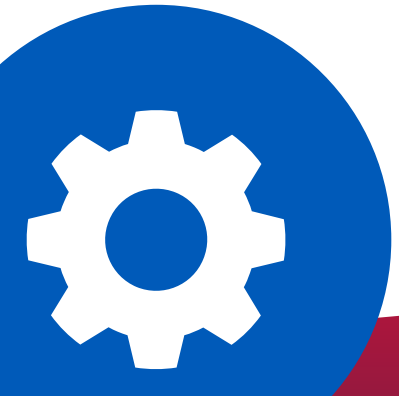
callas pdfToolbox CLI

pdfToolbox CLI



callas

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callas pdfToolbox CLI (command line interface)

Installation and activation

pdfToolbox CLI offers a wide range of options to analyze, correct and enhance PDF files as well as impositioning features and color conversion.

System requirements

The command line version of pdfToolbox is available for the following operating systems:

- Mac (Intel): macOS, version 10.7 or newer, 64-bit-compliant
- Windows:
  - Windows 7 or newer
  - Windows Server 2008 R2 or newer

- Linux: The minimum required Linux OS versions are shown below (Linux OS versions with a higher number are always supported as well):
  - Debian 7 (and derivates like Ubuntu 12.x)
  - RedHat RHEL6 (and derivates like CentOS6)
  - SuSE SLES11 (and derivates like OpenSuSE11)
  - Note: other Linux distributions are also supported if the version of the glibc is at least v2.10

- Solaris (Sparc and Intel): Solaris 10 (v5.10) or newer
- AIX (PPC): AIX 5.3 (oslevel 5300-07) or newer

You can easily test if pdfToolbox CLI is working on your system: Just type pdfToolbox --help in the terminal.

There are 64 bit versions of pdfToolbox CLI available for MacOS, Windows and Linux. pdfToolbox CLI does also run on 64 bit systems if the required 32 bit compatibility packages are available.

at least 2 GB RAM
at least 10 GB of free Disk Space

Installing the software

Macintosh/Windows

To install the software start the pdfToolbox Server installer. The installation program will then take you through the necessary steps.

Linux/Solaris/AIX

Extract all files from the archive to a destination folder of your choice.

For automation purposes you should set the PATH variable to the path of the pdfToolbox CLI executable.

Additional information is provided in <pdfToolbox CLI directory>/ReadMe.txt

Activation

Before callas pdfToolbox CLI can be used, the software has to be activated.

Request an activation code

Open a terminal window and change to your pdfToolbox CLI installation directory. Type:

```
pdfToolbox --keycode [--aws] <name> <company> <licenseCode>
```

Parameters

name	Name of licensee (e.g. "Registered User")
company	Name of company (e.g. "User's company")
licencecode	Licence key obtained from the registration card or the License.pdf provided by callas or the reseller. To make a request for a trial version, please use the keword "trial" (for a pdfToolbox trial version) for this parameter The textual output of --keycode has to be send via e-mail to the e-mail address named in the text in order to receive an activation code from the registration server.
aws	For installation on Amazon Web Services (using Windows, Linux 32bit and 64bit)

The textual output of --keycode has to be send via e-mail to the e-mail address named in the text in order to receive an activation code from the registration server.

Activating pdfToolbox CLI

After having received the automatical reply e-mail to the activation request, save the attached licence file to the file system. Then use the following command:

```
pdfToolbox --activate <activation file>
```

Parameters

activation file	Full path to Activation PDF

If your SPAM filter has removed the attachment, you can create a new empty text file and copy all lines from the e-mail that are starting with an "@" into the text file. Save it as a UTF-8 encoded plain text file with the name “Activation.txt". This text file can now be used in the exact same fashion as described above for the Activation PDF.

It is necessary to activate the received license file to get a permantent valid license file.

The license file received from the activation server must be activated within the timeframe listed in the license file.

The activated license file will be stored in the user-preferences when the normal activation (command above) is used.

To create an activated license file at a custom location, just use the following command:

```
pdfToolbox --activate <licence file> -o=<path to result folder/License.txt>
```

pdfToolbox CLI is searching for the license file at various folders:

- user-preferences-folder of actual user
- next to the pdfToolbox CLI binary
- cachefolder (if set)

- user-preferences-folder for all users (shared)

When using UNIX-based-systems the environment variable CALLAS_SYSTEM_PREFERENCES the path of the standard */usr/share/callas software/callas pdfToolbox CLI* can be changed:

CALLAS_SYSTEM_PREFERENCES=tmp

would result in the searchpath: */tmp/callas software/callas Toolbox CLI*

It is highly recommended to use the option --cachefolder instead.

Time-limited trial version

After requesting and entering a trial activation code, pdfToolbox CLI can be tested without any restrictions. When the evaluation period has expired, processing PDF files will no longer be possible until you request and enter a new activation code.

Activation using the Standalone application

Using Windows and MacOS, also the activation dialog of the Standalone Application can be used for requesting an activation as well as using a Keycode or just for a trial version. Also the activation itself can be done using that Interface.

All activations (for Desktop, Server as well as for the DeviceLink Addons) can be done using this dialog.

Deactivate pdfToolbox using the CLI

As the activation (and the resulting license file) is bound to the hardware. It is necessary to deactivate a license on one machine before an activation takes place on the new machine.

```
pdfToolbox --deactivate <activation code>
```

activation code	Unique identifier for each license

The respective license will be removed from the system

To complete the deactivation, the output of the command has to be sent manually to the activation server by e-mail.

The activation code for all license are listed using the status command:

```
pdfToolbox --status
```

Deactivation using the Standalone application

Similar to the deactivation using the CLI, the Desktop on Windows and MacOS can be used for deactivation.

The selected license will be removed from the system as well and the necessary e-mail to the activation server will be sent automatically.

Displaying program information – Hints and troubleshooting

Displaying program information

Display program version

```
pdfToolbox --version
```

will display the currently used version of pdfToolbox CLI.

Display usage information

```
pdfToolbox --help
```

will give you a complete overview about all available commands for processing.

```
pdfToolbox --help <command>
```

will give you an overview about all available options for the command.

Display status

```
pdfToolbox --status
```

will inform you about the current license state as well as the possible return and reason codes (see *"Results"*).

Hints and troubleshooting

Ensure sufficient free disk space

To ensure stable processing, it is recommended to have at least 4 times of the input file size of processed files available for intermediate file system storage (e.g. /tmp on Unix and similar on other systems).

Avoid stopping workflows on Windows

On Windows, you can prevent your workflow from stopping in case of a pdfToolbox CLI crash by setting the following registry entry:

```
HKEY_LOCAL_MACHINE\
SYSTEM\
CurrentControlSet\
Control\
Windows\
ErrorMode
```

If ErrorMode is set to "2", crash dialogs will be suppressed. For further details, see: http://support.microsoft.com/kb/128642/en-us?fr=1

Limiting the maximum memory used by pdfToolbox

Using Linux, you can limit the amount of memory used by a single process by an additional parameter:

```
--maxmemory=<max. memory in MB>
```

Processing will stop and result in an error if memory is exceeded.

Performance enhancement

If you want to enhance the performance of your pdfToolbox CLI processes, please keep in mind the following rules:

• For analysis, you can limit processing to a certain page range (see "Only process certain pages").

• Rather remove fixups from a profile only intended for analysis than using --analyze (e.g. when using --analyse, initialization of ICC profiles for color conversion fixups still takes place).

• Fixups containing an "Apply to" option need more processing time if this option is set to something else but "None", since an analysis of the file contents is required before the fixup can be executed.

• If you are using any font embedding fixups, your system font folder will be scanned unless defined otherwise in the fixup configuration. A font cache will be created to improve the performance time, but still it might be useful to remove fonts that are not needed from this directory.

• Keep in mind that the option --uncompressimg (see "Analyze image data") will uncompress images and analyze every single pixel, which may take a long time for some files.

• Creation of XML or PDF reports takes less time than the XSLT option

(see "Report types").

• Creation of reports takes additional time – even if a profile contains only fixups, an analysis will be executed for gathering report information.

Optimization of needed installation space

To reduce the pace needed by the installation of pdfToolbox, it is possible to delete some subfolders of the CLI component (in subfolder /cli) if their respective functions are not needed in the individual use case.

To avoid processing errors or unexpected behaviour of pdfToolbox any modification should be done well-considered.

etc/Actions	If no Arrange action is used
etc/APDFL	If no font embedding or PDF/A conversion is used (or if font situation is clear)
etc/Backgrounds	If no layer/image mask report is used
etc/Certify	If no preflight certification is used
etc/ColorConversion	If no color conversion is used

etc/HtmlConverter	If no PDF report based on HTML template is used
etc/Inventory	If no inventory report is used
etc/MailConverter	If no e-mails are processed
etc/PDFOfficeTool	If no Office-files are processed
etc/PDFPSTool	If no PostScript-files are processed
etc/Reports	If no PDF/A-HTML Report or ZUGFeRD is used
etc/TPex	If no tagged PDF to HTML/EPUB export is used
etc/UnpackTool	If no archive files are processed
etc/Visualizer	If no Comparison is used

Processing

Profiles

Optional parameters are marked with [ ].

Run a profile:

```
pdfToolbox [-r=r] [-l=l] [-p=p] [--hitsperpage=hitsperpage]
[--hitsperdoc=hitsperdoc] [--setvariable=setvariable] [-t]
[--cachefolder=cachefolder] [-o=o] [-f=f] [--analyze] [-w]
[--incremental] [--noprogress] [--nosummary] [--nohits]
[--uncompressimg] [--password] [--timeout=timeout] [-s=s]
<profile> <input file> [<input file> [...] ]
```

Run an action:

```
pdfToolbox <action> [--cachefolder=cachefolder] [-o=o] [-f=f ] [-s=s]
[--incremental] [-w] [-t] {action specific parameters} <input file> [<input file> [...] ]
```

On Unix systems, if the environment variable TMPDIR is
defined, its value is used instead of the default /tmp directory for storing
temporary files.

Processing files to PDF

pdfToolbox CLI is able to convert common file formats directly to PDF. For more information have a look at:

http://www.callassoftware.com/goto/tbx_ENU_topdf

- Using Linux, Office file conversion requires an OpenOffice or LibreOffice installation on the respective system.
- Office file conversion is currently not supported on Solaris and AIX systems.

Conversion options for Office files

The following switches do only apply for Office files.

OpenOffice

```
--topdf_forceopenoffice
```

When defined, Microsoft Office files are processed with OpenOffice.

Start page

```
--topdf_startpage
```

Defines the first page in the given Office document which should be converted to PDF. This is set to 1 by default.

End page

```
--topdf_endpage
```

Defines the last page in the given Office document which should be converted to PDF. This is set to the last page by default.

Create PDF for screen

```
--topdf_screen
```

The images of the created PDF file have a lower quality, the resulting file size is smaller. Comments/Annotations (e.g. for tracking of changes) will be included.

Excel-Sheets without removing white space

```
--topdf_useexcelpagelayout
```

Uses the Excel page layout for creating the PDF, white space will not be removed.

Special handling for MS Office files

```
--topdf_parameter=[ShowHiddenColumns|ShrinkToFit|PrintQualityAndComments]
```

Special parameters to achieve some special layouts for MS Office files.

Parameters

ShowHiddenColumns	Show columns which are not visible due to small width or other settings. (for Office files processed with MS Excel only)
ShrinkToFit	

When --topdf_useexcelpagelayout is used, this parameter will not be respected.

PrintQualityAndComments Images will have bigger resolutions

and comments/annotations (e.g. from tracking changes) will be included as well (for Office files processed with MS Word only; can not be combined with --topdf_screen).

Logging of dialogs in defined log file

```
--topdf_guiactionslog=<path>
```

Parameters

path	Path to folder or logfile.

All dialogs occuring during processing the office file will be logged within this file. See internet page (listed above) for further information about handling of dialogs from office applications.

Conversion options for Postscript files

The following switches do only apply for Postscript files.

Define folders used for font search

```
--topdf_psaddfonts=<path>
```


Parameters

path	Path to addtional font folder for PS to PDF conversion which will be additionally used for font search.

System font folders will also be used.

```
--topdf_psfontsonly=<path>
```

Parameters

path	Path to font folder for PS to PDF conversion, no usage of system fonts will take place.

```
--topdf_pdfsetting=<path>
```

Parameters

path	Path to PDF settings file to be used for conversion of PS and EPS files only, must be a Distiller .joboptions file

Define a prolgoue and/or an epilogue file

```
--topdf_psprologue=<path>
```

Parameters

path	Path to an addtional prologue file, which is taken into account when converting files to PDF, must be a .ps file with prologue content

```
--topdf_psepilogue=<path>
```

Parameters

path	Path to an addtional epilogue file, which is taken into account when converting files to PDF, must be a .ps file with epilogue content

DeviceLink Conversion

DeviceLink profiles complement the usage of regular ICC profiles to avoid weaknesses mainly are the CMYK to CMYK transformation and e.g. the preservation of pure black text in a picture. A CMYK to CMYK transformation with ICC profiles is always performed via the device independent Lab color space, which leads to a complete reseparation of the data with partly unpredictable and unwanted results. This does not happen with DeviceLink profiles, which offer a direct control of color composition.

Using DeviceLink profiles

Performing a DeviceLink conversion with pdfToolbox CLI is rather simple.

Just set up a new profile with pdfToolbox Desktop and set up the fixup "Convert colors using DeviceLink profiles". Choose the desired profile from the drop down list and define if the conversion should only take place for a certain type of objects or color spaces. Then add the fixup "Embed Output Intent" with the desired settings.

No extra software installation is needed after entering the license string when purchasing the DeviceLink Add-on.

You will find more information on the provided DeviceLink profiles and their settings in the “callas pdfEngine Reference”.

Using your own profiles

You can also use your own DeviceLink profiles – no DeviceLink Add-on license is required in that case. For installation use the "Import" button at the bottom of the Fixup dialog "Convert colors using DeviceLink profile" and choose the profile location from your hard disc.

Additional display properties for the user interface of the Plug-In/Standalone can be defined in a XML-file.

Run as a Server

Start as a server

callas pdfToolbox Server/CLI can also be used for processing hotfolders on platforms, where no user interface for the configuration of the require settings is available (like Linux, SunSparc, SunIntel).

Remote access is not available for AIX.

This possiblity to start a server without a user interface is available on MacOS and Windows also of course.

First, the pdfToolbox CLI has to be started in server mode:

```
--server [--quiet] [--accesskey=accesskey]
[--port=port] [--cachefolder=cachefolder]
```

Options

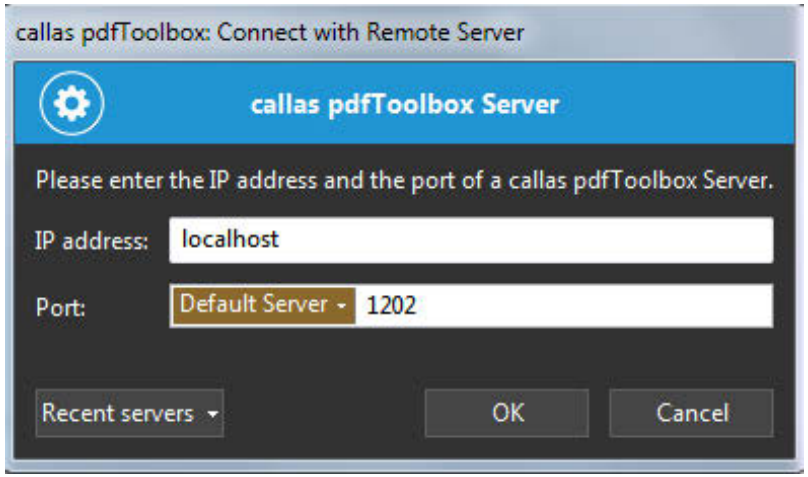
--quiet	optional, suppresses output
--accesskey	optional, sets a accesskey for restricting the possibilty to change configuration using the server user interface

--port	optional, defines the port for communication between CLI and server user interface via the network (Default: 1202)
--cachefolder	optional, defines the path to cachefolder

Example:

```
--server --port=1202 --accesskey=123456
```

For setting up a job for hotfolder processing, connect to the remote server using any pdfToolbox desktop installation in the same network:



After entering the accesskey, new jobs can be configured, started or stopped. Profiles and Settings will be transfered to the remote server,

where the are stored at /usr/share/callas software (path must be writable)

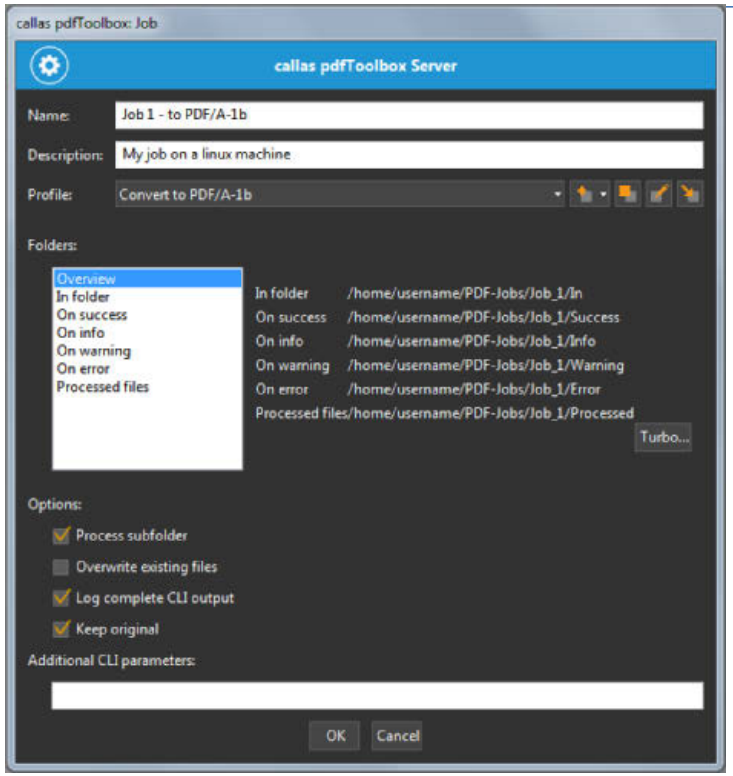
If this location can not be used caused by limitations on the respective environment, the additional option --cachefolder can be used for defining a custom path when starting the server:

Example:

```
--server --port=1202 --cachefolder=<PATH>
```

All paths defined for hotfolder processing need to be entered manually and have to be valid path specifications. (Hotfolder paths of any remote server jobs (IN, OUT, etc.) have to be configured so that they are valid from the service's perspective (the system where the service is running) - and not from the perspective of the controlling standalone application.)

The server can also be stopped by remote, but not started.


callas pdfToolbox: Job
callas pdfToolbox Server
Name:
Job 1 - to PDF/A-1b
Description:
My job on a linux machine
Profile:
Convert to PDF/A-1b
Folders:
Overview
In folder
On success
On info
On warning
On error
Processed files
In folder /home/username/PDF-Jobs/Job_1/In
On success /home/username/PDF-Jobs/Job_1/Success
On info /home/username/PDF-Jobs/Job_1/Info
On warning /home/username/PDF-Jobs/Job_1/Warning
On error /home/username/PDF-Jobs/Job_1/Error
Processed files/home/username/PDF-Jobs/Job_1/Processed
Turbo...
Options:
Process subfolder
Overwrite existing files
Log complete CLI output
Keep original
Additional CLI parameters:
OK
Cancel

Results (Reason codes and Return codes)

Results

Reason codes

The reason codes will be printed in the command line output if a general error occurs.

1000	Unknown reason
1001	A parameter is wrong
1002	A requested file could not be found
1003	A requested folder could not be found
1004	A requested folder is a file
1005	A requested file is a folder
1006	30 days trial period expired
1007	Time limited keycode expired
1008	Not activated (no keycode)

1009	PDF does not contain ICC profiles
1010	File could not be opened
1011	File is encrypted and could not be opened for writing
1012	File could not be saved
1013	File is damaged and needs repair

Return codes

All return codes below 100 indicate a successful operation.

0	Successful operation

Errors

100	Not serialized (no valid serialization found or keycode expired)
101	Command line parameter error
102	Command line syntax error (illegal command)
103	Unknown error (internal error)

104	File could not be opened
105	File is encrypted and could not be opened for writing
106	File could not be saved
107	File is damaged and needs repair

Errors for distributed processing

110	Action is not distributable
111	No dispatcher is found
112	No satellite was found or is ready for execution
130	Execution is cancelled after timeout

Running a profile

0	No hit, no fixups executed
1	At least one hit with severity ‘info’, no fixups executed
2	At least one hit with severity ‘warning’, no fixups executed

3	At least one hit with severity ‘error’, no fixups executed
5	No hit, fixups have been executed
6	At least one hit with severity ‘info’, fixups have been executed
7	At least one hit with severity ‘warning’, fixups have been executed
8	At least one hit with severity "error", fixups have been executed; fixups failed

Other codes (e.g. 137-139) are indicating an error (crash) of the enviromental system. Please report such cases together with details and files to support@callassoftware.com.

Get in Touch

If some necessary information is not provided by this manual or if there are any questions or feedback please contact the product management by using the "Contact Support" form on www.callassoftware.com.

You can also send an e-mail to support@callassoftware.com.

If you file a bug report please make sure your inquiry contains the following information:

- operating system
- pdfToolbox version (call pdfToolbox --version)
- command line call
- original PDF (please delete unnecessary pages to avoid long file transfers),
- used profiles or configuration files
- converted PDF (if available)

You can also visit the support section on www.callassoftware.com to get answers to common questions or find a reseller near you. The latter might be useful if you want to send a support request that is neither in English nor German.

Using Profiles

General profile options

```
pdfToolbox [-r=r] [-l=l] [-p=p] [-o=o] [-f=f] [-w] [-t] [--hitsperpage=hitsperpage] [--hitsperdoc=hitsperdoc] [--
setvariable=setvariable] [--cachefolder=cachefolder] [-s=s] [--incremental] [--analyze] [--noprogress] [--nosummary] [--
nohits] [--uncompressimg] [--certify] [--timeout=timeout]
<profile> <input file> [<input file> [...] ]
```


Disable fixups

```
--analyze
```

Disable execution of fixups defined in the used profile. Only defined checks are carried out.

Display

```
--noprogress
```

Do not show progress information in Standard output (stdout) during processing.

```
--nohits
```

Do not show detailed hit information in Standard output (stdout) during processing.

```
--nosummary
```

Do not show summary of hits and fixups in Standard output (stdout) at the end of processing.

Analyze image data

```
--uncompressimg
```

Images get uncompressed during the checking to allow a proper calculation of used colorants. This option may increase the processing time depending on the amount of images contained in the processed PDFs.

Certify

```
--certify
```

Embed a Preflight certificate (also known as "Audit Trail") after processing.

Using dynamic profiles

A pdfToolbox profile may contain variable values which can be exchanged during runtime. For more details on setting up those dynamic profiles please see section "Use of kfpx Profiles" in the callas pdfEngine Reference.

```
--listvariables
```

Lists all variables defined in a kfpx profile.

```
--setvariable=<Key>:<Value>
```

Set variable 'KEY' to 'VALUE' in the provided profile.

```
--novariables
```

Switches off listing of variables.

To export variables to a JSON file (together with more details about the profile), please use Enumerate Profiles.

Parameters

Key	identifier used in dynamic profile

Value	value to be set for this key

If you want to use values containing spaces, you either have to put the string into quotes or escape the space character (e.g. "Pantone 300 U" or Pantone\ 300\ U).

Example

```
pdfToolbox --listvariables <profile>
```

```
pdfToolbox --setvariable=RESOLUTION:300
```

The following characters need to be escaped with \:

'!?*$[]\()|/]

Using response files

To keep the command line call structured and straightforward, pdfToolbox CLI supports the usage of response files. These offer the possibility to define each command line switch line by line and also add some comments.

Example
Response file variables.rsp:

```
###################
# Set resolution
#
--setvariable=RESOLUTION:300
--setvariable=PROFILENAME:Prepress profile v7.0
#
###################
# EOF
```

If strings are used in the response file, they shall not be escaped (--setvariable=PROFILENAME:"Prepress profile v7.0").
Using different responsefiles enables the easy definition of own, localized sets of strings for names of Profiles, Fixups and Checks as well as different settings for processing PDFs for different output environments.
Command line call:


```
pdfToolbox @<absolute path to variables.rsp> <profile> <PDF file>
```

Provided profiles

In order to generate, modify or view pdToolbox profiles you need the
Desktop version of pdfToolbox.
pdfToolbox CLI is able to work with all profiles set up with pdfToolbox Plug-In or Standalone. Profiles delivered with pdfToolbox CLI may be edited as well. In order to use a certain profile you will have to export it as a profile package (*.kfpx -file). For further details on setting up a profile see "Use of kfpx Profiles" in the callas pdfEngine Reference.
pdfToolbox CLI gets shipped with a set of predefined profiles stored in logical groups within <Application folder>/var/Profiles:

Acrobat PDF version compatibility
Profiles for checking the compatibility of a file to a specified Acrobat version

Convert colors
Profiles to perform color conversions
To perform a color conversion using the DeviceLink profiles available as payable option of pdfToolbox, you have to have a valid license for the callas DeviceLink Add-on. The list of provided profiles can be found in section "DeviceLink Profiles" of "callas pdfEngine Reference".

Create PDF layers
Profiles to put specified objects to different layers

Digital printing and online publishing
Profiles to optimize PDF files for digital printing or online publishing

PDF analysis
Profiles for general analysis of the PDF and its objects (e.g. number of plates, image resolution etc.)

PDF fixups
Profiles for modifying the contents of a PDF (e.g. downsampling of images, embedding of fonts etc.)

PDFA compliance
Profiles for verifying compliancy with and converting to PDF/A

PDFE compliance
Profiles for verifying compliancy with and converting to PDF/E

PDFUA compliance
Profiles for verifying compliancy with and converting to PDF/UA

PDFVT compliance
Profiles for verifying compliancy with and converting to PDF/VT

PDFX compliance
Profiles for verifying compliancy with and converting to PDF/X

Prepress
Profiles based on the recommendations of the Ghent PDF Workgroup that are based on PDF/X and specify further requirements for various printing conditions. For more information see:
www.gwg.org

Place content
Sample Profiles for placing various content (like text, barcodes or content based on a HTML template) on a page. Please use the Desktop version for configuration of custom Profiles.

Preflight Certificate
Profile to validate the existence and validity of a Preflight Certificate in the PDF document.

ProcessPlans
Processplans as examples how to use the dynamically controlled combination
of Profiles, Fixups, Checks and Actions.

General command line options

Run a profile:

```
pdfToolbox [-w] [-t] [-o=o] [-f=f] [-s=s] [--incremental] [-p=p] [--hitsperpage=hitsperpage] [--hitsperdoc=hitsperdoc]
[--setvariable=setvariable] [-r=r] [-l=l] [--analyze] [--cachefolder=cachefolder] [--noprogress] [--nosummary] [--
nohits] [--uncompressimg] [--timeout=timeout] <profile> <input file> [<input file> [...] ]
```

Run an action:

```
pdfToolbox <action> [--cachefolder=cachefolder] [-o=o] [-f=f] [-s=s] [--incremental] [-w] [-t] {action specific
parameters} <input file> [<input file> [...] ]
```

Only process certain pages

```
-p --pagerange=<firstpage>[-<lastpage>]
```

Allows to define a pagerange to process when perfoming the following tasks:

- Running a profile that contains only checks
- Running the action --createeps
- Running the action --saveasimg

Running a profile with the option --analyze also honors this option.

Parameters

first page	first page to be processed
last page	last page to be processed

Setting the cache folder

```
--cachefolder=<path>
```

Sets the cache folder path. This is set by default to:

System	path
Windows:	%AppData%\callas software\callas pdfToolbox CLI 9
Macintosh:	/Users/<USERNAME>/Library/Preferences/callas software/callas pdfToolbox CLI 9
Unix:	<home directory as defined in /etc/passwd>/.callas software/callas pdfToolbox CLI 9

This option is mandatory when running the CLI as a user without a home directory.

The cachefolder should have sufficient read/write permissions for the executing user. Especially when the license file is only stored in the cachefolder, this file should be readable by other users.

Parameters

path	absolute path to custom cache folder

Empty the profile cache

```
--emptyprofilecache [--cachefolder=<path>]
```

For performance reasons, bigger profiles are unpacked during first usage and containing ICC-profiles and config files are stored in a local profile cache. This command deletes this profile cache.

Empty the font cache

```
--emptyfontcache [--cachefolder=<path>]
```

For performance reasons, fonts found on the respective system are catalogized in an internal font cache. This command deletes this font cache.

Incremental saving

```
--incremental
```

Allows to modify the input file, only writing the changes to the original PDF. This can increase the speed significantly since pdfToolbox CLI does not need to create a new copy of the file.

When using the action --impose together with option --preprocessingprofile

or the action --mergeimpose, the incremental saving option can be used in conjunction with --outputfile or --outputfolder to speed up the overall processing time, because all file modifications during these multi-step processes are then performed on a single temporary PDF file.

PDF structure and font optimization

```
--nooptimization
```

The internal PDF structure and fonts are not optimized when saving the PDF file.

Enable processing PDF with password protection for editing and printing

```
--password=<password>
```

To enable profile-processing of an password-protected PDF. Only PDFs with restrictions for editing and printing can be unsecured. The resulting PDF will have no security setting.

The entered password will be visible and may be grabbed or logged by other processes on the machine.

Parameters

password	password set to avoid editing or printing of the PDF

Defining an output file

```
-o --outputfile=<path>
```

Defines the absolute path of the destination file. The parent folder must exist.

Consult section "Results" to see if a new file was created. When running a profile containing checks only, no new output file is created.

Parameters

path	absolute path to output file

Defining an output path

```
-f --outputfolder=<path>
```

Defines an absolute path to a folder where pdfToolbox CLI stores the resulting files of an execution.

If neither an output path nor an output folder is defined any result will be created next to the input file (filename will be indexed if necessary).

The use of --outputfile together with --outputfolder is not supported within one CLI call.

Parameters

path	absolute path to output folder

Define the suffix

```
-s --suffix=<suffix>
```

Defines the suffix that will be appended to the resulting file(s) filename.

The defined suffix is added before the files type suffix (e.g. Output.pdf will become Output_PDFA.pdf when using --suffix=_PDFA).

Parameters

suffix	string to append to filename

Overwrite mode

```
-w --overwrite
```

Overwrites existing files instead of indexing the filename.

Timestamp

```
-t --timestamp
```

Every line in the Standard output (stdout) is prefixed using a time stamp.

Font folders

If a font is not embedded and an embedding is required by a profile, pdfToolbox CLI will search the system font directories in order to find the needed font file, which are:

System	folder
Windows	C:\Windows\Fonts
Macintosh	• /Users/<user>/Library/Fonts • /Library/Fonts • /System/Library/Fonts
Linux, Solaris Sparc, Solaris x86, AIX	• /usr/lib/X11/fonts • /usr/local/X11R6/lib/X11/fonts • /usr/share/fonts • /<user home>/.fonts

Additionally the font folder installed together with pdfToolbox CLI will be searched. This folder lies next to the executable in "<callas pdfToolbox CLI directory>\etc\APDFL\Resource\Font".

ICC-profiles folders

The following folders are searched for required ICC-profiles, unless they are already contained in the .kfpx-profile already.

These folders lies next to the executable in:

- "<callas pdfToolbox CLI directory>\etc\ICC profiles"
- "<callas pdfToolbox CLI directory>\etc\APDFL\Resource\Color\Profiles"

Some system folders for colors are searched addtionally:

MacOS:	\Library\Application Support\Adobe\Color
Windows:	\Windows\system32\spool\drivers\color

Set a processing timeout

```
--timeout=<seconds>
```

Sets the maximum processing time in seconds. If the process exceeds this duration, the execution process will be killed and the processing will result in an error.

Set path to referenced XObjects for PDF/X-5g, PDF/X-5pg and PDF/VT-2

```
--referencexobjectpath=<path to folder with resources>
```

Referenced, external resources of the PDF are searched in the same folder as the input PDF by default. To define another folder, this parameter can be used.

Actions - Large format printing

Large format printing

Tiling

```
--tiling [--tileshorizontal=1] [--tilesvertical=1]
[--sizehorizontal=0.00] [--sizevertical=0.00]
[--overlaphorizontal=0.00] [--overlapvertical=0.00]
[--consthorizontal=ltr] [--constvertical=ttb] [--addconstinfo]
```


Purpose

Creates tiles from the input PDF either by number of tiles or by dimension of created tiles.

Parameters

tileshorizontal	Defines the number of tiles horizontally (can not be combined with --sizehorizontal or --sizevertical)
tilesvertical	Defines the number of tiles vertically (can not be combined with --sizehorizontal or --sizevertical)

sizehorizontal	Defines the horizontal size of the tiles (can not be combined with --tileshorizontal or --tilesvertical) Possible units are: mm|inch|pt
sizevertical	Defines the vertical size of the tiles (can not be combined with --tileshorizontal or --tilesvertical) Possible units are: mm|inch|pt
overlaphorizontal	Horizontal overlap of the tiles Possible units are: mm|inch|pt
overlapvertical	Vertical overlap of the tiles Possible units are: mm|inch|pt
consthorizontal	Type of horizontal construction direction. Possible: ltr (= Left to right)|rtl (=Right to left)]
constvertical	Type of vertical construction direction. Possible: ttb (=Top to bottom)|btt (=Bottom to top)
addconstinfo	Add construction information as a separate page.

Example

```
pdfToolbox --tiling --tileshorizontal=5 --tilesvertical=5
--overlaphorizontal=20mm --overlapvertical=20mm --addconstinfo
--consthorizontal=rtl --constvertical=btt <PDF file>
```

Actions - Colors

Actions

Process conversion

pdfToolbox --convertcolors [--spotcolor=spotcolor]
[--destination=destination] [--source=source]

Purpose

Prepares the current PDF for the chosen printing condition and carries out the necessary color conversion. For further information on setting up configuration files (*.cfg) see "Use of color conversion" in the callas pdfEngine Reference. You can either define a separate config file for each of source, spot color and destination or only use one of the switches with a single config file containing all necessary conversion parameters.

Parameters

spotcolor	full path to a cfg file defining the spot color options, pre-installed config files can be found in <Application folder>/var/Actions/ConvertColors/SpotColors
destination	full path to a cfg file defining the destination options, pre-installed config files can be found in <Application folder>/var/Actions/ConvertColors/Destination

source	

Example

```
pdfToolbox --convertcolors --spotcolor=<spot config file>
--destination=<destination config file>
--source=<source config file> <PDF file>
```

Extract ICC profiles

```
--extracticcprofiles
```


Purpose

Saves all embedded ICC profiles from the document. Profiles of ICC based color spaces as well as ICC profiles used in Output Intents are extracted.

Example

```
pdfToolbox --extracticcprofiles <PDF file>
```

Actions - Reports

Reports

Extract XMP metadata

```
--extractxmpmetadata <report config file>
```

Purpose

Extract XMP Metadata of the processed PDF into a configurable XML file. For more information see "Use of XMP Metadata reports".

Parameters

report config file	full path to a meta data report configuration file, pre-installed config files can be found in <Application folder>/var/Actions/Metadata/Filters/Export

Example

```
pdfToolbox <report config file> <PDF file>
```

List basic PDF info

```
--quickpdfinfo
```

Purpose

Lists some basic PDF information to output.

```
Example pdfToolbox --quickpdfinfo <PDF file>
```

Visualizer

```
--visualizer [--smlobj=smlobj] [--inkcov=inkcov]
[--bmpres=bmpres] [--imgres=imgres] [--part=part]
[--format=format] [--resolution=resolution] [-p=p] [-l=l]
```

Purpose

Create a report listing print relevant aspects of a PDF document.

Parameters

smlobj	Threshold for small object coverage highlighting, see "Resolution output" (default: low)

inkcov	Threshold for ink coverage highlighting (default: 250)
bmpres	Threshold for bitmap resolution highlighting (default: 550)
imgres	Threshold for image resolution highlighting (default: 150)
part	See "Report parts"
format	See "Report type"
resolution	Resolution in ppi or width x height in pixel, e.g. 1024x800 (default: 72)
language	report language (e.g. en (English, default), de, es, fr or it)
sep_colors	Renders all individual separations in their respective color

Resolution output

Following you will find the values taken as tresholds for the chosen output resolution.

	Text	Multicolored text	Line	Multicolored line
low	8 pt	10 pt	0.5 pt	2 pt
medium	5 pt	9 pt	0.125 pt	0.25 pt
high	5 pt	8 pt	0.125 pt	0.25 pt

Report parts

PDF report

all	all visualizer parts
	all ink coverage views
sep	all individual separations
imgres	all image resolution views
smallobj	all small object views
safety	all safety zone views

Image report

all	all visualizer parts
full	regular page view
ink	all ink coverage views
ink_temp	ink coverage above threshold

ink_topo	ink coverage topographic view
process	all process color views
process_CMYK	CMYK channels (without spots)
process_CMY	CMY
process_K	K channel only
spot	all spot color views
spot_spots	spot color channels
spot_spots_K	spot color + K channels
spot_CMYK	CMYK channels (without spots)
sep	all individual separations
sep_process	
sep_spot	all individual spot color separations
sep:<NAME>	separation of colorant with name <NAME>
imgres	all image resolution views

imgres_img	image resolution below threshold
imgres_bmp	bitmap resolution below threshold
smallobj	all small object views
smallobj_text	very small text objects below threshold
smallobj_lines	very small vector objects below threshold
safety	all safety zone views
safety_bleed	bleed area safety zone
safety_trim	page border safety zone
safety_full	safety zone regular page view

Report type

pdfreport	Create visualizer PDF report Please note that PDF reports always have a default resolution of 72 ppi.
images	Create individual visualizer images for every report part

Example

```
pdfToolbox --visualizer --smlobj=medium --inkcov=300
--part=ink --format=pdfreport -p=1-5 <PDF file>
```

Compare

```
--compare [--threshold=20] [--areathreshold=5] [--diffres=150]
[--format=images] [--channels=rgb] [--nosimulateoverprint]
[--colorspace=colorspace] [--jpegformat=Baseline_Standard]
[--compression=JPEG_medium] [--imgformat=JPEG] [--resolution=
72] <PDF file 1> <PDF file 2>
```


Purpose

Compares two PDF documents and creates a report.

Parameters

channels	optional, channels to be compared, any of: RGB (default, including spot colors), CMYK, CMY (both including spot colors), or as separation (without spot colors): PROCESS_CMYK, PROCESS_CMY, PROCESS_C, PROCESS_M, PROCESS_Y, PROCESS_K
highlighting	optional, highlighting format for differences, redmask (default), mask

diffres	Resolution used for comparison in ppi (Default = 72 ppi)
threshold	optional, defines the difference highlighting in % of the compared pixel, to be used instead of --sensitivity Default = 0% (highest sensibility)
sensitivity	deprecated parameter - use threshold controls difference highlighting, any of: maximum: Maximum sensitivity (default) medium: Medium sensitivity minimum: Minimum sensitivity
areathreshold	optional, defines the threshold for the area with pixel differences above value defined with parameter "threshold"
format	Compare report format, any of: pdfreport (default), imgreport, images, template
nosimulateoverprint	optional, deactivates simulate overprinting
resolution	optional, resolution in ppi or width x height in pixel, e.g. 1024x800 (default: 72) (only applicable if report format is images)
colorspace	optional, one of RGB, CMYK, Gray (default: RGB) (only applicable if report format is images)

jpegformat	optional, Baseline_Standard (default), Progressive_3_Scan (only applicable if report format is images)
compression	optional, JPEG_low, JPEG_medium (default), JPEG_high (only applicable if report format is images)
imgformat	optional, JPEG, PNG, TIFF (default: JPEG) (only applicable if report format is images)

Example

```
pdfToolbox --compare --threshold=2 --areathreshold=5 <PDF file 1> <PDF file 2>
```

Actions - Layers

Actions

Enumerate layers

```
--enumeratelayers [--iccnames] [--fontnames] [--spotnames]
[--language=<language>]
```


Purpose

Enumerate the chosen objects on separate layers.

Parameters

iccnames	optional, creates a layer for each ICC profile in the PDF
fontnames	optional, creates a layer for each font in the PDF
spotnames	optional, creates a layer for each spot color in the PDF
language	language for naming of layers Supported values are:

	en English de German fr French es Spanish it Italian pt Brazilian Portoguese cz Czech da Danish nl Dutch fi Finnish ja Japanese ko Korean no Norwegian pl Polish sv Swedish

Example

```
pdfToolbox --enumeratelayers --fontnames <PDF file>
```

Import as layer

```
--importaslayer [--name="Layer 1"] <import file>
```

Purpose

Imports the chosen PDF document as a layer in the processed PDF.

If e.g. the imported PDF contains 2 page and the document it is imported to contains 5, only page 1 and 2 of the resulting document would contain a layer.

If e.g. the imported PDF contains 2 pages and the document it is imported to 1 page, then only the first page would be imported.

Parameters

name	optional, name of the new layer
import file	full path to a PDF to be imported

Example

```
pdfToolbox --name="My Layer" <PDF file> <PDF file>
```

Split layers

```
--splitlayers [--singlepages]
```

Creates a separate PDF file for every layer view or layer with the content visible when viewing this layer view or single layer.

The name of the output files (if not defined via -o) will have the following syntax

originalfilename_layer(view)

Parameters

singlepages	optional, creates a separate PDF per page of the original PDF File names are suffixed using the page number

Example

```
pdfToolbox --splitlayers --singlepages <PDF file>
```

Actions - Present

Actions

Present

Presentation

```
--presentation [--progressthermometer] [--blackslideatend]
[--fullscreen] [--selfrunning=0] [--transition=transition]
```

Purpose

Prepares a PDF for use as a slide presentation.

Parameters

progressthermometer	optional, add a progress thermometer at the bottom of the pages of the document
blackslideatend	optional, add black slide at the end of the document

fullscreen	optional, display presentation in full screen mode
selfrunning	optional, number of seconds for each page in a selfrunning presentation
transition	optional, transition between pages (any of: blinds, box, comb, cover, dissolve, fade, glitter, push, random, replace, split, uncover, wipe, zoomin, zoomout)

Example

```
pdfToolbox --presentation --selfrunning=5 --transition=split
--progressthermometer --fullscreen <PDF file>
```


Handout

```
--handout [--pagesize=DINA4] [--firstpageonlyoneslide]
[--slidesperpage=3]
```

Purpose

Creates a handout containing several slides on one page and optionally some lines for notes.

Parameters

pagesize	optional, pagesize of resulting document (any of: Letter, DINA4)
firstpageonlyoneslide	optional, place only one slide on the first page
slidesperpage	optional, number and layout of slides on page (any of: 2, 2nonotes, 3, 3nonotes, 2x2, 2x2nonotes, 2x3nonotes, 3x2)

Example

```
pdfToolbox --handout --pagesize=Letter
--firstpageonlyoneslide --slidesperpage=2x2 <PDF file>
```


Passe partout

```
--passepartout [--backgroundborderwidth=5mm] --background=<>
```

Purpose

Adds a background border around the current page content.

Parameters

backgroundborderwidth	optional, width of background border around each page (pt, in, mm, cm)

background	path to a pdf file used as the background pattern, pre-installed background pattern files can be found in <Application folder>/var/Actions/PassePartout

Example

pdfToolbox --passepartout --backgroundborderwidth=1cm

```
--background=<Background PDF> <PDF file>
```

Light table


```
--lighttable --background=<> [--numberofcolumns=5]
--pageheight=<> --pagewidth=<>
```

Purpose

Puts several pages on one new page to give the impression of a light table.

Parameters

background	path to a pdf file with the background pattern, pre-installed background pattern files can be found in <Application folder>/var/Actions/LightTable

numberofcolumns	optional, number of columns
pageheight	page height of the new page (pt, in, mm, cm)
pagewidth	page width of the new page (pt, in, mm, cm)

Example

pdfToolbox --lighttable --numberofcolumns=3

```
--background=<Background PDF> --pageheight=420mm
--pagewidth=594mm <PDF file>
```

Actions - Document

Actions

Overlay

pdfToolbox --overlay [--voffset=0] [--hoffset=0] [--placement=TopRight][--placebelow[=1|2]] <overlay file>

Purpose

Places the chosen content on top of the processed PDF.

Parameters

hoffset	optional, horizontal offset from placement (pt, in, mm, cm)
voffset	optional, vertical offset from placement (pt, in, mm, cm)
placement	optional, placement of the pages (any of TopLeft, TopCenter, TopRight, LeftCenter, Center, RightCenter, BottomLeft, BottomCenter, BottomRight)
placebelow	optional, places the chosen PDF underneath of the input PDF. Number of pages in resulting PDF is determined from number of pages in input PDF opened from

	1: first argument (default) 2: second argument If no output name is defined, name of output file will be derived from second input file name.
overlay file	full path to PDF to put on top of the input PDF, pre-installed overlay files can be found in <Application folder>/var/Actions/Overlay

Example

```
pdfToolbox --overlay --voffset=10 --hoffset=50 <overlay file>
```

<PDF file>

Create EPS

```
--createeps [--transparencyquality=100]
[--gradientresolution=360] [--bitmapresolution=1200]
[--applyoutputpreviewsettings]
[--simulationprofile='ISO Coated v2 (ECI)'] [--colormanagement]
[--marksweight=0.125] [--pageinformation] [--colorbars]
[--registrationmarks] [--cutmarks] [--simulateoverprint]
[--postscript=3] [--ascii] [--workingspacecmyk=<ICC-profile>]
[--workingspacergb=<ICC-profile>]
[--workingspacegray=<ICC-profile>]
```

Purpose

Converts all pages of the PDF into EPS. The EPS files are saved next to the

input PDF file unless you use -f to define an output path.

Parameters

transparencyquality	optional, transparency quality in % (default: 100)
gradientresolution	optional, gradient resolution in ppi (default: 360)
bitmapresolution	optional, bitmap resolution in ppi (default: 1200)
applyoutputpreviewsettings	optional, apply output preview settings
simulationprofile	optional, simulation profile (default: 'ISO Coated v2 (ECI)') Not available on Unix
colormanagement	optional, apply host based color management
marksweight	optional, line weight of cut marks in pt (default: 0.125)

pageinformation	optional, add page information
colorbars	optional, add color bars
registrationmarks	optional, add registration marks
cutmarks	optional, add cutmarks
simulateoverprint	optional, simulate overprint
postscript	optional, Postscript level [2|3] (default: 3)
ascii	optional, Postscript is written 'Clean 7 Bit'
workingspacecmyk	optional, working space profile CMYK (default: ISO Coated v2 (ECI))
workingspacergb	optional, working space profile RGB (default: sRGB IEC61966-2.1)
workingspacegray	optional, working space profile Gray (default: Dot Gain 15%)

Example

```
pdfToolbox --createeps --postscript=2 --pageinformation
--colorbars --registrationmarks --cutmarks <PDF file>
```

Create PostScript

```
--createps [--transparencyquality=100]
[--gradientresolution=360] [--bitmapresolution=1200]
[--applyoutputpreviewsettings]
[--simulationprofile='ISO Coated v2 (ECI)'] [--colormanagement]
[--marksweight=0.125] [--pageinformation] [--colorbars]
[--registrationmarks] [--cutmarks] [--simulateoverprint]
[--postscript=3] [--ascii] [--workingspacecmyk=<ICC-profile>]
[--workingspacergb=<ICC-profile>]
[--workingspacegray=<ICC-profile>]
```


Purpose

Converts all pages of the PDF into PostScript. The PostScript files are saved next to the input PDF file unless you use -f to define an output path.

Parameters

transparencyquality	optional, transparency quality in % (default: 100)
gradientresolution	optional, gradient resolution in ppi (default: 360)
bitmapresolution	optional, bitmap resolution in ppi (default: 1200)

applyoutputpreviewsettings	optional, apply output preview settings
simulationprofile	optional, simulation profile (default: 'ISO Coated v2 (ECI)') Not available on Unix
colormanagement	optional, apply host based color management
marksweight	optional, line weight of cut marks in pt (default: 0.125)
pageinformation	optional, add page information
colorbars	optional, add color bars
registrationmarks	optional, add registration marks
cutmarks	optional, add cutmarks
simulateoverprint	optional, simulate overprint
postscript	optional, Postscript level [2|3] (default: 3)
ascii	optional, Postscript is written 'Clean 7 Bit
workingspacecmyk	optional, working space profile CMYK (default: ISO Coated v2 (ECI))

workingspacergb	optional, working space profile RGB (default: sRGB IEC61966-2.1)
workingspacegray	optional, working space profile Gray (default: Dot Gain 15%)'

Example

```
pdfToolbox --createps --postscript=2 --pageinformation
--colorbars --registrationmarks --cutmarks <PDF file>
```

Save as image

```
--saveasimg [--nosimulateoverprint] [--simulationprofile=<ICC profile>]
[--smoothing=lines] [--resolution=72] [--colorspace=colorspace]
[--jpegformat=Baseline_Standard] [--compression=JPEG_medium]
[--imgformat=JPEG] [--pagebox=cropbox] [--rect=<left>,<bottom>,<right>,<top>[unit]
[--digits=4]]
```

Purpose

Renders an image per page preserving the page's aspect ratio. RGB images always use sRGB as Destination ICC profile which gets embedded into the resulting image. CMYK and gray TIFF images are saved without an ICC profile, while JPEG images will contain the ICC profile.

For rendering purposes, the order in which profiles used as a working space (and in which is rendered) are determined:

- if an simulationprofile is defined, it will be used
- if a simulationprofile not defined, the Output Intent is used
- if no simulationprofile or Output Intent exists, the following profiles will be used:
    - RGB: sRGB IEC61966-2.1;
    - CMYK: ISO Coated v2 (ECI);
    - Gray: Dot Gain 15%.

The defined simulation profile will only replace the default profile for the respective colorspace.

If the destination colorspace is same as used for rendering, this ICC profile will be used. Otherwise one of the following is used:

- RGB: sRGB IEC61966-2.1;
- CMYK: ISO Coated v2 (ECI);
- Gray: Dot Gain 15%.

As Rendering Intent "AC_RelColorimetric" is used by default.

Parameters

nosimulateoverprint	optional; avoids the overprint-simulation
simulationprofile	optional; using a user-defined ICC-profile for rendering
smoothing	optional; None, All, Lines, Images, Text, NTLH (default: All; NTLH includes "All")

resolution	optional; resolution in ppi or width x height in pixel, e.g. 1024x800 (default: 72)
colorspace	optional; one of RGB, RGBA, CMYK, Gray, Multichannel (default: RGB) availabilty depends on imageformat
jpegformat	optional; Baseline_Standard, Progressive_3_Scan (default: Baseline_Standard)
compression	optional; for JPEG: JPEG_minimum, JPEG_low, JPEG_medium, JPEG_high, JPEG_maximum (default: JPEG_medium) for TIFF: TIFF_None, TIFF_LZW, TIFF_Flate (default: TIFF_LZW)
imgformat	optional; JPEG, PNG, TIFF, PDF (default: JPEG)
pagebox	optional; using a geometry box as size for image: CROPBOX, TRIMBOX, BLEEDBOX, MEDIABOX (default: CROPBOX)

rect	optional; render only the part defined by lower left and upper right from origin geometry box (default: CROPBOX); in pt or mm (default:pt)
simulatepaper	optional; simulates paper color (by using absolute colorimetric color conversion) not available if --nosimulateoverprint is set; needs a defined --simulationprofile; only available for colorspace = RGB
blackpointcompensation	optional; using blackpoint compensation (not available if --nosimulateoverprint is set)
digits	Defines the number of digits for page number in file name of created image

Example

```
pdfToolbox --saveasimg --imgformat=PNG --resolution=800x600 <PDF file>
```

Extract text

```
--extracttext
```

Purpose

Extracts the text of PDF documents to the command line or to a specified file.

Example

```
pdfToolbox --extracttext <PDF file>
```

Extract content

```
--extractcontent [--words] [--wordbbox] [--wordquads]
[--chars] [--docxmp] [--docinfo] [--annots]
```


Purpose

Extracts the text in the form of words or characters to an XML file.

Parameters

words	Include words
wordbbox	
wordquads	Include quad point information for word parts

chars	Include quad point information for individual characters
docxmp	Include document XMP metadata
docinfo	Include document info
annots	Include link annotations

Example

```
pdfToolbox --extractcontent [--words] [--docinfo] <PDF file>
```


Extract images

```
--extractimages [--threshold=0] [--report=<path>]
```

Purpose

Extracts images from the file and creates a special XML report, which lists all extracted images with their relevant details.

Parameters

threshold	Extracts only images with width and height larger than threshold (default: 0)

report	Creates a report with details about the extracted images and their former position in the PDF.

Example

```
pdfToolbox --extractimages --report --threshold=250 <PDF file>
```

This action can not be used with distributed processing.

Redistill

```
--redistill [--topdf_pdfsetting=<joboptions>] <PDF file>
```

Purpose

Recreates the PDF via PostScript, prepares for use with older equipment (RIPs).

Parameters

topdf_pdfsetting	Value 2

Example

```
pdfToolbox --redistill <PDF file>
```

Optimize PDF

```
--optimizepdf <PDF file>
```

Purpose
Optimizes the internal structure of the PDF and saves for Fast Web View.

Example

```
pdfToolbox --optimizepdf <PDF file>
```


To PDF

```
--topdf [--topdf_pdfsetting]
```

Purpose

Converts supported non-PDF files to PDF. Information about supported file types can be found here:

http://www.callassoftware.com/goto/tbx_ENU_topdf

Parameters

topdf_pdfsetting	Full path to PDF *settings* file to be used for conversion of PS and EPS files only, must be a Distiller .joboptions file
topdf_psprologue	Full path to a *prologue* file which will be prepended to the PostScript/ EPS file to be converted. To be used for conversion of PS and EPS files only. Must be a valid PostScript file.
topdf_psepilogue	Full path to a *epilogue* file which will be appended to the PostScript/ EPS file to be converted. To be used for conversion of PS and EPS files only. Must be a valid PostScript file.

Examples

```
pdfToolbox --topdf <non-PDF file>
```

```
pdfToolbox --topdf /path/to/file/mypostscript.ps
           --topdf_pdfsetting=/path/to/file/mysettings.joboptions
           --topdf_psprologue=/path/to/file/myprologue.ps
           --topdf_psepilogue=/path/to/file/myepilogue.ps
```

Uncertify

```
--uncertify <PDF file>
```

Purpose

Removes a Preflight certificate if present.

Example

```
pdfToolbox --uncertify <PDF file>
```

Secure PDF

```
--securepdf --password=<password>
```


Restrict editing and printing of the PDF. A password is needed in order to change these permission settings or to perform changes. The PDF can only be read afterwards

The entered password will be visible and may be grabbed or logged by other processes on the machine.

Parameters

password	password to avoid editing or printing

Creating file packages

Some PDF standards allows the embedding of PDF- and also non-PDF-files into another PDF file. Sometime these file packages are also called collections.

Using pdfToolbox CLI it is possible to create such file packages from a complete folder or to define different ways how a file which shall be embedded is handled.

In general a file package is created with --collection This will create an index document, which lists all embedded files from the given folder. Also an existing folder structure will be respected

```
--collection <folder>
```


In general a file package is created with --collection This will create an index document, which lists all embedded files.

```
--collection <file> [<file>]
```

Settings for file embedding

--collection [--embedinto=[target],<file>] [--embedfile=[target,[relationship],<file>] [--embedwithlink=[area,<file>]

```
--embedinto
```

It is possible to use own templates or normal PDF for embedding files. The standard for the file where other files will be embedded can be defined using the conversion target (see below). If no file is defined, an index file is created.

```
--embedfile
```

Also for files to embed a conversion target can be defined using the conversion target. For PDF/A-3 standards also a relationship entry for each embedded file can be set.

Parameters

target	A3b, A3u, A3a, A2b, A2u, A2a, A1b, A1a or No (Default)

Using the target "No", no conversion to PDF is done. (Only available for embedded files.)

relationship	Source, Data, Alternative, Supplement, Unspecified (Default)

```
--embedwithlink
```

Alternatively, files can be embedded with defining an area in the containing document, where a link to the contained file is created. No conversion will take place with the file to embed.

Parameters

area	X1,X2,Y1,Y2[pt, in, cm, mm]

Defines a rectangular area, based on the lower left corner of the page, where a link to the embedded file is inserted. Default unit is pt.

Example:

```
--collection --embedinto=A3b,<PDF file> --embedfile=A3b,
Alternative,<file> --embedfile=A2b,Source,<Office file>
--embedfile=No,Data,<file>
--collection --embedwithlink=10,10,100,100,<file> --emb
edwithlink=10mm,100mm,100mm,200mm,<file>
```


Extracting files from file packages

```
--extractembeddedfiles [--plain] [--filter=filter] <PDF file>
```

Purpose
Extracts embedded files from a PDF.
Parameters

plain	Files are extracted directly into the destination folder without restoring an existing folder structure of the embedded files.
--filter	RegEx based file name filter, e.g. =.*.doc

Actions - Arrange

Booklet

--booklet [--voffset=0mm] [--hoffset=0mm]
[--pageheight=pageheight] [--pagewidth=pagewidth]
[--cutmarks] [--border=0mm] [--bleed=0mm]

Purpose

Prepares a PDF document for double sided printing, such that the printout can be folded and saddle-stitched.

Parameters

voffset	optional, vertical offset from placement (pt, in, mm, cm)
hoffset	optional, horizontal offset from placement (pt, in, mm, cm)
pageheight	optional, page height of the new page (pt, in, mm, cm)
pagewidth	optional, page width of the new page (pt, in, mm, cm)
cutmarks	optional, place cutmarks around every imposed page

bleed	optional, width of bleed added at outward edges of slots (pt, in, mm, cm)
border	optional, width of border added at outward edges of slots (pt, in, mm, cm)

Example

```
pdfToolbox --booklet --cutmarks <PDF file>
```

N-Up

--nup [--cutmarks] [--voffset=0mm] [--hoffset=0mm]
[--pageheight=pageheight] [--pagewidth=pagewidth]
[--border=0mm] [--bleed=0mm] [--distance=distance] --htimes=<>
--vtimes=<>

Purpose

Puts several pages onto a new page. You have to define how many pages should be placed next to each other horizontally and vertically as well as the distance between the placed pages.

Parameters

cutmarks	optional, place cutmarks around every imposed page

voffset	optional, vertical offset from center (pt, in, mm, cm)
hoffset	optional, horizontal offset from center (pt, in, mm, cm)
pageheight	optional, height of the page where the single pages are placed on (pt, in, mm, cm)
pagewidth	optional, width of the page where the single pages are placed on (pt, in, mm, cm)
distance	optional, distance between placed pages (pt, in, mm, cm)
htimes	number of pages to be placed next to each other horizontally
vtimes	number of pages to be placed next to each other vertically
bleed	optional, width of bleed added at outward edges of slots (pt, in, mm, cm)
border	optional, width of border added at outward edges of slots (pt, in, mm, cm)

Example

```
pdfToolbox --nup --htimes=3 --vtimes=2 --distance=10mm
```

<PDF file>

Fill page

--fillpage [--cutmarks] [--border=0mm] [--bleed=0mm]
--distance=distance --pageheight=pageheight
--pagewidth=pagewidth

Purpose

Puts several pages onto a new sheet with a defined page size. Distributes

pages across/down as space permits.

Parameters

cutmarks	optional, place cutmarks around every imposed page
distance	distance between placed pages (pt, in, mm, cm)
pageheight	height of the page where the single pages are placed on (pt, in, mm, cm)
pagewidth	width of the page where the single pages are placed on (pt, in, mm, cm)
bleed	optional, width of bleed added at outward edges of slots (pt, in, mm, cm)

border	

Example

```
pdfToolbox --fillpage --distance=10mm --pageheight=420mm
--pagewidth=594mm <PDF file>
```

Merge & Impose

```
--mergeimpose <runlist> <sheet config>
```


Purpose

Merges PDF files and imposes merged PDF based on rules defined in run list and sheet setup. For more information see "Use of Imposition cfgs" in the callas pdfEngine Reference.

This is the same as running the actions --mergepdf and --impose in sequence.

To speed up this process, consider using the --incremental parameter.

Parameters

runlist	imposition run list folder or file; file extension has to be ".runlist"
sheet config	sheet configuration files; file extension has to be ".sheetconfig"

Pre-installed imposition configurations can be found in

<Application folder>/var/Actions/Impose

Example

```
pdfToolbox --mergeimpose <runlist>
<sheet config> <PDF file> <PDF file>
```

Impose

--impose [--preprocessingprofile=preprocessingprofile]
[--setvariable=setvariable] [--sheettemplate=<path to PDF>]
<runlist folder> <sheet config folder>

Purpose

Imposes the PDF based on rules defined in run list and sheet setup. For more information see "Use of Imposition cfgs" in the callas pdfEngine Reference.

To speed up this process, consider using the --incremental parameter.

Parameters

preprocessingprofile	optional, path to a kfpx profile that is executed as a preprocessing step; the used profile can not contain variables
setvariable	optional, set imposition runlist environment variable (for examples see "Use of dynamic profiles")
runlist	imposition run list configuration files; file extension has to be ".runlist"
sheet config	sheet configuration files; file extension has to be ".sheetconfig"
sheettemplate	Places pages from the chosen PDF underneath of the imposed pages as a background.

Pre-installed imposition configurations can be found in

<Application folder>/var/Actions/Impose

Example

```
pdfToolbox --impose --preprocessingprofile=<profile>
<runlist> <sheet config> <PDF file>
```

Listing all available imposition configurations

```
--list [--language=en] [--runlists] [--sheetconfigs]
```

Lists all imposition configuration files which are stored in
<Application folder>/var/Actions/Impose.

Parameters

language	optional, language used for listing, supported values are: en English de German fr French
runlists	optional, this will list all available runlist configuration files
sheetconfigs	optional, this will list all available sheet configuration files

The usage of both --runlists and --sheetconfigs equals the usage of --list without any additional parameters.

Example

```
pdfToolbox --list --runlists --language=fr
```

Listing all fonts available for usage in an imposition runlist

```
--listfonts
```

Lists all font names that can be used for the "Set TextFont" command in an imposition runlist.

Slice

--slice <profile>

Purpose

Extracts objects from the current document defined by a preflight check and saves two files as a result (one containing the chosen objects, one containing the remaining objects).

Parameters

profile	pdfToolbox profile containing a single check that defines the objects to be sliced from the current document (e.g. color images with a resolution below 150dpi), pre-configured profiles can be found in <Application folder>/var/Actions/Slice

Reader spreads

--readerspreads [--nocoverpage] [--pageheight=pageheight] [--pagewidth=pagewidth] [--voffset=0mm] [--hoffset=0mm]

Purpose

Imposes a PDF document by placing two contiguous pages next to each other.

Parameters

voffset	optional, vertical offset from center (pt, in, mm, cm)
hoffset	optional, horizontal offset from center (pt, in, mm, cm)
pageheight	optional, page height of the new page (pt, in, mm, cm)
pagewidth	optional, page width of the new page (pt, in, mm, cm)
nocoverpage	optional, diables front cover handling

Example

```
pdfToolbox --readerspreads <PDF file>
```


Split in half

--splithalf [--setclipping]

Purpose

Splits double pages into single pages. Recognizes if a document contains single pages as well as double pages are, and then only splits the double pages, leaving the single pages as they are.

Parameters

setclipping	optional, sets clipping path to page dimension

Example

pdfToolbox --splithalf <PDF file>

Step & Repeat

--steprepeat [--cutmarks] [--voffset=0mm] [--hoffset=0mm]
[--pageheight=pageheight] [--pagewidth=pagewidth]
[--border=0mm] [--bleed=0mm] [--distance=distance] --htimes=<> --vtimes=<>

Purpose

Imposes a PDF by placing a page multiple times onto a newly created

page.

Parameters

cutmarks	optional, place cutmarks around every imposed page
voffset	optional, vertical offset from center (pt, in, mm, cm)
hoffset	optional, horizontal offset from center (pt, in, mm, cm)
pageheight	optional, page height of the new page (pt, in, mm, cm)
pagewidth	optional, page width of the new page (pt, in, mm, cm)

distance	distance between placed pages (pt, in, mm, cm)
htimes	number of pages to be placed next to each other horizontally
vtimes	number of pages to be placed next to each other vertically
bleed	optional, width of bleed added at outward edges of slots (pt, in, mm, cm)
border	optional, width of border added at outward edges of slots (pt, in, mm, cm)

Example

```
pdfToolbox --steprepeat --htimes=3 --vtimes=2 --distance=10mm
```

<PDF file>

Split PDF

--splitpdf [--digits=4] [--splitscheme=splitscheme]

Purpose

Splits multipage documents into smaller packages.

Parameters

digits	optional, defines the number of digits for page number (Default = 4)
splitscheme	optional, custom split scheme (see "Split scheme")

Naming of output files

If output option defines a folder, packages are always named as <document_name>_<suffix with 4 digits that has the number of the first page in file>

If output option defines a file name, the first package is named according to this file name. Further packages are created at the same place as the first package using a name as described above for folders.

Simple tokens may also be used in order to define the output:

<docname>	Defines the name of the original document
<firstpage>	Defines the first page number
<lastpage>	Defines the first page number
<firstpage><lastpage>	Use 4 digits if not changed using --digits
<firstpagelabel>	Evaluates page label of first page of splitted file

<lastpagelabel>	Evaluates page label of last page of splitted file

For more possible tokens please see "Token Engine" in the "callas pdfToolbox Reference".

Split Scheme

```
--splitscheme=<expression>
```

Expression may be a number with an asterisk "*" or a more complex string. If it is a number with an asterisk "*" it creates PDF files with the defined number of pages. E.g. if the number is 3* it would create 3 packages with 3 pages and one package with one page from a 10 page file.

For possible expressions, please see table "Expressions".

Parameters

expression	can be a single value or a combination of values like the examples below for "Simple expressions" "Multipage expressions", "Simple expressions list" and the "Joker"

General Syntax

Start Page	(number)
Digit	0|1|2|3|4|5|6|7|8|9

Unsigned	digit {digit}.2
Number	[+|-] unsigned

Joker

<expression>,$

Can be combined with other expressions (has to be the last item in a list) in order to save all pages that are not part of any other expression into a separate PDF.

Example

```
1-5,8,-3--1,$
```

would create 4 PDFs with page 1-5, page 8, the last 3 pages and the rest of the pages of an input PDF.

Expressions

Type	Syntax	Example	
Simple expression	number[-number]	1-5	Page 1 to 5: [1,2,3,4,5]
		5-1	Page 5 to 1: [5,4,3,2,1]

Type	Syntax	Example	
		8	Only page 8
		-1	Last page
		-1--3	Last 3 pages in reverse order: [n-2, n-1, n]
		-1-3	Last n - 2 pages in reverse order: [n, n-1, ... ,3]
		*2(2)	[2][4][6]...

Type	Syntax	Example	Column 2
Simple expression with Simple Range	number[-number]_ number[-number]	1-2_-2--1	First and last 2 pages: [1,2,n-1,n]
		1-2_-2--1,$	Split PDF into 2 documents:

Type	Syntax	Example	Column 2
			First and last 2 pages [1,2,n-1,n] and remaining inner pages [3, ... ,n-2]
		1_1_1_1	4 times page 1: [1,1,1,1]
Multipage expression	even_pages even	even	All even pages (same as *2(2))
	uneven_pages uneven odd	uneven	All uneven pages (same as *2(1))
	Package number* [(start_page)]	5*	Packages of 5 pages
		5*(2)	Packages of 5 pages, starting

Type	Syntax	Example	Column 2
			with page 2
	Intervall *number [(start_page)]	*5	Every 5th page
		*5(2)	Every 5th page, starting with page 2
		*5(-20)	Single page PDFs for every 5th page of the last 20 pages of a document (totally 4 PDFs)

Type	Syntax	Example	
Simple expression list	simple_expression {"," simple_expression} ["," joker]	1-5,8,-1-3	3 PDFs with page 1-5, page 8 and the last 3 pages of an input PDF
		5*(2)	Packages of 5 pages, starting with page 2
		*5(2)	Every 5th page, starting with page 2
		*5(-20)	Single page PDFs for every 5th page of the last 20 pages of a document (totally 4 PDFs)

Merge PDF

--mergepdf {<List of PDF files> | <Folder>}

Merges PDF files.

PDFs are merged in the order as defined in the call. PDFs in folders are merged in alphabetical order.

If a folder is defined as input path, only PDF files inside this folder will be merged. Any other file formats and subfolders get ignored.

If no name is defined via -o the name of the first original PDF is used.

Example

```
pdfToolbox --mergepdf <input folder with PDF files to merge>
```


Split and merge PDF

```
--splitmergepdf [--splitscheme=splitscheme]
```

Purpose

Splits multipage documents into smaller packages and merges them to one document.

Parameters

splitscheme	optional, custom split scheme (see "Split scheme")

Split Scheme

```
--splitscheme=<expression>
```

Expression may be a number with an asterisk "*" or a more complex string. If it is a number with an asterisk "*" it creates PDF files with the defined number of pages. E.g. if the number is 3* it would create 3 packages with 3 pages and one package with one page from a 10 page file.

For possible expressions, please see table "Expressions".

Parameters

expression	can be a single value or a combination of values like the examples below for "Simple expressions" "Multipage expressions", "Simple expressions list" and the "Joker"

General Syntax

Start Page	(number)
Digit	0|1|2|3|4|5|6|7|8|9
Unsigned	digit {digit}.2

Number	[+|-] unsigned

Joker

```
<expression>,$
```

Can be combined with other expressions (has to be the last item in a list)

in order to save all pages that are not part of any other expression into a

separate plave in the PDF.

Example

```
1-5,8,-3--1,$
```

would create 1 PDFs with page 1-5, page 8, the last 3 pages and the rest of

the pages of an input PDF.

Expressions

Type	Syntax	Example	
Simple expression	number[-number]	1-5	Page 1 to 5: [1,2,3,4,5]
		5-1	Page 5 to 1: [5,4,3,2,1]
		8	Only page 8
		-1	Last page
		-3--1	Last 3 pages: [n, n-1, n-2]
		-1--3	Last 3 pages in reverse order: [n-2, n-1, n]
		-1-3	Last n - 2 pages in reverse order: [n, n-1, ... ,3]
		*2(2)	[2][4][6]...

Type	Syntax	Example	
Simple expression with Simple Range	number[-number]_ number[-number]	1-2_-2--1	First and last 2 pages: [1,2,n-1,n]
		1-2_-2--1,$	First and last 2 pages [1,2,n-1,n] and remaining inner pages [3, ... ,n-2]
		1_1_1_1	4 times page 1: [1,1,1,1]

Type	Syntax	Example	
Multipage expression	even_pages even	even	All even pages (same as *2(2))
	uneven_pages uneven odd	uneven	All uneven pages (same as *2(1))

Type	Syntax	Example	
	Package number* [(start_page)]	5*	Packages of 5 pages
		5*(2)	Packages of 5 pages, starting with page 2
	Intervall *number [(start_page)]	*5	Every 5th page
		*5(2)	Every 5th page, starting with page 2
		*5(-20)	Every 5th page of the last 20 pages of a document (totally 4 pages)

Type	Syntax	Example	
Simple expression list	simple_expression {"," simple_expression} ["," joker]	1-5,8,-1-3	1 PDFs with page 1-5, page 8 and the last 3 pages of the input PDF
		5*(2)	Packages of 5 pages, starting with page 2
		*5(2)	Every 5th page, starting with page 2
		*5(-20)	Every 5th page of the last 20 pages of a document (totally 4 pages)

Example

pdfToolbox --splitmergepdf --splitscheme=-3--1 <PDF file>

Example

```
pdfToolbox --splitpdf --digits=2 --splitscheme=-3--1
```

<PDF file>

Duplicate page

pdfToolbox --duplicatepage [--times=1] [--pageorder] [--pagerange]

Duplicate pages of the PDF.
Parameters

times	optional, defines the number of copies created (default = 1)
pageorder	optional, respects the order of pages and add duplicates as a complete set (only available if times=1)
pagerange	

Example

pdfToolbox --duplicatepage --times=1 --pageorder <PDF file>

Example

```
pdfToolbox --slice <profile> <PDF file>
```

Example

```
pdfToolbox --splitmergepdf --splitscheme=-3--1 <PDF file>
```

Enumerate Profiles

Lists all Profiles defined in kfpx Profiles and generates a Profile summary report:

```
--enumprofiles [--format=format] [--cachefolder=cachefolder]
[--relativepath] [--profilesummary] <profile (folder)> <report file>
```

Options

format	XML, JSON, JSON_COMPACT (Default: XML)
cachefolder	sets the cache folder path
relativepath	writes the path in the XML as relative POSIX path
profilesummary	create an additional PDF summary report

Arguments

profile (folder)	pdfToolbox Profile or folder containing pdfToolbox Profiles
report file	Destination path for profile summery report

Creating a report using Profiles

You have a wide variety of options for creating a report. Only adding -r to your call would create an XML report next to the input PDF file, no matter if any hits occurred. You can modify this behavior by the following parameters:

```
--report=<type>,<trigger>,[options,]<PATH=path>
```

You can use --report as often as you like in one run to create different type of reports.

Parameters

type	see "Report types"
trigger	see "Report triggers"
options	see "Further options"
path	see "Report path"

Report types

XML	XML report

XSLT=<type>	XSLT report, type can be a custom type or one of the types delivered with pdfToolbox CLI ("compacttext" or "compacthtml")
MASK	PDF report, problems highlighted by transparent masks
COMMENT	PDF report, problems highlighted by annotations
LAYER	PDF report, problems separated on layers
INVENTORY	PDF report which lists all resources used in the PDF file
COMPARE	PDF compare report
SUMMARY	PDF overview report
TEMPLATE=	

Report triggers

ALWAYS	Always create report (default)
ERROR	Create if at least one problem with severity "Error" was found
WARNING	Create if at least one problem with severity "Warning" was found
INFO	Create if at least one problem with severity "Info" was found

HIT	Same as INFO,WARNING,ERROR

Further options

OVERVIEW	Include overview for PDF reports
DOWNSAMPLING [#<PPI>]	Downsample images in PDF reports of type Mask, Layer and Comment to the given resolution (Default: 150 ppi)
HIDEERROR	Hide all checks with severity "Error" (not for type "Layer")
HIDEWARNING	Hide all checks with severity "Warning" (not for type "Layer")
HIDEINFO	Hide all checks with severity "Info" (not for type "Layer")

PDF layer report options

ICCNAMES	Create layer for all ICC color space names
SPOTNAMES	Create layer for all spot color space names
FONTNAMES	Create layer for all font names

PDF inventory report options

FONTS	Include fonts
COLORS	Include colors
SHADES	Include smooth shades
PATTERNS	Include patterns
IMAGES	Include images, optional number of pixels like IMAGES_100
FORMXOB	Include Form XObjects
XMP	Include XMP
XMPADV	Include XMP advanced

XML report options

ALL	Include all ressources (Default)
NONE	Include no ressources
IMAGES[#<NUM>]	Include first <NUM> images
FONTS[#<NUM>]	Include first <NUM> fonts
PAGES[#<NUM>]	Include first <NUM> pages

COLORS[#<NUM>]	Include first <NUM> color spaces
SHADES[#<NUM>]	Include first <NUM> smooth shades
PATTERNS[#<NUM>]	Include first <NUM> patterns
FORMXOB[#<NUM>]	Include first <NUM> Form XObjects

Ink coverage options for XML reports:

INKCOV	Include ink coverage for every page
INKCOVRES[#<PPI>]	Rendering resolution used for ink coverage calculation (Default: 300 ppi)
INKCOVBOX[#<Box>]	Defines the PageBox (as ArtBox, TrimBox, BleedBox, CropBox or MediaBox) which will be used for rendering (Default: CropBox)

Report path

PATH=<path>

path	Path to report file (if not defined, report is created next to input file) When defined, this must always be the last element of the --report parameter.

PDF report based on HTML template

```
TEMPLATE=<path>
```

path	Path to template folder (or respective index.html directly) PDF overview reports are created based on a style defined in a HTML/CSS template. A predefined template can be found in the Server/CLI path: ../var/Reports/Templates.

Maximum number of pages

```
--maxpages
```

Maximum number of pages (default: 1000) - after this limit only pages that have problems will be stored.

Hits per page

```
--hitsperpage=<number>
```

Maximum number of hits per page reported. Every check will be considered individually.

Parameters

number	maximum number of hits per check per page that will be reported

Hits per document

```
--hitsperdoc=<number>
```

Maximum number of hits per document reported. Every check will be considered individually.

Parameters

number	maximum number of hits per check per document that will be reported

Setting the report language

```
-l --language=<language>
```

Sets the desired language for report files.
Parameters

language	language of report files
en	English

language	language of report files
de	German
fr	French
es	Spanish
it	Italian
pt	Brazilian Portoguese
cz	Czech
da	Danish
nl	Dutch
fi	Finnish
ja	Japanese
ko	Korean
no	Norwegian
pl	Polish

language	language of report files
sv	Swedish

Example

```
pdfToolbox --language=fr
--report=ERROR,WARNING,LAYER,OVERVIEW,PATH=<path to report
file> <profile> <PDF file>
```

```
pdfToolbox --report=ERROR,WARNING,TEMPLATE=OVERVIEW,PATH=<path
to report file> <profile> <PDF file>
```

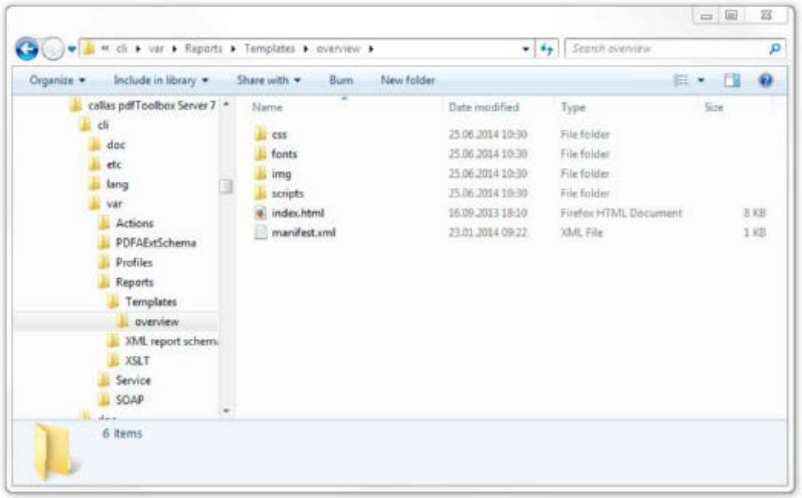

HTML-based custom reports

To adjust PDF-reports easily, HTML-based custom reports can be used.

The visual appearance is controlled by a HTML-Template and Custom Style Sheets (CSS), while the reported details are directly requested from pdfToolbox or (optionally) parsed from an internally created XML-report.

Structure of related files

A predefined HTML-template is contained in all installer packages for Desktop and Server/CLI.



This predefined template can be found in:

- Server/CLI:

../cli/var/Reports/Templates

- Desktop/PlugIn:

<User Preferences>/callas software/pdfToolbox <version>/Reports/Templates

(using Desktop/PlugIn, a HTML-based report must have been generated at least once, in order to have these these files created)

The predefined template contains several folders and files

index.html	the template in HTML format
manifest.xml	a XML file which defines information needed as content for the report, to be delievered by the pdfToolbox engine
/css	contains a style sheet
/fonts	contains used fonts
/img	contains used images
/scripts	contains used JavaScripts

It is highly recommended to create a copy of the original template in a separate folder when starting to adjust a HTML-template based report.

The manifest.xml

The manifest.xml defines the set of information to be provided by the pdfToolbox engine. This information will be used to to fill up the details in the report based on the HTML-Template.

Basic document information as well as all results of the processed profiles are provided by default. Other parts like a preview image, comparision images or an XML report can be also requested here. Even a XML report can be ordered to enable picking up additional information about the PDF or executed fixups or checks using JavaScript.

The display name in the user interface is defined here as well.

For developing purposes, the internally generated, filled HTML representation of the report can be maintained to review changes in the template files also in a browser.

The HTML converter is using WebKit, so it is recommended to use Safari (or Chrome, which is based on a spin-off of WebKit) as a browser.

Request basic informations about PDF

```
<x:dict>
<x:overview/>
</x:dict>
```

Purpose

If contained, document information and results of the performed profile will be available for using them in the HTML template.

Preview images of pages

```
<x:results>
<x:preview resolution="150" page="1"/>
</x:results>
```

Purpose

Rendering of images of one or more pages for visual represenation of the PDF in the report.

Visual comparision of original and processed file

```
<x:compare>
<x:document_a resolution="20"/>
<x:document_b resolution="20"/>
<x:diffresult resolution="20"/>
</x:compare>
```

Purpose:

Include compare tree if comparison resources are used inside index.html.

Parameters

resolution resoultion used in ppi for rendering the comparision

Keep the temporarily generated files

<x:settings>
<x:keeptemp>true</x:keeptemp>
</x:settings>

Purpose

Temporarily generated files like the filled index.html, CSS-files, images,

XML-reports and used JavaScripts will not become deleted after finnishing the PDF report.

Parameters

false files become deleted (default)

true files will not become deleted

Creating a XML report for additional content

```
<x:results>
<x:xmlreport path="xml/report.xml"
inkcovres="72" inkcovbox="TrimBox"/>
</x:results>
```

Purpose

Requests a XML report of the performed profile to extract additional information using JavaScript which can be used in the report.

Determining the ink coverage will only take place if one of the respective parameters exists.

Parameters

inkcovres resolution in ppi, used for determining the effective ink coverage of each page in the PDF (optional, default: 300)

inkcovbox page geometry box of which the effective ink coverage will be determined (optional, default: CropBox)

The HTML template

The HTML template can easily be modified using an appropriate codeeditor or enhanced text-editor.

The index.html of the default "overview" template references a stylesheet, two JavaScripts as well as a number of images.

The provided HTML-template already contains some "dummy" data, which is automatically replaced by actual content when a new report is generated.

So, when doing adjustments to the template with custom profiles and PDF files, it is recommended to keep the temporarily generated files for debugging, as a basis for modifications and their review in a browser.

It is possible to use image formats (like JPEG or PNG) as well as PDFs for positioning visual content like logos. If you want to debug your HTML in an HTML Browser you may want to display an image instead of the PDF reference. You can do this by putting identically named files for images and PDF next to each other. The PDF file must be referenced in the <img> tag in the HTML-template. The usage of PDF files allows for higher quality of logos in the resulting PDF report.

How the HTML-template works

The provided HTML-template contains already all document and processing information which can be supplied directly from the application.

You will find <cals_params.js> and <cals_overview.js> which are used by the engine to create and render the HTML. Please do not modify these files.

For adding more functionality it is recommended to do this in new, own JavaScript files, which have to be linked in the <index.html> of course.

Examples for template modification

callas software is providing a number of sample templates, which can be downloaded using the following link:

http://www.callassoftware.com/manuals/callas_Tutorial_HTML-reports.zip

This package contains samples as complete template folders including comments in the HTML-, CSS- or JavaScript-files and the result as a PDF.

Distributed Processing

Distributed Processing mode

callas pdfToolbox Server/CLI can be used in distributed processing mode in which all jobs are distributed over the network to as many "satellites" as being present and results are send back to the originator. Therefore pdfToolbox Server/CLI may be started in different modes:

- "Dispatcher" must to be present exactly one time in the network. This node controls which jobs are to be processed by which machines: the "satellites".
- "Satellite" receives jobs from the clients or directly from the dispatcher (if the dispatcher is run with hotfolders), processes them and sends them back to the clients.
- "Client" asks the dispatcher for satellites and after receiving the next satellite it sends jobs to the satellites and receives the results.
- "Monitor" monitors the dispatcher and displays the current situation.

All of these modules can run on the same or on different machines. There needs to be exactly one dispatcher and at least one satellite. In order to submit jobs at least one client is required.

Distributed processing is supported for Windows, MacOS, Linux, SunSolaris and SunIntel. It is not available on AIX.

Starting a Dispatcher

--dispatcher [--port=<port number>]

Example:

```
--dispatcher [--port=1200]
```

Port is the port number on which the dispatcher can be called over the network. This port is set to 1200 as default.

Starting a Dispatcher using the ServerUI

There is also the possibility to start a server as a dispatcher on Windows and MacOS using the user interface. Also hotfolder-processing can be set up here. In this mode, the dispatcher will also distribute jobs which are send by other clients.

Starting a Satellite

--satellite --endpoint=<Dispatcher IP number>[:<dispatcher port]> [--port=<port number>] [--connections=<number of concurrent connections]

Example:

```
--satellite --endpoint=10.0.0.100:1200 --port=1201
```

In order to process jobs at least one Satellite is required.
Endpoint is the IP number and the port of the Dispatcher. Default is 1200, but it can be changed at the start of the Dispatcher (see above).
Port is the port that the Satellite is using in order to communicate with the Clients. The port of the Satellite is 1201 as default and can be defined

optionally to another one port at the startup.
It is highly recommended to use separate port numbers for the communication between Satellite and Dispatcher than for Satellite and Client.

Starting a Satellite using the ServerUI

There is also the possibility to start a server as a Satellite on Windows and MacOS using the user interface. In this mode, the Satellite will not process any hotfolder jobs on the computer.
A Satellite will always use the number of CPUs on the respective machine as the number of concurrent connections/processes. To limit this number, the Satellite has to be started by CLI with the --connections parameter.
The number of connections should not exceed the number of CPUs, as this might reduce the performance per process and could result in some system stability problems.

Assign more than one Dispatcher to a Satellite

In order to connect a Satellite with more than 1 Dispatcher it is possible to define more than one endpoint. Please refer the to the chapter "Fallback for Dispatcher".

Distribute a process using a Client

The client is called using any regular pdfToolbox command line command.
In order to distribute the call over the network the command line parameters
--dist and --endpoint are added. The client will then first ask the dispatcher to receive a satellite connection and then send the command to the satellite and wait until the result is sent back from the satellite.

```
pdfToolbox --dist --endpoint=<dispatcher IP
number>[:<dispatcher port>] <any regular pdfToolbox call>
```

Examples:

```
pdfToolbox --dist --endpoint=10.0.0.100:1200
<anyProfile.kfpx> <myPDF.pdf>
pdfToolbox --dist --endpoint=10.0.0.100:1200
--redistill <myPDF.pdf>
```


Set type of satellite

As some kinds of jobs shall only be processed on a defined type of Satellite, it is possible to start a Satellite with one or more types set.

Every CLI call can also be amended with one or more typification of allowed types of Satellites the job shall be processed by.

Set typification for Satellite:

```
pdfToolbox --satellite --endpoint=<dispatcher
IP number> --satellite_type=<type> [--satellite_
type=<type>]
```

for example:

```
pdfToolbox --satellite --endpoint=10.0.0.100
--satellite_type=A
pdfToolbox --satellite --endpoint=10.0.0.100
--satellite_type=A --satellite_type=B
```


Set typification for Client:

```
pdfToolbox --dist --endpoint=<dispatcher IP number>
--satellite_type=<type> [--satellite_type=<type>] <any
regular pdfToolbox call>
```

for example:

```
pdfToolbox --dist --endpoint=10.0.0.100 --satellite_
type=A <any regular pdfToolbox call>
```

Implementation details:

• If a Satellite has been started with a typification, only Client calls with the same type set will be send to this satellite.

• If a Client call contains a number of typifications, all typifications must match with those set for a satellite.

• If a Client call has no typfication set, it can be processe on all satellites, even they have been started with a typfication.

• The <type>-string has to be alpha-numeric and is case sensitive.

Avoid local processing

As a fallback, processing can be performed locally if either the action can not be distributed, a Satellite can not be assigned within a timeframe or if no Dispatcher is available.

This type of local processing might be not desired for several reasons.

To avoid such local processing, the Client call can be amended as well as the start of a Dispatcher (if run as a server with hotfolders) with the option

```
--nolocal.
```

Example for Client:
pdfToolbox --dist --endpoint=<dispatcher IP number>
--nolocal <any regular pdfToolbox call>

Example for Dispatcher:
pdfToolbox --dispatcher --nolocal

Fallback for Dispatcher

In some workflow systems, a fallback for a Dispatcher might be required to ensure production stability.

To cover this, a number of Dispatcher can be set up, which will run individually.

One or multiple Dispatcher can be assigned to a Satellite.

Define multiple Dispatcher to a Satellite

Connects a satellite to two (or more) Dispatcher.

```
pdfToolbox --satellite --endpoint=<dispatcher 1 IP>
[--endpoint=<dispatcher 2 IP> [--endpoint=<dispatcher
IP>]
```

Set multiple Dispatcher in a Client call

Distributes a Client call via two (or more) Dispatcher. First reachable Dispatcher with free satellite will process the job.

```
pdfToolbox --dist --endpoint=<dispatcher 1 IP>
--endpoint=<dispatcher 2 IP> [--endpoint=<dispatcher
IP>] <any regular pdfToolbox call>
```

Define a timeout for processing

In some workflow systems, long running processes might not be allowed and shall be cancelled if a give timeframe is reached.

Due to the flexibility of distributed processing, a variety of timeouts for the individual parts can be set:

- for the Client call
- for the Satellite
- for the Dispatcher

Timeout for processing on a Satellite

When defining a timeout for the Client call, the execution will be cancelled after the given period.

When defining a timeout when starting a Satellite, all jobs processed by this Satellite will be cancelled after the given period.

If both are defined, the shorter timeframe will be used.

Example for Client:

```
pdfToolbox --dist --endpoint=<dispatcher IP> --timeout_
satellite=<seconds> <any regular pdfToolbox call>
```

Example for Satellite:

pdfToolbox --satellite --endpoint=<dispatcher IP>
--timeout=<seconds>

Timeout for local processing of Dispatcher or Client
A processing timeout (if no satellite is available or if the type of job can not be distributed) for the fallback to local processing on the Client or the Dispacher
(when used as a server for hotfolders) can also be defined.
If both are defined, the shorter timeframe will be used.

Example for Client:

```
pdfToolbox --dist --endpoint=<dispatcher IP>
--timeout=<seconds> <any regular pdfToolbox call>
```

Example for Dispatcher:

```
pdfToolbox --dispatcher --timeout=<seconds>
```

Timeout for Dispatcher to search for Satellites
Additionally, also a timeout for the Dispatcher can be set, which will define

the timeframe in which is searched for Satellites.
This can be set individually for every Client call:

Example for Client:

```
pdfToolbox --dist --endpoint=<dispatcher IP> --timeout_
dispatcher=<seconds> <any regular pdfToolbox call>
```

When running the Dispatcher in hotfolder-mode, the setting can be defined when starting the Dispatcher (will have effect on all distributed files from hotfolders then):

Example for Dispatcher:

```
pdfToolbox --dispatcher --timeout_dispatcher=<seconds>
```

If a timeout for satellites or dispatcher is set and the --nolocal option has been defined, it will not be tried to process the job locally. Processing will end up in an error.
Setting --timeout... or --nolocal parameters in the "Additional CLI parameter" area of the Server UI is not supported at the moment.

Using the CLI-Monitor

pdfToolbox --monitor --endpoint=<dispatcher IP>:<dispatcher port> [--endpoint=<dispatcher IP>:<dispatcher port>]

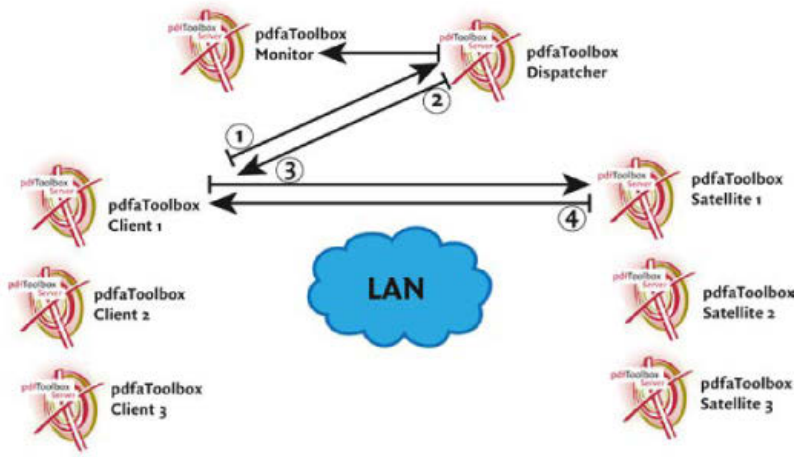
Example:

```
--monitor --endpoint=10.0.0.100:1200
```

Monitor is optional and mirrors the command line output of the dispatcher to another computer. Endpoint is the IP number and the port of the dispatcher.

When using more than one Dispatcher, also multiple Dispatcher IPs can be entered and observed.

Communication



1. Clients sends a request for Satellite to Dispatcher
2. Dispatcher assigns a Satellite and send the address to the Client
3. Client send the job to the Satellite
4. Satellite send the result back to the Client

Licensing

- Server: Regular pdfToolbox Server/CLI license required
- Dispatcher: Dispatcher pdfToolbox Server/CLI license required
- Satellite: Regular pdfToolbox Server/CLI license required
- Monitor: No license required

- Client: No license required

Running pdfToolbox via Webservices (SOAP)

It is possible to submit jobs to a pdfToolbox instance and retrieve the results via SOAP requests.

In order to do so you first have to start the pdfToolbox in a "listening mode":

```
    ./pdfToolbox --satellite --port=<any free port number, e.g. 1201>
```

Or on Windows:

```
    .\pdfToolbox.exe --satellite --port=<any free port number, e.g. 1201>
```

It is currently not possible to submit PDF files or kfpx Profiles via such SOAP requests, so both have to be available to pdfToolbox on mounted volumes.

The SOAP requests wrap any command line parameters in <ns:args> tags. The simple requests below asks pdfToolbox to send usage information back by submitting the --help parameter:

```
    <?xml version="1.0" encoding="UTF-8"?>
<SOAP-ENV:Envelope
 xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
```

```
 xmlns:SOAP-ENC="http://schemas.xmlsoap.org/soap/encoding/"
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xmlns:xsd="http://www.w3.org/2001/XMLSchema"
 xmlns:ns="http://callassoftware.com/cws.xsd">
 <SOAP-ENV:Body>
  <ns:extExecute>
   <ns:args>
    <ns:userID></ns:userID>
    <ns:args>--help</ns:args>
   </ns:args>
  </ns:extExecute>
 </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

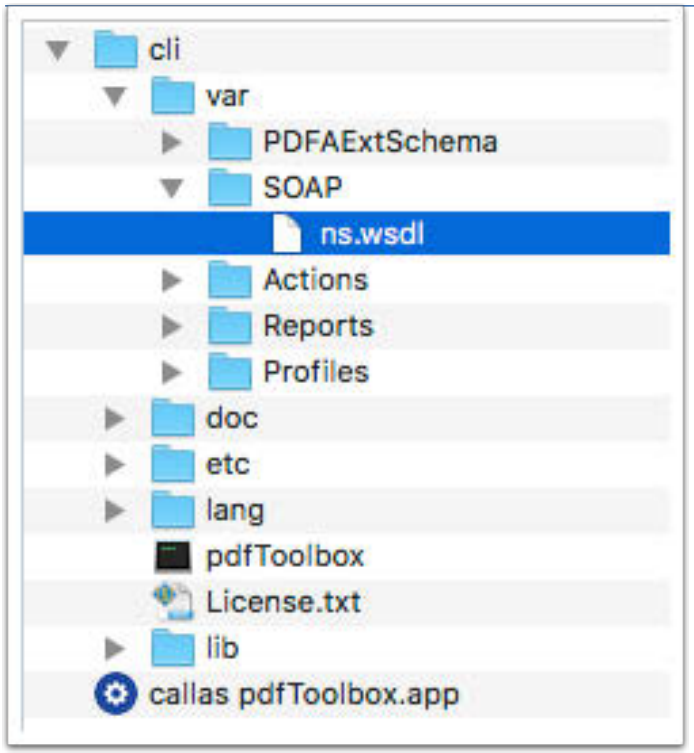

You may include as many parameters as required, there is no limitation.

Any results will be sent back in XML back to the program that you have used to send the request.

You may use the curl tool on command line to send requests and retrieve results:

```
    curl -H "Content-Type: text/xml; charset=utf8" -d@.\ns.extExecute_help.req.xml http://<pdfToolbox' IP>:<Port>
```

A Web Service Defintion Language file can be found in the pdfToolbox program folder:



The example below is a simple SOAP request that asks pdfToolbox to create single pages from the original PDF file. Path and name of the PDF need of course to be adapted.

ns.extExecute_makesinglepages.req.xml