



Abridged Manual

Content

1	Preface	2
2	System requirements	2
3	Open issues / Feedback	3
4	Installation.....	3
4.1	Installation of KOST-Simy	3
5	Configuration of KOST-Simy	4
5.1	Parts of the configuration file "kostsimy.conf.xml"	4
6	Resources of KOST-Simy	4
7	Start the validation	5
7.1	Start the validation using the "KOST-Simy_en.exe" GUI	5
7.2	Start the validation manually.....	7
8	Interpret the comparison results	9
9	Copyright	10
10	Annex	11
10.1	Program structure.....	11



This Manual is only an abridged Manual.
Check the German or French Manual for more Information.

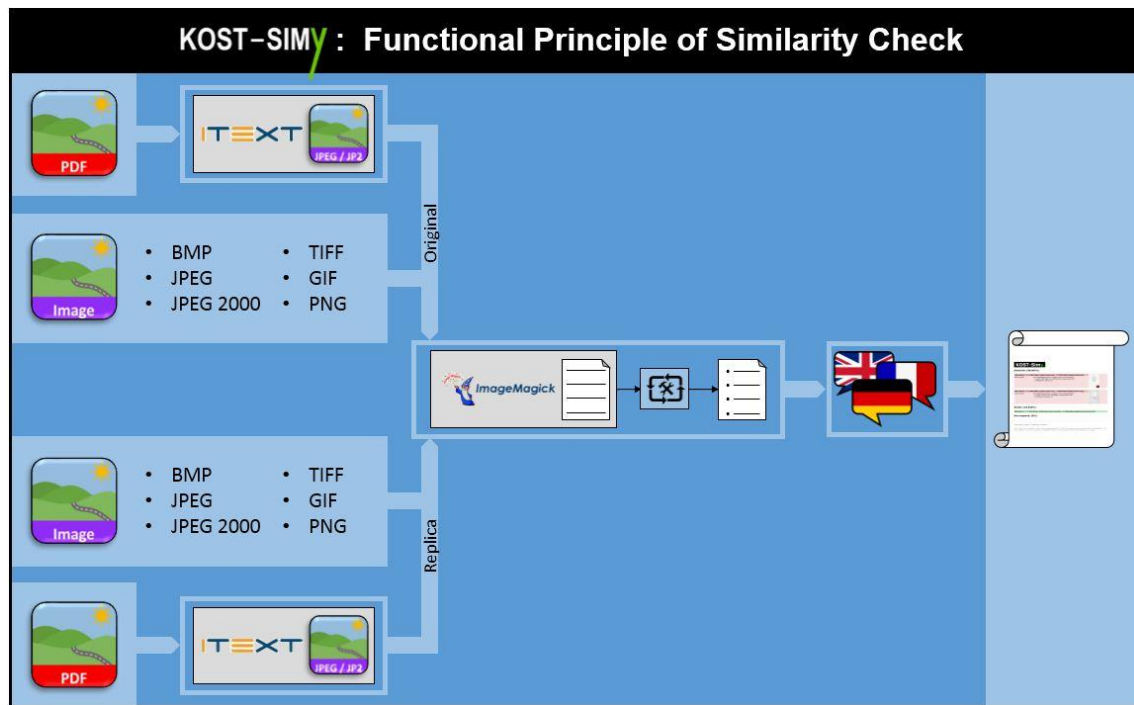
1 Preface

KOST-Simy is a Java-based application for automated visual comparison of BMP, JPEG, JP2, TIFF, GIF, PNG, and PDF/A respectively PDF files with an integrated JPEG or JP2 file. It is an open source application under a GPL v3+ licence. KOST-Simy uses unmodified components of other manufacturers by embedding them directly into the source code. Users of KOST-Simy are requested to adhere to these components' terms of licence. Please refer to chapter 9 for further information.

KOST-Simy complies with the following requirements.

Image comparison: KOST-Simy performs a visual comparison of two images using ImageMagickCompare. KOST-Simy evaluated the intermediate result further and then displayed the result.

PDF and PDF/A: Using iText KOST-Simy extract the JPEG or JP2 image so then the normal image-comparison can be performed.



The results (including deviations, which are outside the tolerances) are output and written to a log file. In addition, the mask with the deviations is stored in the log directory.

2 System requirements

Microsoft Windows 98 or later

128 MB RAM or more (512 MB or more is recommended)

20 GB disk space or more

Java Runtime Environment (JRE) Version 6 (resp. 1.6)

3 Open issues / Feedback

Open issues ranging including bugs, requested features, and questions, are listed on the software development platform GitHub at <https://github.com/KOST-CECO/KOST-Simy/issues> and can also be communicated to kost-val@kost-ceco.ch.

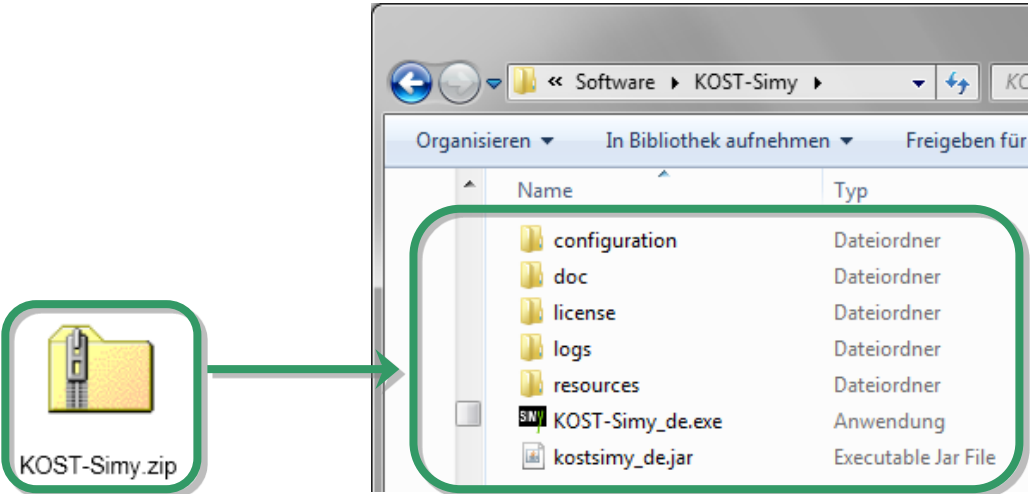
These issues are managed by the development team. Any and all contributions are welcome.

4 Installation

4.1 Installation of KOST-Simy

1

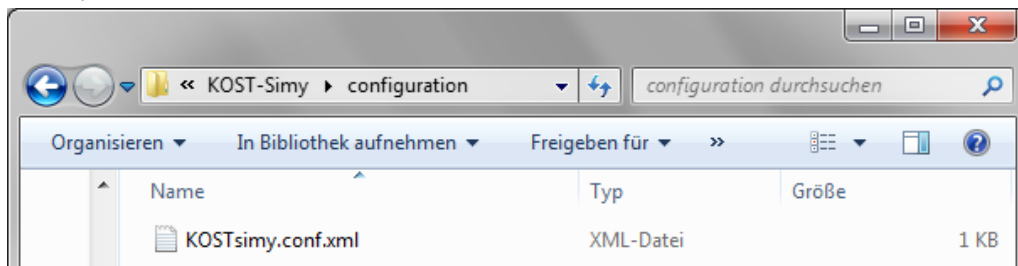
Download KOST-Simy and unpack the ZIP file into the relevant folder.



Name	Typ
configuration	Dateiordner
doc	Dateiordner
license	Dateiordner
logs	Dateiordner
resources	Dateiordner
KOST-Simy_de.exe	Anwendung
kostsimy_de.jar	Executable Jar File

5 Configuration of KOST-Simy

All configurations of KOST-Simy can be set in the configuration file "kostsimy.conf.xml" located in the „configuration" subfolder. Please use an XML editor or Notepad ++¹ to modify XML files.



5.1 Parts of the configuration file "kostsimy.conf.xml"

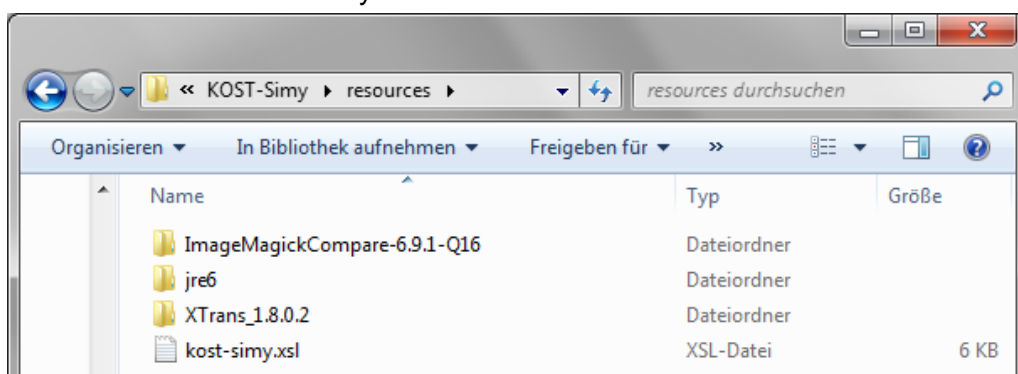
The configuration file "kostsimy.conf.xml" consists of several parts. The following is a short description of the configuration parts.

5.1.1 General

xml-Tag	Description: default value
<pathtologfile>	Path to log folder of KOST-Simy: logs
<pathtoworkdir>	Path to temporary working directory of KOST-Simy: temp_KOST-Simy
<randomtest>	Specifying the percentage of files to be compared: 100
<imgcmpolerance>	Comparison tolerance (N, S, M, L, XL): M

6 Resources of KOST-Simy

All resources of KOST-Simy are stored in the subfolder "resources".



¹ Portable Notepad ++ is available from http://portableapps.com/de/apps/development/notepadpp_portable.

7 Start the validation

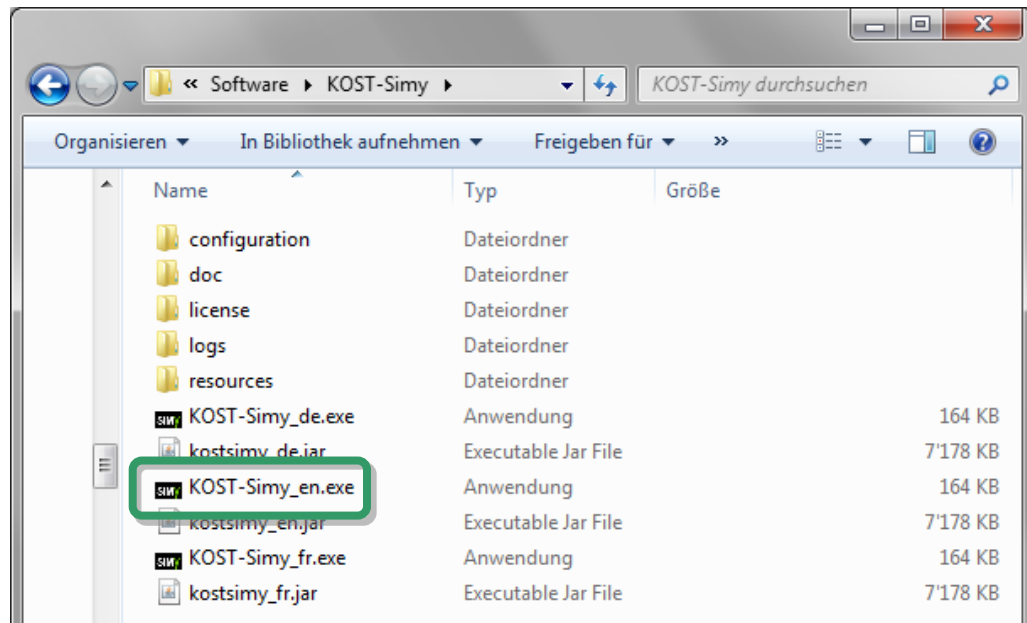


KOST-Simy is not thread safe!

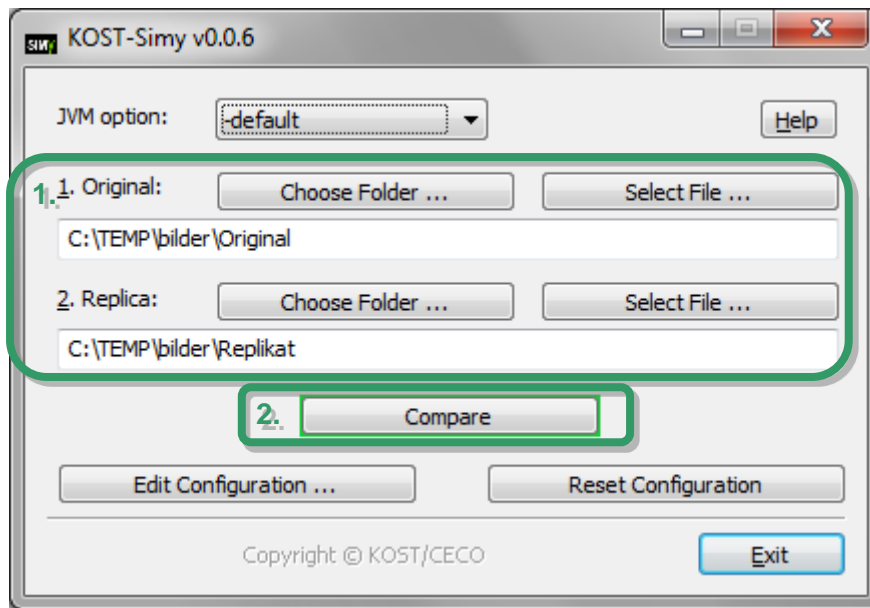
That is to say that concurrent instances of KOST-Simy cannot be executed without interfering with each other. Concurrent execution of KOST-Simy may lead to errors such as a missing working copy.

7.1 Start the validation using the "KOST-Simy_en.exe" GUI

- 1 Double click on „KOST-Simy_en.exe“ in the folder „KOST-Simy“ to start KOST-Simy.



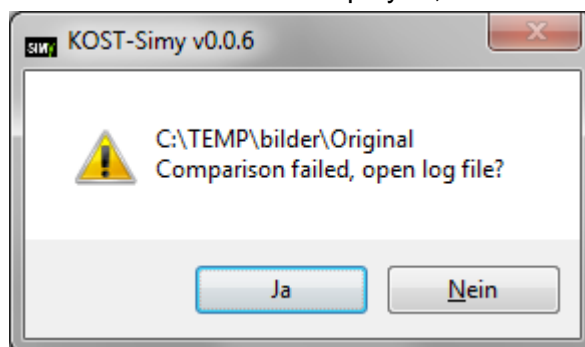
- 2
1. Choose or input the path to the files or folders to be compared.
 2. Start the comparison.



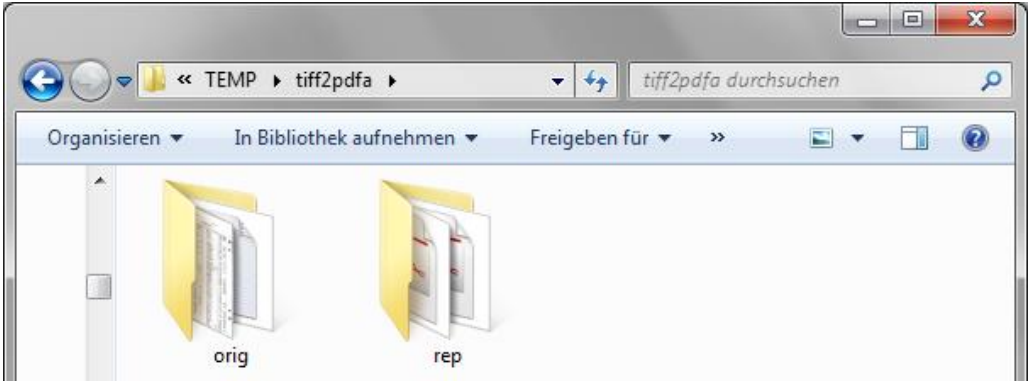
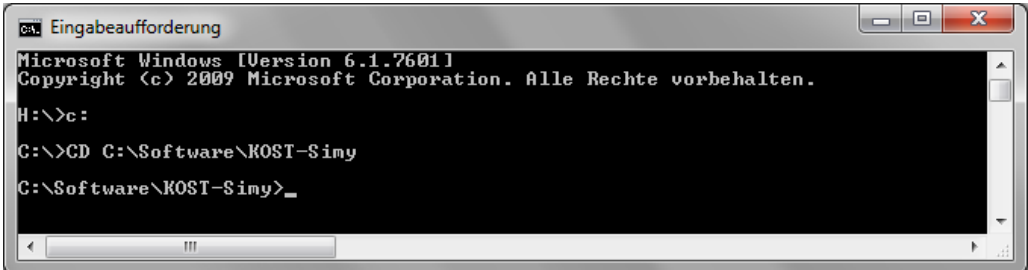
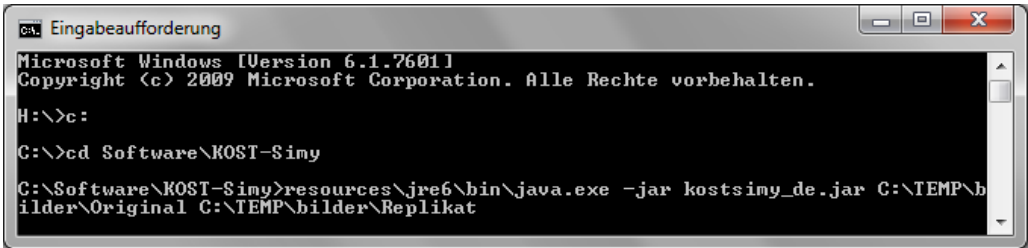
Hint:

If required, the default Java Virtual Memory can be quickly adapted. -Xmx should be adjusted in "Out of Memory" and -Xss at "Stack Overflow" errors. The configuration can be adapted temporarily. The temporary configuration is reset to the default values by clicking on the "Exit" or "Reset Configuration" buttons.

- 3
- The validation result is displayed, and the KOST-Simy log file can be opened.

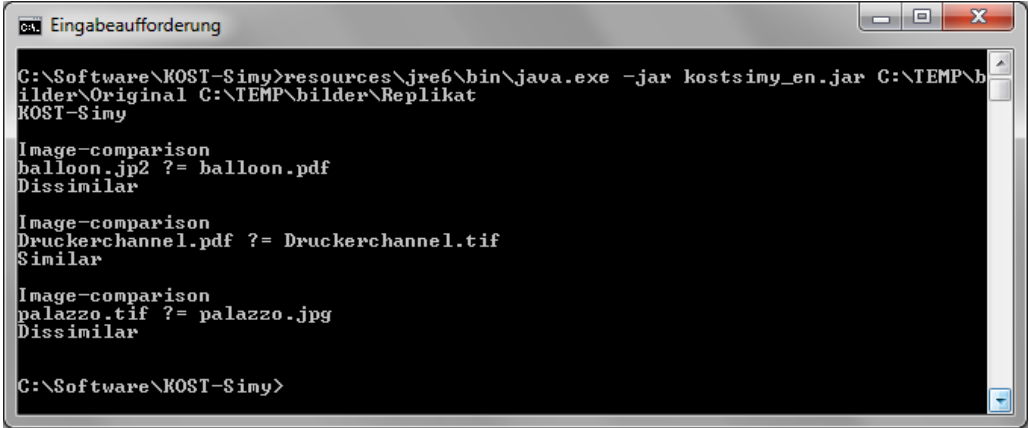


7.2 Start the validation manually

1	<p>Prepare the folders or files to compare.</p> 
2	<p>Open a command prompt (Start → Execute... → cmd [OK]) and change to the desired working directory (CD C:\Software\KOST-Simy)².</p> 
3	<p>Invoke the KOST-Simy command (separate command options with spaces).</p>  <p>A resources\jre6\bin\java.exe³ -jar B kostsimy_en.jar C C:\TEMP\bilder\Original D C:\TEMP\bilder\Replikat</p> <p>A = Java command (resources\jre6\bin\java.exe -jar), B = relative path and file name kostsimy_en.jar, C = relative path and file name of the original folder or file, D = relative path and file name of the replica folder or file.</p> <p><u>Notes:</u> A command component that contains spaces needs to be enclosed in quotation marks.</p>

² To change the drive type, e.g., c:.

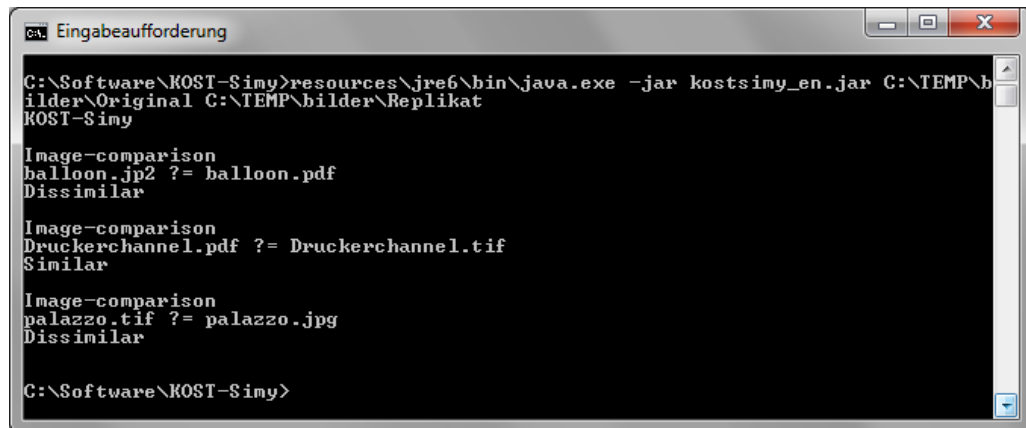
³ Invoking `java -jar` is possible only if Java Runtime Environment (JRE) version 6 is the standard version. JRE7 can cause crashes. KOST-Simy is massively slower in connection with JRE8.

	<p>KOST-Simy can be invoked from any location. However this may require using absolute paths in both the program call and the configuration file "kostsimy.conf.xml".</p> <p>A C:\Software\KOST-Simy\resources\jre6\bin\java.exe -jar B C:\Software\KOST-Simy\kostsimy_en.jar C C:\TEMP\bilder\Original D C:\TEMP\bilder\Replikat</p>
4	<p>The file has been compared as soon as "Similar" or "Dissimilar" is displayed in the command window. The folder has been compared as soon as the prompt (C:\Software\KOST-Simy>) is displayed.</p>  <p>Detailed results are available in the file kost-simy.log.xml.</p> <p>The overall result (similar/dissimilar) is output as well. In addition, it is visible in the program's exit status in order for the comparison to be embedded into an automated process chain. The exit status can take the following values:</p> <ul style="list-style-type: none"> 0 everything is ok, similar 1 incorrect program call 2 comparison failed, dissimilar

8 Interpret the comparison results

- 1 After starting KOST-Simy the files are displayed. Once the comparison has been passed, "Similar" is output.

Should the comparison notice some differences, "Dissimilar" is displayed.



```
C:\Software\KOST-Simy>resources\jre6\bin\java.exe -jar kostsimy_en.jar C:\TEMP\bilder\Original C:\TEMP\bilder\Replikat
KOST-Simy

Image-comparison
balloon.jp2 ?= balloon.pdf
Dissimilar

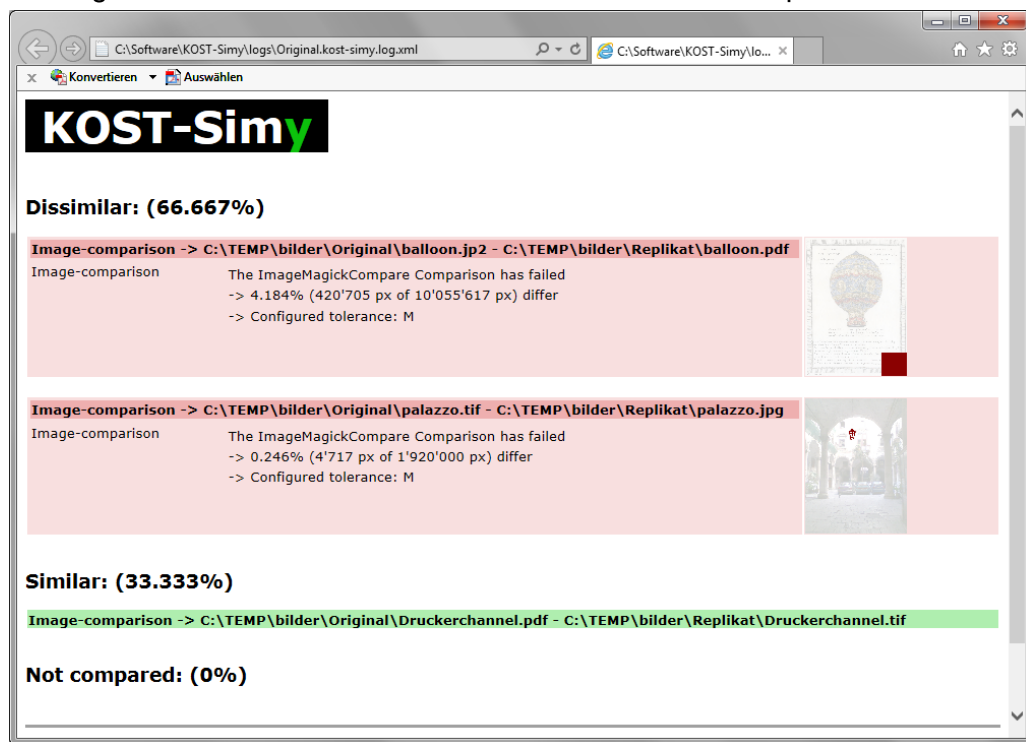
Image-comparison
Druckerchannel.pdf ?= Druckerchannel.tif
Similar

Image-comparison
palazzo.tif ?= palazzo.jpg
Dissimilar

C:\Software\KOST-Simy>
```

If the comparison fails, an image of the differences will be written to the log directory.

- 2 The log file lists additional details about the individual discrepancies or failure.



9 Copyright

KOST-Simy has been developed by KOST. All rights reserved. KOST-Simy has been published by KOST in 2015 under a GNU General Public License v3+.

Notice:	This product includes software developed by the Apache Software Foundation (http://www.apache.org/).
----------------	---

KOST-Simy uses the following unmodified components of other manufacturers by embedding them directly into the source code:

Third party application / component	Version	License
Apache Commons http://commons.apache.org/ - commons-collections-3.2.1.jar - commons-configuration-1.6.jar - commons-digester-1.8.jar - commons-lang-2.4.jar - commons-logging-1.1.1.jar	3.2.1 1.6 1.8 2.4 1.1.1	Apache License 2.0
Apache log4j http://logging.apache.org/log4j/	1.2.12	Apache License 2.0
iText http://itextpdf.com/	5.5.5	AGPL v3 License
Junit 4.4 http://www.junit.org/	4.4	CPL v1.0
Spring Framework API http://static.springsource.org/spring/docs/3.0.x/api/	3.0.0	Apache License 2.0

KOST-Simy uses the following unmodified components of other manufacturers which are delivered with KOST-Simy:

Third party application / component	Version	License
ImageMagick Compare http://imagemagick.org	6.9.1	Apache License 2.0
NSIS v2.46 http://nsis.sourceforge.net/Main_Page	2.46	zlib/libpng License
XML.nsh http://nsis.sourceforge.net/XML_plugin	2.0	zlib/libpng License
XTrans http://sourceforge.net/projects/xtrans/	1.8.0.2	GPL v2 License

Users of KOST-Simy are requested to adhere to these components' terms of licence available in the folder KOST-Simy\license.

10 Annex

10.1 Program structure

KOST-Simy is structured according to the following requirements:

Image comparison: KOST-Simy performs a visual comparison of two images using ImageMagickCompare. KOST-Simy evaluated the intermediate result further and then displayed the result.

PDF and PDF/A: Using iText KOST-Simy extract the JPEG or JP2 image so then the normal image-comparison can be performed.

The results (including deviations, which are outside the tolerances) are output and written to a log file. In addition, the mask with the deviations is stored in the log directory.

The overall result (similar/dissimilar) is output as well. In addition, it is visible in the program's exit status in order for the comparison to be embedded into an automated process chain. The exit status can take the following values:

- 0 everything is ok, similar
- 1 incorrect program call
- 2 comparison failed, dissimilar

The comparison steps are executed sequentially. Whenever possible the comparison shall continue after an error has been detected in order to reduce the number of correction cycles.

Non-functional requirements:

External programs or java frameworks are used for particular tasks.

The application has a modular structure that allows for inserting additional comparison modules without further ado.

The comparison log and exit status permit an easy readout of a single comparison result and allow the utilisation of the tool in a process chain.

The console output is limited on the comparison module and the final results of either "Similar" or "Dissimilar". All additional information is documented in the log file.