



PDF Reducer V.4

User Guide

Thanks for taking an interest in our ORPALIS product.

All our products and solutions are available on www.orpalis.com

ORPALIS PDF Reducer is a super-fast and powerful PDF compression Software for general public and developers meant to help anyone to get existing PDF files reduced up to 80% more than concurrent products.

To achieve that, ORPALIS PDF Reducer provides different innovative and highly sophisticated size-reducing techniques which can be optionally applied by user selection.

Innovative and highly sophisticated techniques restructure existing content and apply the most effective compression scheme based on data type. Documents are printable and zoomable without loss of quality.







PDF Reducer is able to serialize several compression algorithms on images in order to (surpass) the limitations of some compression schemes.

This user guide will give you a good idea of the different options available in PDF Reducer. After reading it, you will be able to make the best use of this software and fully benefit from its many features.

You can get support at <https://orpalis.zendesk.com/hc/en-us/requests/new> or contact us at <https://pdfreducer.orpalis.com/contact/>



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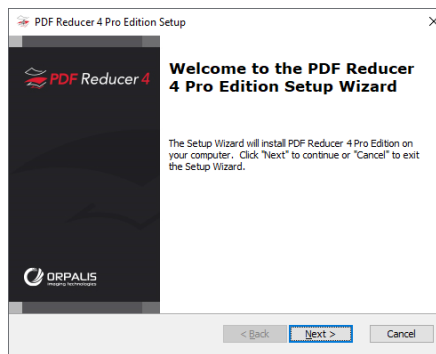
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1. INSTALLATION

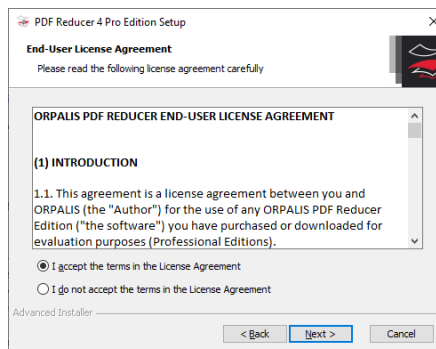
PDF Reducer 4 can be downloaded from <https://pdfreducer.orpalis.com/>.

Once the installer file has been downloaded, check if it needs unblocking by right clicking on the file and viewing the properties.

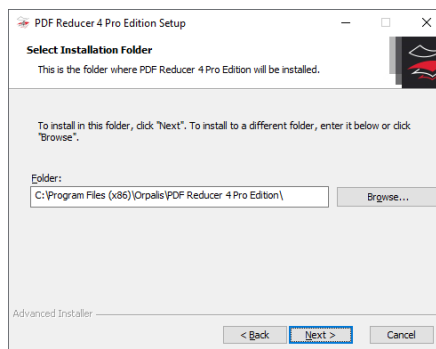
1. Run the executable



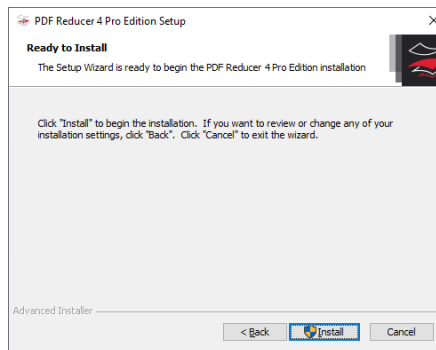
2. Click Next



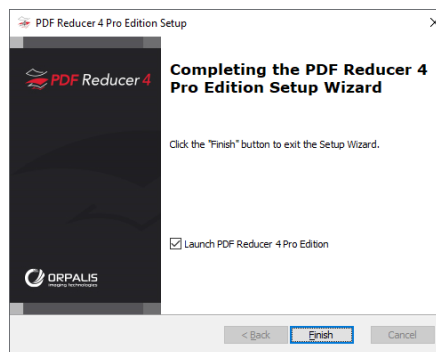
3. Accept the License Agreement and click Next



4. Change the installation location if required, then click Next

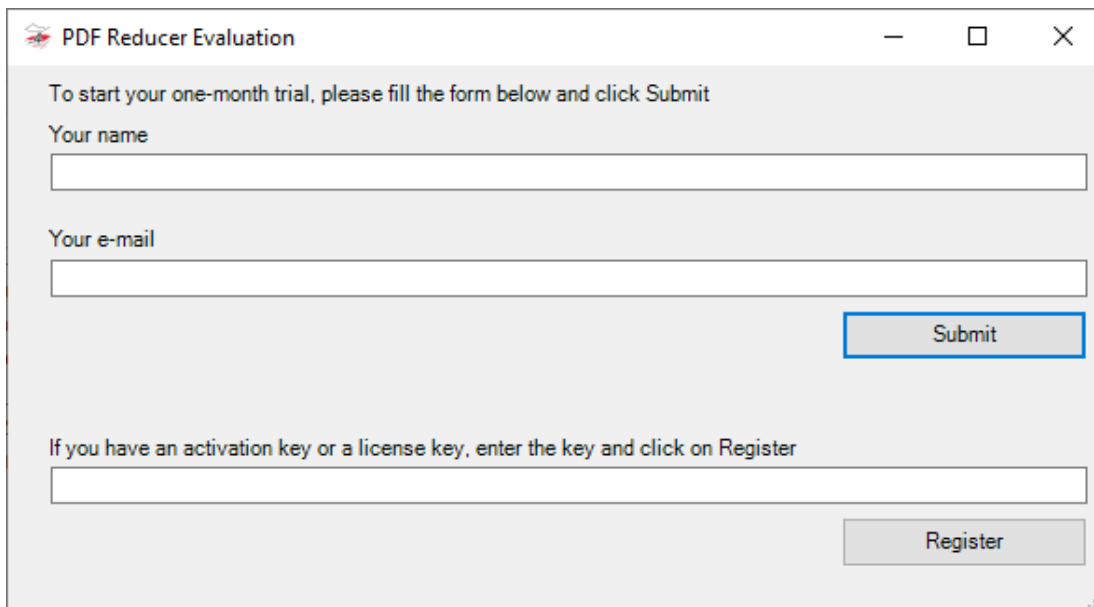


5. Click on Install to begin the installation.
 - a. Depending on your User Account Control settings, you may be asked if you want PDF Reducer to make changes to your device. Click Yes to continue the installation.



You can now finish the installation with an option to start PDF Reducer.

If this is the first installation of PDF Reducer 4, you will need a key. The application will bring up the Evaluation request page.



The image shows a dialog box titled "PDF Reducer Evaluation". It contains the following elements:

- Header: "PDF Reducer Evaluation" with standard window controls (minimize, maximize, close).
- Instruction: "To start your one-month trial, please fill the form below and click Submit".
- Form fields:
 - "Your name" with a text input field.
 - "Your e-mail" with a text input field.
- Buttons:
 - "Submit" button (highlighted with a blue border).
 - "Register" button (disabled).
- Second section:
 - Instruction: "If you have an activation key or a license key, enter the key and click on Register".
 - A text input field for the key.
 - "Register" button (disabled).

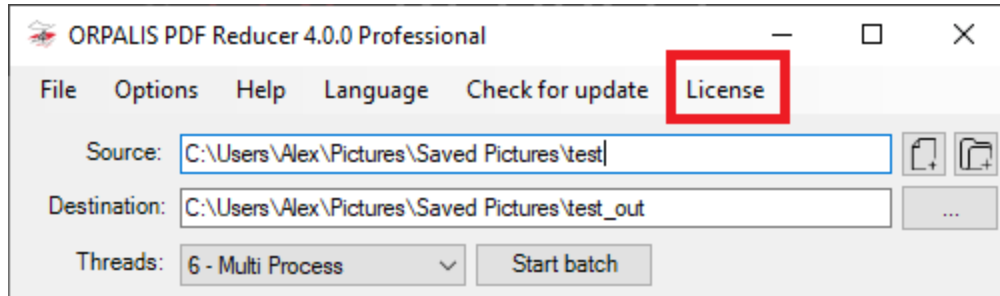
Enter your name and a valid email address, then click on Submit. A Machine Bound evaluation key will be obtained and registered. This evaluation key is valid for one month. If you need to extend this evaluation period, please contact contact@orpalis.com.

If you have purchased a licensed copy of PDF Reducer, you will either receive a specific machine bound license key or an activation key. Enter it in the box and click on Register.

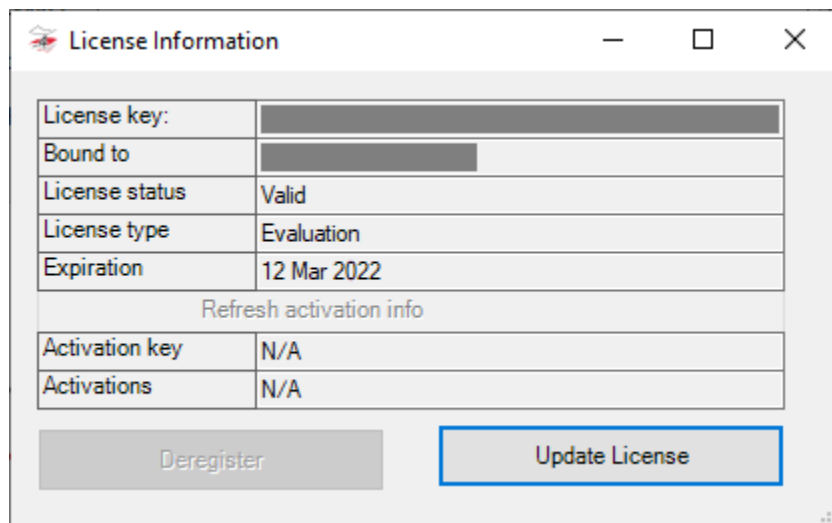
2. LICENSING

a. License Keys

Evaluation keys all have an expiry date. To view the application's current license status or to enter a new license, click on the License button.



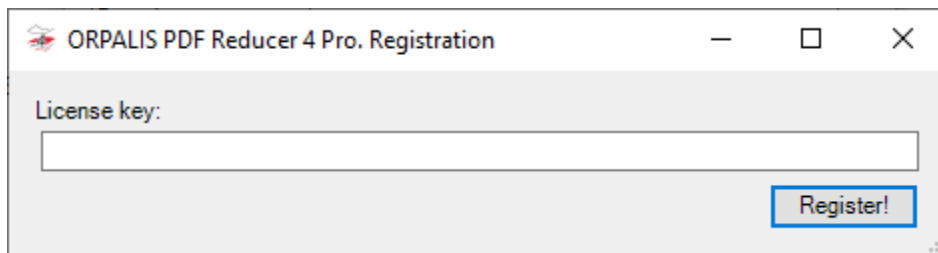
This displays the license information page.



Option	Description
License key	Value of the current license key
Bound to	Machine name (NETBIOS) the key is bound to
License status	Valid, Expired, Invalid
License type	Permanent, Evaluation
Expiration	Expiration date or Never Expires
Activation key	Activation key used (not applicable for a supplied license key)
Activation	Activation count (no. of activations against the activation key), and the total available

b. Update license

When you click on the Update License button, you can enter either an Activation Key or a License Key.



Depending on the method of purchase, an activation key may have been sent by email after purchasing PDF Reducer.

Enter the activation key and click on Register.

This will generate a Machine Bound (tied to the machine's NETBIOS name) license key.

Depending upon the purchase option, the activation key may be used more than once to generate individual machine keys. The Activations section of the License Information will show how many times the activation key has been used.

c. De-register license key

De-registering a license key releases one of the activations on an activation key, allowing it to be used to activate PDF Reducer on a different machine.

To de-register a license key, just click on the De-register license key button.

This will only work where the license key was generated from an activation key, not a specific license key. It also does not work for evaluation licenses.

d. Desktop and Server

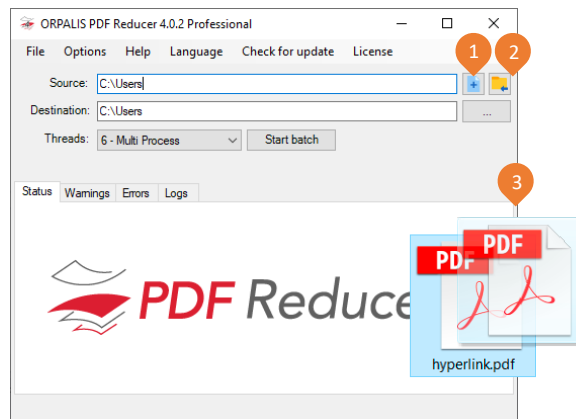
Between the On-Premises Desktop and the On-Premises Server, there is some slight differences which you will need to know:

- One Desktop license allows use of PDF Reducer On-Premises Edition on **ONE desktop machine** (all Windows desktop OS starting with Windows 10).
- One Server license allows use of PDF Reducer On-Premises Edition on **ONE server machine** (all Windows Server OS starting with Server 2012-SP2).

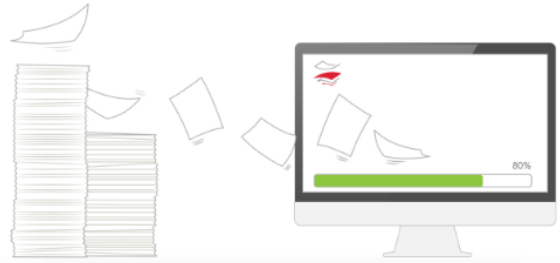
3. HOW DO I PUT MY DOCUMENTS IN PDF REDUCER?

You have different options to put your document in PDF Reducer.

- **1 Files selection** : Select one file or multiple files to compress them.
- **2 Folder selection** : Select a folder to compress all files inside. To process subdirectories, click on "Options" and select "Process subfolders" from the "General" tab.
- **3 Files drag and drop** : "Grab" one file or multiple files and drag it into the PDF reducer home page.



Unlimited batch processing available in both On-Premises Editions

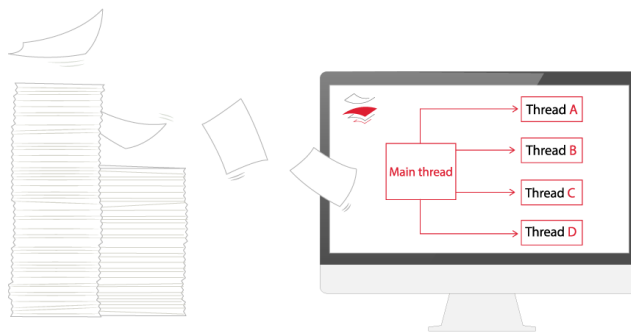


You can have unlimited PDF files, and the Batch process will continue until all files have been handled.

Once your Batch is complete you can view the log files of the full Batch and each file exported.

Multi-threading support available in both On-Premises Editions.

Executes PDF processing via multiple, concurrent threads, decreasing processing time by using CPU resources most efficiently.



4. WHAT FORMATS ARE SUPPORTED BY PDF REDUCER?



With PDF Reducer Version 4 you can compress a large variety of images and documents. Nearly 100 input files formats are now available besides PDF, including raster images formats such as TIFF, JPEG, PNG, JPEG 2000 and RAW camera formats.



Supported Compression Schemes :

JPEG - Joint Photographic Experts Group.

OJPEG (Old JPEG 6.0 compression).

JPEG 2000 - JPEG wavelet-based image compression.

JBIG2 - Joint Bi-level Image Experts Group.

Packbits - lossless compression scheme for run-length encoding of data.

CCITT Group 3 Fax coding.

CCITT Group 4 Fax coding.

Modified Huffman coding.

RLE - Run-length encoding.

LZW - Lempel-Ziv-Welch

LogLuv - for high dynamic range imaging data.

Deflate

Huffman

Arithmetic coding

WebP

Supported Input Document Formats :

SVG

SVG - Scalable Vector Graphics

PDF

PDF - Portable Document Format

PDF/A - Document Format for long term Preservation

PDF Multi-page - Portable Document Format

Raster Images

ANIMATED GIF - Graphics Interchange Format

BMP - Standard Windows Bitmap Format

CUT - Dr. Halo/Dr.Genius Clipboard Format

DDS - Microsoft DirectDraw Surface Format

DIB - Standard Windows Bitmap Format

DICOM - Digital Imaging and Communications in Medicine

EXIF - Exchangeable Image Format

EXR - OpenEXR Format

FAX, G3 - Group 3 Raw Fax Format

GIF, Interlaced GIF - Graphics Interchange Format

HDR - High Dynamic Range Format

IFF - Interchange Format

ICO (single page and multi page) - Icon Format

J2K, J2C - JPEG-2000 Codestream

JB2, JBIG2 - Joint Bi-level Image Experts Group

JIF, JFIF - JPEG File Interchange Format

JNG - JPEG Network Graphics

JP2 - JPEG-2000 Format

JPEG, JPG, JPE - Joint Photographic Expert Group

JPEG progressive

KOA - KOALA Format

LBM - Interchange File Format-Interleaved Bitmap

MNG - Multiple-image Network Graphics *

PBM - Portable Bitmap File

PBM RAW - Portable Bitmap BINARY

PCD - Kodak Photo-CD file

PCT, PICT, PIC – Macintosh PICT Format

PCX - PC Paintbrush Format

Metafile

EMF - Enhanced Windows Metaformat

WMF - Standard Windows Metaformat

Raster Images

PCX - PC Paintbrush Format

PFM - Portable Float Map

PGM - Portable Graymap File

PGM RAW - Portable Graymap BINARY

PSD - Photoshop File

PNG - Portable Network Graphics Format

PNM - Portable Any Map

PPM - Portable Pixmap File

PPM RAW - Portable Pixmap BINARY

RAS - Sun Raster Format

RAW camera image

RAW memory bits - RAW bitmap

RLE – Standard Windows Bitmap format

SGI – Silicon Graphics Image Format

TGA, TARGA – TARGA Image Format

TIFF, TIF – Tagged Image Format

TIFF Multi-page – Multi-page Tagged Image Format

WBMP, WAP, WBM – Wireless Bitmap

XBM – X-Bitmap Format

XPM – X Pixmap Format

Supported RAW Camera Image Formats:

3fr - Hasselblad Digital Camera Raw Image Format.

arw - Sony Digital Camera Raw Image Format for Alpha devices.

bay - Casio Digital Camera Raw File Format.

bmq - NuCore Raw Image File.

cap - Phase One Digital Camera Raw Image Format.

cine - Phantom Software Raw Image File.

cr2 - Canon Digital Camera RAW Image Format version

2.0. These images are based on the TIFF image standard.

crw - Canon Digital Camera RAW Image Format version 1.0.

cs1 - Capture Shop Raw Image File.

dc2 - Kodak DC25 Digital Camera File.

dcr - Kodak Digital Camera Raw Image Format for these models: Kodak DSC Pro SLR/c, Kodak DSC Pro SLR/n, Kodak DSC Pro 14N, Kodak DSC PRO 14nx.

drf - Kodak Digital Camera Raw Image Format

dsc - Kodak Digital Camera Raw Image Format.

dng - Adobe Digital Negative: DNG is a publicly-available, archival format for the raw files generated by digital cameras. By addressing the lack of an open standard for the raw files created by individual camera models, DNG helps ensure that photographers will be able To access their files in the future.

erf - Epson Digital Camera Raw Image Format.

fff - Imacon Digital Camera Raw Image Format.

hdr - Leaf Raw Image File.

la - Sinar Raw Image File.

liq - Phase One Digital Camera Raw Image Format.

kc2 - Kodak DCS200 Digital Camera Raw Image Format.

k25 - Kodak DC25 Digital Camera Raw Image Format.

kdc - Kodak Digital Camera Raw Image Format.

mdc - Minolta RD175 Digital Camera Raw Image Format.

mef - Mamiya Digital Camera Raw Image Format.

mef - Mamiya Digital Camera Raw Image Format.

mos - Mamiya Digital Camera Raw Image Format.

mrw - Minolta Dimage Digital Camera Raw Image Format.

nef - Nikon Digital Camera Raw Image Format.

nrw - Nikon Digital Camera Raw Image Format.

orf - Olympus Digital Camera Raw Image Format.

pef - Pentax Digital Camera Raw Image Format.

ptx - Pentax Digital Camera Raw Image Format.

pxn - Logitech Digital Camera Raw Image Format.

qtk - Apple Quicktake 100/150 Digital Camera Raw Image Format.

raf - Fuji Digital Camera Raw Image Format.

raw - Panasonic Digital Camera Image Format.

rdc - Digital Foto Maker Raw Image File.

rw2 - Panasonic LX3 Digital Camera Raw Image Format.

rw1 - Leica Camera Raw Image Format.

rwz - Rawzor Digital Camera Raw Image Format.

sr2 - Sony Digital Camera Raw Image Format.

srf - Sony Digital Camera Raw Image Format for DSC-F828 8 megapixel digital camera or Sony DSC-R1

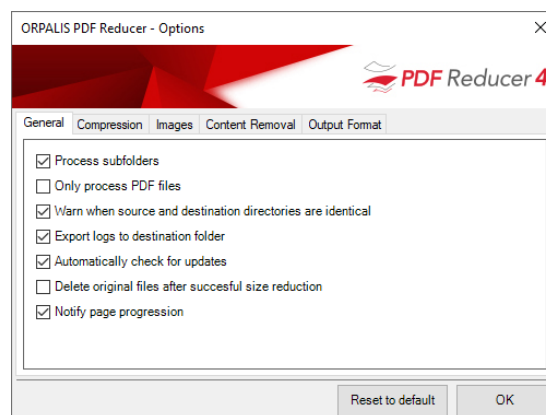
srw - Samsung Raw Image Format.

sti - Sinar Capture Shop Raw Image File.

5. GENERAL

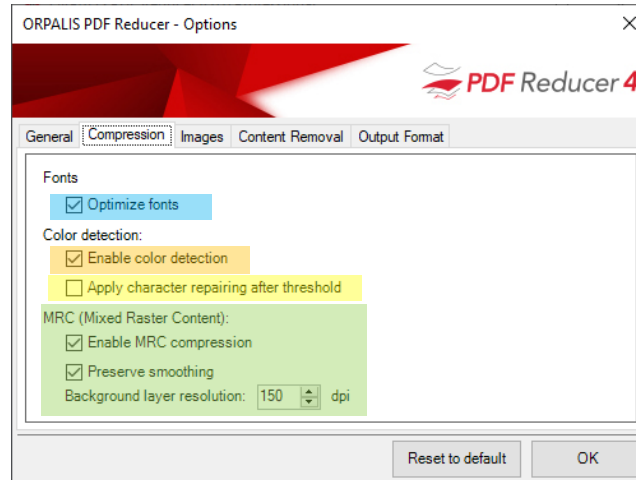
Different options are available before importing your files:

- **Process subfolders:** Compresses all files within all subfolders of a selected folder to process.
- **Only process PDF files:** Filters PDF files imported only.
- **Warn when source and destination directories are identical:** Warns through a dialog message when destination folder is the same folder as where the file was initially located.
- **Export logs to destination folder:** A log file is presented in the form of a classic text file, listing chronologically all the compressed files using the format below:
[date time] Status – destination folder\file.pdf (% of input)
- **Automatically check for updates** (selected by default): Enables auto-updates
- **Delete original files after successful size reduction:** Deletes source files to replace them with the newly processed and compressed version.
- **Notify page progression:** Enables a progress bar to visualize completion status.



6. COMPRESSION

How do I control the compression of my files?



a. Enable Automatic color detection and layout analysis

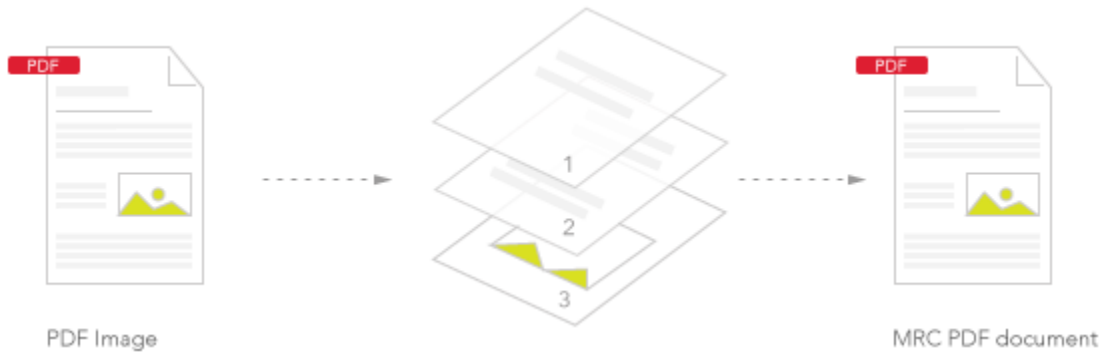
GdPicture.NET supports advanced color detection methods on an image.

Usually, scanning batches of papers under scanner's color-mode implies mixing together colored and B&W documents. PDF Reducer automatically identifies the B&W documents and encodes them as plain B&W thus dramatically reducing the file size.



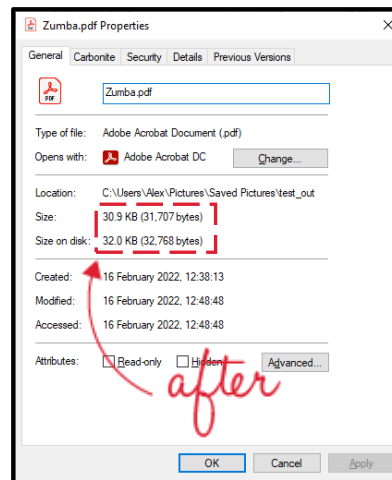
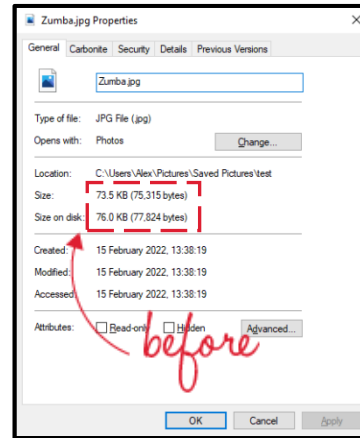
b. ■ Mixed raster content (MRC)

MRC uses image segmentation to compress areas with the optimum algorithm based on the page's characteristics. This method produces optimal results with document mixing text, graphics, and images.

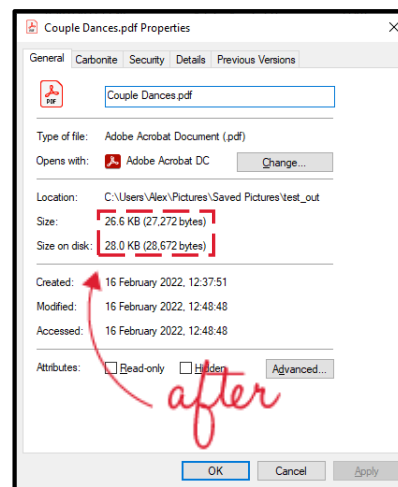
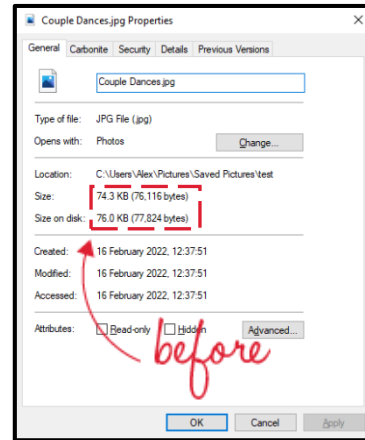


GdPicture.NET supports advanced PDF bitmap compression methods which can be combined, including color detection and mixed raster content (aka MRC). While coupling these two techniques, each image is automatically broken down using sophisticated segmentation algorithms. They are automatically converted to a color space allowing you to reduce the bitmap size while preserving its perceptual quality, and then compressing using the most appropriate compression algorithm. This results in dramatically smaller PDF file sizes.

Extra MRC engine settings have now been added that, if enabled, give more control of the layers of the input. If 'Preserve Smoothing' is enabled, the engine will attempt to preserve the smoothing between different layers. By setting the 'Background Layer Resolution', the resolution for downscaling the background layer can be set for the MRC engine.



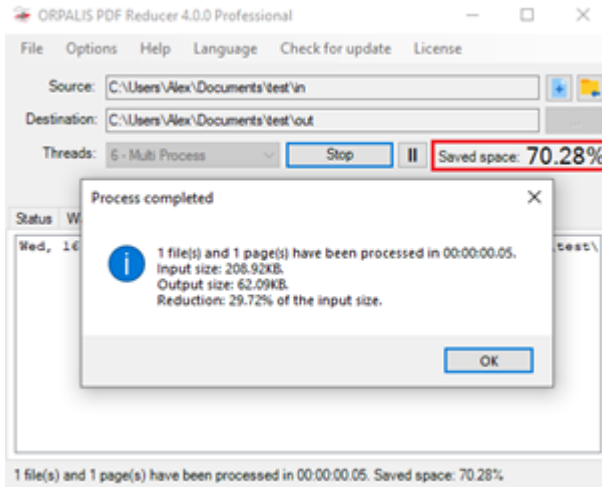
In this example, PDF Reducer has reduced the file size by more than half without any reduction in the PDF's output quality. **Saved space: 57.90%**



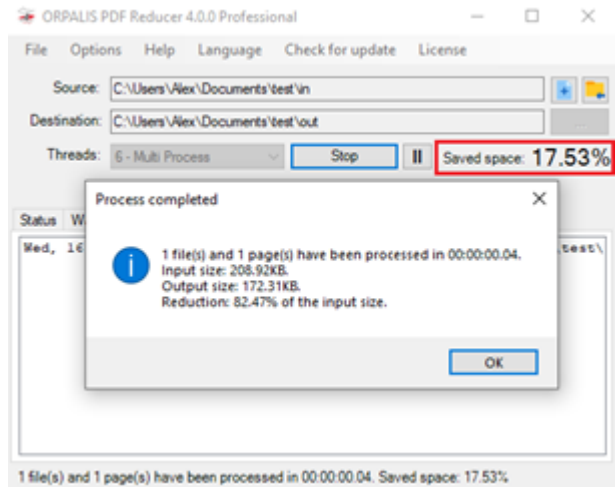
In this example, PDF Reducer has reduced the file size to nearly a third without any reduction in the PDF's output quality. **Saved space: 64.17%.**

c. Optimize fonts

Optimizing the fonts can reduce file size with little to no change to the PDF file display.



Optimizing fonts

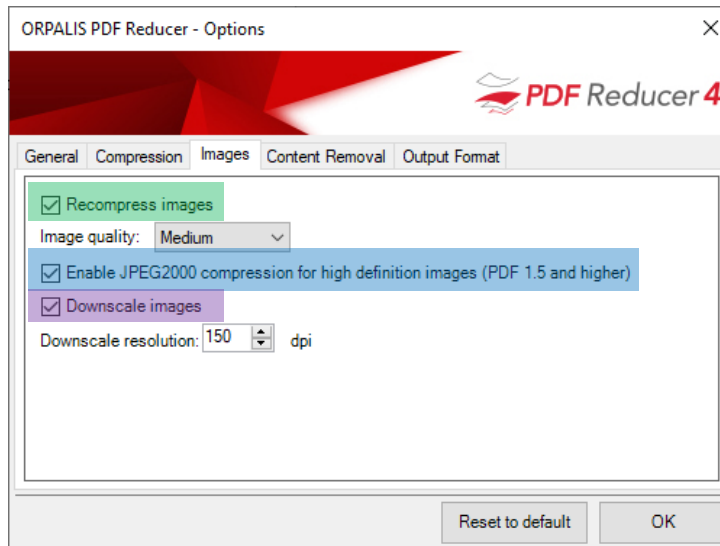


No optimizing fonts

7. IMAGES

How do I control the compression of images?

PDF Reducer can use multiple compression algorithms in turn on images in order to surpass the limitations of individual compression schemes.



a. Recompress images

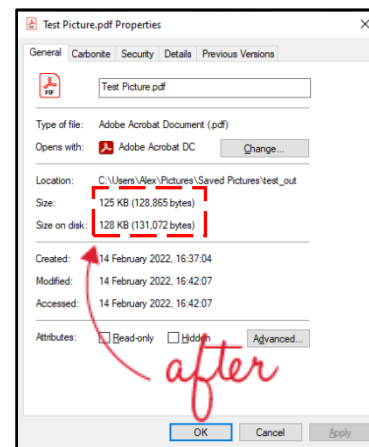
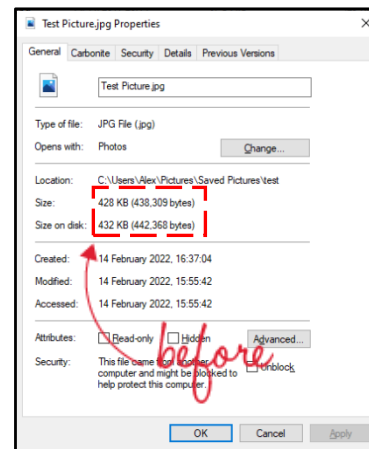
Decrease unnecessary high resolutions to dramatically reduce the file size. Choose a level of quality (from Low, Medium, High, very High) that does not affect the viewing experience

Quality: Lower image quality reduces file size, whilst a higher quality gives better image quality but a larger file size.

Optimizes images only if this results in a reduction in size. If this option is selected, and the image parameters cause an increase in the size of the file, this optimization of the image is canceled.

b. Enable JPEG2000 for high definition images

JPEG 2000: JPEG 2000 is an image compression standard which, as opposed to the classic JPEG standard, offers important advantages, such as : provides both lossy and lossless compression in the same file stream, higher compression ratios for lossy compression than the JPEG standard, provides the ability to display same image in different resolutions and sizes, provides the capability of viewing a certain Region of Interest (ROI) in high quality while the rest of the image is displayed in lower quality, etc. There are numerous other advantages of JPEG 2000 over JPEG compression standard which you can find out about from a dedicated section on the official site.



PDF Reducer has been dramatically reducing the file size without any reduction in the PDF's output quality. **Saved space: 71.60%.**

c. Downscale images

Allows users to reduce the size of a file by decreasing the resolution of the images. This operation involves the fusion of the colors of the initial pixels into larger pixels.

This method automatically adjusts the vertical and horizontal image resolution in order to maintain the aspect ratio.

Resolution: Defines the resolution to use to downscale images.

Allows you to customize the number of pixels per inch of your image. Note that the resolution depends on the purpose of your work:

- For images intended for the web, we recommend a resolution between 72 and 75 pixels per inch.
- For images intended for printing, we recommend a resolution of 300 pixels per inch.

Images smaller than 10 x 10 pixels cannot be resized.



8. CONTENT REMOVAL

PDF Reducer provides flexible options for compression.

a. Document content:

- **Remove bookmarks:** Although bookmarks allow easier navigation through a PDF file, there are situations where they are no longer appropriate. This option removes all bookmarks from the output file.
- **Remove embedded files:** Attachments will usually significantly increase the size of your PDF document and can also be a potential security threat.
- **Discard unused objects:** You might have received PDFs containing additional, unwanted objects. During the compression process, PDF Reducer will remove unused objects and elements. This leads to a significantly reduced file size. Therefore, the compression is particularly valuable for large images. This drastic reduction however does not affect any of the file's contents, but it will make your PDF files compact and easy to open.
- **Remove embedded fonts:** Font embedding means that a copy of the entire character set of a font is stored in the PDF. A font program can be embedded in a PDF file as data contained in a PDF stream object (font file). Embedded fonts ensure that all of the font information needed to correctly visualize the document is always present. Removing this information may lead to worse document quality and, in rare cases, a loss of information.

Certain types of fonts like font subsets or fonts with custom character mapping cannot be removed using this method.

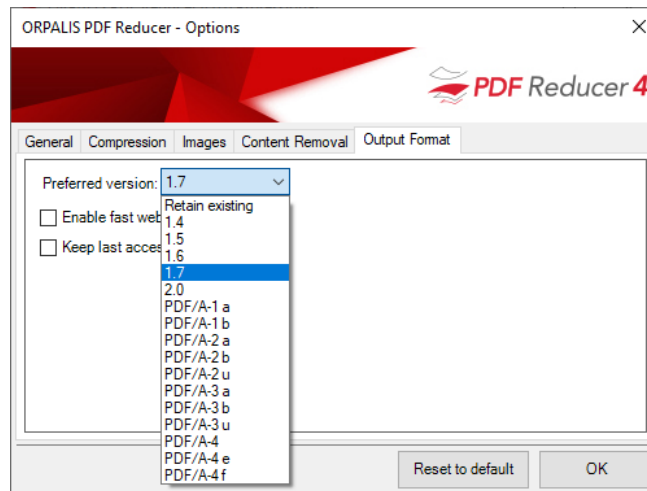
- **Remove blank pages:** Blank pages with no content can serve as separators for other pages, but in most cases they are unwanted pages that can be removed with this setting.

b. Interactive content:

- **Remove form fields:** Makes form fields unusable and does not change their appearance. Your form data is merged with the page to become page content.

- **Remove annotations:** An annotation is a note or comment added to a PDF document. You can remove annotations that you or other people have added.
- **Remove hyperlinks:** Source documents may contain links to destinations which are invalid or out of date. This option removes all the links rather than requiring the document being edited after compression.
- **Remove JavaScript:** Using JavaScript in a PDF can enable many different functions that can control the behavior of the PDF and data that is entered into its form fields. This behavior is not always wanted, and can be removed by selecting this option.

9. OUTPUT FORMAT



When compressing your PDF files, you have the possibility to decide which version of PDF to use. You can modify the version of PDF by selecting from the option "preferred versions".

- **Preferred version:** Generally speaking, unless there's a specific need for backward compatibility, you should use version 1.7. Version 2.0 is available but older readers may not support it. The latest version will include all the newest features and functionalities. However, if you're creating documents that will be distributed widely, consider choosing Acrobat 5.0 (PDF 1.4) or Acrobat 6.0 (PDF 1.5) to ensure that all users can view and print the document.

This property now included several options for PDF/A output. This format is specialized for long-term archiving of documents by making them self-contained. Each level of conformance has different requirements and features, so choose a level that is suitable to your needs.

A PDF file is not compatible with earlier versions. It is possible to save only from the current version to that and later versions.

The following table compares some of the functionalities in PDFs created using the different compatibility settings.

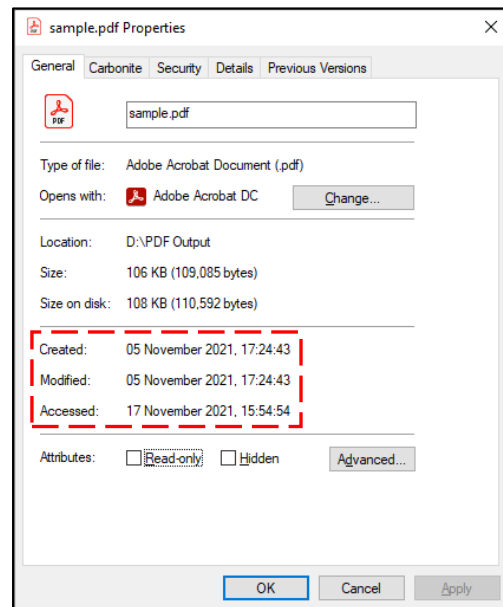
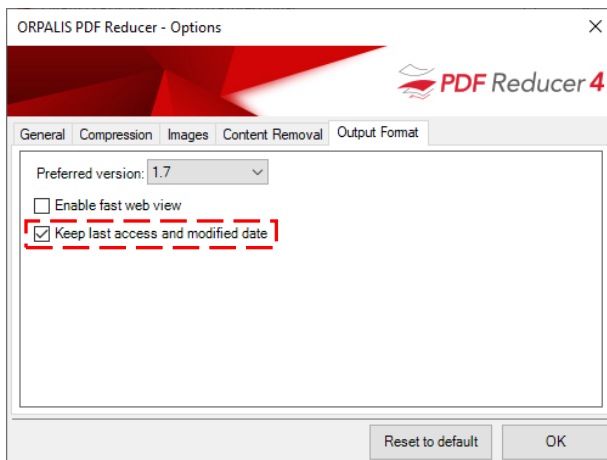
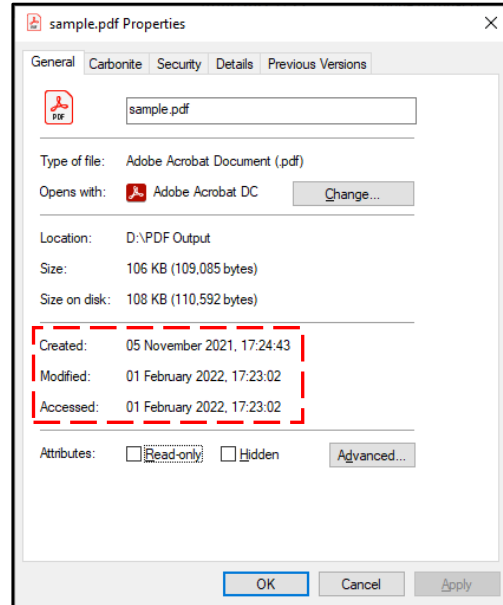
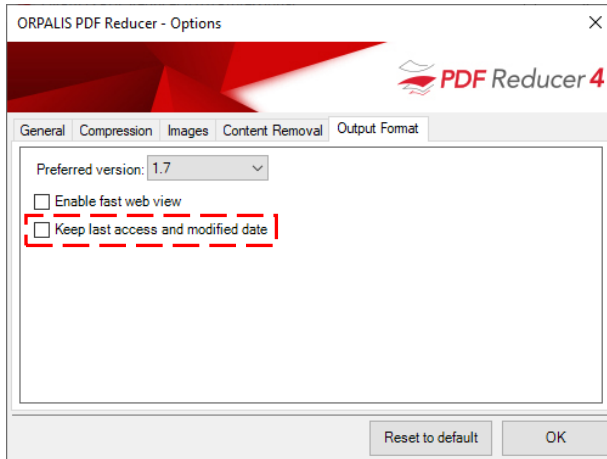
Acrobat 5.0 (PDF 1.4)	Acrobat 6.0 (PDF 1.5)	Acrobat 7.0 (PDF 1.6) and Acrobat X (PDF 1.7)
PDFs can be opened with Acrobat 3.0 and Acrobat Reader 3.0 and later. However, features specific to later versions may be lost or not viewable.	Most PDFs can be opened with Acrobat 4.0 and Acrobat Reader 4.0 and later. However, features specific to later versions may be lost or not viewable.	Most PDFs can be opened with Acrobat 4.0 and Acrobat Reader 4.0 and later. However, features specific to later versions may be lost or not viewable.
Supports the use of live transparency in artwork. (The Acrobat Distiller feature flattens transparency.)	Supports the use of live transparency in artwork. (The Acrobat Distiller feature flattens transparency.)	Supports the use of live transparency in artwork. (The Acrobat Distiller feature flattens transparency.)
Layers are not supported.	Preserves layers when creating PDFs from applications that support the generation of layered PDF documents, such as Illustrator CS and later or InDesign CS and later.	Preserves layers when creating PDFs from applications that support the generation of layered PDF documents, such as Illustrator CS and later or InDesign CS and later.
DeviceN color space with 8 colorants is supported.	DeviceN color space with up to 31 colorants is supported.	DeviceN color space with up to 31 colorants is supported.
Multibyte fonts can be embedded.	Multibyte fonts can be embedded.	Multibyte fonts can be embedded.
128-bit RC4 security supported.	128-bit RC4 security supported.	128-bit RC4 and 128-bit AES (Advanced Encryption Standard) security supported.

- **Enable fast web view:** Restructures a PDF document for page-at-a-time downloading (byte-serving) from web servers.

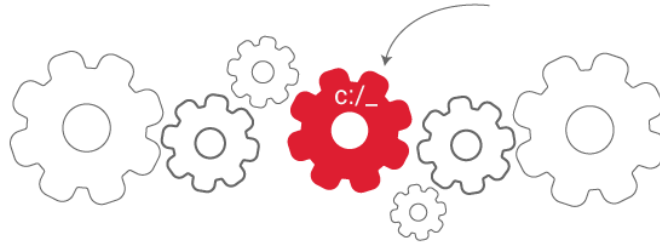
Fast Web View restructures a PDF document for page-at-a-time downloading (byte-serving) from web servers. With Fast Web View, the web server sends only the requested page, rather than the entire PDF. This option is especially important with large documents that can take a long time to download from a server.

- Keep last access and edition time

Output files have the same last access and modified dates as the source files



10. USING PDF REDUCER ON-PREMISES IN COMMAND LINES:



ORPALIS PDF Reducer Professional can be fully automated through command line interface without needing manual actions via the GUI (graphic user interface).

Syntax:

CODE: SELECT ALL

pdfreducer.exe [parameters]

Parameters can be:

/Min to start application with minimized window state (since PDF Reducer 1.1.7)

/P <input folder>

/F <input file(s)> (note: each file path is delimited by the vertical bar character '|')

/D <destination folder>

/T <number of threads>

/NS (don't process sub folders)

/DC to disable the "color detection" option

/DR to disable the "re-compress images" option

/DU to disable the "discard unused objects" option

/DD to disable the "downscale images" option

/Q <image quality value> (0: low, 1: Medium, 2: High, 3: Very high)

/R <resolution> (image downscale resolution)

/DJ2K to disable the "JPEG 2000 compression" option

/RF to remove form-fields

/RA to remove annotations

/RB to remove bookmarks

/RE to remove embedded files

/RBP to remove blank pages

/RJ to remove JavaScript

/linearized to enable fast web view

/MRC to enable MRC compression (since PDF Reducer 2.0.2)

/IF <input format(s)> (note: each document format is delimited by the vertical bar character '|')

/VER <version number> to select output PDF version (ranges from 1-5 for PDF, 6-16 for PDF/A)

Supported formats are:

ICO, BMP, WBMP, JPEG, GIF, PNG, TIFF, FAXG3, EXIF, EMF, WMF, JNG, KOALA, IFF, MNG, PCD, PCX, PBM, PBMRAW, PFM, PGM, PGMRAW, PPM, PPMRAW, RAS, TARGA, PSD, CUT, XBM, XPM, DDS, HDR, SGI, EXR, J2K, JP2, JBIG, PICT, RAW, WEBP, DICOM, JBIG2, MEMORYBMP, PDF, SVG, RTF, DOCX and TXT.

Example 1: reducing C:\myPdfs\input\file1.pdf and C:\myPdfs\input\file2.pdf using 2 CPU threads and saving them to C:\myPdfs\output:

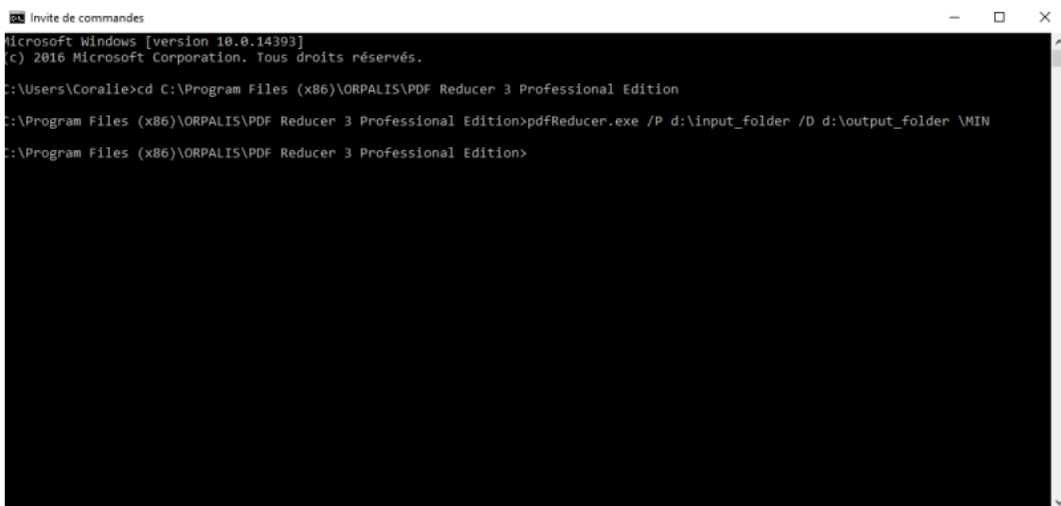
CODE: SELECT ALL

```
pdfreducer.exe /F "C:\myPdfs\input\file1.pdf|C:\myPdfs\input\file2.pdf" /D "C:\myPdfs\output" /T 2
```

Example 2: reducing all documents (including sub-folders) available C:\myDocuments using 8 CPU threads:

CODE: SELECT ALL

```
pdfreducer.exe /P "C:\myDocuments" /D "C:\myDocuments" /T 8
```



```
Invite de commandes
Microsoft Windows [version 10.0.14393]
(c) 2016 Microsoft Corporation. Tous droits réservés.

C:\Users\Coralie>cd C:\Program Files (x86)\ORPALIS\PDF Reducer 3 Professional Edition
C:\Program Files (x86)\ORPALIS\PDF Reducer 3 Professional Edition>pdfReducer.exe /P d:\input_folder /D d:\output_folder \MIN
C:\Program Files (x86)\ORPALIS\PDF Reducer 3 Professional Edition>
```




PDF Reducer

We hope you have found this guide useful.

On this page, you will find the PDF Reducer history of changes:

<https://pdfreducer.orpalis.com/history/>

Check what's new in PDF Reducer!

We thank our customers for trusting PDF Reducer for their applications.



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