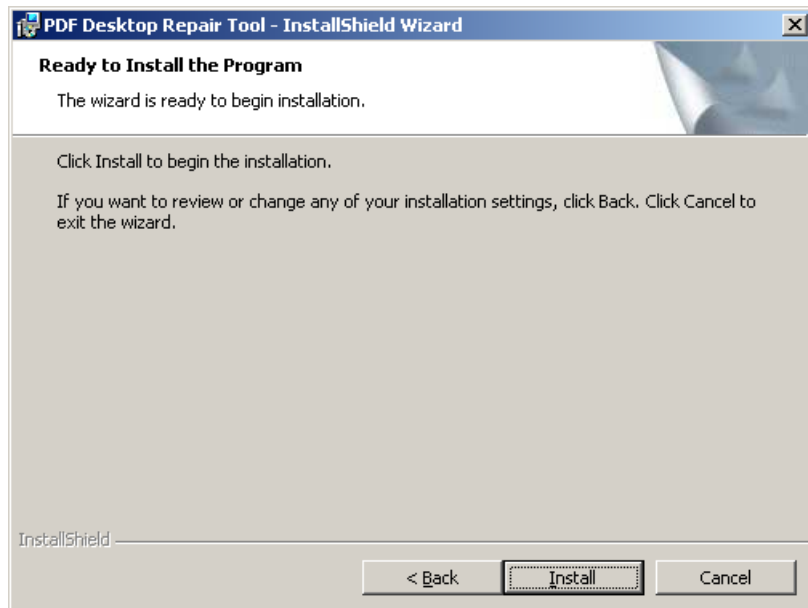


2.6 Install program

The 3-Heights® PDF Analysis & Repair Tool is now ready for installation.

Select “Install” to install the program.

An uninstall program is included in the installation, with which the repair tool can be removed at a later time, if necessary.

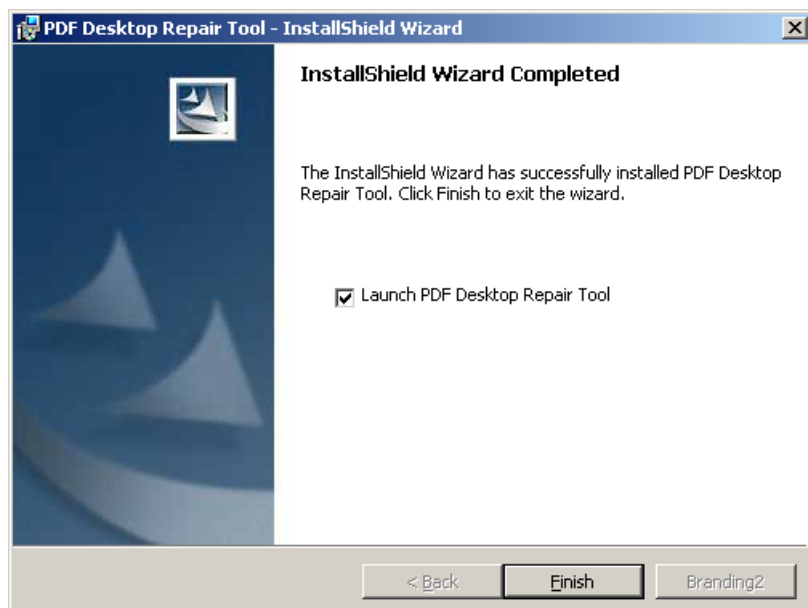


2.7 Install completed

The installation process is now complete.

You can launch the 3-Heights® PDF Analysis & Repair Tool by marking the checkbox and selecting “Finish”.

Click “Finish” to end the installation process and close the InstallShield Wizard.



3 License management

The 3-Heights® PDF Analysis & Repair Tool requires a valid license in order to run correctly.

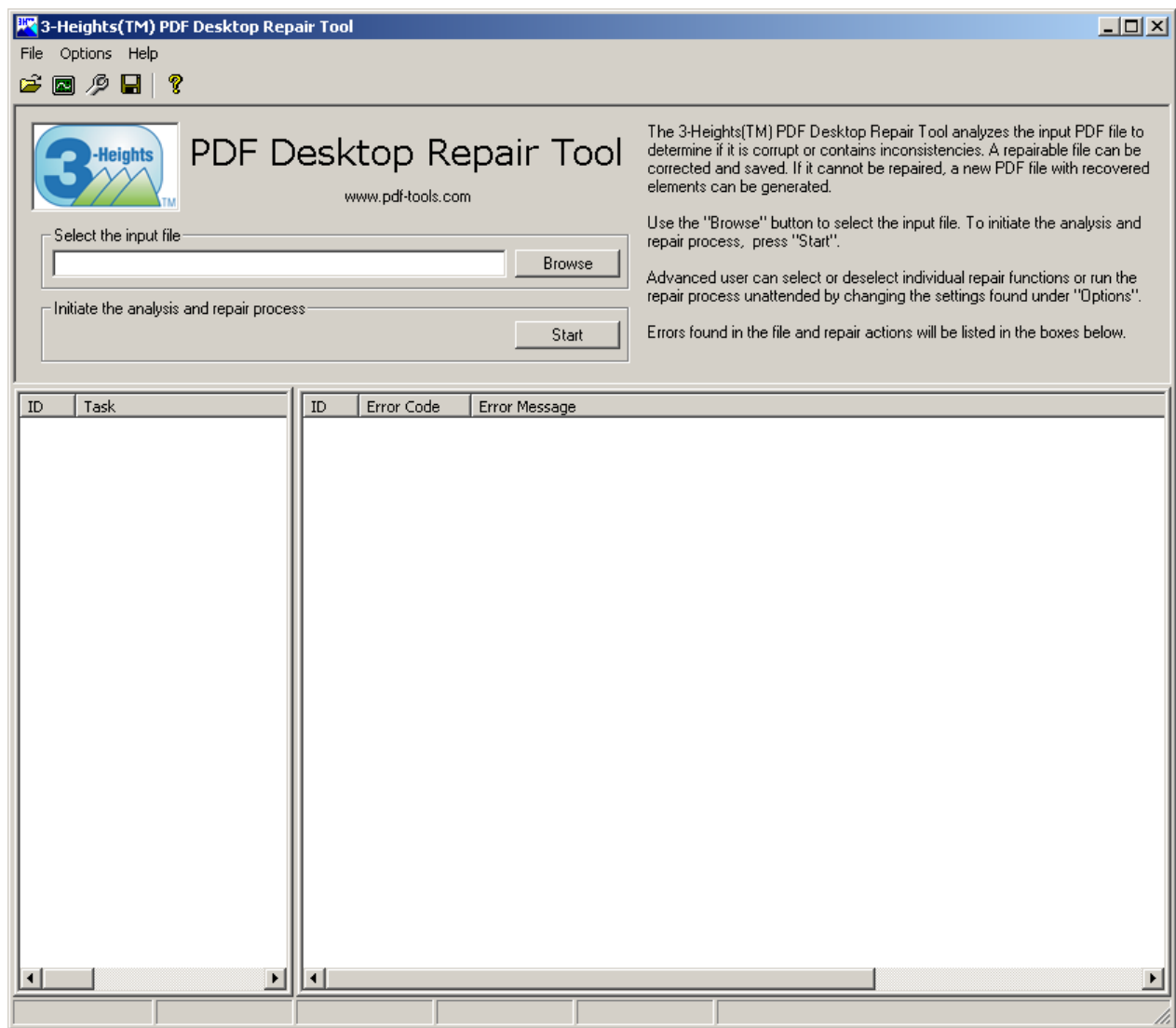
More information about license management is available in the [license key technote](#).

4 Getting started

To analyze and repair a PDF file, click on quotationBrowse and select the PDF file you want to analyze.

A partial analysis occurs when the file is loaded to ensure that it can be loaded properly.

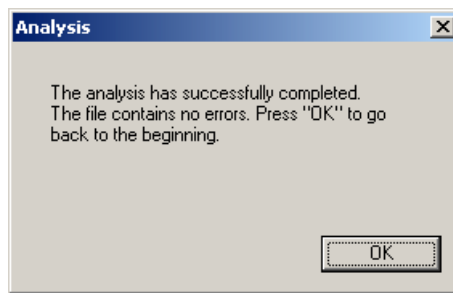
When your file is displayed in the Input File field, click “Start” to begin the analysis process. The PDF file is completely analyzed.



4.1 PDF file contains no errors

If the analysis determines that the PDF file contains no errors, you see the following pop-up message.

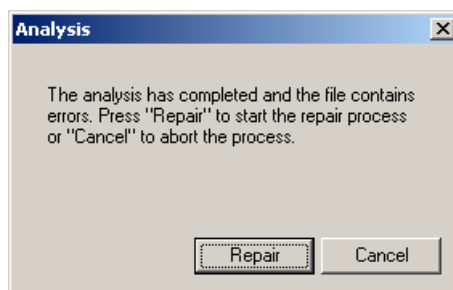
Select “OK” to close the message and return to the main menu.



4.2 Repair process

4.2.1 Start the repair process

If the analysis determines that the PDF file contains errors and can be repaired, you see the following pop-up message.



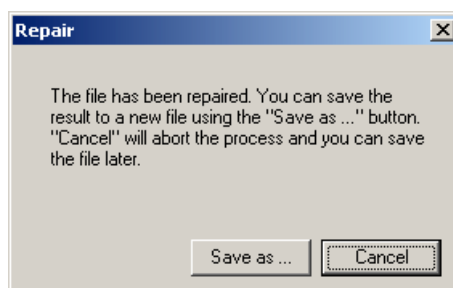
Select "Repair" to begin the repair process or "Cancel" to close the message and return to the main menu without repairing the file.

4.2.2 Save the repaired file

Once the file has been repaired, you are prompted to save the repaired file under a new name. You cannot save the repaired file under the same name as the input file.

Select "Save as" to save the file or "Cancel" to close the message and return to the main menu without saving the repaired file.

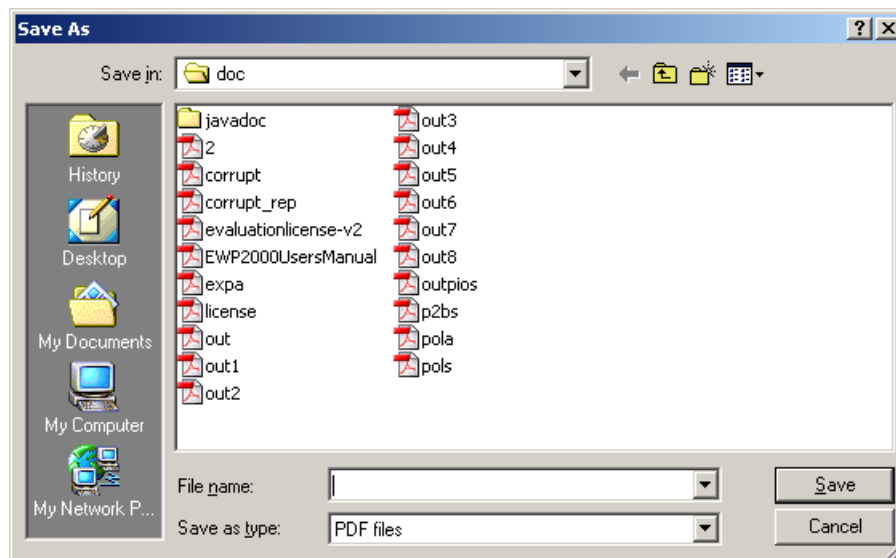
You can save the information at a later time by selecting "File", "Save as" in the main menu, until you either load a new file or exit the program.



4.2.3 Enter new file name

Enter the name and location where you want to save the repaired file, then select "Save".

Select "Cancel" to close the window and return to the main menu without saving the repaired file.



4.3 Recovery process

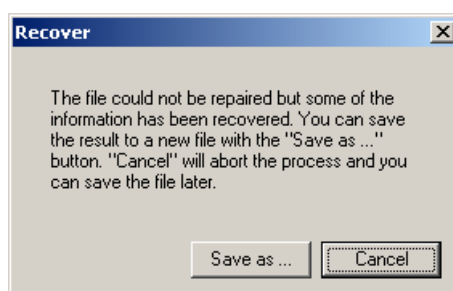
Information can still be obtained from a PDF file that is not repairable. The recovery process recovers all recognizable content and saves it in a new PDF document.

4.3.1 Start the recovery process

If the repair process determines that the document is irreparable but some content can be recovered, you see the following pop-up message.

Select "Save as" to save the recovered information in a new PDF file.

You cannot save the recovery file under the same name as the input file.



Select "Cancel" to close the message and return to the main menu without saving the recovered information.

You can save the information at a later time by selecting "File", "Save as" in the main menu, until you either load a new file or exit the program.

Difference between repairable and recoverable

Repairable The input PDF file contains errors that are repairable. For example, these can be PDF syntax errors. In the repaired PDF output file, these errors are fixed.

Recoverable The input PDF file is missing data. For example, data of an embedded image, which was lost/overwritten when copying the file from one location to another failed partially. When relevant data is lost, the

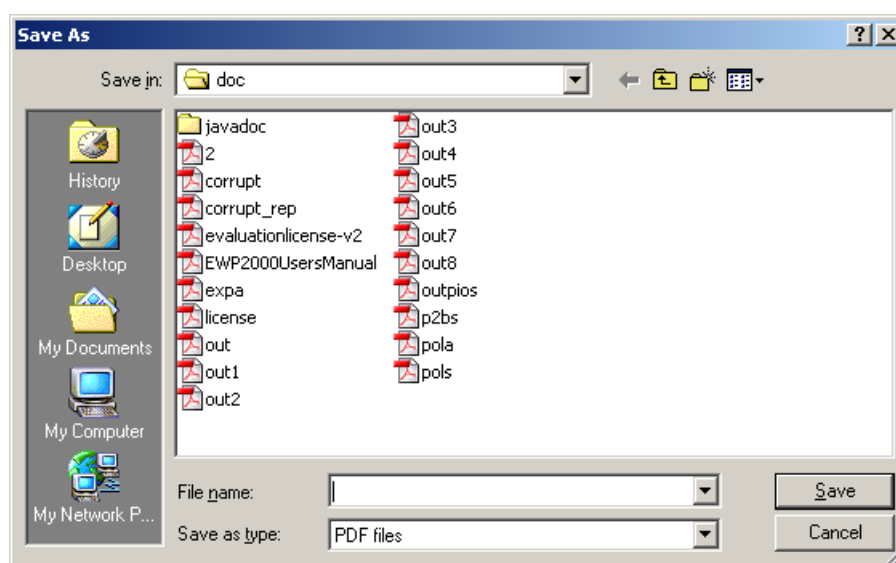
file is irreparable. However, the file can be recovered in such a way that the output PDF is valid according to the PDF specification.

Example: Assuming an original PDF (file O) is valid.

- Somehow the file becomes corrupted (→ file C) and file O gets lost.
- If file O can be rebuilt based on file C, then file C is repairable.
- If a new file N can be built based on file C, and file N is a valid PDF and contains (part of) the content of file O, then file C is recoverable.

4.3.2 Enter new file name

Enter the name and location where you want to save the recovery file, then select “Save”.



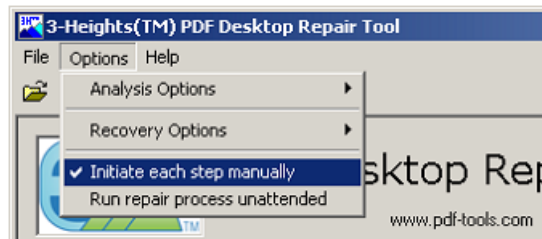
Select “Cancel” to close the window and return to the main menu without saving the recovery file.

4.4 Repair and recovery with the evaluation version

The evaluation version of the 3-Heights® PDF Analysis & Repair Tool analyzes PDF documents and indicates if the documents are valid or if they are corrupt and can be repaired. With the evaluation version, the “Save As” function has been disabled. A full version is required to save and view repaired or recovered PDF files.

5 User guide

5.1 Analysis options



5.1.1 Analyze objects

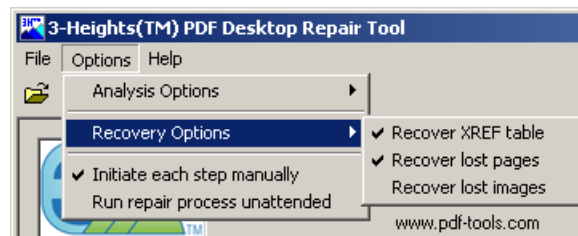
The “Analyze objects” option analyzes all PDF objects in the PDF file to determine if they are correct. If this option is deselected, the PDF objects is excluded from the analysis and repair process.

Default: Selected.

5.1.2 Analyze pages

The “Analyze pages” option analyzes the page tree in the PDF file. If deselected, the page tree is excluded from the analysis and repair process.

5.2 Recovery options



5.2.1 Recover XREF table

This option recovers the cross-reference table. This option can be deselected if it is taking too long to recover a document, since recovering the cross-reference table is very time-consuming.

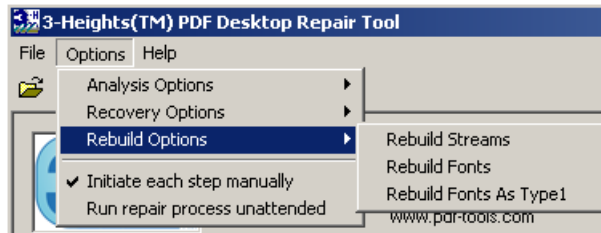
Default: Selected

5.2.2 Recover lost pages

By default, if pages are not part of the page tree (loose pages), they are recovered and added to the end of the recovery document. If this option is deselected, the lost pages are not recovered and are not be included in the recovery document.

Default: Selected

5.3 Rebuild options



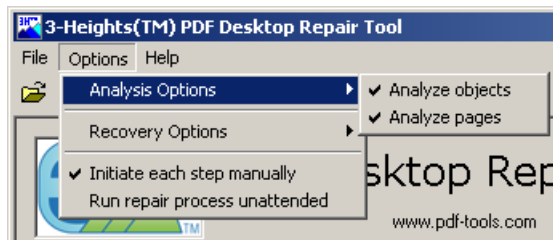
These options control the parts of the PDF to be repaired. Available options are:

- Rebuild Streams
- Rebuild Fonts
- Rebuild Fonts as Type1

If “Rebuild fonts as Type1” is applied, the compressed fonts are decompressed; this can potentially lead to an increase of the file size.

5.4 Process control

5.4.1 Initiate each step manually



This option allows you to control the analysis and repair process. The user is required to initiate each step in the process manually.

Default: Selected

5.4.2 Run repair process unattended

When the repair process runs unattended, the user is not prompted to initiate each step in the process.

If the PDF document is corrupt and is repairable, it is automatically repaired. A pop-up window is displayed to enter the desired file name of the repaired PDF file (see [Enter new file name](#)). You cannot save the repaired file under the same name as the input file.

If the PDF document is corrupt and is not repairable, a window automatically appears to enter the desired file name of the PDF recovery document (see [Enter new file name](#)). You cannot save the recovery file under the same name as the input file.

Default: Not Selected

6 Product limitations

Not all corrupt PDF files are reparable. Pdftools provides no guarantee that a PDF file can be repaired or recovered. In such a case, contact the source of the file to indicate that the PDF should be created again.

Some image compression methods are not recoverable. If a PDF file contains images that were compressed with these methods, the program may abort when trying to recover the images.

7 Version history

7.1 Changes in versions 6.19–6.27

- **Update** license agreement to version 2.9

7.2 Changes in versions 6.13–6.18

No functional changes.

7.3 Changes in versions 6.1–6.12

No functional changes.

7.4 Changes in version 5

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

7.5 Changes in version 4.12

- **New** HTTP proxy setting in the GUI license manager.

7.6 Changes in version 4.11

- **New** support for reading and writing PDF 2.0 documents.
- **New** support for the creation of output files larger than 10GB (not PDF/A-1).
- **New** treatment of the DocumentID. In contrast to the InstanceID the DocumentID of the output document is inherited from the input document.

7.7 Changes in version 4.10

- **Improved** robustness against corrupt embedded font files.
- **Improved** robustness against corrupt input PDF documents.

7.8 Changes in version 4.9

- **Improved** support for recovering certain corruption types.
- **Improved** support for and robustness against corrupt input PDF documents.
- **Improved** repair of embedded font programs that are corrupt.
- **New** support for OpenType font collections in installed font collection.
- **Improved** metadata generation for standard PDF properties.

7.9 Changes in version 4.8

- **Added** repair functionality for TrueType font programs whose glyphs are not ordered correctly.

8 Licensing, copyright, and contact

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

Pdftools 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 The 3-Heights® PDF Analysis & Repair Tool is copyrighted. This user manual is also copyright protected; It may be copied and distributed provided that it remains unchanged including the copyright notice.

Contact

PDF Tools AG
Brown-Boveri-Strasse 5
8050 Zürich
Switzerland
<https://www.pdf-tools.com>
pdfsales@pdf-tools.com