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Why PDF/A validation matters

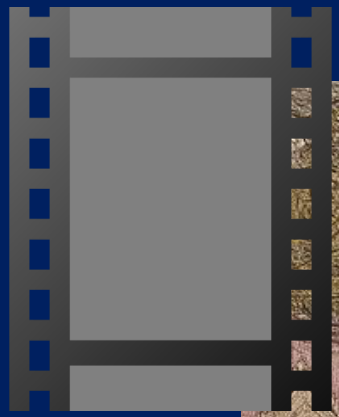
(even if you don't have PDF/A)

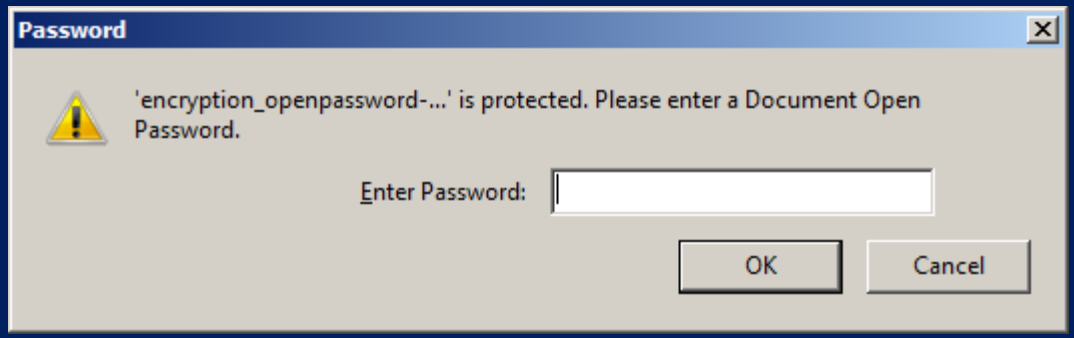
Johan van der Knijff

PANDORA opening her Box.

PANDORA opening her ~~Box~~ PDF

abcd

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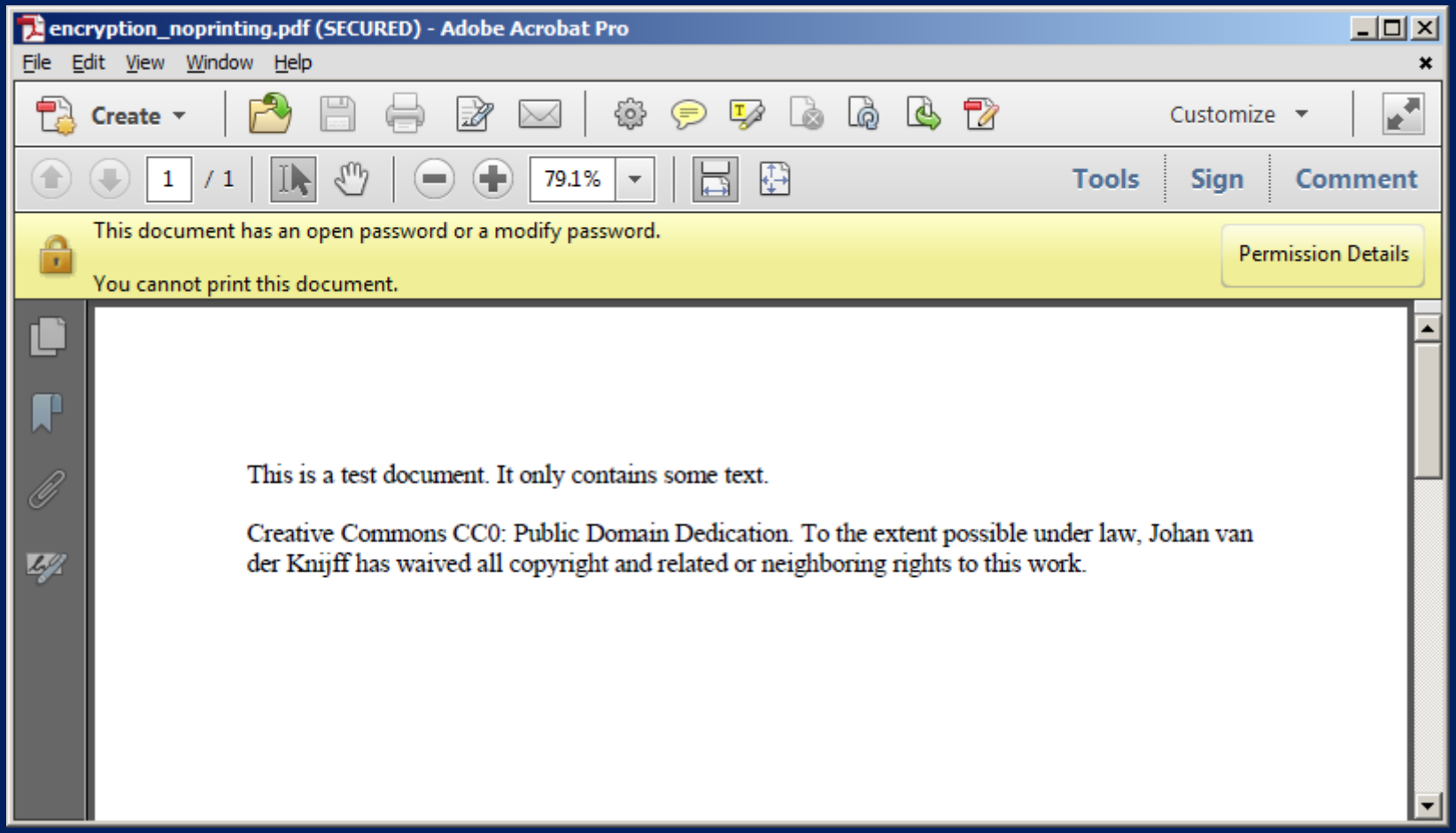
'encryption_openpassword-...' is protected. Please enter a Document Open Password.
Enter Password:
OK
Cancel


encryption_noprinting.pdf (SECURED) - Adobe Acrobat Pro
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Create
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1 / 1
79.1%
Tools Sign Comment
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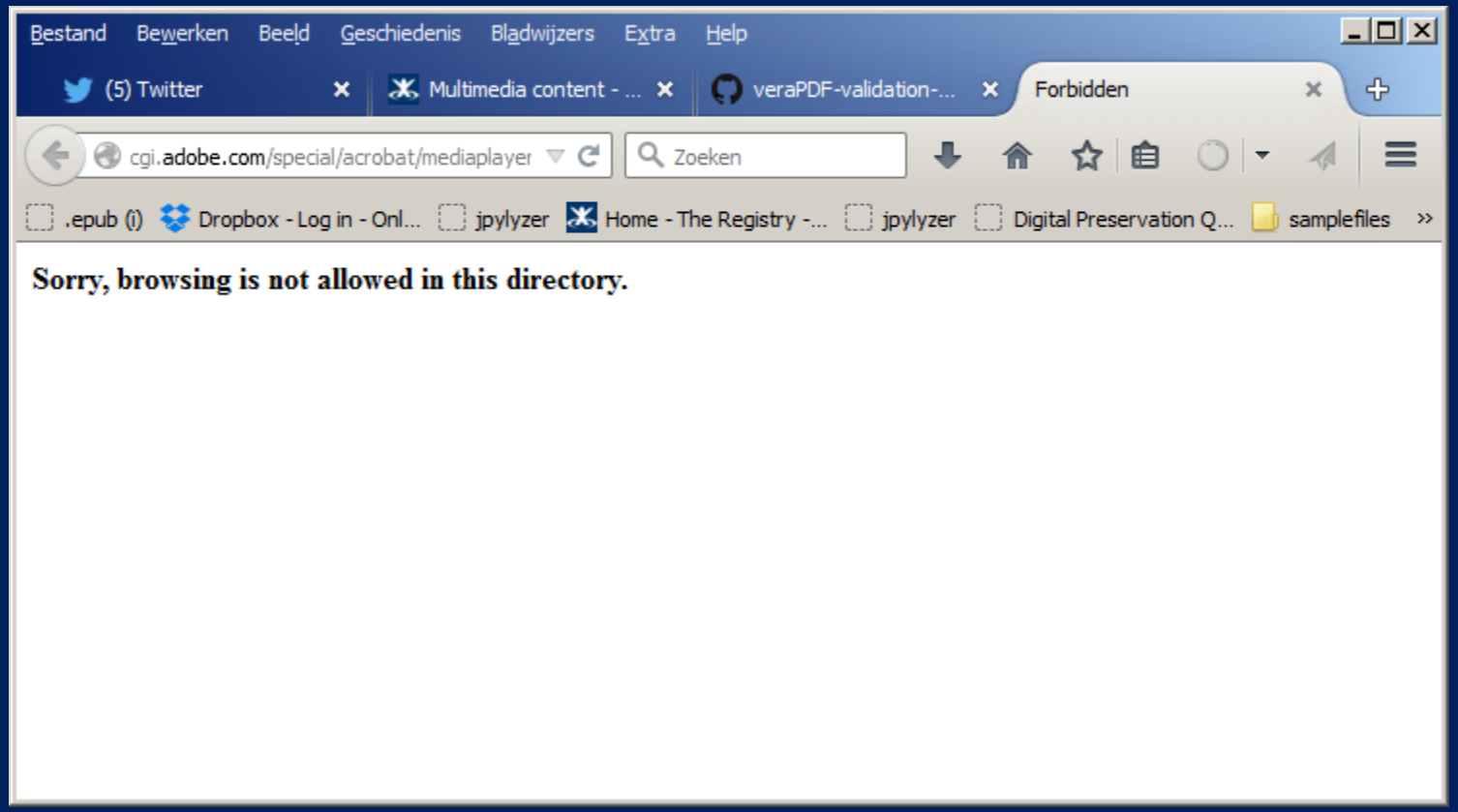
Embedded Quicktime video by Misty De Meo, taken from the OPF format corpus. The licensing info there states “created using ffmpeg's builtin "testsrc" test pattern, which is presumed to be unlicensed. ffmpeg's code is GPLv2 licensed”.


Bestand Bewerken Beeld Geschiedenis Bladwijzers Extra Help
(5) Twitter
Multimedia content - ...
veraPDF-validation-...
Forbidden
cgi.adobe.com/special/acrobat/mediaplayer
Zoeken
.epub (i)
Dropbox - Log in - Onl...
jpylyzer
Home - The Registry -...
jpylyzer
Digital Preservation Q...
samplefiles
Sorry, browsing is not allowed in this directory.

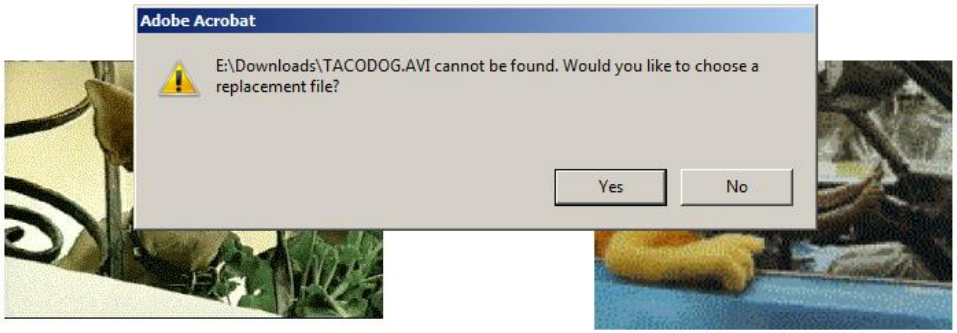
movie.pdf - Adobe Acrobat Pro

File Edit View Window Help

Create Customize

1 / 1 111% Tools Sign Comment

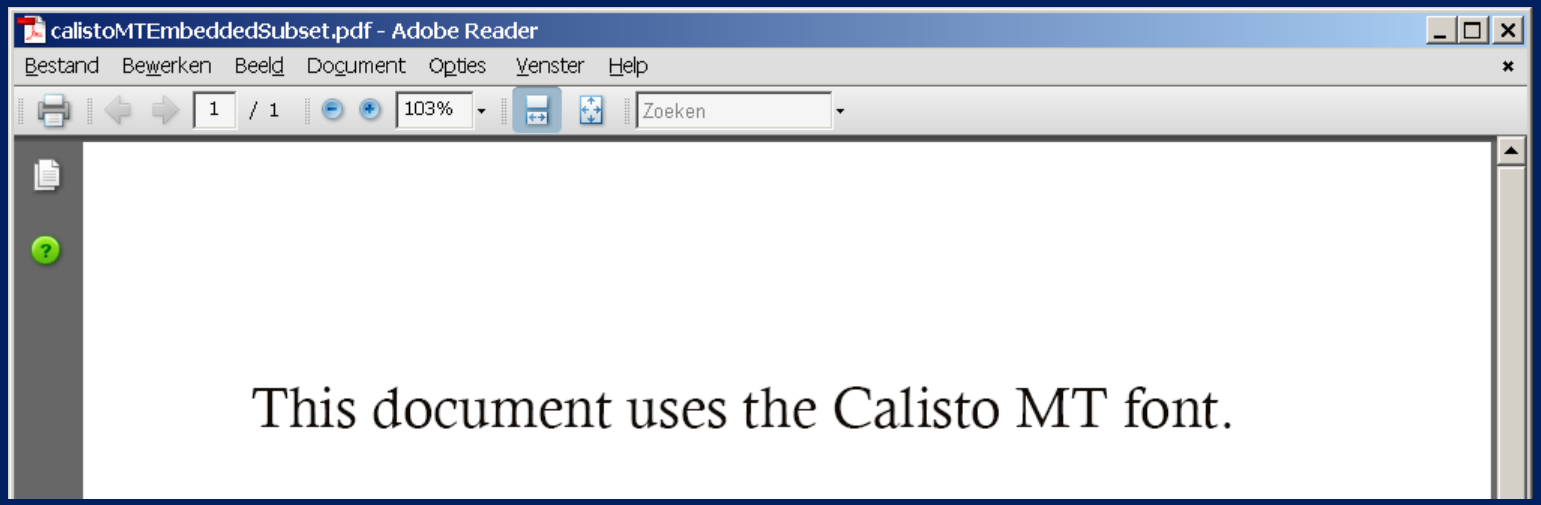
Going to the movies!



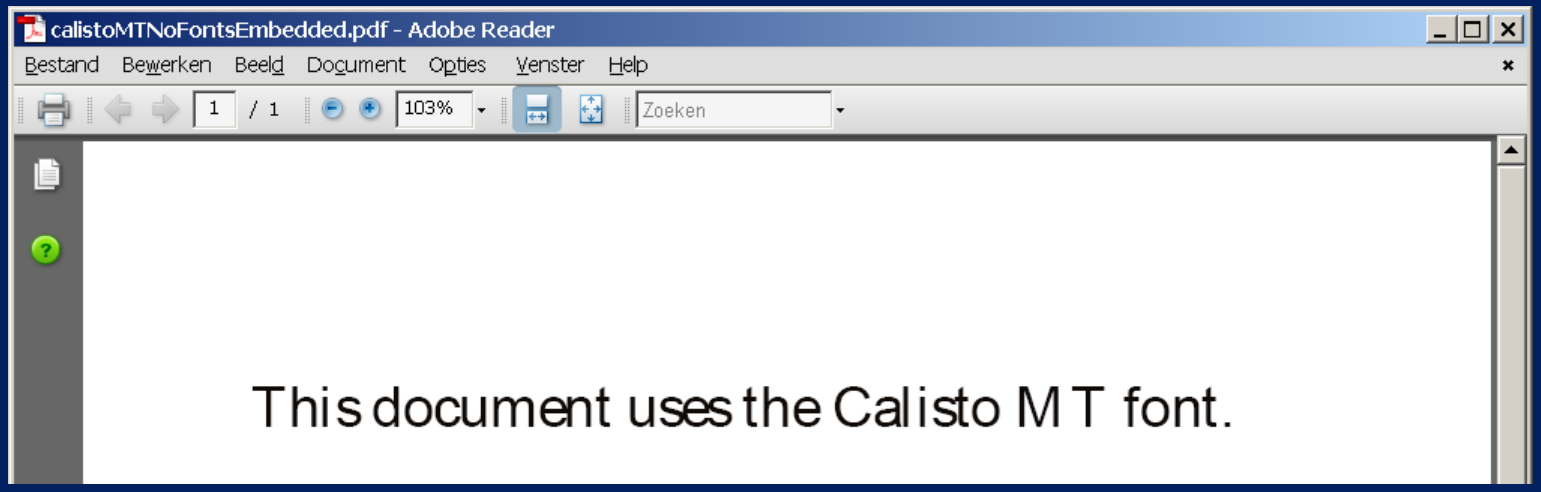
AVI file with the Controller

AVI file w/out the controller

On creator machine



On Linux machine

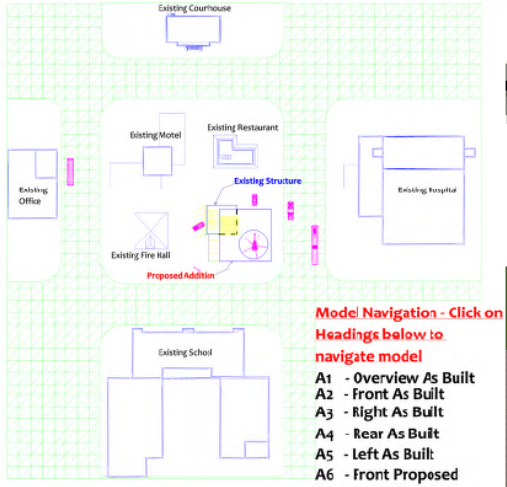


pdf 1.7 portfolio 3D multiple sheets.pdf - Adobe Acrobat Pro

File Edit View Window Help

Create Customize

1 / 1 32.1% Tools Sign Comment



Model Navigation - Click on Headings below to navigate model

A1 - Overview As Built
A2 - Front As Built
A3 - Right As Built
A4 - Rear As Built
A5 - Left As Built
A6 - Front Proposed
A7 - Right Proposed
A8 - Rear Proposed
A9 - Left Proposed
A10 - Section 1
A11 - Section 2
A12 - Section 3
A13 - Section 4
A14 - Credits
A15 - Contact Us
A16 - Visit our Website
A17 - Back to the Gallery

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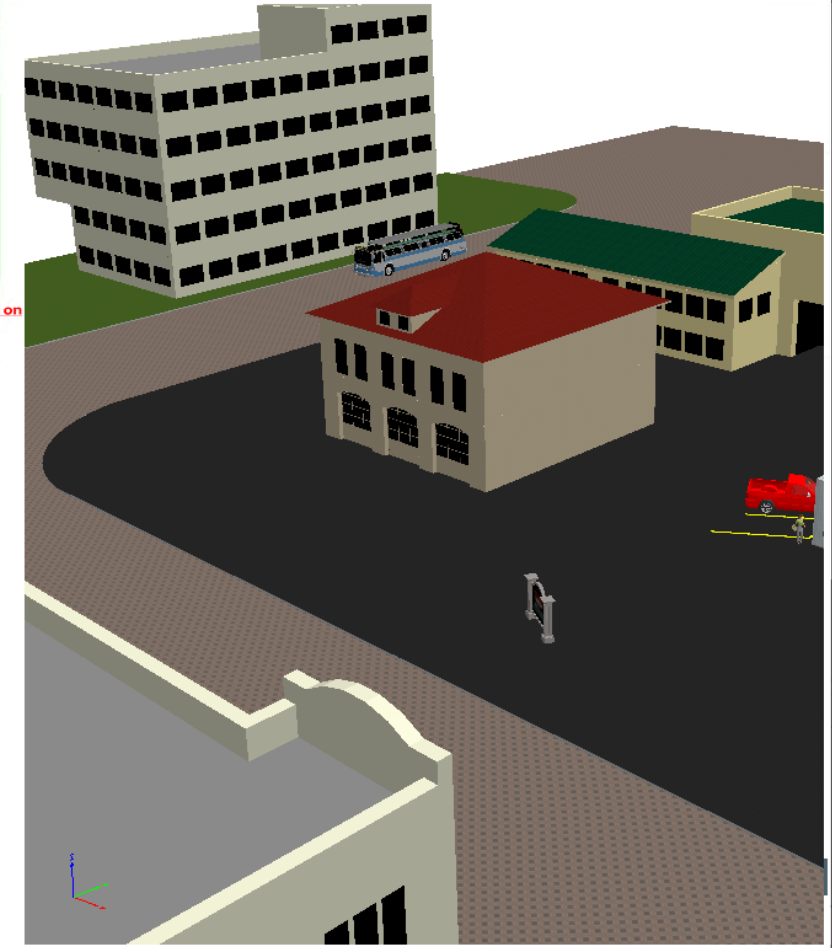

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Anytown

Designer:
Virtual Architec LLC

Contractor Name
Contractor/Builder:

Cover Page / Table of Contents
Sheet Label:

Scale: NTS

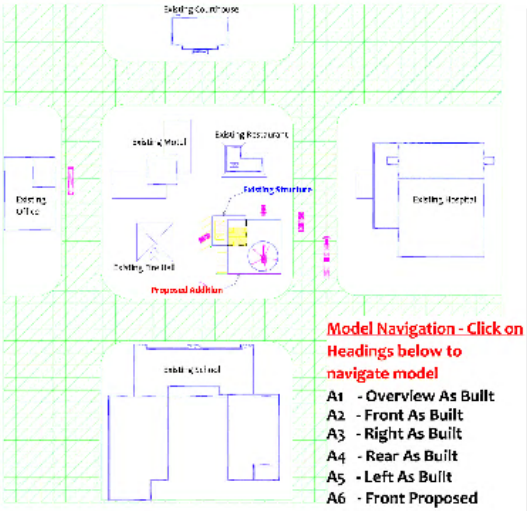
Client:
Sample Commercial Addition/ Remodel Proposal for City Hall

Date: Date

Sheet: A1

pdf 1.7 portfolio 3D multiple sheets.pdf - GSview

File Edit Options View Orientation Media Help



Model Navigation - Click on Headings below to navigate model

- A1 - Overview As Built
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- A3 - Right As Built
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Contractor Name

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Scale: NTS

Sample Commercial Addition/ Remodel Proposal for City Hall

...ortfolio 3D multiple sheets.pdf 236, 1562pt Page: "1" 1 of 1

pdf 1.7 portfolio 3D multiple sheets.pdf - [Sample Commercial Addtion Proposal] - SumatraPDF

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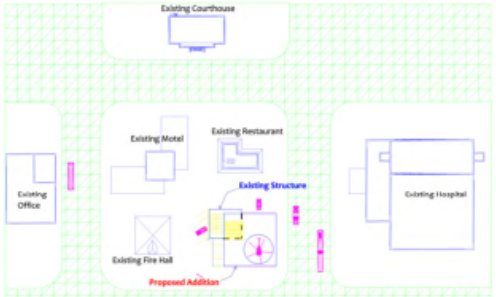
Page: 1 / 1 Find:



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Scale:
NTS

Client:
Sample Commercial Addition/ Remodel Proposal for City Hall

Date:
Date

Sheet:
A1

WARNING

Command Prompt

```
e:\Downloads>c:\qpdf\bin\qpdf --check encryption_nocopy.pdf
checking encryption_nocopy.pdf
PDF Version: 1.7
R = 4
P = -1044
User password =
extract for accessibility: allowed
extract for any purpose: not allowed
print low resolution: allowed
print high resolution: allowed
modify document assembly: not allowed
modify forms: allowed
modify annotations: allowed
modify other: allowed
modify anything: not allowed
stream encryption method: AESv2
string encryption method: AESv2
file encryption method: AESv2
File is linearized
ERROR: linearized file contains an uncompressed object after a compressed one in
 a cross-reference stream
WARNING: page 0 has shared identifier entries
WARNING: page 0: shared object 25: in hint table but not computed list
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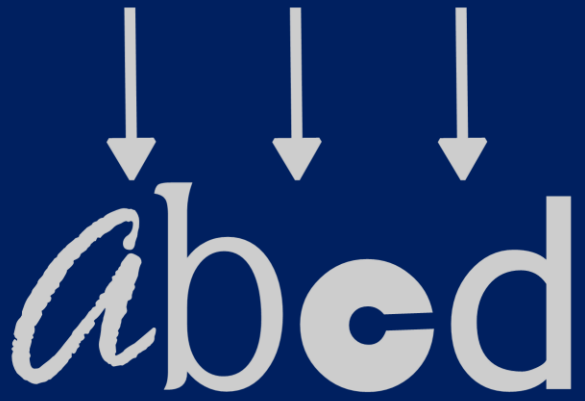

Command Prompt

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name                                 type              emb sub uni object ID
------------------------------------ ----------------- --- --- --- ------ --
AdobeCorpID-MyriadRg                 Type 1            no  no  no      13  0
ComicSansMS                          TrueType          no  no  no       8  0
Tahoma                               TrueType          no  no  no      11  0
Haettenschweiler                     TrueType          no  no  no      16  0
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Helvetica                            Type 1            no  no  no      35  0

e:\preflightTests>_
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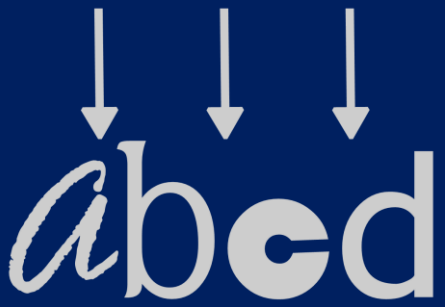
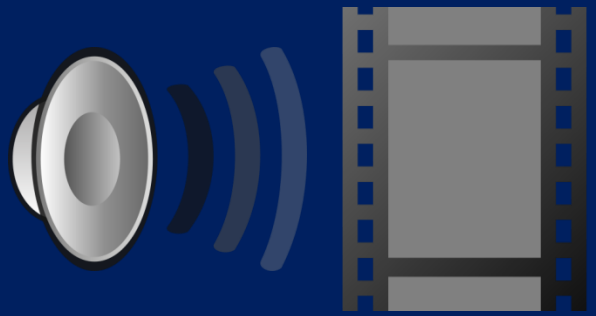
Tool A

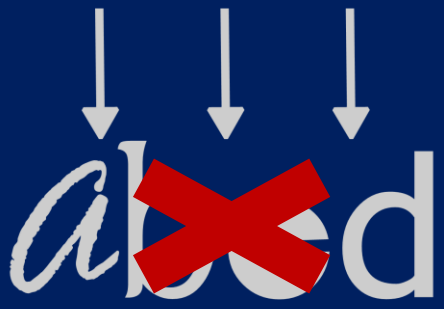


Tool B



Tool C

PDF/A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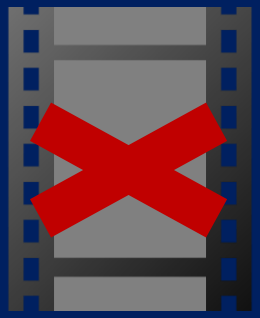
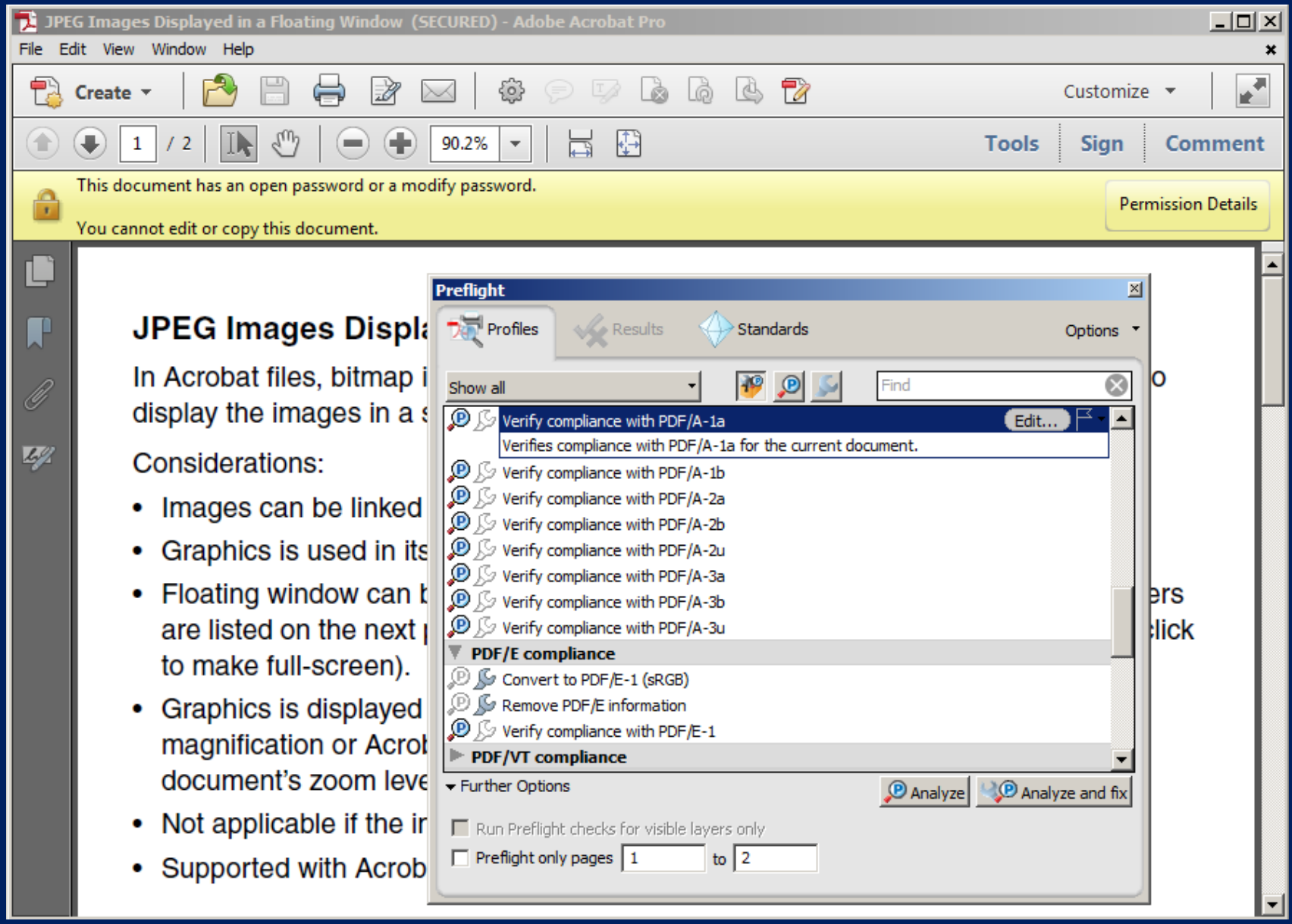


Identify potential preservation risks of a PDF –*any PDF!*- by assessing against PDF/A standard.

How?

Use PDF/A validator!


JPEG Images Displayed in a Floating Window (SECURED) - Adobe Acrobat Pro
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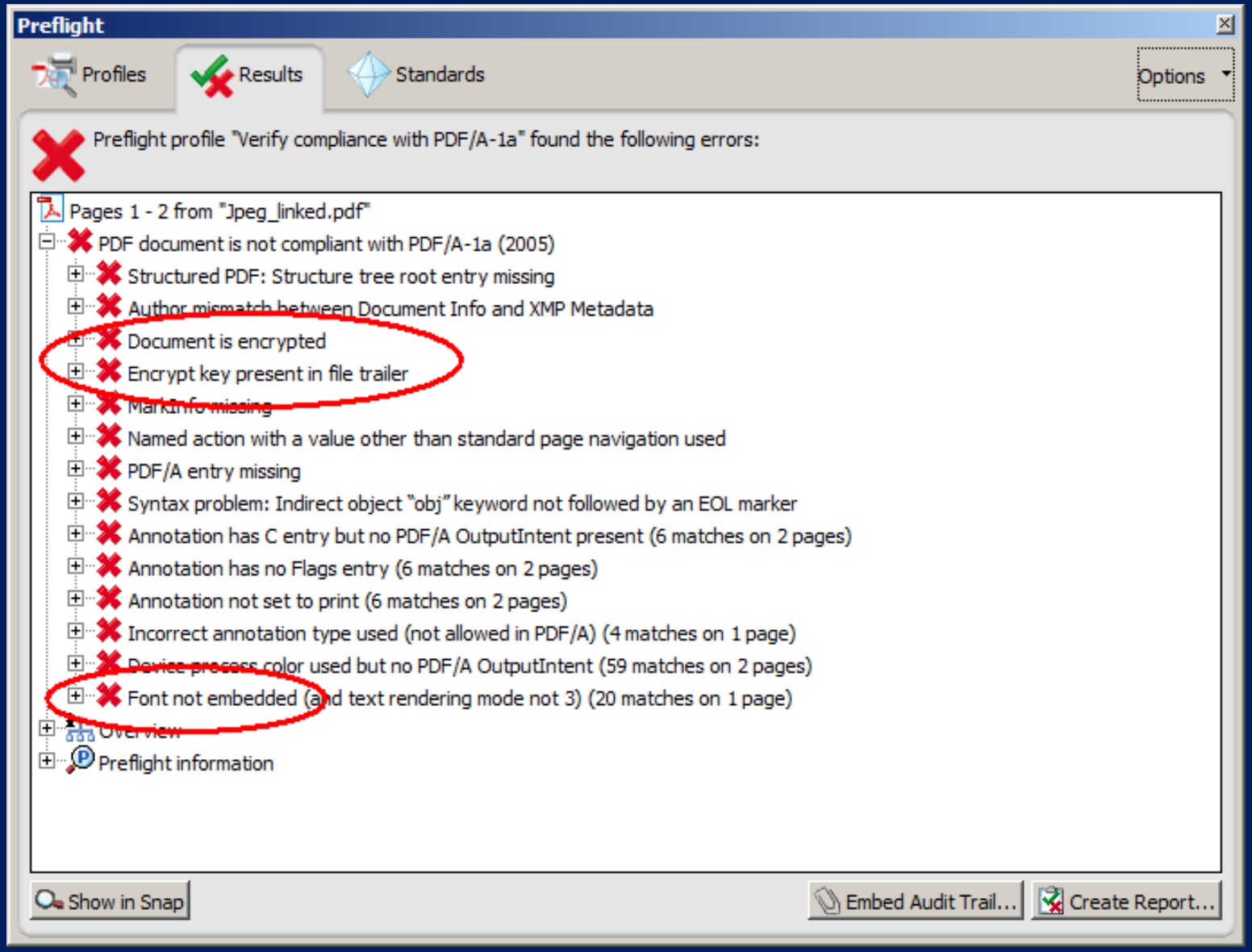
Considerations:
• Images can be linked
• Graphics is used in its
• Floating window can b
are listed on the next p
to make full-screen).
• Graphics is displayed
magnification or Acrob
document's zoom leve
• Not applicable if the ir
• Supported with Acrob
Preflight
Profiles
Results
Standards
Options
Show all
Find
Verify compliance with PDF/A-1a
Edit...
Verifies compliance with PDF/A-1a for the current document.
Verify compliance with PDF/A-1b
Verify compliance with PDF/A-2a
Verify compliance with PDF/A-2b
Verify compliance with PDF/A-2u
Verify compliance with PDF/A-3a
Verify compliance with PDF/A-3b
Verify compliance with PDF/A-3u
PDF/E compliance
Convert to PDF/E-1 (sRGB)
Remove PDF/E information
Verify compliance with PDF/E-1
PDF/VT compliance
Further Options
Analyze
Analyze and fix
Run Preflight checks for visible layers only
Preflight only pages 1 to 2


Preflight
Profiles
Results
Standards
Options
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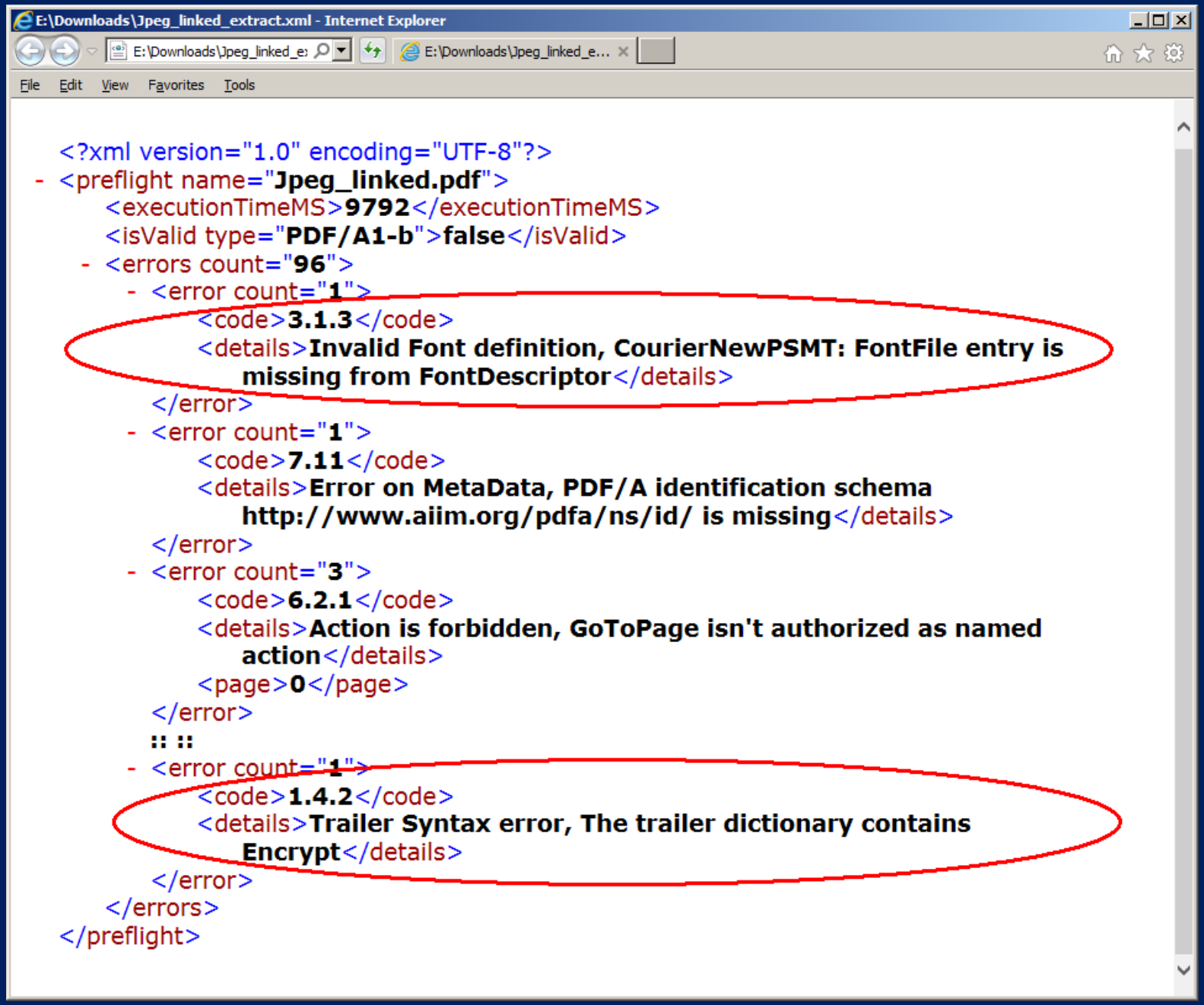
PDF document is not compliant with PDF/A-1a (2005)
Structured PDF: Structure tree root entry missing
Author mismatch between Document Info and XMP Metadata
Document is encrypted
Encrypt key present in file trailer
MarkInfo missing
Named action with a value other than standard page navigation used
PDF/A entry missing
Syntax problem: Indirect object "obj" keyword not followed by an EOL marker
Annotation has C entry but no PDF/A OutputIntent present (6 matches on 2 pages)
Annotation has no Flags entry (6 matches on 2 pages)
Annotation not set to print (6 matches on 2 pages)
Incorrect annotation type used (not allowed in PDF/A) (4 matches on 1 page)
Device process color used but no PDF/A OutputIntent (59 matches on 2 pages)
Font not embedded (and text rendering mode not 3) (20 matches on 1 page)
Overview
Preflight information
Show in Snap
Embed Audit Trail...
Create Report...

Preflight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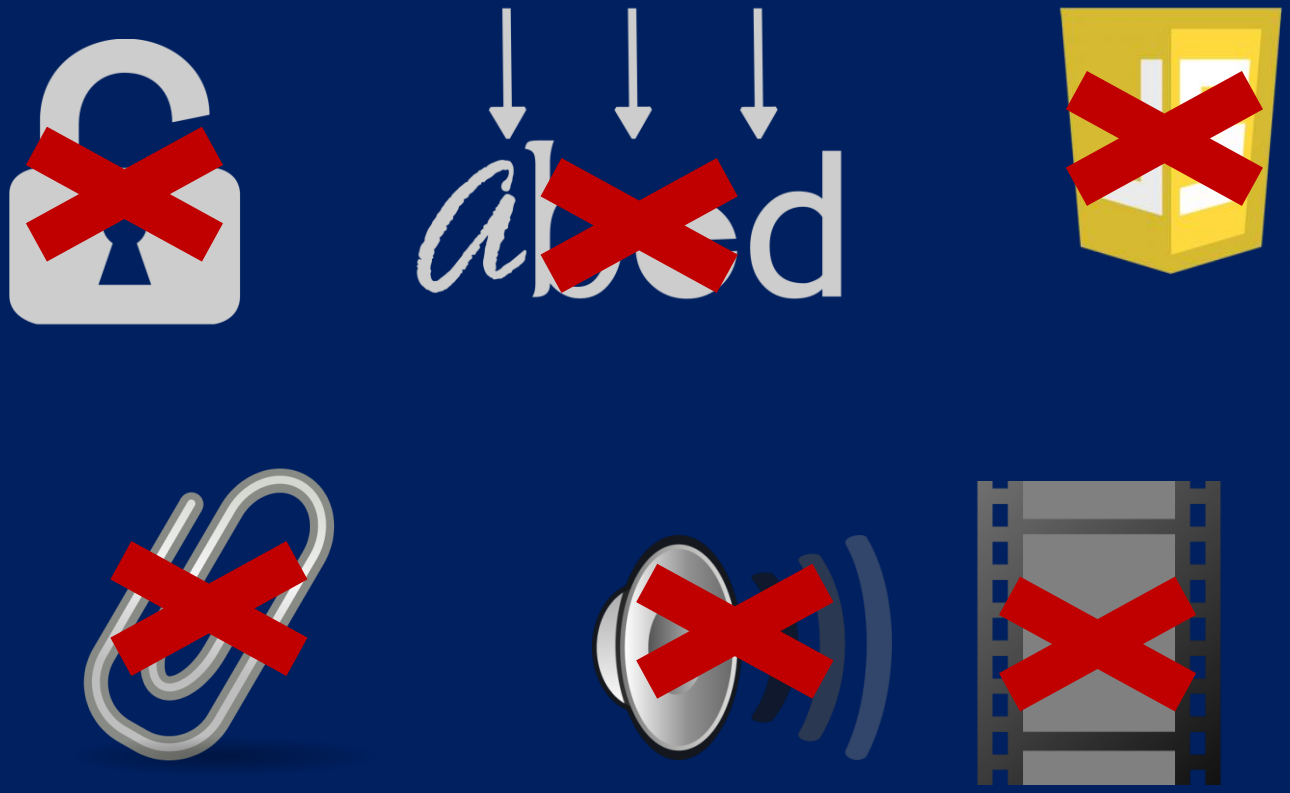
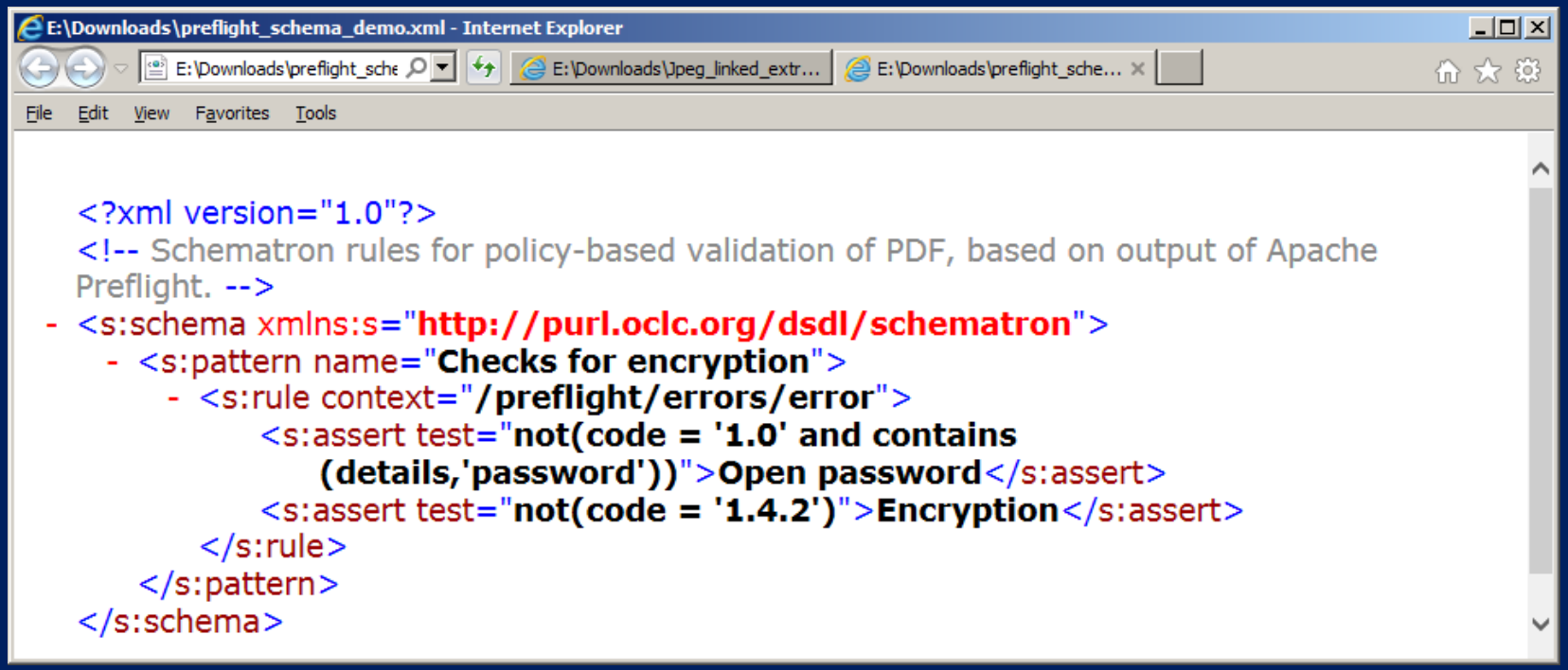
Policy assessment




E:\Downloads\preflight_schema_demo.xml - Internet Explorer
E:\Downloads\preflight_sche
E:\Downloads\Jpeg_linked_extr...
E:\Downloads\preflight_sche...
File Edit View Favorites Tools
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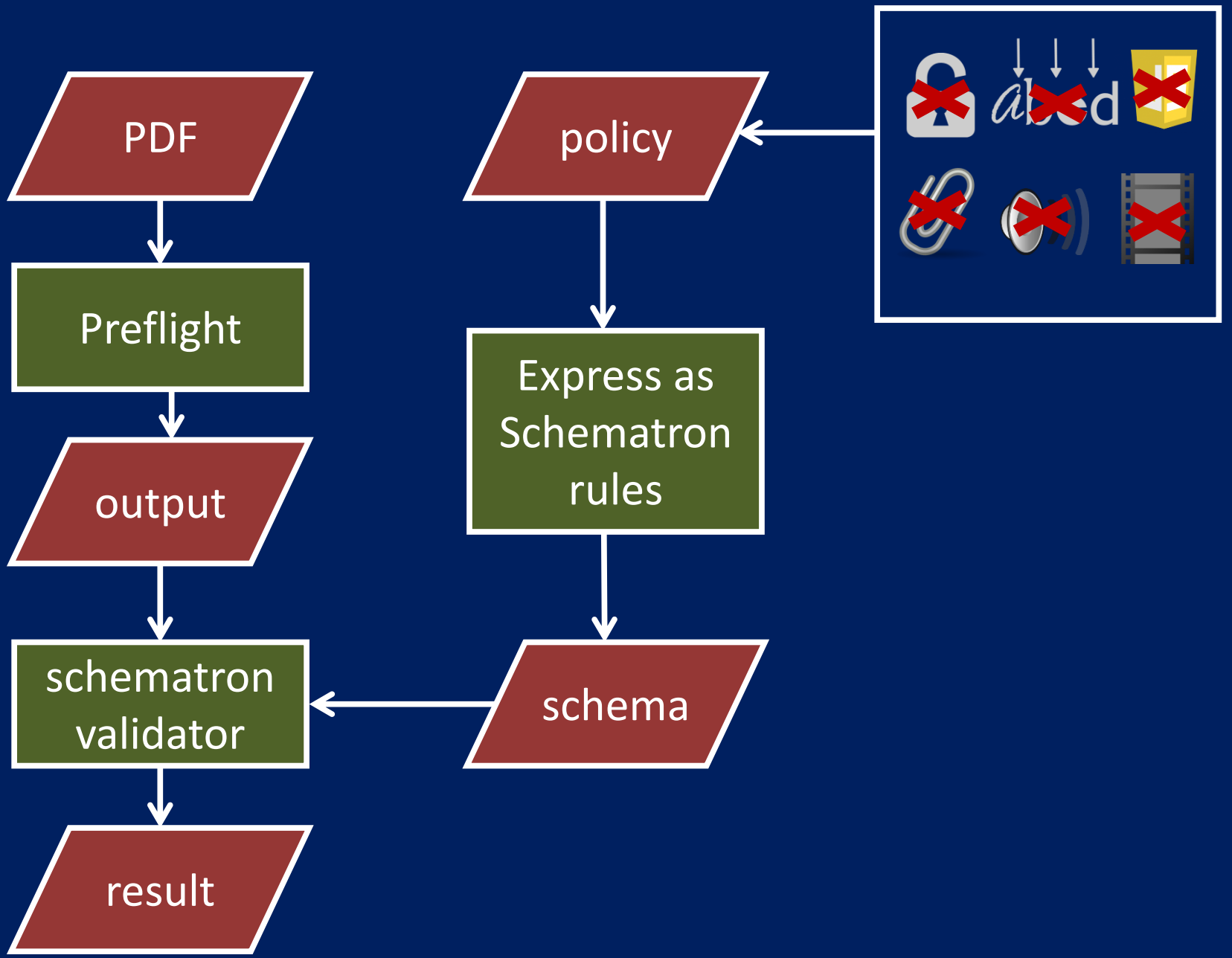
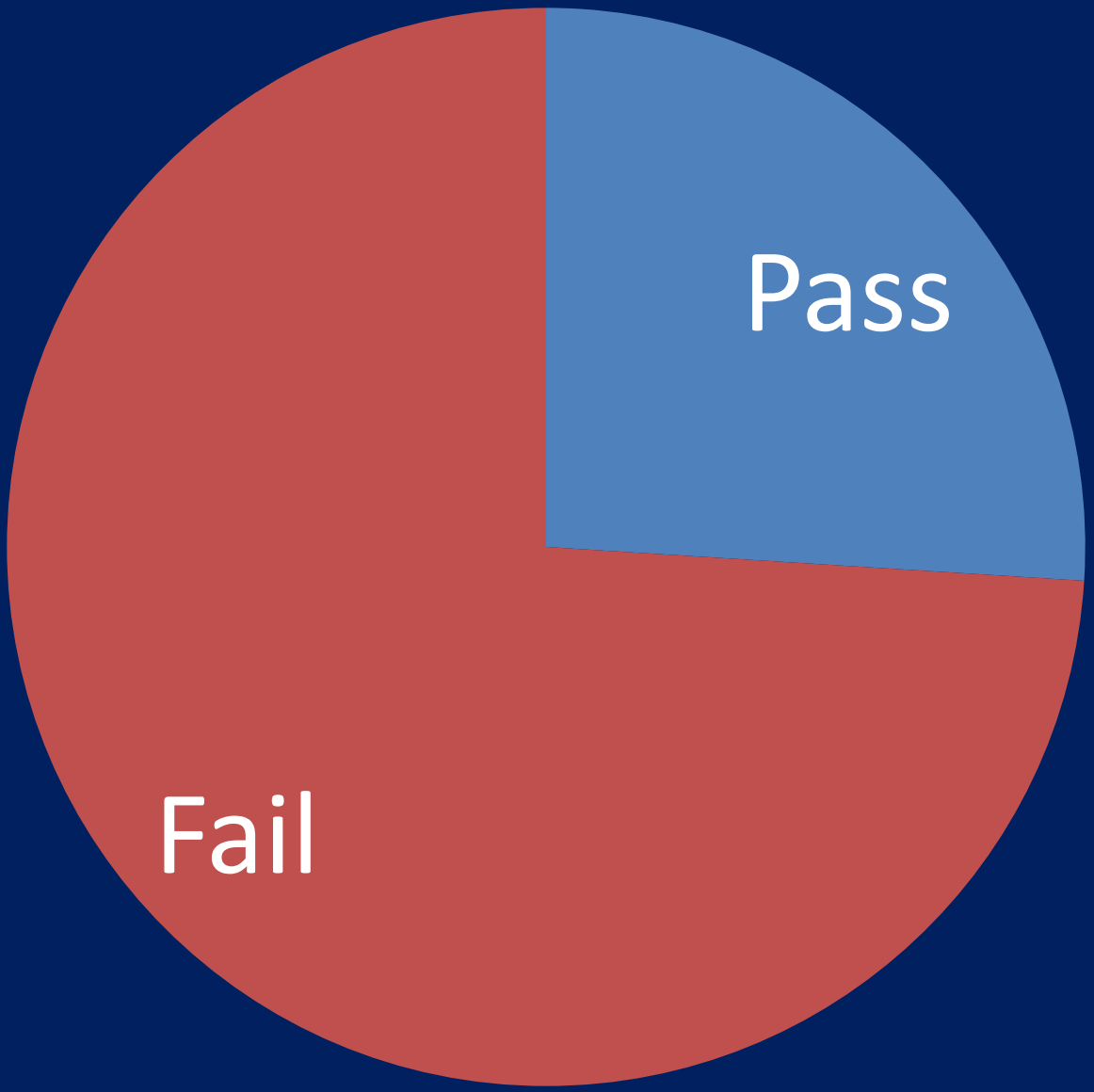

PDF
Preflight
output
schematron validator
result
policy
Express as Schematron rules
schema

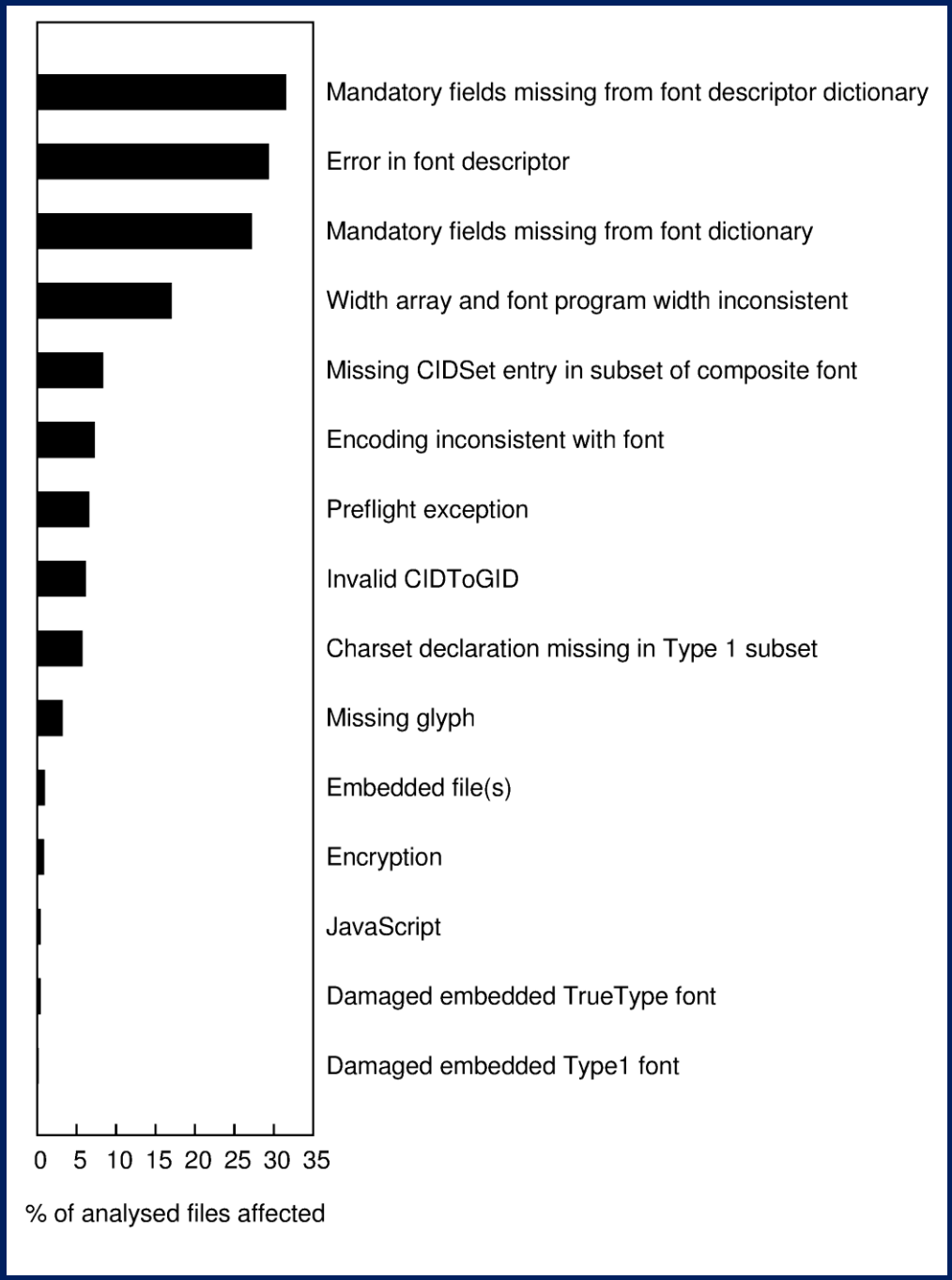
Test corpus

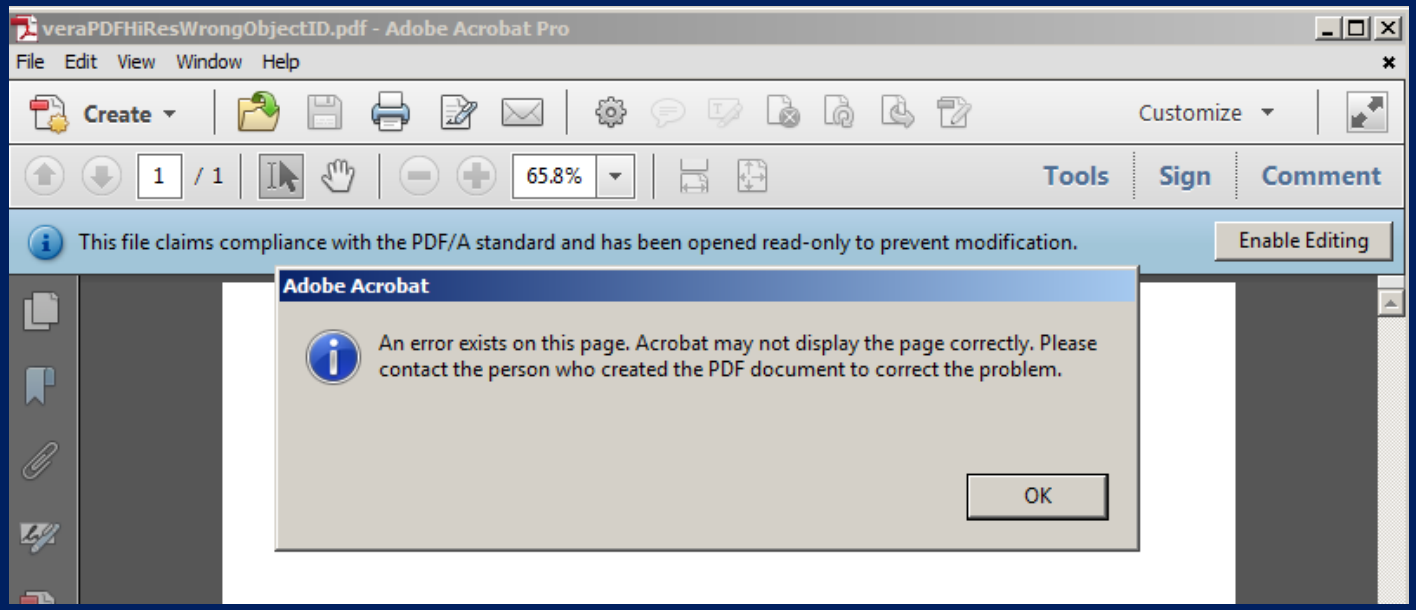
~ 15,000 PDFs from Govdocs1 dataset

http://digitalcorpora.org/corpora/govdocs


Pass
Fail

Failed tests assessment




veraPDFHiResWrongObjectID.pdf - Adobe Acrobat Pro
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Create
Customize
1 / 1
65.8%
Tools
Sign
Comment
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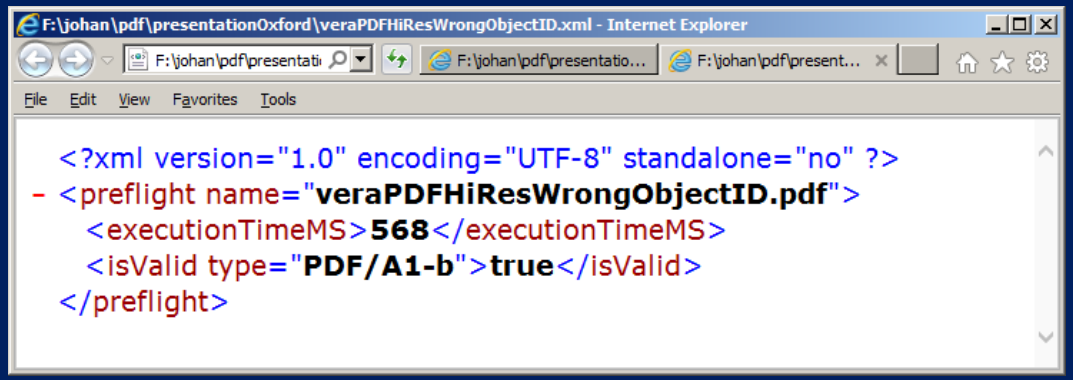
An error exists on this page. Acrobat may not display the page correctly. Please contact the person who created the PDF document to correct the problem.
OK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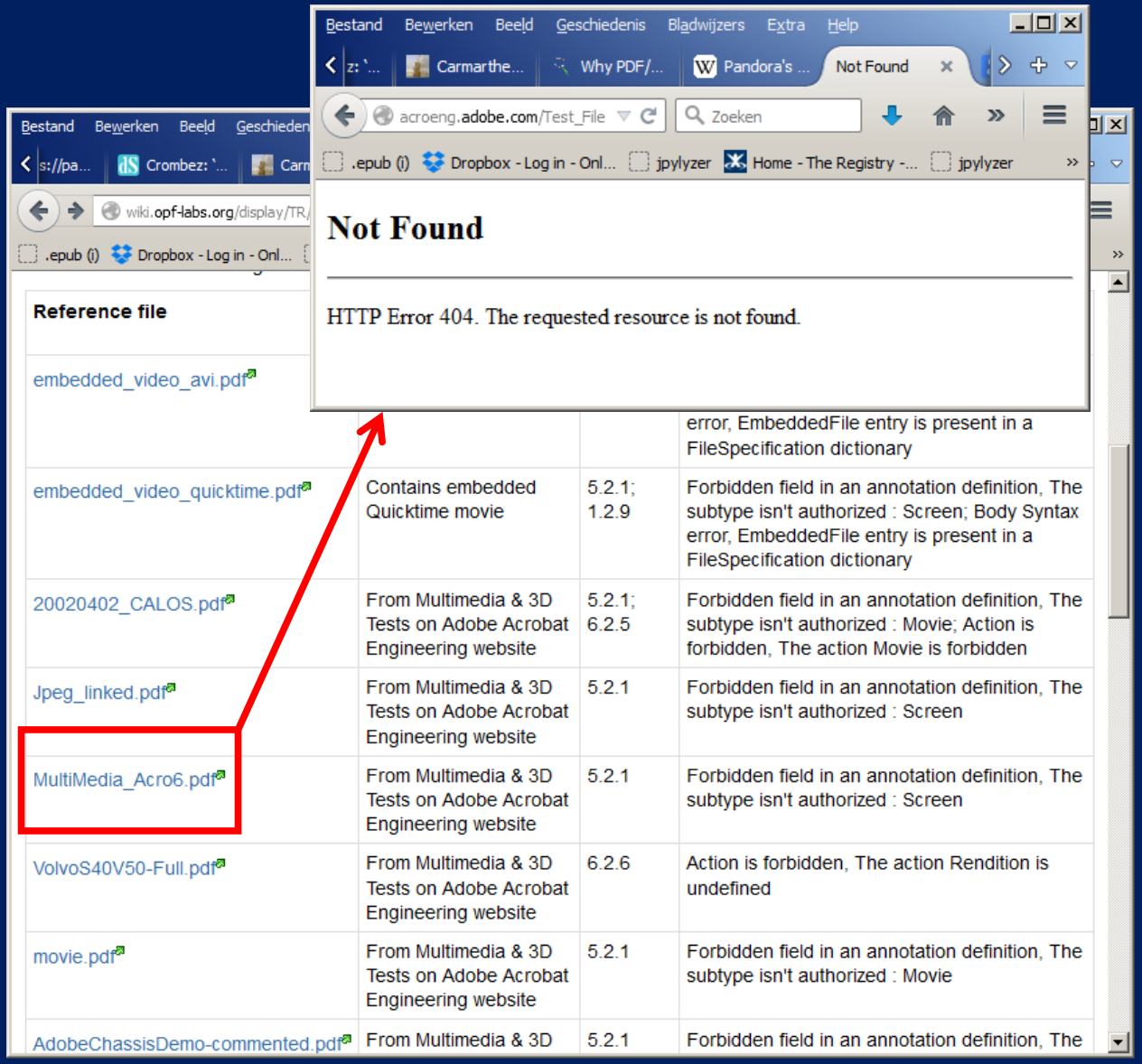
<isValid type="PDF/A1-b">true</isValid>
</preflight>


Bestand Bewerken Beeld Geschiedenis Bladwijzers Extra Help
Not Found
acroeng.adobe.com/Test_File
Zoeken
Dropbox - Log in - Onl...
jpylyzer
Home - The Registry -...
Not Found
HTTP Error 404. The requested resource is not found.
wiki.opf-labs.org/display/TR/
Reference file
embedded_video_avi.pdf
embedded_video_quicktime.pdf
Contains embedded Quicktime movie
5.2.1; 1.2.9
Forbidden field in an annotation definition, The subtype isn't authorized : Screen; Body Syntax error, EmbeddedFile entry is present in a FileSpecification dictionary
20020402_CALOS.pdf
From Multimedia & 3D Tests on Adobe Acrobat Engineering website
5.2.1; 6.2.5
Forbidden field in an annotation definition, The subtype isn't authorized : Movie; Action is forbidden, The action Movie is forbidden
Jpeg_linked.pdf
5.2.1
Forbidden field in an annotation definition, The subtype isn't authorized : Screen
MultiMedia_Acro6.pdf
VolvoS40V50-Full.pdf
6.2.6
Action is forbidden, The action Rendition is undefined
movie.pdf
AdobeChassisDemo-commented.pdf

Main challenges

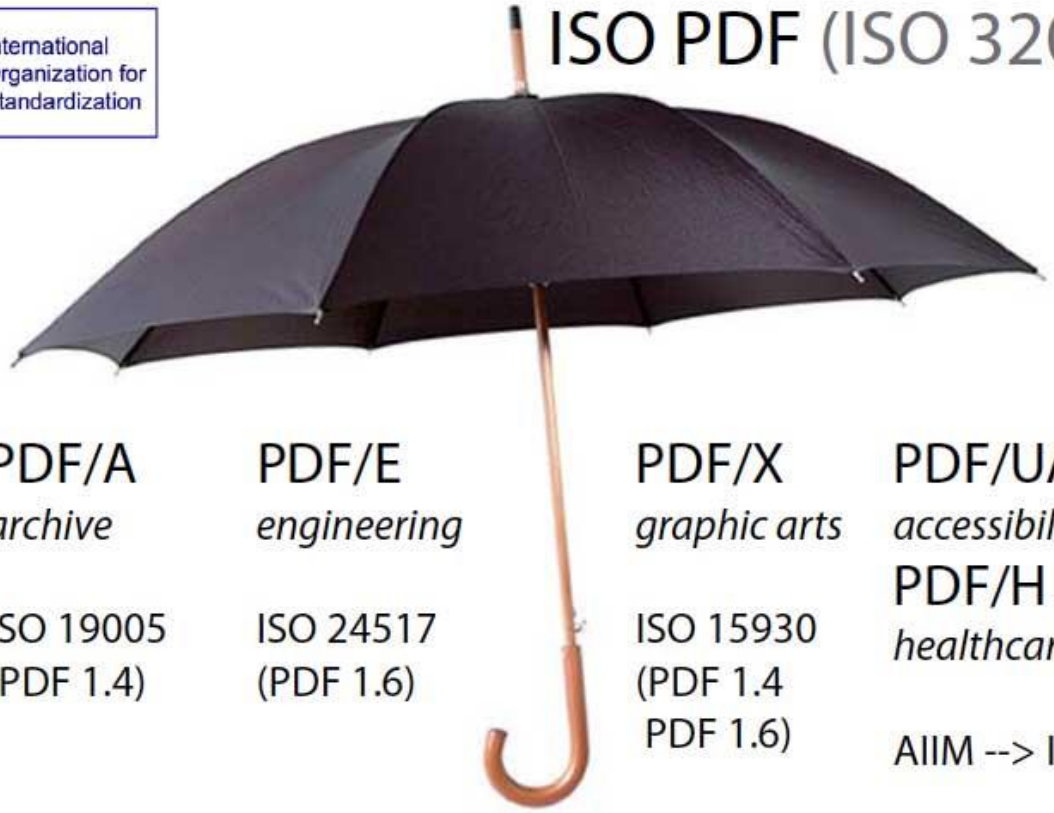
1. Font issues
2. Conformance to ISO 32000
3. Ground truth

veraPDF

E:\Downloads\verapdf-profile-6-2-4-t01.xml - Internet Explorer
File Edit View Favorites Tools
<?xml version="1.0" encoding="UTF-8"?>
<profile model="org.verapdf.model.PDFA1a"
xmlns="http://www.verapdf.org/ValidationProfile">
<name>ISO 19005-1:2005 - 6.2.4 Images - Alternates</name>
<description/>
<creator>veraPDF Consortium</creator>
<created>2015-06-16T22:22:45Z</created>
<hash>sha-1 hash code</hash>
<rules>
<rule object="PDXImage" id="6-2-4-t01">
<description>An Image dictionary shall not contain the Alternates key</description>
<test>Alternates_size == 0</test>
<error>
<message>Alternates key is present in the Image dictionary (</message>
</error>
<reference>
<specification>ISO19005-1</specification>
<clause>6.2.4</clause>
</reference>
</rule>
</rules>
</profile>

International Organization for Standardization

ISO PDF (ISO 32000)



PDF/A
archive

ISO 19005
(PDF 1.4)

PDF/E
engineering

ISO 24517
(PDF 1.6)

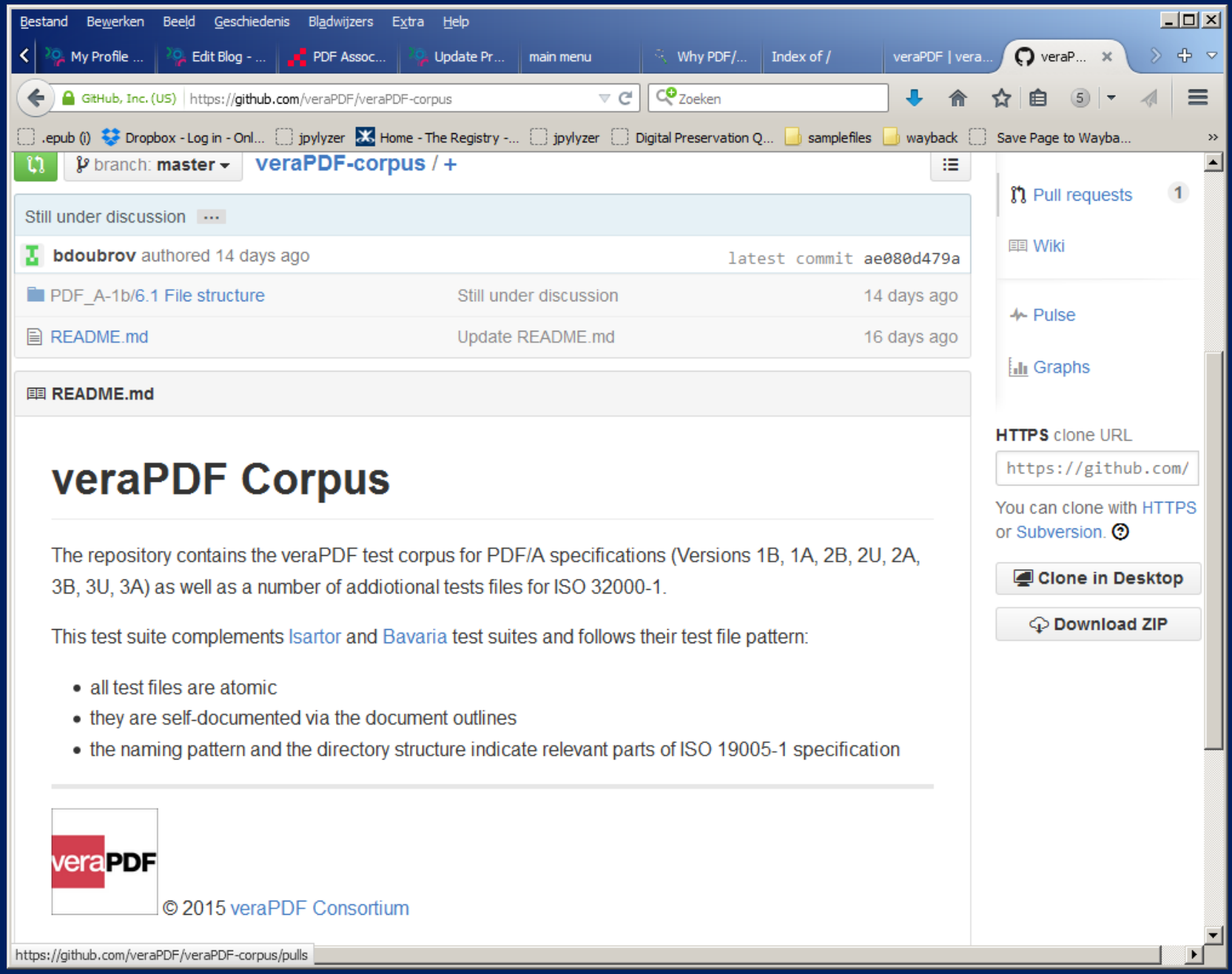
PDF/X
graphic arts

ISO 15930
(PDF 1.4
PDF 1.6)

PDF/UA
accessibility

PDF/H
healthcare

AIIM --> ISO


Bestand Bewerken Beeld Geschiedenis Bladwijzers Extra Help
My Profile ...
Edit Blog - ...
PDF Assoc...
Update Pr...
main menu
Why PDF/...
Index of /
veraPDF | vera...
veraP...
GitHub, Inc. (US)
https://github.com/veraPDF/veraPDF-corpus
Zoeken
.epub (i)
Dropbox - Log in - Onl...
jpylyzer
Home - The Registry -...
jpylyzer
Digital Preservation Q...
samplefiles
wayback
Save Page to Wayba...
branch: master
veraPDF-corpus / +
Still under discussion ...
bdoubrov authored 14 days ago
latest commit ae080d479a
PDF_A-1b/6.1 File structure
Still under discussion
14 days ago
README.md
Update README.md
16 days ago
README.md
veraPDF Corpus
The repository contains the veraPDF test corpus for PDF/A specifications (Versions 1B, 1A, 2B, 2U, 2A, 3B, 3U, 3A) as well as a number of addiotional tests files for ISO 32000-1.
This test suite complements Isartor and Bavaria test suites and follows their test file pattern:
all test files are atomic
they are self-documented via the document outlines
the naming pattern and the directory structure indicate relevant parts of ISO 19005-1 specification
veraPDF
© 2015 veraPDF Consortium
Pull requests 1
Wiki
Pulse
Graphs
HTTPS clone URL
https://github.com/
You can clone with HTTPS or Subversion.
Clone in Desktop
Download ZIP
https://github.com/veraPDF/veraPDF-corpus/pulls

blog.kbresearch.nl/2015/07/07/why-pdfa-validation-matters-even-if-you-dont-have-pdfa

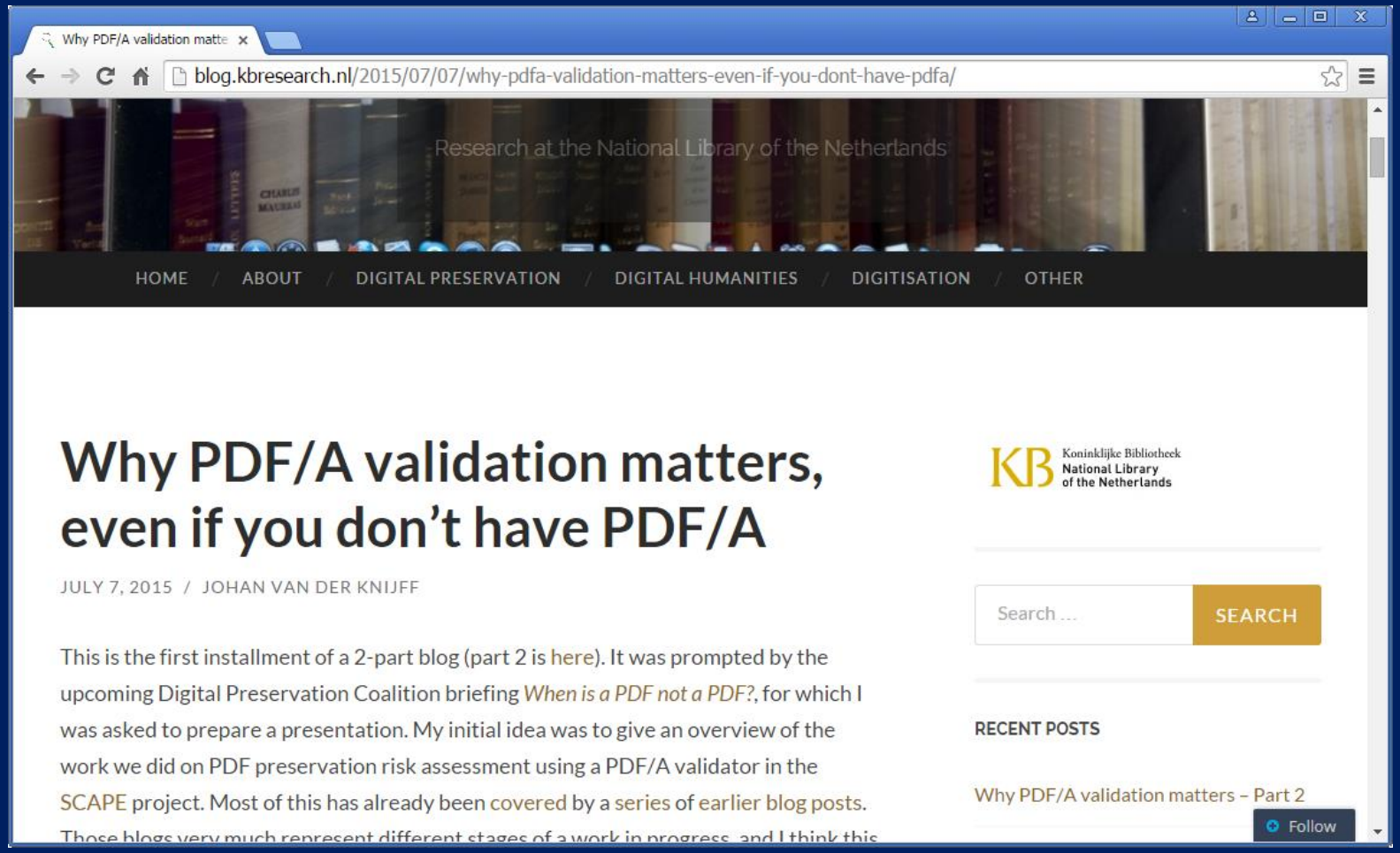


Image attribution

- Unencrypted by Brennan Novak from the Noun Project

* http://thenounproject.com/