

Making document communications accessible

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Overview

PDF/UA

Validation

Conversion

- Office
- Layout applications
- PDF to PDF/UA
- Programming

ISO Standard 14289:2012 “PDF/UA”

Consequences

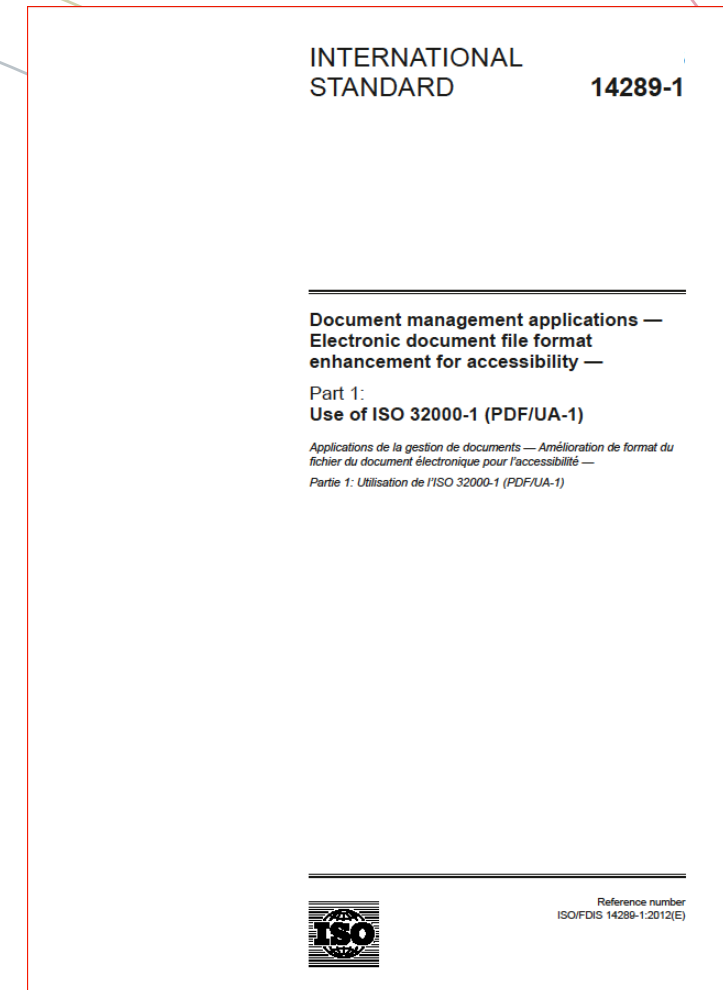
Rules for accessible PDF

Existing legal requirements to publish “everything” in an accessible way are enforced (like WCAG for HTML)

New legal requirements are more likely

Solutions for creating accessible PDF can be developed more easily

Compatibility of reader and viewer software that uses accessible PDF features (e.g. screen reader) easier to achieve



ISO Standard 14289:2012 “PDF/UA”

Some rules

All relevant content needs to be part of the structure tree: Headings, text, lists and tables

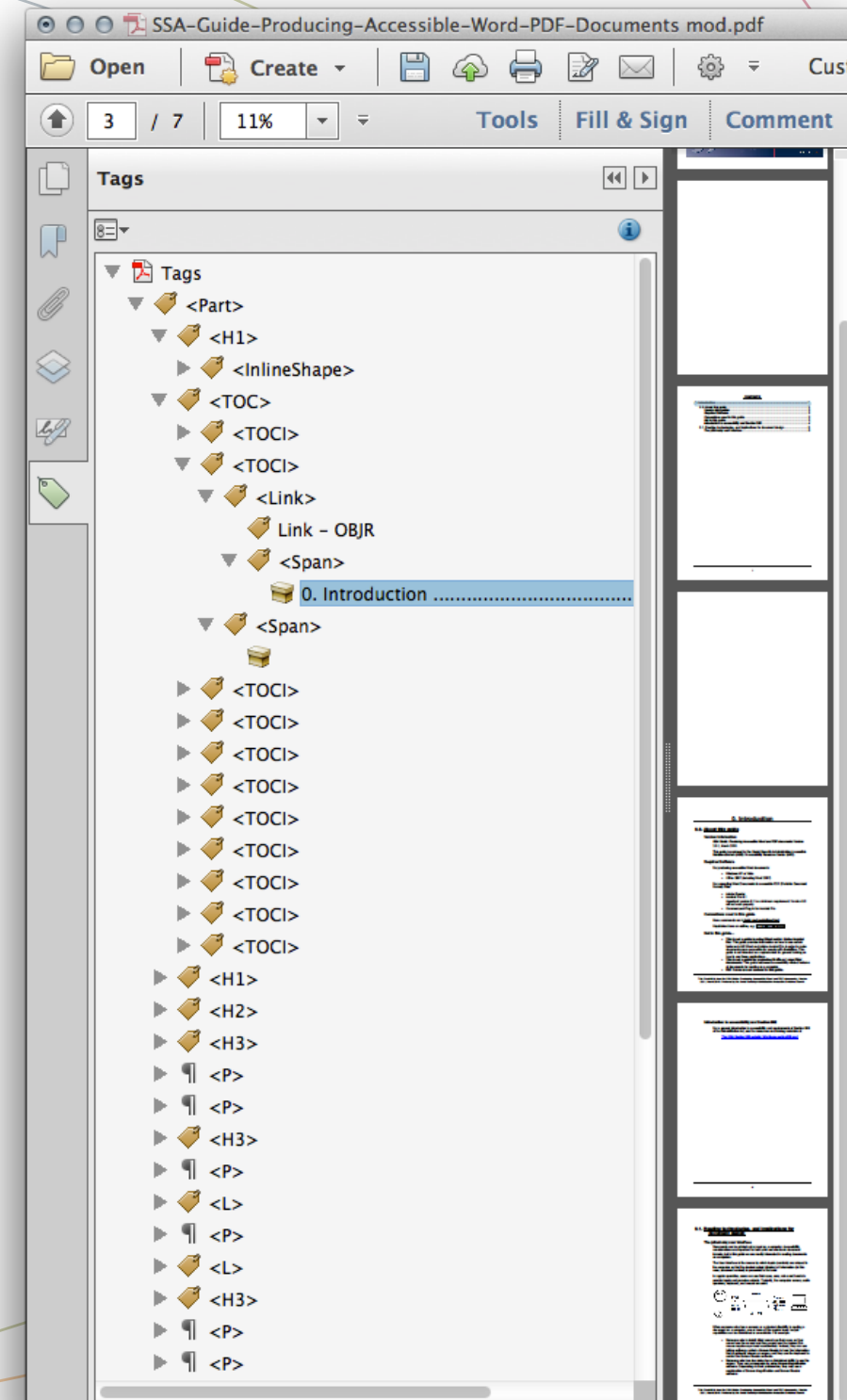
- Correct hierarchical order of headings
- Correct reading order for all content

**Images with proper alternate text
(same for audio and video)**

Defined language for all text

All characters have unicode code points

**No information should be presented
only by color or contrast**



ISO Standard 14289:2012 PDF/UA

PDF/UA validation

All *relevant* content needs to be part of the structure tree: Headings, text, lists and tables

- *Correct* hierarchical order of headings
- *Correct* reading order for all content

Images with *proper* alternate text descriptions (same for audio and video)

Defined language for all text

All characters have unicode code points

No information should be presented only by color or contrast

■ *Human validation required*

■ **Machine validation possible**

Free PDF/UA Validation: pdfGoHTML and PAC

SSA Guide: Producing Accessible Word and PDF Documents

file:///var/folders/ys/8x6qm5rs78z7n8sl0fjk6zgw0000gt/T/pdf2html.LoiWNe/index.html

SSA Guide: Producing Accessible Word and PDF Documents

This guide is produced by the Social Security Administration Accessible Solutions Branch (ASB) / Accessibility Resource Center (ARC).

H3 Required Software

For producing accessible Word documents:

- LI • LBody ☐ Windows
- LI • LBody ☐ Office 20

For converting Word Documents to PDF:

- LI • LBody ☐ Adobe Reader
- LI • LBody ☐ Acrobat not work properly.
- LI • LBody ☐ Common

H3 Conventions used

Menu commands are in

Keystrokes have an out


H3 Not in this guide...

- LI • LBody ☐ This is not a guide to using Word and/or Adobe Acrobat Pro: This guide provides information on how to use certain features in MS Word and Adobe Acrobat Pro in order to make documents more accessible for people with disabilities. This guide is not intended as a replacement for general training on how to use these applications.
- LI • LBody ☐ This is not a guide for producing Braille or Large Print documents: This guide addresses accessibility-related features of documents for reading on a computer.
- LI • LBody ☐ PDF Forms are not covered in this guide.

Display a menu

Live Demo with David

PAC 2 - PDF Accessibility Checker 2

 Zugang für alle
Accès pour tous
Accesso per tutti
Access for all

PAC: PDF Accessibility Checker 2.0

PAC is a free tool of the [Foundation «Access for all»](#) to review the accessibility of PDF documents and Forms. It serves as a tool for experts and testers.

[More Information](#) Version: 2.0.3.0

PDF-File

C:\Users\Win7\Desktop\SSA-Guide-Producing-Accessible-Word-PDF-Documents.mod.pdf

Browse



Failed
0
0
0
0
0
0
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0
0
10
1
3



Report

Tools

Screenreader Preview Document Statistics Logical Structure

Main sponsors:

  SBV FSA
Schweizerischer Blinden- und Sehbehindertenverband
Fédération suisse des aveugles et malvoyants

Powered by:

“pdfGoHTML” and “PAC: Downloads

SSA Guide: Producing Accessible Word and PDF Documents

file:///var/folders/ys/8x6qm5rs78z7n8sl0fjk6zgw0000gt/T/pdf2html.LoiWNe/index.html

SSA Guide: Producing Accessible Word and PDF Documents

This guide is produced by the Social Security Administration Accessible Solutions Branch (ASB) / Accessibility Resource Center (ARC).

Required Software

For producing accessible Word documents:

- LBody ☐ Windows XP or Vista
- LBody ☐ Office 2007 (including Word 2007)

For converting Word Documents to accessible PDF (Portable Document Format) Files:

- LBody ☐ CommonLook Plug-In for Acrobat Pro

Conversion

Menu commands are in bold, and underlined text.

Keystrokes have an outline, e.g.: CTRL+ALT+Delete.

Not in this guide...

- LBody ☐ This is not a guide to using Word and/or Adobe Acrobat Pro: This guide provides information on how to use certain features in MS Word and Adobe Acrobat Pro in order to make documents more accessible for people with disabilities. This guide is not intended as a replacement for general training on how to use these applications.
- LBody ☐ This is not a guide for producing Braille or Large Print documents: This guide addresses accessibility-related features of documents for reading on a computer.
- LBody ☐ PDF Forms are not covered in this guide.

Display a menu

<http://www.callassoftware.com/callas/doku.php/en:products:pdfgohtml>

Or search

“pdfGoHTML”

PAC 2 - PDF Accessibility Checker 2

Zugang für alle
Accès pour tous
Accesso per tutti
Access for all

PAC: PDF Accessibility Checker 2.0
PAC is a free tool of the [Foundation «Access for all»](http://www.access-for-all.ch/en/) to review the accessibility of PDF documents and Forms. It serves as a tool for experts and testers.
[More Information](#) Version: 2.0.3.0

PDF-File
C:\Users\Win7\Desktop\SSA-Guide-Producing-Accessible-Word-PDF-Documents mod.pdf

PDF/UA Check

Results

Embedded Files	0	0	0
Natural Language	2.251	0	0
Structure Elements	31	0	0
Structure Tree	95	3	0
Role Map	149	0	0
Alt Text Descriptions	202	0	10
Metadata	2	0	1
Document Settings	2	0	0

✗ This PDF document has errors: One critical accessibility error.

Tools

Main sponsors:

Powered by:

DIE POST **SBV FSA** **PDF** **axes** **callas software gmbh**

<http://www.access-for-all.ch/en/pdf-lab/pdf-accessibility-checker-pac.html>

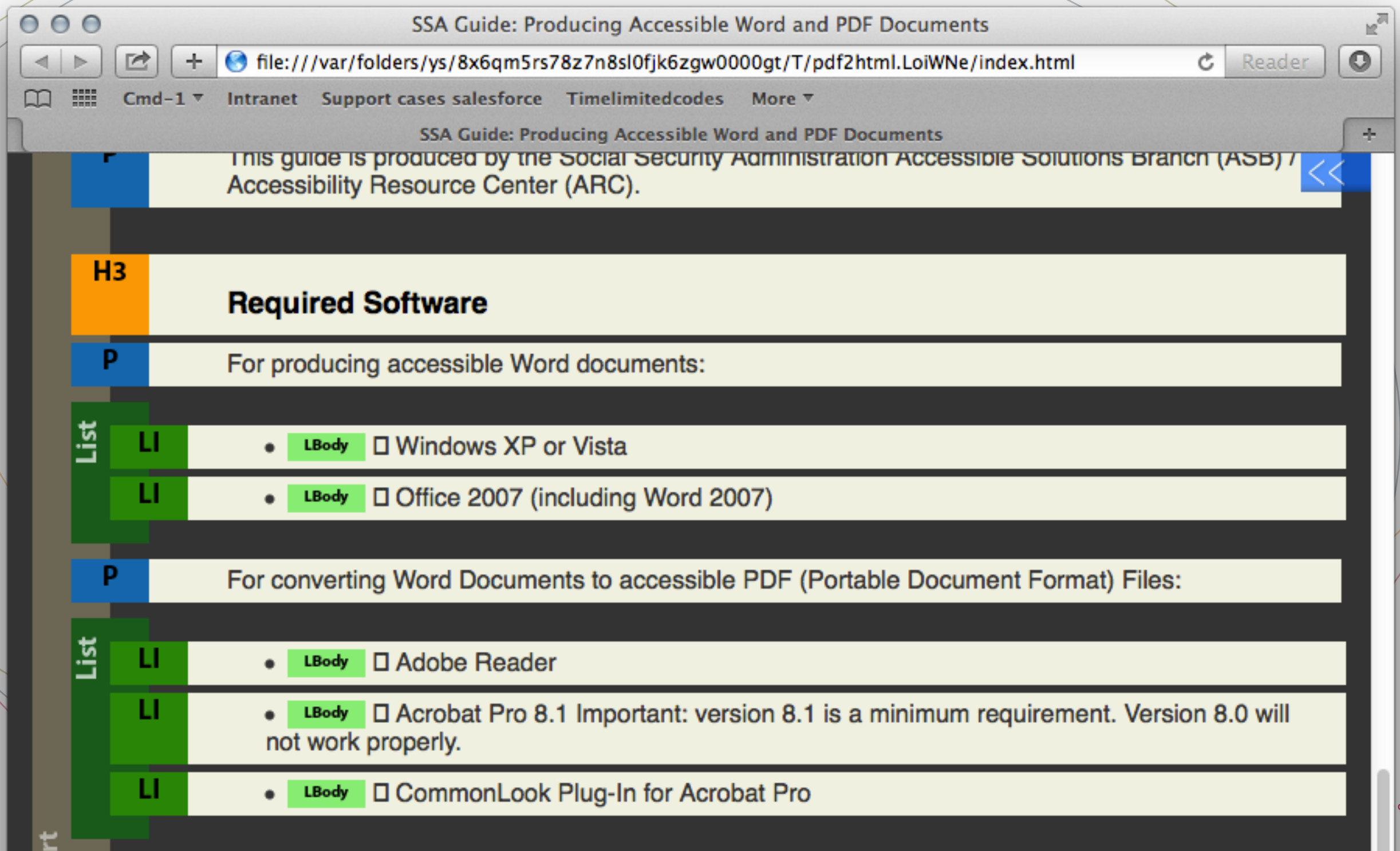
Or search

“PAC accessibility”


“pdfGoHTML”

<http://www.callassoftware.com/callas/doku.php/en:products:pdfgohtml>

Or search
“pdfGoHTML”



PAC 2 - PDF Accessibility Checker 2

 **Zugang für alle
Accès pour tous
Accesso per tutti
Access for all**





































PAC: PDF Accessibility Checker 2.0
PAC is a free tool of the [Foundation «Access for all»](http://www.access-for-all.ch) to review the accessibility of PDF documents and Forms. It serves as a tool for experts and testers.


[More Information](#) Version: 2.0.3.0

PDF-File
C:\Users\Win7\Desktop\SSA-Guide-Producing-Accessible-Word-PDF-Documents mod.pdf



PDF/UA Check



Results

Checkpoint	Passed	Warned	Failed
 PDF Syntax	0 	0 	0 
Fonts	10 	0 	0 
Content	4.624 	0 	0 
Embedded Files	0 	0 	0 
Natural Language	2.251 	0 	0 
 Structure Elements	31 	0 	0 
Structure Tree	95 	3 	0 
Role Mapping	149 	0 	0 
Alternate Descriptions	202 	0 	10 
 Metadata	2 	0 	1 
Document Settings	2 	0 	3 

 **This PDF contains errors: Only partially accessible.**

Tools

Main sponsors:   **SBV FSA**
Schweizerischer Blinden- und Sehbehindertenverband
Fédération suisse des aveugles et malvoyants

Powered by:  

“PAC”

<http://www.access-for-all.ch/en/pdf-lab/pdf-accessibility-checker-pac.html>

Or search

“PAC accessibility”

Create PDF/UA

First: Choose the right authoring application

- Microsoft Word for Windows
- Adobe InDesign



Microsoft Word

Use the latest version: Office 2010 or 2013

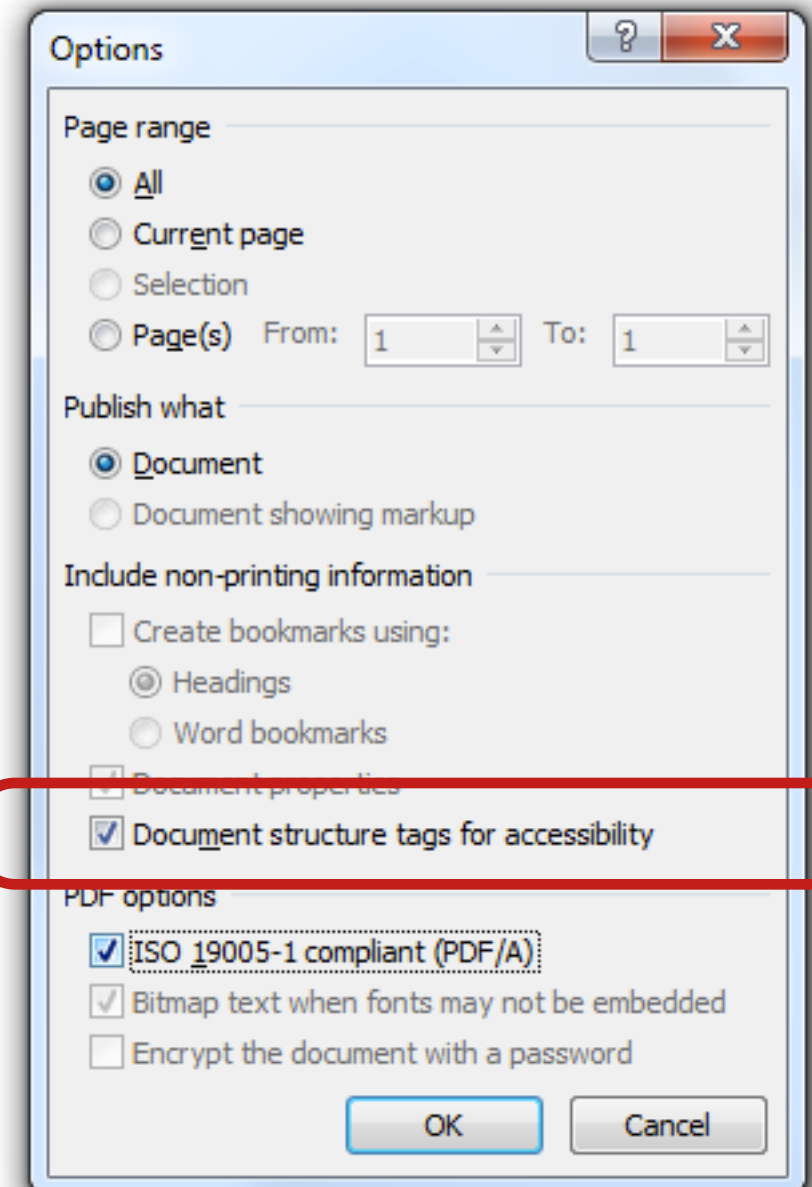
Use styles instead of text formatting

Do not use fancy layouts

Add alternate text for annotations and images

Export

- Built in “Save as...” PDF feature
- Acrobat Export
- NOT via printer driver





Microsoft Word

Use the latest version: Office 2010 or 2013

Use styles instead of text formatting

Do not use fancy layouts

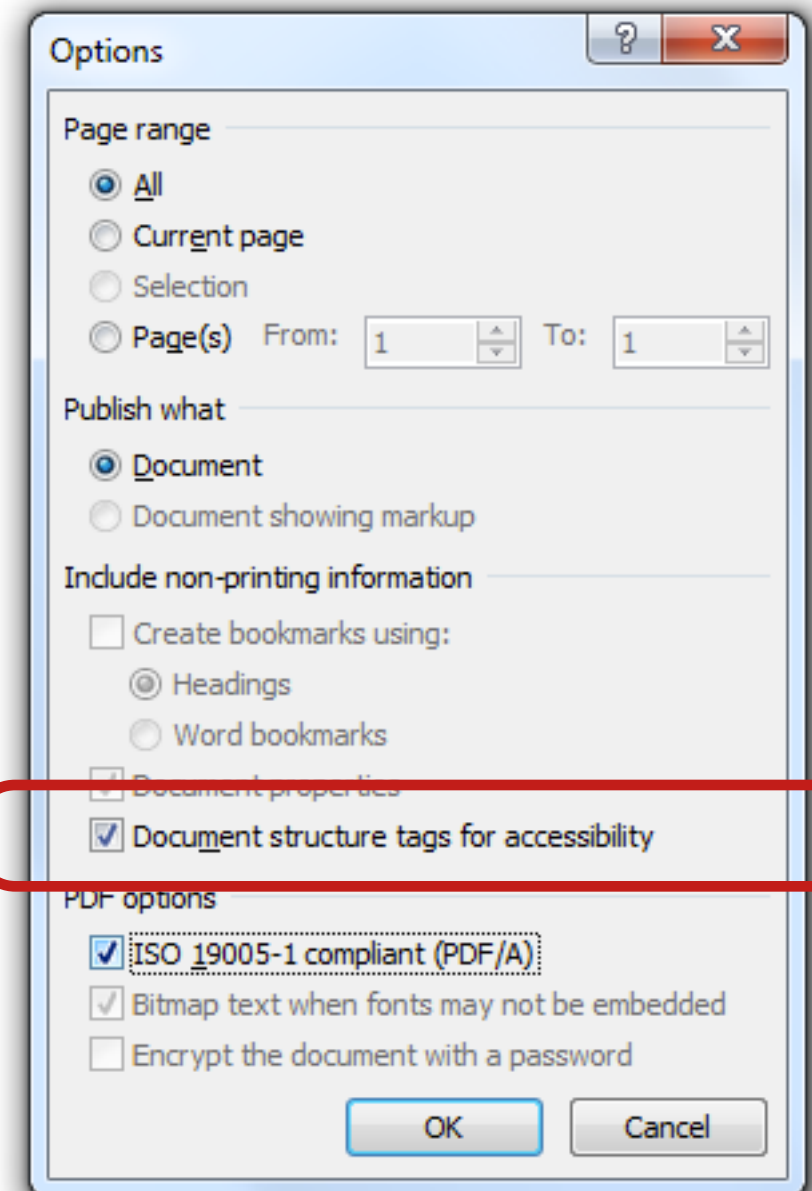
Add alternate text for annotations and images

Export

- Built in “Save as...” PDF feature
- Acrobat Export
- NOT via printer driver

**For more than one PDF per quarter:
Professional tools**

- axesPDF for Word from xyMedia
- Common Look Office from NetCentric



Some key features of axesPDF for Word

Role based workflow model

- Experienced user designs Word template
- Operator uses template according to rules



Task pane for document authors (add alternate text, mark elements as decorative, linearize layout tables)

Correction on the fly during export

Fully customizable tagging (not based on Word tags)

Shipping March 2015

A quick look at axesPDF for Word

The screenshot displays the axesPDF for Word application interface. The top ribbon includes tabs for FILE, HOME, INSERT, DESIGN, Entwicklertools, PAGE LAYOUT, REFERENCES, MAILINGS, REVIEW, VIEW, ACROBAT, axesPDF, and PICTURE TOOLS. The axesPDF tab is active, showing options like Export PDF, Show Role Mapping, Document Settings, and Help. The main document area shows a document titled '003_Understanding - Word' with a navigation pane on the left and a role mapping pane on the right.

Navigation Pane:

- Search document
- HEADINGS | PAGES | RESULTS
- 3 Understanding structured documents
- 4 Styles & templates – the key to accessi...
- 4.1 Understanding styles
 - 4.1.1 Adding structure elements by...
 - 4.1.2 Style types
- 4.2 The role based model – implemen...
 - 4.2.1 Tasks of the template develo...
 - 4.2.2 Tasks of the document author
- 4.3 Understanding templates
 - 4.3.1 No document without templ...
 - 4.3.2 Templates include ...
 - 4.3.3 Standard template folder
 - 4.3.4 Add text to a new document

Document Content:

- 3 → **Understanding structured documents¶**
- In real structured documents invisible structure information is included. It makes a document machine-readable (and accessible).¶
- Let us have a look at some simple examples in order to understand the secret of structured documents:¶
- Image 1: Only the STYLE: NORMAL is used. Neither visual nor non-visual structure information is available.¶

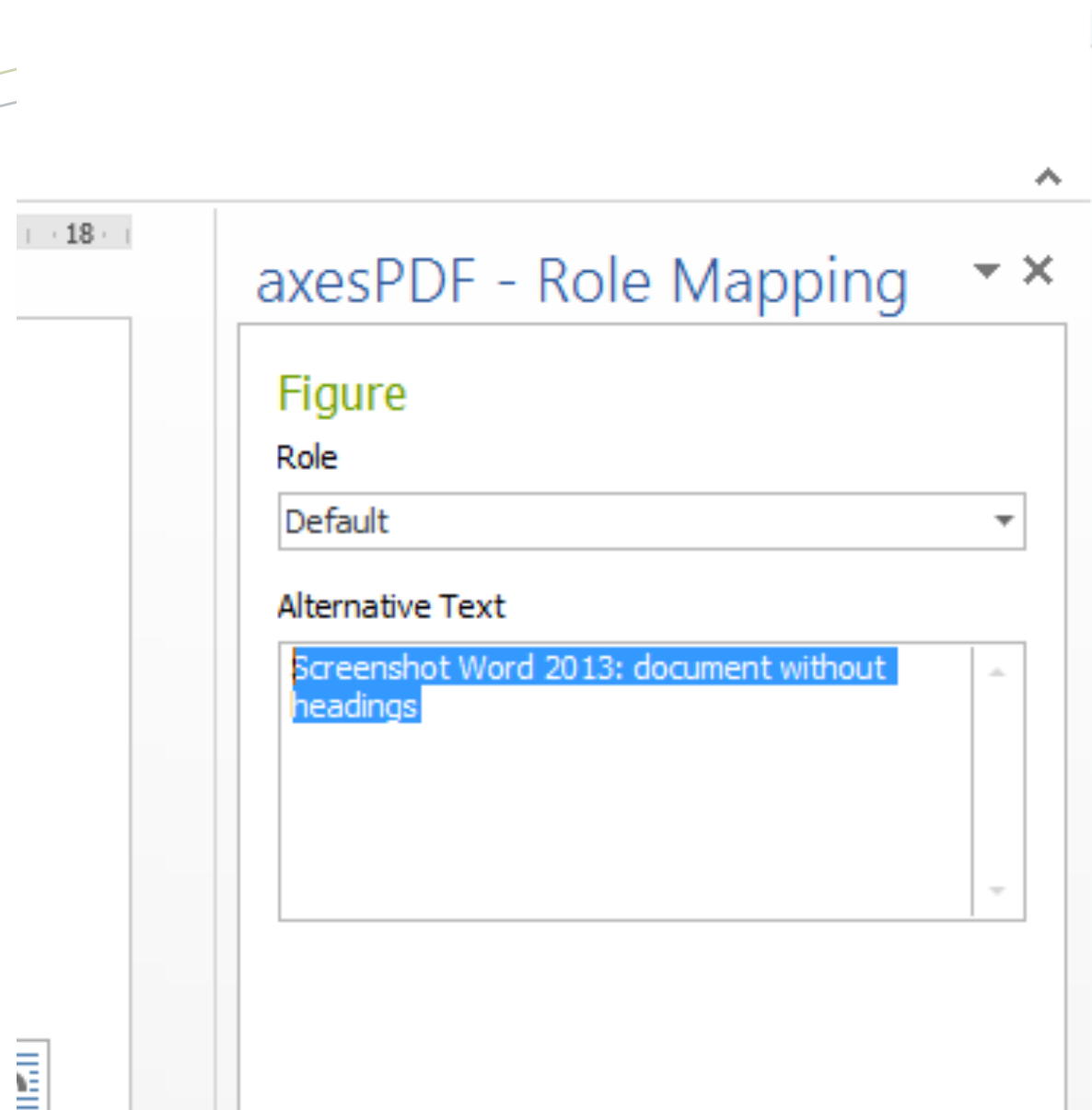
axesPDF - Role Mapping:

- Figure
- Role: Default
- Alternative Text: Screenshot Word 2013: document without headings

Page Footer:

PAGE 1 OF 9 1024 WORDS ENGLISH (UNITED KINGDOM) 90 %

A quick look at axesPDF for Word



Task pane for document authors (add alternate text, mark elements as decorative, linearize layout tables)

In order to create PDF/UA from office applications

Choose the right authoring application

- Microsoft Word 2013 for Windows
- InDesign CS

Not the right authoring applications are:

- No tags at all (any version of)
 - Excel
 - Microsoft Office for Mac
 - iWorks (Office Suite from Apple)
- Some tags but lots of weaknesses
 - PowerPoint

Layout applications: InDesign

Use style sheets and map to tags

Set the language correctly for all style sheets

Use the list and table features for lists and tables

Use the Article panel to create overall structure

Assign Alt text to images (via Object Export Options)

Layout applications: MadeToTag for InDesign from axaio

**Guides you through the
tagging process in 7 steps**

Faster

Better feedback

The screenshot shows the 'MadeToTag' application window. The title bar includes the application name and a standard window control icon. The interface is divided into several sections:

- Header:** Features the 'axaio software gmbh' logo in the top right corner.
- Task 1: Define and review export tags:** The main heading for the current step.
- Navigation:** Three buttons labeled 'Previous', 'Instructions...', and 'Next' are positioned below the task heading.
- Status:** A section displaying a list of paragraph styles and their counts:

Paragraph styles in use:	12
Paragraph styles with export tag:	2
Paragraph styles used for lists:	0
Paragraph styles without export tags:	10
Unused Paragraph styles:	9
- Go to text without export tag:** A section with four navigation buttons: '<<', '<', '>', and '>>'.
- Export tag for current text:** A section with three dropdown menus:
 - 'Style name:' set to 'cnt•6: Marginaltext'
 - 'PDF export tag:' set to 'p'
 - 'EPUB/HTML export tag:' set to 'h1'
- Highlight export tags by color:** A checkbox that is checked.
- Locate potential problems:** A section with a dropdown menu set to 'Locate hard returns' and an 'Execute' button.
- Use MadeToTag shortcut set:** A checkbox that is checked.

PDF to PDF/UA

Always more expensive to begin with PDF, so only if there is no chance to get the original file

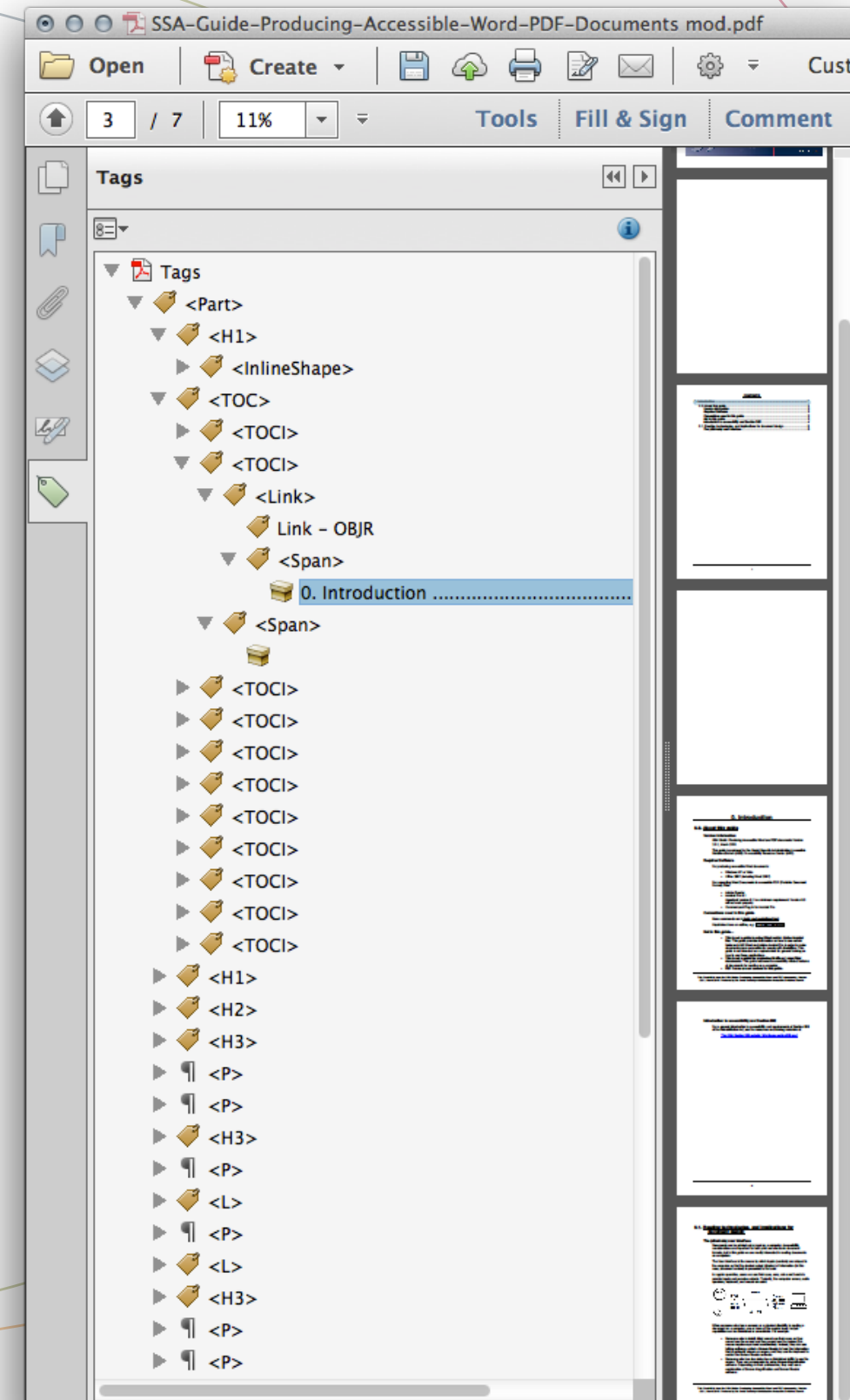
Acrobat

- Possible but
- Cumbersome

Professional tools:

axesPDF QuickFix from xyMedia

Common Look PDF from NetCentric



Some key features of axesPDF QuickFix

**Professional version of the PDF Accessibility Checker
PAC 2**

Tool for experienced user

1-click-fixing buttons (for the complete document)

Advanced correction of tag properties & attributes (for one element or for several elements)

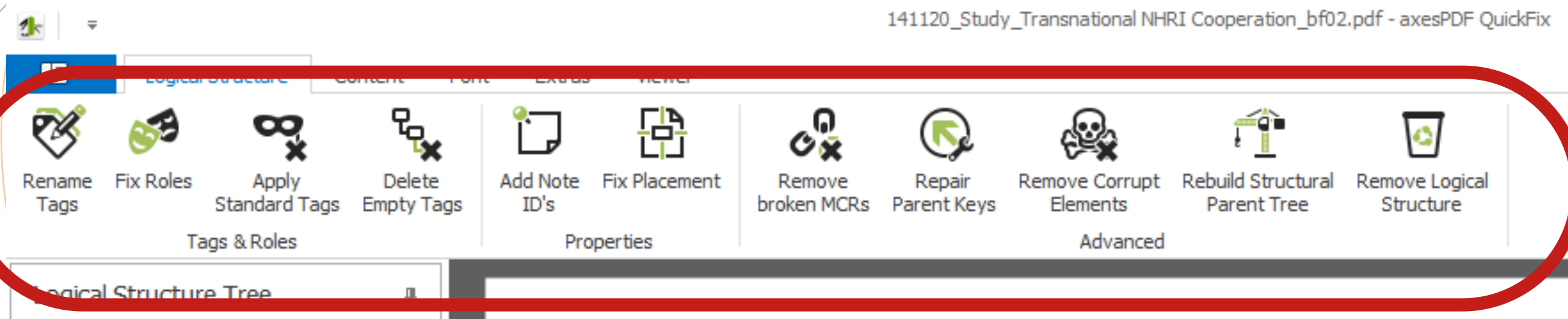
Clear expert view for specific diagnosis (Logical Structure / Document View / Properties / Role Mapping)

The screenshot displays the PDF-XChange Editor software. The top toolbar has several tabs: 'Logical Structure' (selected), 'Content', 'Font', 'Extras', and 'Viewer'. The 'Logical Structure' tab contains icons for various actions like 'Rename Tags', 'Fix Roles', 'Apply Standard Tags', etc., grouped under 'Tags & Roles', 'Properties', and 'Advanced'. A red circle highlights the entire toolbar area. On the left, there's a 'Logical Structure Tree' pane showing a hierarchy starting with 'Document'. The main window shows a preview of a document page with the word 'Study' and a colorful abstract graphic. On the right, a 'Checker' panel lists issues found in the PDF, such as 'PDF/JA', 'Basic requirements', and 'Content'. Under 'Content', 'Tagged content and artifacts' are listed, with multiple instances of 'Path object not tagged' highlighted. A 'Refresh' button is at the bottom of the checker panel.



A quick look at axesPDF QuickFix

**1-click-fixing buttons
(for the complete PDF)**



System requirements: Windows 7 and above

Programming towards PDF/UA

Million libraries for creating PDF, there are also some that can actually do PDF/UA, so choosing the right solution is crucial.

A few recommendations:

Adobe PDF Library

PDFLib

iText

callas pdfChip

Thank you!

David van Driessche

FourPees NV

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Dietrich von Seggern

callas software GmbH

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