

# axesPDF® QuickStart-Guide

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# **Table of contents**

Tab	le of contents	2
1 Ir	ntroduction to axesPDF®	5
1.1	What is axesPDF®?	5
1.2	PDF/UA, the global standard for PDF accessibility	5
1.3	Why should you use axesPDF®?	5
2 U	nderstanding the concept	7
2.1	Common ways for the creation of accessible PDF documents	7
2.2	Preconditions for using axesPDF®	7
3 Ir	nstallation, activation and checking license information	9
3.1	System requirements	9
3.2	Installing axesPDF®	9
3.3	Activating axesPDF®	9
3.4	License Information	9
4 T	he user interface	.12
4.1	Quick access toolbar	. 12
4.2	Ribbon tab	. 13
4.3	The task panes	. 57
4.4	Document Viewer	. 69
4.5	Panel Preview	. 70
5 E	dit logical structure tree	.72
5.1	Move tags	. 72
5.2	Insert tags	. 74
5.3	Enclose tags	. 78
5.4	Delete tags	. 81



6 Fi	xing PDF/UA issues	.83
6.1	Issue "First heading is not on the first level"	. 83
6.2	Issue "Table header cell has no associated subcells"	. 84
6.3	Issue "Alternative description missing for an annotation"	. 86
6.4	Issue "Art structure element used as root element"	. 87
6.5	Issue "Artifact present inside tagged content"	. 88
6.6	Issue "Title missing in document's XMP metadata"	. 89
6.7	Issue "Div structure element used as root element"	. 89
6.8	Issue "DisplayDocTitle entry is not set"	. 90
6.9	Issue "Document structure element found which is not a root element"	. 92
6.10	Issue "Figure element on a single page with no bounding box"	. 93
6.11	Issue "ID missing in Note structure element"	. 95
6.12	Issue "Image object not tagged"	. 96
6.13	Issue "Link annotation is not nested inside a Link structure element"	. 97
6.14	Issue "Natural language of expansion text cannot be determined"	. 97
6.15	Issue "Natural language of text object cannot be determined"	. 98
6.16	Issue "Natural language of actual text cannot be determined"	. 99
6.17	Issue "Natural language of alternative text cannot be determined"	. 99
6.18	Issue "Natural language of an alternate name of a form field cannot be determined"	100
6.19	Issue "Natural language of an outline item cannot be determined"	100
6.20	Issue "Natural language of Contents entry cannot be determined"	101
6.21	Issue "Non-standard structure type "Story" is neither mapped to a standard structure type nor to another non-standard structure type"	
6.22	Issue "Numbered heading skips one or more heading levels"	103
6.23	Issue "Path object not tagged"	104



6.24	Issue "Part structure element used as root element" 1	05
6.25	Issue "PDF/UA identifier missing"1	06
6.26	Issue "Possibly inappropriate use of a Figure structure element" 1	07
6.27	Issue "Possibly inappropriate use of a Form structure element" 1	07
6.28	Issue "Possibly inappropriate use of a Formula structure element" 1	08
6.29	Issue "Possibly inappropriate use of a Note structure element" 1	09
6.30	Issue "Sect structure element used as root element"1	09
6.31	Issue "Standard structure type '(0)' is remapped to '(1)'" 1	09
6.32	Issue "Structure type 0 is mapped in a circular fashion"1	10
6.33	Issue "Tab order entry in page with annotations not set to S"1	10
6.34	Issue "Tagged content present inside an Artifact"1	<b>11</b>
6.35	lssue "Text object not tagged"1	11
7 GI	ossary1	13



# 1 Introduction to axesPDF®

# 1.1 What is axesPDF®?

axesPDF® is your time-saving tool to check and remediate PDF documents during the process of making them fully accessible and compliant with PDF/UA (ISO 14289), WCAG 2.1 and Section 508. Accessibility issues are easily found and most of them are fixed instantly with a single click.

# **Important:**

Precondition for working with axesPDF® is, that your PDF document has already a tag structure. If this is not the case, then first create a PDF with tags – either from converting the source document or subsequently with a PDF editor.

# 1.2 PDF/UA, the global standard for PDF accessibility

Born in August 2012 the global ISO standard 14289-1:2012 - commonly known as PDF/UA (Universal Accessibility) - defines the requirements that an accessible PDF document has to conform with.

Additionally, PDF/UA also determines software requirements - no matter if it is an authoring tool, a PDF viewer, an assistive technology or an evaluation tool.

The PDF association so aptly sums it up:

"The primary purpose of ISO 14289 (known as PDF/UA) is to define a specific use of the structure and tagged PDF features in PDF 1.7, which provide a mechanism for reuse of PDF page content, especially in the accessibility context."

https://www.pdfa.org/resource/iso-14289-pdfua/ (Last accessed: January 29, 2020)

# 1.3 Why should you use axesPDF®?

axesPDF® contains the relevant tools with which every user can create PDF/UA documents:

Check PDF/UA

Checking for PDF/UA becomes a no-brainer. The structured report shows a summarized result of all 89 machine-checkable failure conditions.

See issues immediately

Reported issues in the **Checker** task pane lead you directly to the related location in the document and the logical structure view.



Fix with one click

Fix an issue for the whole document by clicking one button – for example **Add Note IDs** or **Artifact non-tagged Content** button.

Edit all in one view

Context sensitive editing of properties and attributes of multiple tags at once - for example adding scope to table header cells.

Fix Unicode issues

Unicode issues are no longer a showstopper. Now you have full control of the mapping in an easy-to-use editor.

Search in Logical Structure

Browse the tag tree with quick navigation features: jump from one tag to the next with the same structure type or use the tag search.

Select tags with ease

Select any tag directly from the Document Viewer. The tag is automatically highlighted in the Logical Structure View.

Screenreader preview

Simplified structure view for a quick visual evaluation. Check the logical order and the semantics to see what a screenreader would read.

Detailed expert views

Views for diagnosis and editing: Checker with report, Properties, Settings, Role Mapping, Destinations, Logical Structure.



# 2 Understanding the concept

# 2.1 Common ways for the creation of accessible PDF documents

There are 2 common ways for the creation of accessible PDF documents:

- 1. Based on a source Format: If you want to create accessible PDF documents with authoring software like Microsoft Word or Adobe InDesign or if you want to convert a structured format like HTML or XML into PDF, you usually click the magic "Create PDF" button. If the conversion software does a good job, the necessary tag tree is created automatically in a high quality.
- 2. Based on a PDF: If the source file is not available or if the authoring software doesn't do a good conversion job, you can take the PDF without tags generally a web-PDF and rework it. During this process you tag every relevant content element and add some additional accessibility features like alt text to figures. To do this you need a PDF editor that is capable to create and edit PDF tags.

But do not expect too much: Only very few programs offer the possibility to create high-quality PDF/UA-documents out of the box or at least with less effort. Here comes axesPDF® in: You start evaluating a tagged PDF, check the PDF/UA compliance and fix all upcoming issues so that you finally get a 100% PDF/UA document in a few minutes.

# 2.2 Preconditions for using axesPDF®

# 2.2.1 Preconditions for checking with axesPDF®

You can check every PDF with axesPDF®. But if it is a PDF without tags, it doesn't fulfill the basic requirements for an accessible PDF.

# **Important:**

A lot of accessibility requirements cannot be evaluated, unless your PDF already has a tag tree.

# 2.2.2 Preconditions for working with axesPDF®

If you want to fix a PDF with axesPDF®, your document should already have a good basic tagging structure.

Golden rule: The higher the quality of the basic tagging structure of your document, the better the work with axesPDF®.

The following items indicate a good basic tagging structure:

• On top level there is only one container tag. All other tags are nested.



- All relevant content elements are tagged.
- The tag order is the same as the preferred reading order.
- Tags are nested correctly.
- All what belongs together is kept together: for example, paragraphs, tables or lists that are running across page breaks or column breaks are not divided into several tags.
- All links that are connected to external destinations like websites, other documents and so on, are clickable and tagged correctly and completely.

# **Important:**

If your document neither has tags nor a good basic tagging structure, you first have to rework it with a PDF editor that enables creating, moving and deleting tags. In a second step you can fix remaining PDF/UA issues with axesPDF®.



# 3 Installation, activation and checking license information

# 3.1 System requirements

Please refer to the information in our support article **System requirements**.

# 3.2 Installing axesPDF®

Download the current version of axesPDF® from the web page https://www.axes4.com/en/products-services/axespdf/download.

Double-click on the setup program and follow the instructions to install the program on your computer.

#### Note:

axesPDF® is so far available with a user interface in English or in German.

# 3.3 Activating axesPDF®

Information on activating axesPDF® can be found in our Support Center.

#### **Note**

If axesPDF® is not activated, it runs in trial mode. In trial mode each PDF page has a watermark, and some characters are randomly colored.

# 3.4 License Information

You can check the license information at any time.

In the main menu, click on the **License Information** option. The **License Information** dialogue box opens:



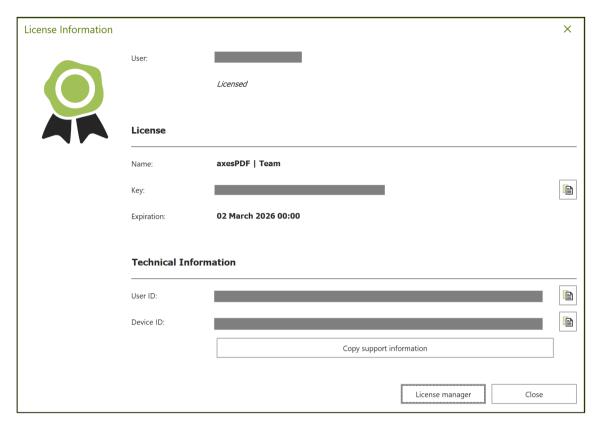


Figure 1: "License Information" dialogue box

# The information in the License Information dialogue box is described in Table 1.

Table 1: Descriptions of the contents of the "License Information" dialogue box

Field	Description
User	User of an axes4 software product. The current status of the license is displayed below the user, e.g. 'Licensed' or 'License expired' etc.
Name	The name of the license.
Key	The code to identify your license. The key is used to unlock your purchased axes4 software.
Expiration	All axes4 licenses grant the right to use the software for a certain period of time. The right to use the software expires on the displayed expiration date.
User ID	Anonymized user name.
Device ID	Anonymized device name.



## About the buttons:

- Copy buttons Copy the corresponding information to the clipboard.
- Copy support information button Copy all relevant information to the clipboard. This information must be included in any support requests.
- License manager button Open the License Manager for your client.

# 3.4.1 License information for Entra ID Licensing

In case of Entra ID licensing, there is also a **Login** button to start the login process (after successfully logged in, a **Logout** button is displayed).

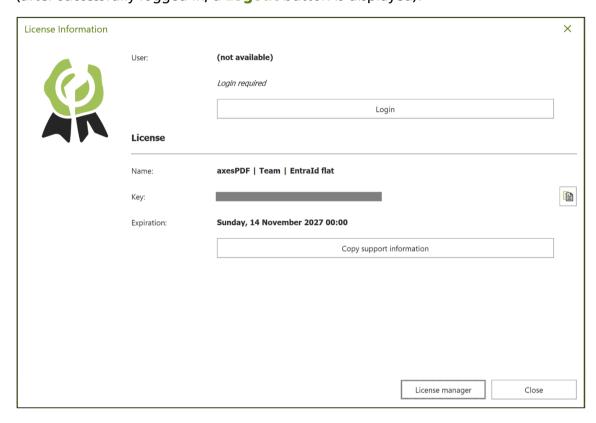


Figure 2: "License Information" dialogue box in case of Entra ID licensing



# 4 The user interface

The user interface contains the following elements:

- 1. Quick access toolbar
- 2. Ribbon with several tabs
- 3. Task panes on the left-hand side: Logical Structure Tree
- 4. Document Viewer
- Task panes on the right-hand side: Properties, Settings, Checker, Rolemap and Destinations
- 6. Preview button

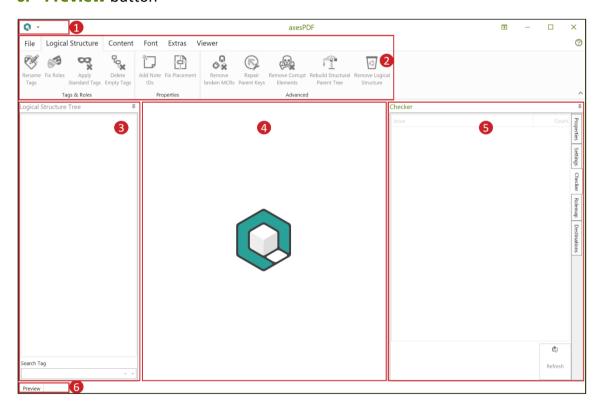


Figure 3: Elements of the user interface of axesPDF®

# 4.1 Quick access toolbar



Figure 4: Quick access toolbar of axesPDF®

# 4.1.1 What it does

The quick access toolbar provides options to minimize, maximize, or close the program window and customize the ribbon.

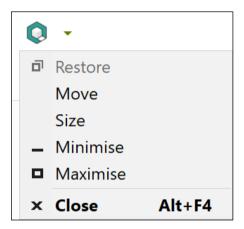


# **4.1.2** Use it for

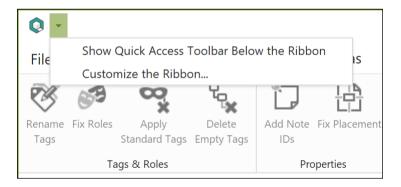
- To change the size of the program window,
- to move the quick access toolbar and
- to customize the ribbon.

#### 4.1.3 How to use it

 Click on the axesPDF®-symbol (top left) to open a menu where you find options to change the size of the program window.



 Click on the arrow down-symbol to open a menu where you find options to move the quick access toolbar (it can be shown above or below the ribbon) or to customize the ribbon.



# 4.2 Ribbon tab

## 4.2.1 Main menu

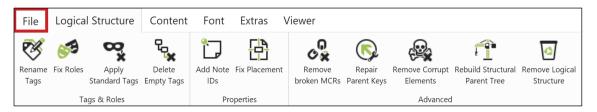


Figure 5: Ribbon with the different tabs - "File" tab highlighted



## What it does

In the main menu, you will find options to open, close or save files, to read the product information or to quit axesPDF®.

## Use it for

- to open, close or save files
- to read the product information (software version and license information)
- to quit axesPDF®

## How to use it

Click the File tab to open the main menu and choose an option.

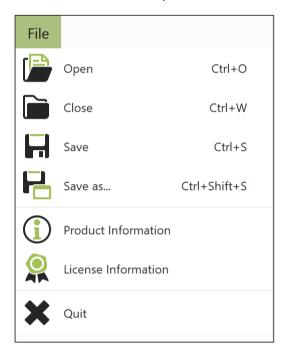


Figure 6: Main menu of axesPDF®

## **Product Information**

Click on the **Product Information** option in the main menu. The **Product Information** dialogue box opens:





Figure 7: "Product Information" dialogue box

The current software version is visible under the "axesPDF" logo.

# 4.2.2 "Logical Structure" tab



Figure 8: "Logical Structure" tab

"Tags & Roles" tool group

"Rename Tags" tool

What it does

This command opens the **Rename Tags** dialogue box. There you can change the current tag name in the left column by inserting a new tag name in the right column.

Use it for

Renaming all tags with the same name in your document in one step.

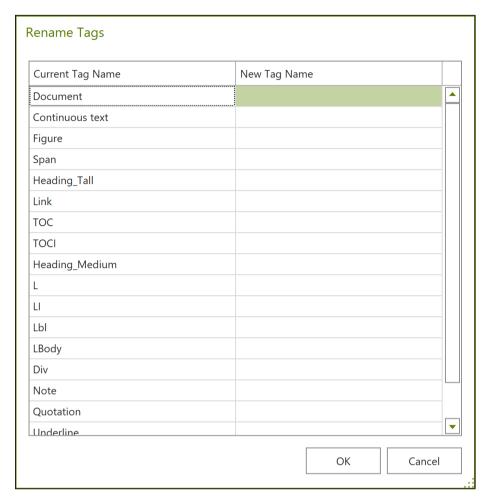
## **Important:**

If you want to rename non-standard tags to standard tags, use the **Apply standard tags** tool. But you have to check the role mapping before - use for this the **Fix Roles** tool.

# How to use it

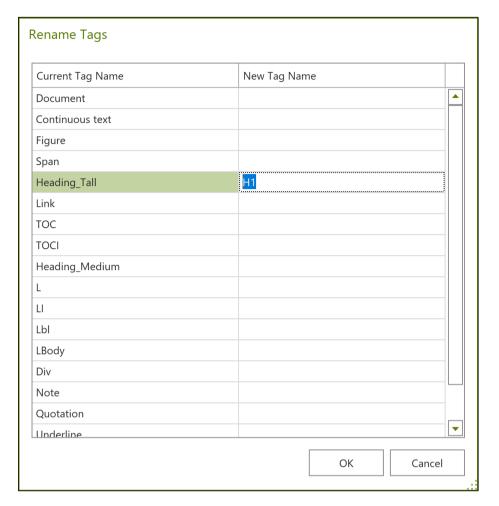
1. Click in the Logical Structure tab on the Rename Tags button.





2. Select a tag name in the left column and insert the new tag name in the right column





- 3. Click OK Button.
- 4. Done!

# "Fix Roles" tool

#### What it does

The **Fix Roles** button opens the **Fix Rolemapping** dialogue box. There you can change or determine the role for every tag in the document by choosing a standard PDF tag in the right column. Advanced users also can enter user-defined roles which have to be mapped to standard PDF tags.

## Use it for

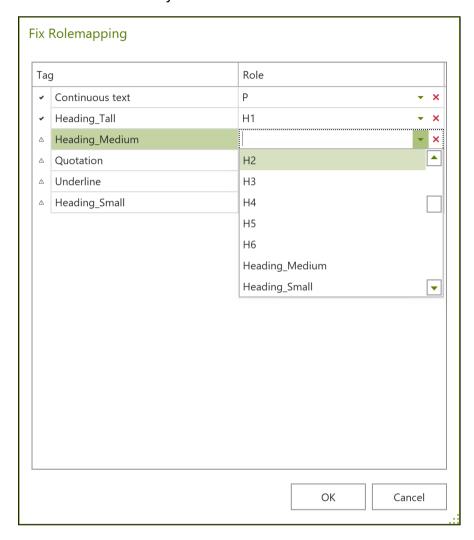
Fixing all kinds of rolemapping issues like missing mapping or unallowed mapping.

For standard PDF tags no rolemapping is allowed. In this case delete the corresponding role by clicking the cross.

- 1. Click in the **Logical Structure** tab on the **Fix Roles** button.
- 2. The **Fix Rolemapping** dialogue box opens.
- **3.** If there are no customized tags on the left side, everything is ok because you only use PDF standard tags (indicated by checkmarks).



**4.** If there are customized tags on the left side, check their role and edit it if necessary. The signs at the beginning of every line show you if your mapping is theoretically correct. The warning symbol means that the related mapping is not allowed and that you have to edit or delete it.



- **5.** Confirm by clicking the **OK** button.
- 6. Done!

The following screenshot is an example for an error message:



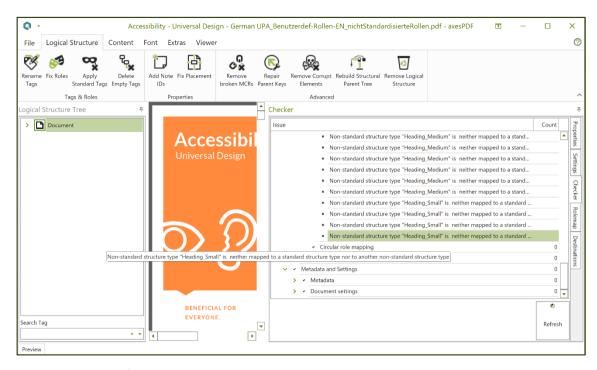


Figure 9: Example of an error message concerning inappropriate rolemapping

# "Apply Standard Tags" tool

#### What it does

This tool changes all names of non-standard tags to standard tags according to their role mapping.

#### Use it for

Renaming non-standard tags to standard tags with one click.

# **Important:**

Before using the **Apply Standard Tags** tool you should check the rolemapping with the **Fix Roles** tool.

#### How to use it

- 1. Click in the Logical Structure tab on the Apply Standard Tags button.
- 2. Done!

# Related accessibility issue

Some older assistive technologies do not read the tag role but the tag name. So they can only understand standard tags.

The use of only standard tags is not a requirement, but a recommendation.

# "Delete Empty Tags" tool

# What it does

This tool deletes all empty tags.

#### Use it for

Deleting empty tags (and cleaning your tag tree).

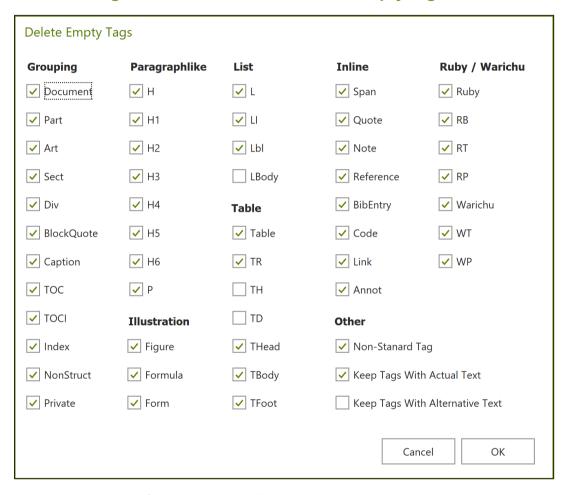


# **Important:**

Empty tags are tags which are not related to content and have no children. So, tags which are related to blanks are not deleted.

#### How to use it

1. Click in the Logical Structure tab on the Delete Empty Tags button.



- 2. Select which kind of empty tags shall be deleted.
- **3.** Confirm by clicking the **OK** button.

# Related accessibility issue

Empty tags can cause presentation problems with assistive technologies.

Apart from that, empty tags are always an indication for an unclean document structure.

"Properties" tool group

"Add Note IDs" tool

#### What it does

This tool adds unique IDs to every Note structure element.



#### Use it for

Adding IDs to the notes in your document.

#### Tip:

Every footnote in your document should be tagged as separate note.

#### How to use it

- 1. Click in the Logical Structure tab on the Add Note IDs button.
- 2. Done!

# Related accessibility issue

Unique Note IDs are necessary so that a machine can identify notes reliably.

#### "Fix Placement" tool

#### What it does

This tool changes the Placement attribute of every figure, form, formula or note tag to "Block" only when it is used as a Block element.

#### Use it for

Fixing wrong placement attributes of figure, form, formula or note tag.

#### How to use it

- 1. Click in the Logical Structure tab on the Fix Placement button.
- 2. Done!

# "Advanced" tool group

# "Remove broken MCRs" tool

#### What it does

This tool deletes broken references (so-called Marked Content References, MCR) between marked content and structure elements.

#### Use it for

Deleting references that refer to non-existing content. A broken MCR is a kind of "broken link" between a tag and its content.

For example, you get a broken MCR if you delete a content container, but the related tag still exists in the logical structure.

#### How to use it

- 1. Click in the Logical Structure tab on the Remove Broken MCRs button.
- 2. Done!

# Related accessibility issue

Broken references between marked content and structure elements can cause problems in accessibility to the content concerned.

# "Repair Parent Keys" tool

#### What it does

This tool repairs broken parent keys.



#### Use it for

You can restore parent keys in the logical structure.

#### How to use it

- 1. Click in the Logical Structure tab on the Repair Parent Keys button.
- 2. Done!

#### Related accessibility issue

Broken parent keys can cause accessibility problems for the content concerned.

#### "Remove Corrupt Elements" tool

#### What it does

This tool deletes corrupt elements in the logical structure.

## Use it for

To clean up a broken logical structure.

#### How to use it

- Click in the Logical Structure tab on the Remove Corrupt Elements button.
- 2. Done!

## Related accessibility issue

Corrupt elements can cause accessibility problems for the content concerned.

#### "Rebuild Structural Parent Tree" tool

## What it does

This tool corrects the structural parent tree.

#### Use it for

To solve issues in the structural parent tree.

#### How to use it

- Click in the Logical Structure tab on the Rebuild Structural Parent Tree button.
- 2. Done!

## Related accessibility issue

Issues in the structural parent tree can cause accessibility problems for the content concerned.

# "Remove Logical Structure" tool

#### What it does

This tool deletes the logical structure of your document completely.

# Use it for

You can delete an existing logical structure, e.g. if it is too messy due to an insufficient conversion and you like to tag your document completely new.

- Click in the Logical Structure tab on the Remove Logical Structure button.
- 2. Done!



## Related accessibility issue

When deleting the logical structure, it is necessary to delete all elements accurately - otherwise unpredictable problems may occur when creating a new logical structure.

## 4.2.3 "Content" tab

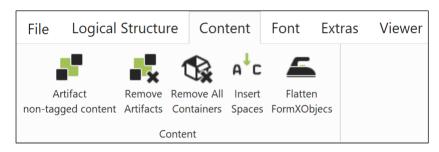


Figure 10: "Content" tab

## "Content" tool group

"Artifact non-tagged content" tool

#### What it does

This tool marks every non-tagged document element as an artifact.

#### Use it for

Marking all non-tagged elements as decorative or non-relevant.

# How to use it

- 1. Check your document for non-tagged content by clicking on the **Refresh** button in the **Checker** task pane.
- 2. Click in the Content tab on the Artifact non-tagged content button.
- 3. Re-check your document: no non-tagged elements should be left.
- 4. Done!

## **Important:**

Commonly speaking this tool is an "artifactor". So be careful that you only use it to mark decorative or non-relevant content.

#### Related accessibility issue

Artifacts are decorative elements or non-relevant content. They will not be rendered, and they do not have a rendered equivalent. If they are marked as artifacts, a machine can deal with them correctly - for example ignore them.

# "Remove Artifacts" tool

#### What it does

This command makes all artifacts to non-tagged elements.

# Use it for

Fixing the issue "Artifact inside tagged content".



#### How to use it

- 1. Check your document for artifacts inside tagged content by clicking on the **Refresh** button in the **Checker** task pane.
- 2. If the report shows an error "Artifact inside tagged content", go to **Content** tab and click on the **Remove Artifacts** button.
- 3. Click on the Artifact non-tagged content button.
- 4. Re-check your document: no artifact inside tagged content should be left.
- 5. Done!

# Related accessibility issue

Artifacts are decorative elements or non-relevant content. They will not be rendered, and they do not have a rendered equivalent. If they are marked as artifacts, a machine can deal with them correctly - for example ignore them.

#### "Remove All Containers" tool

# Warning:

Never use this tool with ready tagged documents. It damages your tagging.

#### What it does

Marked content elements can be combined within containers. This tool puts all elements on the topmost level and deletes the containers.

#### Use it for

Remove all containers of marked content elements as preparation for proper tagging.

# How to use it

- 1. Click in the Content tab on the Remove All Containers button.
- 2. Done!

# Related accessibility issue

Wrong containers of marked content elements can cause that content is not accessible or can trigger problems when using assistive technologies.

# "Insert Spaces" tool

## What it does

This command inserts spaces between words without space. The settings can be customized:

- Missing space width (% of height)
- Acceptable base line displacement (% of height)
- Max. truncation of space (% of space width)
- Max. extent of space (% of space width)

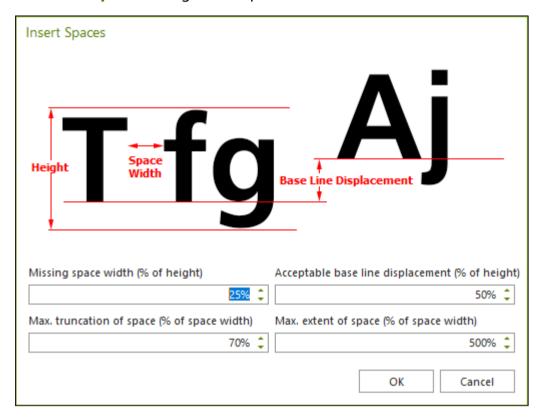
#### Use it for

Inserting spaces if the preview shows words without spaces.



#### How to use it

- 1. Click in the **Content** tab on the **Insert Spaces** button.
- 2. The **Insert Spaces** dialogue box opens.



- 3. Use the default settings and click on the **OK** button.
- **4.** Re-check your document visually by using the preview.
- 5. If there are still some missing spaces left go to the **Insert Spaces** dialogue box, customize the settings again. Maybe you have to find the best settings by trial and error.

# Related accessibility issue

Missing spaces can cause severe presentational problems.

# "Flatten FormXObjects" tool

#### What it does

This command "flattens" all FormXObjects except those with transparency.

FormXObjects are objects which can appear several times in your document but exist physically only once. Therefore, it can happen that you cannot select all of these objects.

#### Use it for

Preparing your document for proper tagging if it contains FormXObjects and you only want to tag some of the FormXObjects.

- 1. Click in the **Content** tab on the **Flatten FormXObjects** button.
- 2. Done!



# Related accessibility issue

Not tagged FormXObjects can cause contents to be not accessible.

# 4.2.4 "Font" tab



Figure 11: "Font" tab

# "Font" tool group

"Fix CID to GID Mapping" tool

#### What it does

This tool corrects errors in the CID to GID Mapping.

CID means "Character Identifier", GID is the abbreviation of "Glyph Identifier". Both identifiers have to be mapped correctly to avoid errors in the representation of characters of type 2 fonts.

#### Use it for

To fix the issue "Invalid "CIDToGIDMap" entry in Type 2 CID font".

#### How to use it

- 1. Click in the Content tab on the Fix CID to GID Mapping button.
- 2. Done!

# Related accessibility issue

Errors in the CID to GID Mapping can cause wrong representation of characters.

# "Edit Unicode Mapping" tool

#### What it does

This command enables you to edit the Unicode Mapping of all characters and fonts that are used in the document.

## Use it for

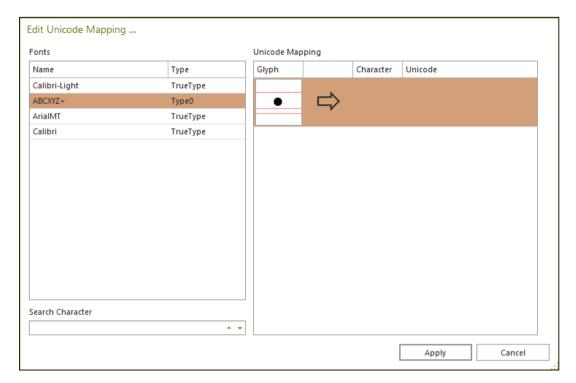
Add missing Unicode Mapping or fix wrong Unicode Mapping.

# How to use it

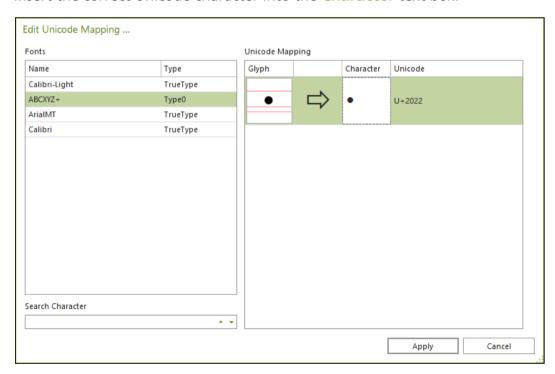
Add missing Unicode Mapping

- 1. Click in the Font tab on the Edit Unicode Mapping button.
- 2. Go to the font that is marked red. This indicates that there is a glyph without a corresponding Unicode character.





- 3. Go to the glyph that is marked red.
- 4. Insert the correct Unicode character into the Character text box.



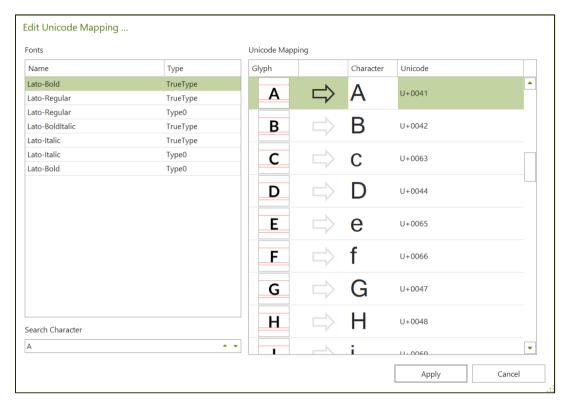
- 5. Click on the Apply button.
- 6. Done!

Fix wrong Unicode Mapping

1. Click in the Font tab on the Edit Unicode Mapping button.



- 2. Search for the character that replaces a glyph in the wrong way by using the **Search Character** text box.
- 3. The first font that contains such a character is marked blue.
- **4.** Go to the glyph that is marked blue. Check if the Unicode Mapping is correct. If not, insert the correct Unicode character into the **Character** text box.



- 5. Click the Apply button.
- **6.** Go back to the search field and click "Arrow up" to find another font with this glyph and continue with step 4.
- 7. You are done when you reach the font that you have checked first.

# Related accessibility issue

Missing or wrong Unicode Mapping can cause character issues:

- in alternative representations for example in the high contrast mode of the VIP PDF-Reader
- in the speech output
- in repurposing text
- in copying text

# 4.2.5 "Extras" tab



Figure 12: "Extras" tab



# "Metadata" tool group

## "Add PDF/UA identifier" tool

#### What it does

This command adds a special XMP file - the PDF/UA identifier - to your document.

#### Use it for

Marking your document as a PDF/UA file.

# **Important:**

The PDF/UA identifier is not a certificate. It is only a mark: the file pretends to be a PDF/UA compliant file.

Only use the PDF/UA identifier if you have successfully evaluated your file as PDF/UA compliant.

#### How to use it

- 1. Click in the Extras tab on the Add PDF/UA identifier button.
- 2. Done!

# Related accessibility issue

The PDF/UA identifier enables machines to identify the document as PDF/UA compliant.

## "Remove Suspect Flag" tool

#### What it does

This tool deletes the Suspect-flag, which was set by a software due to suspicion of a wrong logical structure.

#### Use it for

To delete Suspect-flags from the document.

# How to use it

- 1. Click in the Extras tab on the Remove Suspect Flag button.
- 2. Done!

# Related accessibility issue

The flag shall always represent the actual status of the document. When a wrong logical structure was corrected the flag has to be deleted accordingly - otherwise programs could process the document not correctly, e.g. programs could ignore the structure level when the flag is set.

# "Flag as tagged" tool

#### What it does

This tool adds the flag "Tagged".

#### Use it for

Marking a PDF as "Tagged".

- 1. Click in the Extras tab on the Flag as tagged button.
- 2. Done!



# "Annotations" tool group

# "Set Contents key of Link annotations" tool

#### What it does

This command adds an alternative description to a link tag. It doubles the link text.

#### Use it for

Adding alternative descriptions to every link tag at a single blow.

#### How to use it

- Click in the Extras tab on the Set Contents key of Link annotations button.
- 2. Done!

# **Important:**

If you want to add an individual link description, you can do that in the **Properties** task pane. Select the link annotation in the **Logical Structure Tree** task pane and write a description into the **Contents** text field in the **Properties** task pane.

# Related accessibility issue

Example of an error message: PDF/UA > Logical Structure > Alternative Descriptions > Alternative descriptions for annotations > Alternative description missing for an annotation

# "Delete Non-Referenced Link Annotations" tool

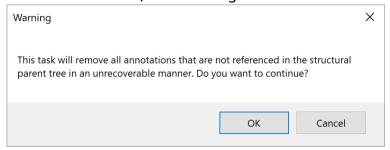
#### What it does

This tool deletes all link annotations that are not referenced in the structure tree.

# Use it for

With the help of this tool, every non-referenced link annotation is deleted.

- Click on the Delete Non-Referenced Link Annotations button in the Extras tab.
- 2. You will then receive a warning message indicating that the task cannot be undone. If in doubt, save the original document.



- 3. Confirm the warning message with **OK**.
- 4. Done!



## Related accessibility issue

Example of an error message: PDF/UA > Logical structure > Structure elements > Annotations > Nesting of "Link" annotations in "Link" structure elements > "Link" annotation not within a "Link" structure element

"Add Bookmarks" tool

#### What it does

This tool creates nested bookmarks based on the heading tags in your document.

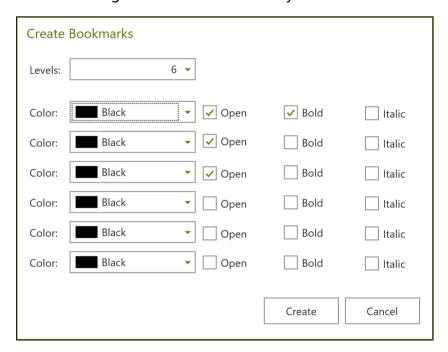
#### Use it for

Adding accessible and usable bookmarks to your document by one click.

# **Important:**

You need correct and appropriate heading tags in your document.

- 1. Click in the Extras tab on the Add Bookmarks button.
- 2. In the Create Bookmarks dialogue box you can set how many heading levels you want to get as bookmarks and you can define their look by setting the color and using the checkboxes for every level.



- **3.** If you activate the **Open** check box, all bookmarks of this level will be visible in the initial view.
- **4.** If you activate the **Bold** check box, all bookmarks of this level will be formatted as bold.
- **5.** If you activate the **Italic** check box, all bookmarks of this level will be formatted as italic.
- 6. Click on the Create button.

<sup>&</sup>quot;Navigation" tool group



#### 7. Done!

#### Related accessibility issue

Bookmarks provide a very useful table of contents. Every user can jump directly to a special heading or section in the document. Especially for low vision users, bookmarks are very helpful.

The zoom for every bookmark should be set to "custom zoom". axesPDF® does this automatically!

#### "Set Tab Order" tool

#### What it does

This command sets for every page the tab order according to the logical document structure (according to the tag order).

#### Use it for

Determining the tab order for your document by clicking a button.

The tab order determines the sequence for moving from one interactive element (for example links or form fields) to the next by using the tab key.

## **Important:**

To get a correct tab order, you must already have a proper logical document structure.

## How to use it

- 1. Click in the Extras tab on the Set Tab Order button.
- Done!

#### Related accessibility issue

Example of an error message: PDF/UA > Metadata and Settings > Document Settings > Tab order entry in page with annotations > Tab order entry in page with annotations not set to S

This error message means that the setting that the tab order shall be orientated on the logical order is missing in your document. This can concern a single page, several pages, or the whole document.

#### "Create Destinations" tool

## What it does

This tool adds destinations based on selected structure elements to your document. You can check the destinations in the **Destinations** task pane.

#### Use it for

Preparing destinations for the creation of internal links.

#### How to use it

1. Click in the Extras tab on the Create Destinations button.



2. Select one structure element or several structure elements as destinations of your internal linking. You can select between Pages, Headings, Captions, Tables, Lists, Notes, References or Links.



- 3. Click the OK button.
- 4. Done!

You can check the created destinations in the **Destinations** task pane.



Figure 13: "Destinations" task pane after using the "Create Destinations" tool

#### Create internal links

The destinations are a precondition to create accessible internal links. Via drag & drop method you can now drag a destination from the **Destinations** task pane and drop it in the **Logical Structure Tree** task pane on the corresponding tag.



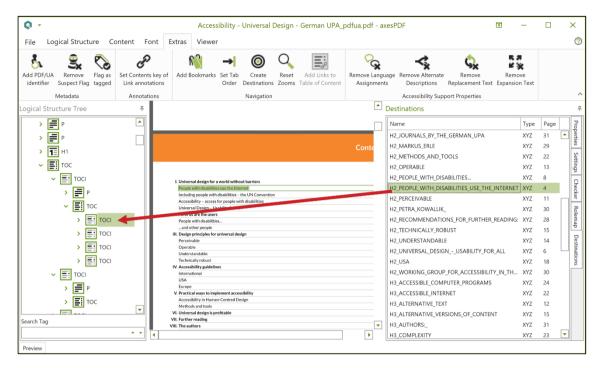


Figure 14: Create internal links via drag & drop method

## "Reset Zooms" tool

#### What it does

This tool resets the zoom settings from XYZ-destinations to the user defined settings.

#### Use it for

To correct fixed zoom settings of XYZ-destinations.

# How to use it

- 1. Click in the Extras tab on the Reset Zooms button.
- Done!

#### Related accessibility issue

Fixed zoom settings of XYZ-destinations force a defined page size when jumping within the document. However, from an accessibility point of view, the custom setting should be kept.

# "Add Links to Table of Content" tool

#### What it does

It creates links between the entries in the table of content and the corresponding (identical) headers.

#### Use it for

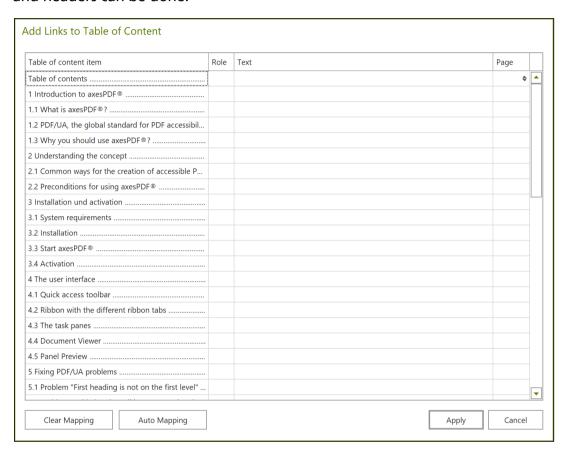
To create accessible linking in a table of content.

# How to use it

1. Select a table of content ("TOC") in the **Logical Structure Tree** task pane.



2. Click in the Extras tab on the Add Links to Table of Content button. A dialog window opens, where the mapping between table of content entries and headers can be done.



3. Click on the Auto Mapping button.





**4.** When the automatic mapping is finished successfully, confirm the result by clicking the **Apply** button.

Sometimes it may occur that the automatic mapping is not correct. Then you have to create the links manually (see therefore also the **Create Destinations** tool).

- 1. Click in the line with the incorrect or missing mapping. The 🐧 button appears
- Then click on the correct heading tag in the document viewer and click button.





#### Done!

### "Accessibility Support Properties" tool group

With these tools you can delete precisely:

- language assignments
- alternate descriptions
- replacement text or actual text
- expansion text

You can decide on which levels you want to have the deletion process done:

- on the structure elements level and/or
- on the content elements level

On both these levels you can additionally define whether to include only the topmost level ("parent element") and/or deeper levels ("child elements").

Furthermore, you can select if the deletion process shall only be executed within specific structure elements, e.g. you want to delete language assignments only in "BlockQuotes".

Finally, with axesPDF® you can do the deletion process within non-tagged content or artifacts.

The operation of these tools is similar and will be explained with the **Remove Language Assignments** tool in detail.

Use case 1: Deletion process on structure elements level

1. Click in the Extras tab on the Remove Language Assignments button.



Remove Language Assignments						
Remove in:  Untagged content  Tagged content						
Advanced	OK	Cancel				

- 2. Activate the **Logical Structure** check box and click on the **OK** button.
- 3. Done!

## Tip:

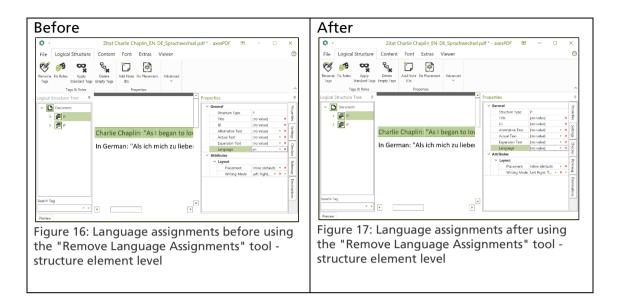
You can identify the elements of the structure level in the **Logical Structure Tree** task pane by the green color of the icons.



Figure 15: "Logical Structure Tree" task pane: structure element is selected

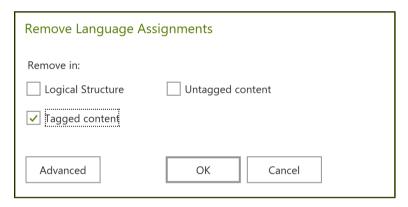
See the following two screenshots to understand the impact of the tool on the language assignments.





## Use case 2: Deletion process on content element level

1. Click in the Extras tab on the Remove Language Assignments button.



- 2. Activate the **Tagged content** check box and click on the **OK** button.
- 3. Done!



### Tip:

You can identify the elements of the content stream level in the **Logical Structure Tree** task pane by the orange color of the icons.

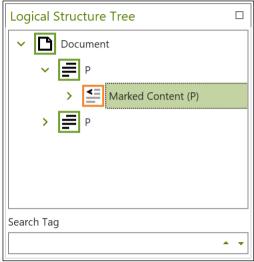
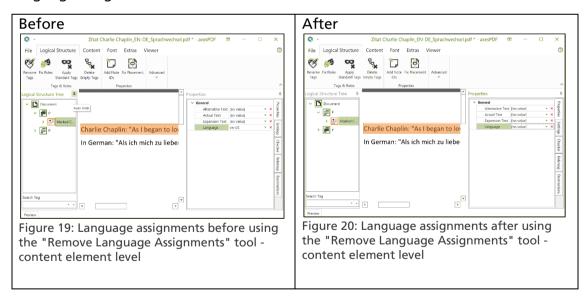


Figure 18: "Logical Structure Tree" task pane: content element (orange) selected

See the following two screenshots to understand the impact of the tool on the language assignments.



### Use case 3: Deletion process within untagged content

1. Click in the Extras tab on the Remove Language Assignments button.



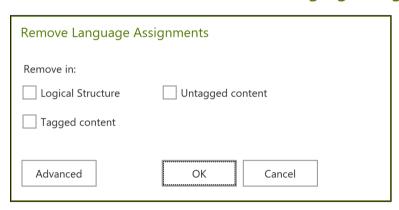
Remove Language Assignments						
Remove in:  Logical Structure  Untagged content						
Tagged content						
Advanced	OK Cancel					

- 2. Activate the **Untagged content** check box and click on the **OK** button.
- 3. Done!

All language assignments in untagged content will be deleted.

Use case 4: Deletion process within specific structure elements

1. Click in the Extras tab on the Remove Language Assignments button.



2. Click on the Advanced button.



Remove Language Assignments					×	
Structure Element	is .					
Annot	Figure	H5	NonStruct	RP	TF	
Art	Form	☐ H6	Note	RT	TH	
BibEntry	Formula	Index	P	Ruby	TH	
BlockQuote	H	L	Part	Sect	□ тс	
Caption	H1	Lbl	Private	Span	□ тс	
Code	H2	LBody	Quote	Table	TR	
Div	H3	LI	RB	TBody	$\square$ w	
Document	H4	Link	Reference	TD	$\square$ w	
4					•	
Select all Deselect all						
Remove from:						
Structure Element Direct Content		Artifacts				
Child Element	is	Content of Child Elements		Untagged content		
		ОК		Cancel		

In the upper part of the **Remove Language Assignments** dialogue box, you can select the structure elements via check boxes. With the **Select all** button all check boxes will be activated. Accordingly, the **Deselect all** button will deactivate all check boxes at once.

In the lower part of the **Remove Language Assignments** dialogue box, you can define whether the deletion process shall be executed on the structure element level (**Structure Element** check box) and/or on the content element level (**Direct Content** check box). If you activate one of these two check boxes, the deletion process will be executed only on the highest level ("parent element").

If you want to delete on lower levels ("child elements"), activate the **Child Elements** check box for the structure element level or the **Content of Child Elements** check box for the content element level.

By activating the **Artifacts** check box the deletion process will also be executed within artifacts.

Finally, if the **Untagged Content** check box is activated, the deletion process will be executed within non-tagged content.

- 3. Click on the OK button.
- 4. Done!



## "Remove Language Assignments" tool

#### What it does

This tool can delete language assignments. You can do this separately for structure elements or content elements. Additionally, you can choose if you want to remove the language declarations only on the highest level ("parent element") and/or on the lower levels ("child elements").

Optionally, you can delete language assignments within untagged content or within artifacts.

#### Use it for

To clean up structure or content elements.

#### How to use it

Click in the Extras tab on the Remove Language Assignments button.

See chapter "Accessibility Support Properties" tool group for further consideration.

### "Remove Alternate Descriptions" tool

#### What it does

This tool can delete alternate descriptions. This can be done for structure elements or content elements separately. Additionally, you can choose if the deletion process shall be done only on the highest level ("parent element") and/or on the lower levels ("child elements").

Optionally, you can delete alternate descriptions within untagged content or within artifacts.

## Use it for

To clean up structure or content elements.

#### How to use it

Click in the Extras tab on the Remove Alternate Descriptions button.

See chapter "Accessibility Support Properties" tool group for further consideration.

## "Remove Replacement Text" tool

#### What it does

This tool can delete replacement text or actual text. This can be done for structure elements or content elements separately. Additionally, you can choose if the deletion process shall be done only on the highest level ("parent element") and/or on the lower levels ("child elements").

Optionally, you can delete replacement text within untagged content or within artifacts.

### Use it for

To clean up structure or content elements.

#### How to use it

Click in the **Extras** tab on the **Remove Replacement Text** button.



See chapter "Accessibility Support Properties" tool group for further consideration.

### "Remove Expansion Text" tool

#### What it does

This tool can delete expansion text. This can be done for structure elements or content elements separately. Additional you can choose if the deletion process shall be done only on the highest level ("parent element") and/or on the lower levels ("child elements").

Optionally, you can delete expansion text within untagged content or within artifacts.

#### Use it for

To clean up structure or content elements.

#### How to use it

Click in the **Extras** tab on the **Remove Replacement Text** button.

See chapter "Accessibility Support Properties" tool group for further consideration.

## 4.2.6 "Viewer" tab

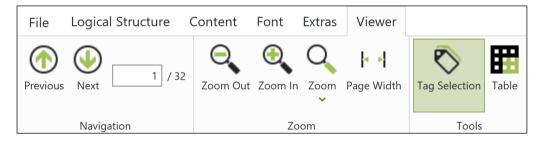


Figure 21: "Viewer" tab

"Navigation" tool group

## "Previous" tool

#### What it does

With this tool, you can jump to the previous page of the document.

#### Use it for

For quick scrolling backwards in the document viewer.

### How to use it

- 1. Click in the Viewer tab on the Previous button.
- 2. Done!

## "Next" tool

### What it does

With this tool, you can jump to the next page of the document.

#### Use it for

For quick scrolling forwards in the document viewer.



#### How to use it

- 1. Click in the Viewer tab on the Next button.
- 2. Done!

#### Page entry text box

### What it does

With this tool you can jump to any page of the document.

#### llea it for

For quick jumping in the document viewer.

#### How to use it

- 1. Enter in the **Viewer** tab any page number in the page entry text box and press the Enter key.
- 2. Done!

## "Zoom" tool group

### "Zoom Out" tool

### What it does

With this tool, you can zoom out in the page view.

#### Use it for

Zooming out in the page view.

#### How to use it

- 1. Click in the Viewer tab on the **Zoom Out** button.
- 2. Done.

By clicking the button repeatedly, you can zoom out step by step.

### "Zoom In" tool

#### What it does

With this tool, you can zoom in within the page view.

### Use it for

Zooming in within the page view.

#### How to use it

- 1. Click in the Viewer tab on the Zoom In button.
- 2. Done.

By clicking the button repeatedly, you can zoom in step by step.

### "Zoom" tool

#### What it does

With this tool, you can set the size of the page view to specific values.

#### Use it for

To change the size of the page view.

#### How to use it

- 1. Click in the **Viewer** tab on the **Zoom** button.
- 2. Choose in the dropdown list box the desired value.



### 3. Done.

By clicking the **Fit Page** option you get a complete view of a single page. Selecting the **Fit Page Width** option the view size of a page is adapted to the width of the document viewer.

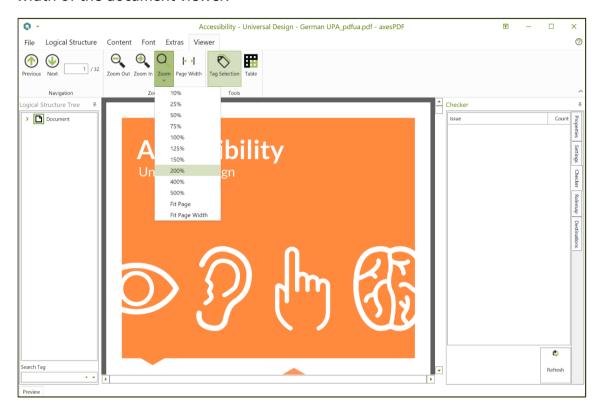


Figure 22: Zoom settings

## "Page Width" tool

### What it does

With this tool, you can adapt the view of the size of a page to the width of the document viewer.

### Use it for

To adapt the size of the view of a page to the width of the document viewer.

#### How to use it

- 1. Click in the Viewer tab on the Page Width button.
- 2. Done.

## "Tools" tool group



Figure 23: "Tools" tool group



### **Important:**

Only one of the two tools can be activated at a moment (indicated by the highlight of the button).

### "Tag Selection" tool

#### What it does

The Tag Selection tool is the default selection tool. You recognize it when the button is marked as active by the background color.

With the tag selection tool, you can click on single elements in the document viewer, and the corresponding tags are highlighted in the **Logical Structure Tree** task pane.

This tool works the way round as well: Click on one tag or several tags in the **Logical Structure Tree** task pane, and the corresponding elements are highlighted in the document viewer.

## **Important:**

You can only select elements that are already tagged.

If you cannot click in the document viewer on an element, then there are no tags for this element.

#### Use it for

Analyzing your document and checking the tags for selected elements in your document.

### How to use it

Activate the tool

- 1. Click in the **Viewer** tab on the **Tag Selection** button.
- 2. The button is now marked as active by the background color.



## 3. Done!

Use case 1: Select an element in the document viewer and get the corresponding tag If you click on an element in the document viewer, you immediately get the corresponding tag in the **Logical Structure Tree** task pane. The tag is highlighted, and all parent tags are opened.



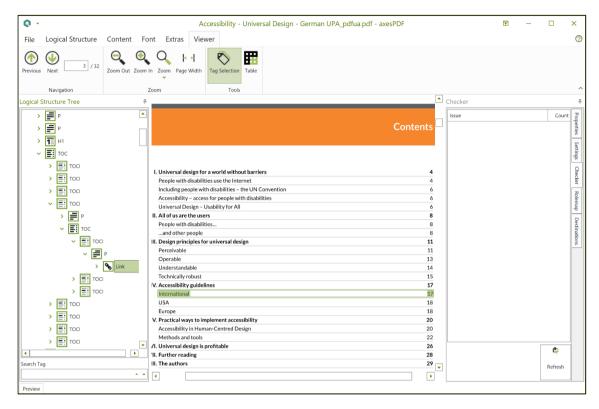


Figure 24: "Tag Selection" tool active - a link element was selected in document viewer

If you right-click on an element in the document viewer, you can choose which level of the tag hierarchy you want to get as your selection in the **Logical Structure Tree** task pane. This is very useful for the precise selection of nested tags like in lists or tables for example.



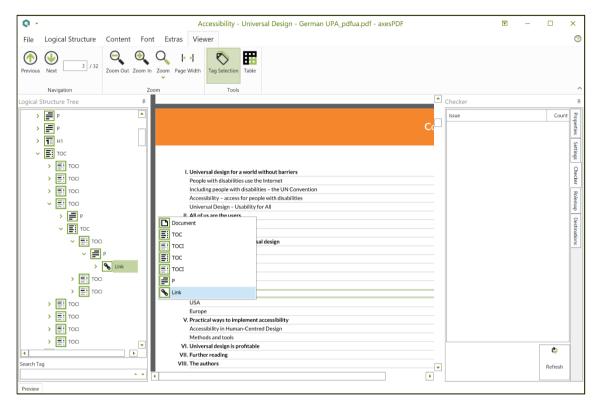


Figure 25: "Tag Selection" tool active – list of parental tags of a link element

Use case 2: Select a tag and get the corresponding element in the document viewer If you click on an element in the **Logical Structure Tree** task pane, you immediately get the corresponding tag in the document viewer and the element is highlighted.



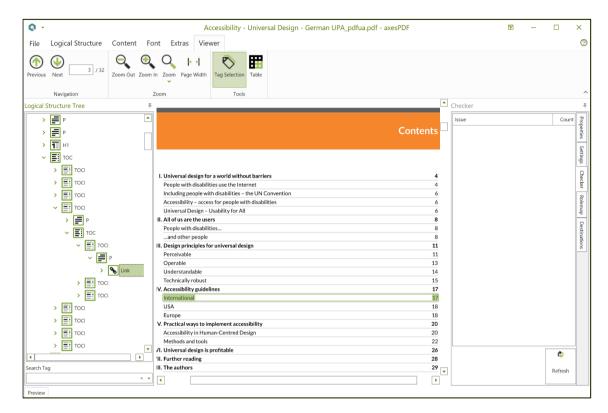


Figure 26: "Tag Selection" tool active – a link element was selected in "Logical Structure Tree" task pane

## Tip:

If the **Properties** task pane is also open, you can easily check the properties of your selected tag.

### "Table" tool

#### What it does

With the table tool, you can

- select table cells
- check table cells
- add scope attributes or
- add header IDs.

## **Important:**

To use it, the table already has to be tagged properly. If tags are missing in your document, you are not able to select table cells or use the table tool at all.

# How to use it

Start the table tool:



- 1. Click in the Viewer tab on the Table button.
- 2. The button is marked as active by the background color.



### Done!

For a detailed manual see here:

Guides - axesPDF - Products & Services - axes4

#### Note:

Either the tag selection tool or the table tool can be active.



Figure 27: "Table" tool active - table headers selected

## 4.2.7 Customize the ribbon tab

With **Customize the Ribbon...** option you can customize the ribbon tab according to your needs. You have the following possibilities:

- create new categories
- create a ribbon tab with customized selection of tools
- rename ribbon tabs and tool groups
- summarize tools in a ribbon tab within tool groups
- re-sort tools or remove tools



import/export the settings of customized ribbon tab

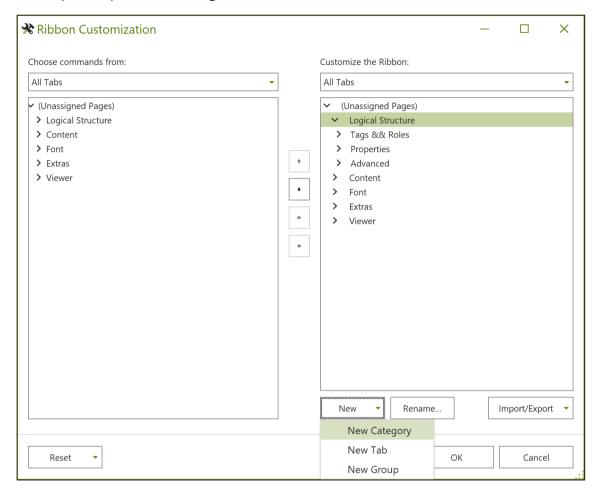


Figure 28: "Ribbon Customization" dialogue box

## Create new category

Click on the **New** button and then on the **New Category** option. In the list on the right-hand side appears the new category named "New Category". Simultaneously a new tab and a new group is created.



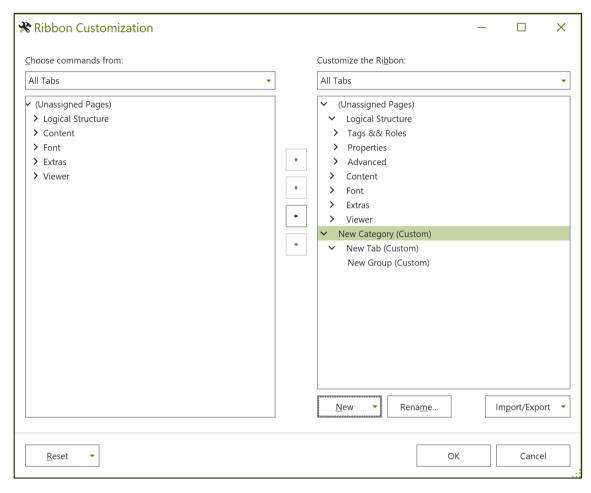


Figure 29: "Ribbon Customization" dialogue box with new category

## Define customized names

You can rename the new category (respective the new ribbon tab or the new group) by clicking on the **Rename...** button (the corresponding entry has to be selected).

Enter a new name und confirm with the **OK** button.

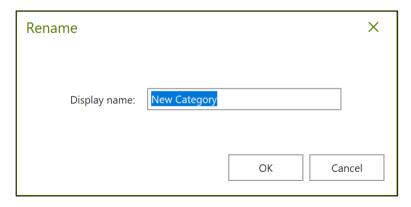


Figure 30: "Rename" dialogue box



## Charge tool group with tools

After creating a new tool group, you can charge it with tools. Select the desired tool in the list on the left-hand side (tool should be highlighted) and select in the list on the right-hand side the corresponding tool group (group should be highlighted as well).

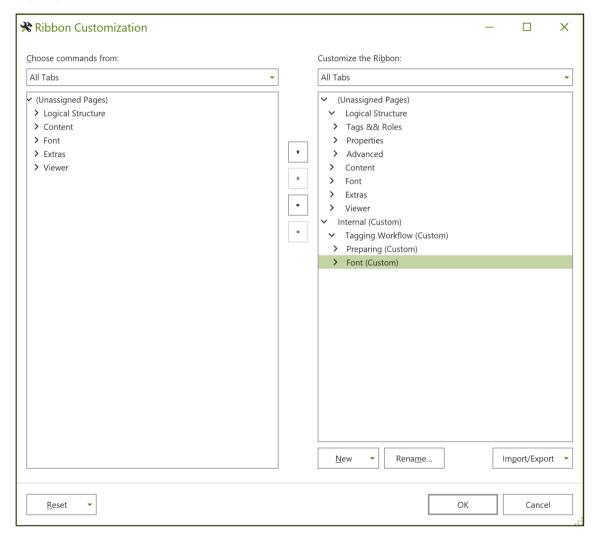


Figure 31: "Ribbon Customization" dialogue box " with customized settings

Then click on the **Arrow right** button.

## Tip:

You can change between two different views on the tools. Click in the **Choose command from** drop-down list box on **All Tabs** or **All Commands** option.



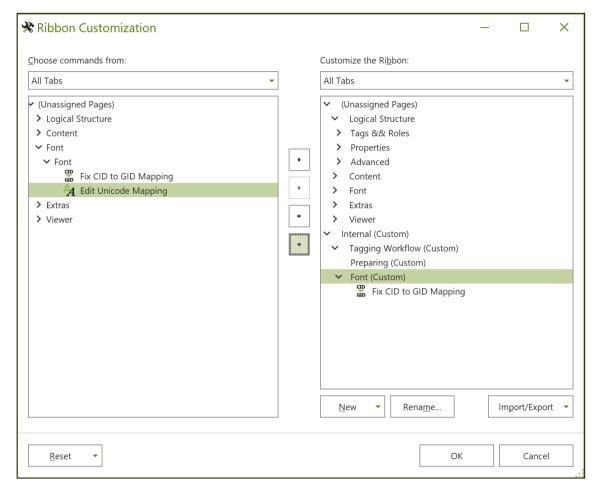


Figure 32: "Ribbon Customization" dialogue box - tool was assigned to a new tool group

Repeat the procedure for all customized tool groups.

## Remove tools from tool groups or remove tool groups

If you want to remove a tool from a tool group, just select the tool and click on the **Arrow left** button. This is only possible in customized tool groups.

If you want to remove a tool group, just select the tool group and click on the **Arrow left** button.

## Re-sort tools, tool groups and ribbon tabs

To change the position of tools, tool groups and ribbon tabs, select the corresponding element and click on the **Arrow up** or **Arrow down** button to move the element upwards respective downwards in the sequence.

### Save the customized settings

Click on the **OK** button to save your settings.

### Note:

With clicking on the **Cancel** button all changes will be discarded.



Below is an example with the "Internal" category, the "Tagging-Workflow" tab and the two tool groups "Preparing" and "Font".

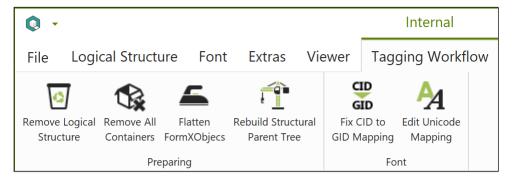


Figure 33: Example of a customized ribbon

#### Create a new ribbon tab

Click on the **New** button and then on the **New Tab** option. In the list on the right-hand side a new ribbon tab named "New Tab" is created. Simultaneously a new group is created.

To charge the new tool group with tools proceed as described in "Create new category".

### Create a new tool group

Click on the **New** button and then on the **New Group** option. In the list on the right-hand side a new tool group named "New Group" is created.

To charge the new tool group with tools proceed as described in "Create new category".

### **Export customizations**

Click on the **Import/Export** button and then on **Export all customizations** option. A dialog window opens where you can define memory location and filename. By default, the file is saved with the name "RibbonSettings" (xml-file).

### Import customizations

Click on the **Import/Export** button and then on **Import customization file** option. A dialog window opens where you can select the corresponding file.

#### Reset customizations

#### Reset only selected ribbon tab

Select a ribbon tab. Click on the **Reset** button and then on **Reset only selected Ribbon tab** option. All customized settings in this ribbon tab will be reset.

#### Note:

This function is only available for standard ribbon tabs. A reset is not available for new ribbon tabs and the function will be grayed out.



### Reset all customizations

Click on the **Reset** button and choose the **Reset all customizations** option. All customized settings will be reset.

# 4.3 The task panes

A task pane shows a specific perspective on your document and offers possibilities for analyzing and evaluation, often also for changing settings or editing. Examples are **Logical Structure Tree** task pane or **Checker** task pane.

All task panes are dock panels. A dock panel is a kind of window which is movable, can be docked on different positions or can be used as separate window.

## 4.3.1 "Logical Structure Tree" task pane

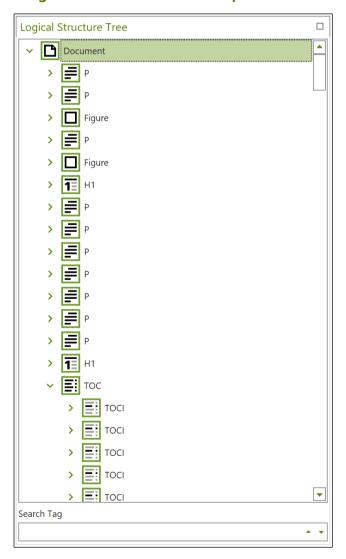


Figure 34: "Logical Structure Tree" task pane



#### What it does

In this task pane the logical structure of your document is shown in form of a structure tree.

#### Use it for

You can get a detailed look on the structure tree from highest to deepest level. Additionally, you can edit tag names (this is also possible in the **Properties** task pane).

#### How to use it

Click on the triangle symbol on the left hand side of a tag to expand or collapse deeper levels.

If you click on a special tag, the corresponding area in the document will get highlighted in the document view. Click on a tag a second time to edit its name.

At the very bottom of this task pane is the **Search Tag** text field. With this function you can search the structure tree for special tags. Enter a search term and press ENTER-key. Click on the arrow up/down buttons to navigate through the search results. The search function is case sensitive.

### Options for opening levels

### Opening next level

Click on the triangle in front of a tag to open the next level.



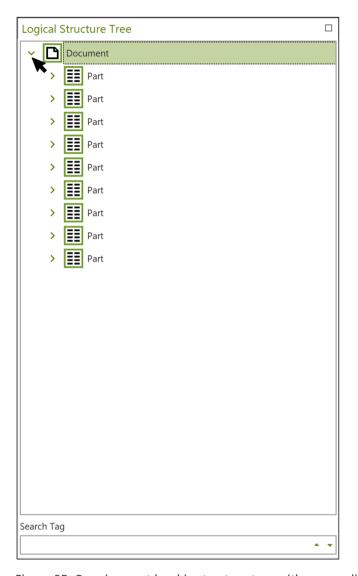


Figure 35: Opening next level in structure tree with mouse click



## Opening structure tree until structure element level

Press SHIFT-key and simultaneously click on the triangle in front of a tag to open the corresponding structure element until the level after next.

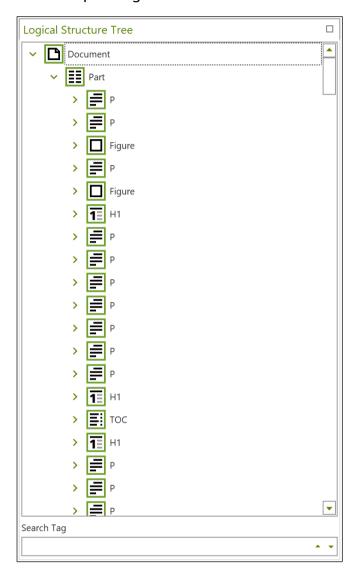


Figure 36: Opening structure tree with Shift key + mouse click



## Opening structure tree until content element level

Press STRG-key and simultaneously click on the triangle in front of a tag to open the structure tree until to content element level (orange icons).

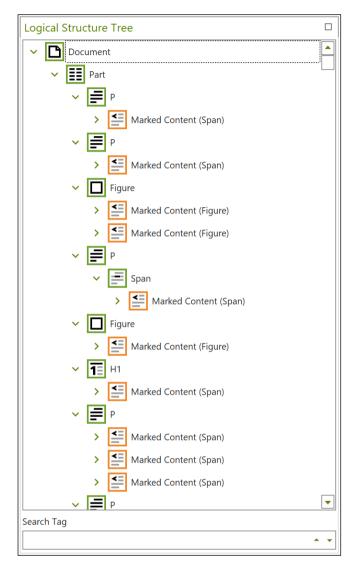


Figure 37: Opening structure tree with STRG-key + mouse click



## 4.3.2 "Properties" task pane

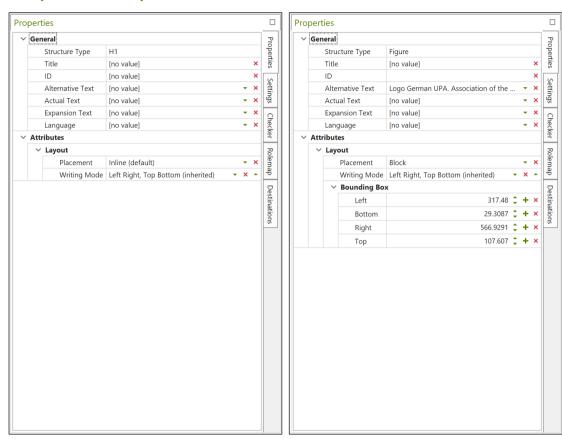


Figure 38: "Properties" task pane: left hand side with properties of a H1, right hand side with properties of a figure

### What it does

The **Properties** task pane shows all properties of a specific tag in one view.

The properties include:

- General Properties
- Attributes

The contents in this task pane are context-sensitive, depending on the selected tag in the **Logical Structure Tree** task pane. That means that any tag must be selected in the **Logical Structure Tree** task pane so that its properties can be shown.

### Use it for

You can change all properties here (including the structure type).

#### How to use it

- 1. Click in a particular text field you want to change, e.g. "Alternative Text"
- 2. Enter the new text in the text field or select an option in a drop-down list box
- 3. Done!



## Tip:

Select several elements in the **Logical Structure Tree** task pane to change their properties at once.

## 4.3.3 "Settings" task pane

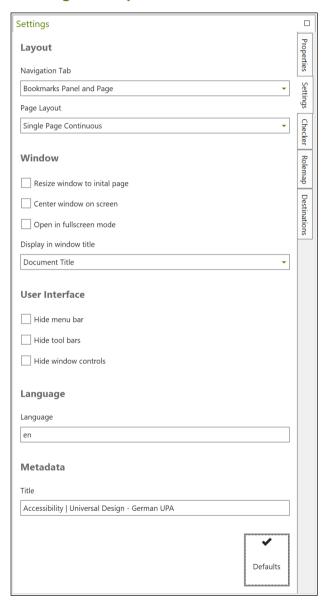


Figure 39: "Settings" task pane

### What it does?

In this task pane you can determine different general settings of your document which are especially relevant for the starting view or reader/viewer.

## Use it for

Following settings are available:



## Layout

- **Options for navigation tab:** shall a navigation tab be opened and if yes which one?
- **Options for page layout:** in which way shall the pages be presented in the starting view?

## Window Options

- Resize window to initial page
- Center window on screen
- Open in fullscreen mode
- Options for window title: shall document title or filename be shown in window title?

#### Title

- Enter an individual title for the document, which will be shown as window title if the corresponding setting is done

## User Interface Options

- Hide menu bar
- Hide tool bars
- Hide window controls

# Language

- Enter the language of the document – this language will be taken if no other language is defined on deeper levels (tag or content level)

### How to use it

- Choose your options out of the drop-down list boxes
- Activate or deactivate the settings with check boxes
- Enter a title in the Title text box
- Enter a language in the Language text box: use the format of a two-character language code (according to ISO 639) and country code (according to ISO 3166-1). Example: "en-US" for American English or "en-GB" for British English. Take care of small and capital letters for the language and country codes.



### Tip:

Click on the **Defaults** button, to set standard values for layout, window options and user interface which are preferable from an accessibility point of view:

## Layout

- Options for navigation tab: bookmarks panel will be shown in starting view
- Options for page layout: single pages continuous will be shown

## Window Options

- Resize window to initial page: not activated
- Center window on screen: not activated
- Open in fullscreen mode: not activated
- Options for window title: document title will be shown in window title

## User Interface Options

- Hide menu bar: not activated
- Hide tool bars: not activated
- Hide window controls: not activated

### Do not forget

Enter a document title and enter or check the document language



# 4.3.4 "Rolemap" task pane

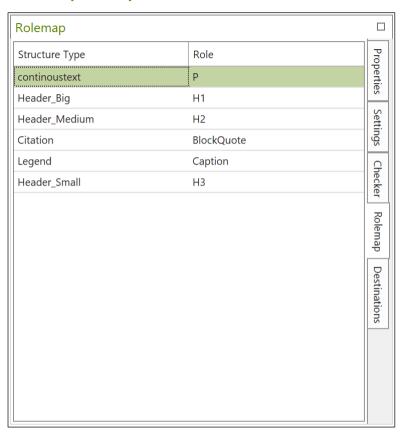


Figure 40: "Rolemap" task pane

## What it does?

In this task pane the role mapping is shown.

## Use it for

Checking the role mapping in your document.



## 4.3.5 "Checker" task pane

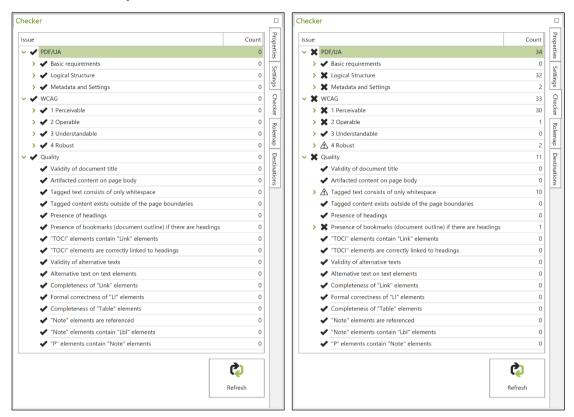


Figure 41: "Checker" task pane: left hand side a document without issues, right hand side a document with issues

### What it does

In this task pane, you can check your document for PDF/UA and WCAG issues. Furthermore, there is a set of quality checks that point out **possible** errors.

### Use it for

#### You can:

- get the number of PDF/UA and WCAG issues,
- recognize related categories of the issues and
- locate them (e.g. in the logical structure)
- get information about potential for improvement (in terms of better accessibility or user-friendliness) by means of the quality checks.

#### How to use it

Click on the **Refresh** button. After the analysis is done, you get a list of all issues.

The error messages are structured in different categories. Click on the small triangle symbol on the left-hand side of the issues to have a look on every single problem.

Double click on one error message and you will see it highlighted in the document viewer and the **Logical Structure Tree** task pane.



## **Tips**

- Information on the WCAG criteria can be found in the <u>Web Content</u> Accessibility Guidelines (WCAG) 2.1
- Information on the quality checks can be found at <a href="https://pac.pdf-accessibility.org/en/resources/pac-2024-quality-checks">https://pac.pdf-accessibility.org/en/resources/pac-2024-quality-checks</a>

## 4.3.6 "Destinations" task pane

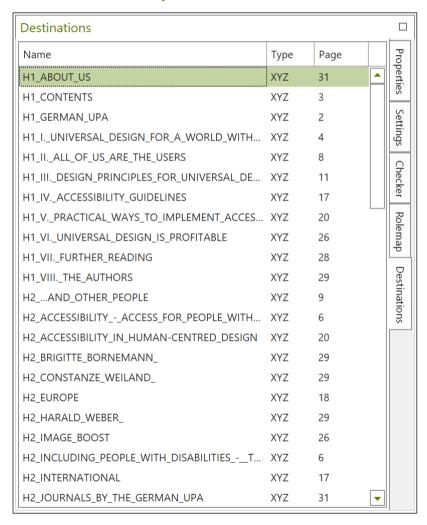


Figure 42: "Destinations" task pane

## What it does?

This task pane shows all available destinations in your document.

Precondition is that you already set destinations by using the **Create Destinations** tool.

#### Use it for

With this task pane in combination with the task pane **Logical Structure Tree** task pane you can easily create accessible links to the following elements:



- Pages
- Headings
- Captions
- Tables
- Lists
- Notes
- References
- Links

### How to use it

Drag and drop any destination on the corresponding tag in the **Logical Structure Tree** task pane. An accessible internal link is automatically created.

## 4.4 Document Viewer

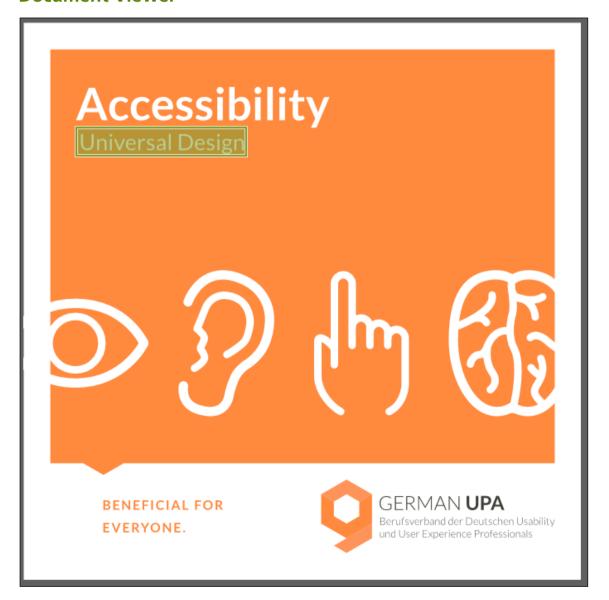


Figure 43: Document Viewer



#### What it does

This window is your main (and default) view of your document that you are working on. It shows you the presentation level of your document.

If you select a structure element in the **Logical Structure Tree** task pane or select an error in the **Checker** task pane, the related element will be highlighted in the Document Viewer.

#### Use it for

- watching the presentation level of your document
- navigating through your document
- evaluating the logical order in combination with the Logical Structure
   Tree task pane
- analyzing accessibility issues in detail in combination with the Checker task pane.

#### How to use it

- 1. Open your document and in the main window you get the document viewer.
- Customize your document viewer by using the Zoom In, Zoom out, Zoom or Page Width button in the Viewer tab.
- 3. Navigate through your document by using the scroll bar or the **Previous** and **Next** button in the **Viewer** tab.

### Tip:

With the tools in the **Viewer** tab you can navigate through your document or change zoom settings.

## 4.5 Panel Preview

#### What it does

In the panel **Preview** you get a screenreader preview of your document after clicking the **Refresh** button.

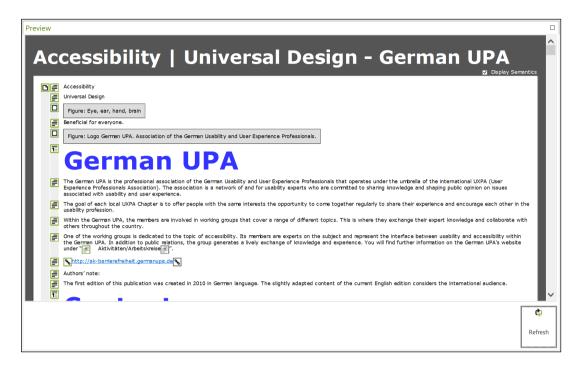
#### Use it for

- checking the document structure visually (logical order, semantics)
- checking the correct presentation of text (spaces, characters)

#### How to use it

- 1. Simply click the **Preview** button at the bottom left corner of the screen
- 2. Click the Refresh button.





3. Scroll down to check the complete content



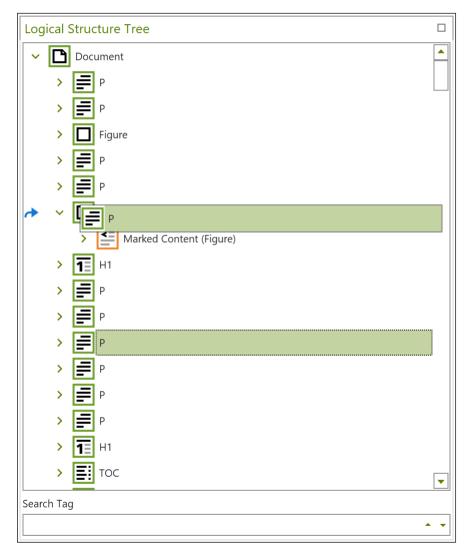
# 5 Edit logical structure tree

# 5.1 Move tags

You can move structure elements using the drag & drop function.

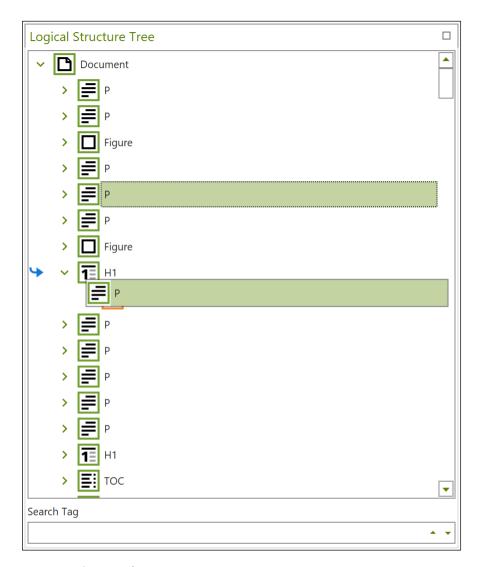
Different symbols (curved blue arrows or straight green arrow) show you whether you are moving the structure element above another tag or below another tag in the logical structure tree (after releasing the mouse key).

Move tag above another tag



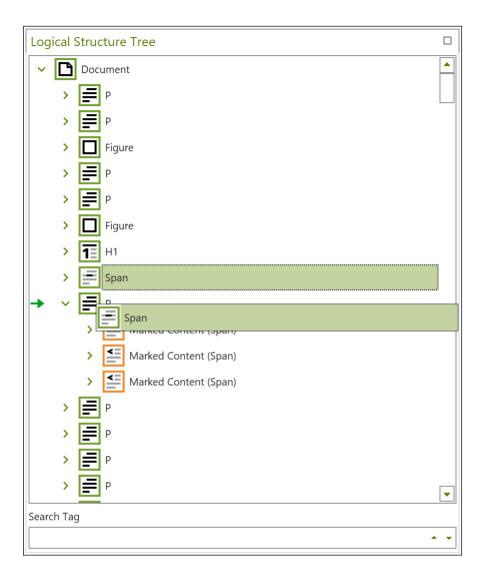
Move tag below another tag





Nest tag in another tag

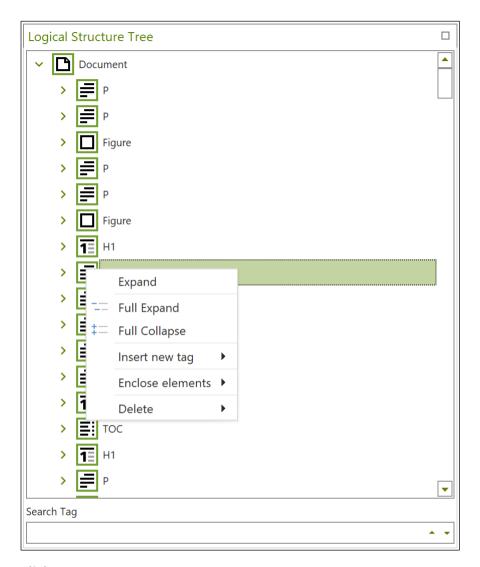




# 5.2 Insert tags

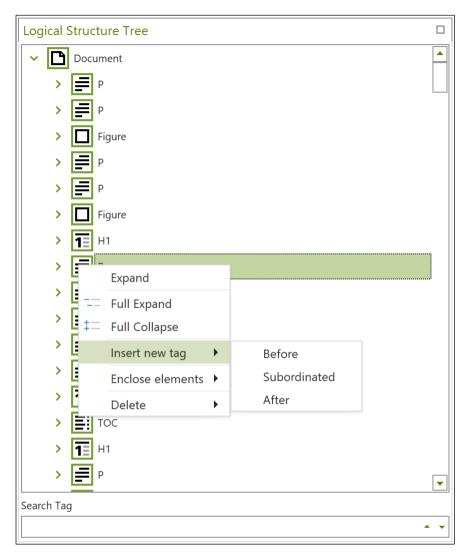
Right-click in the logical structure tree to open the context menu.





Click Insert new tag.



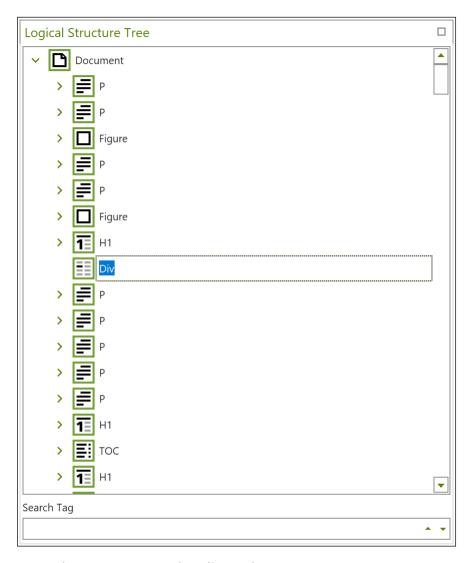


Decide whether the new tag should be inserted **Before**, **Subordinated** or **After** (the currently selected tag).

Regardless of which option you choose, a "Div" structure element is created, but you can then immediately rename it.

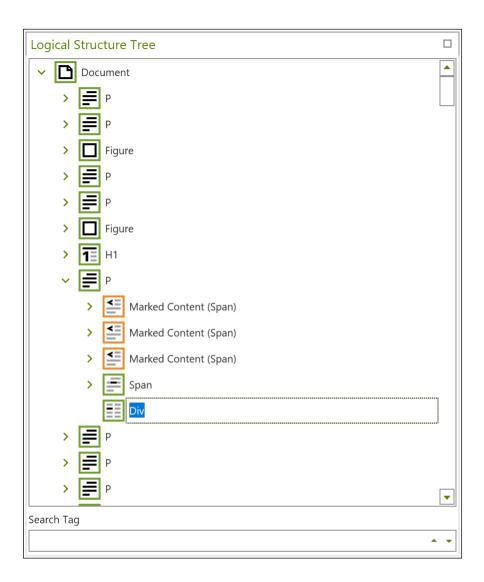
Example 1: Insert tag before:





Example 2: Insert tag subordinated:



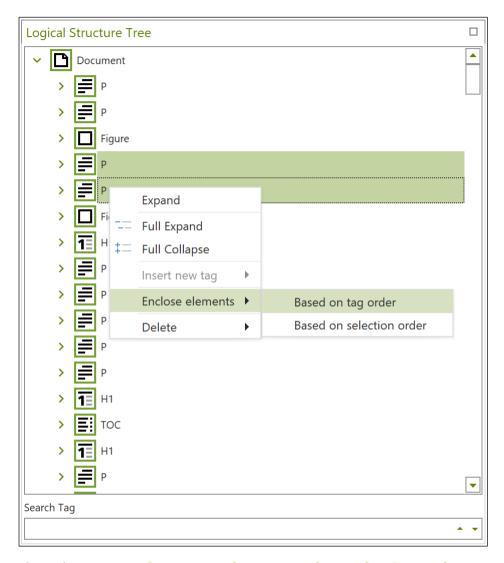


# 5.3 Enclose tags

First select all structure elements that you want to enclose into a (new) structure element.

Then right-click, select the **Enclose elements** option.

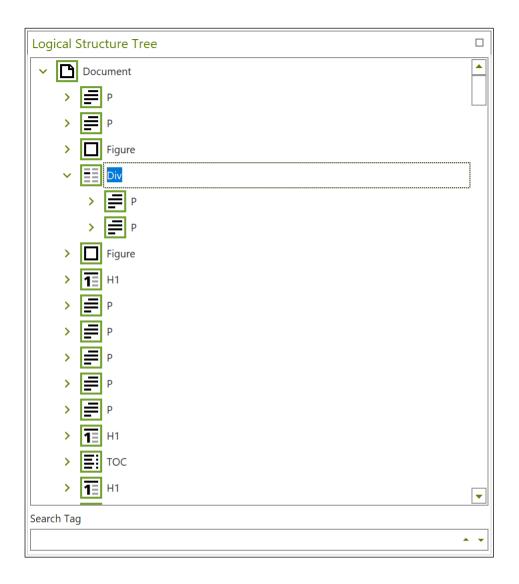




Then choose Based on tag order or Based on selection order.

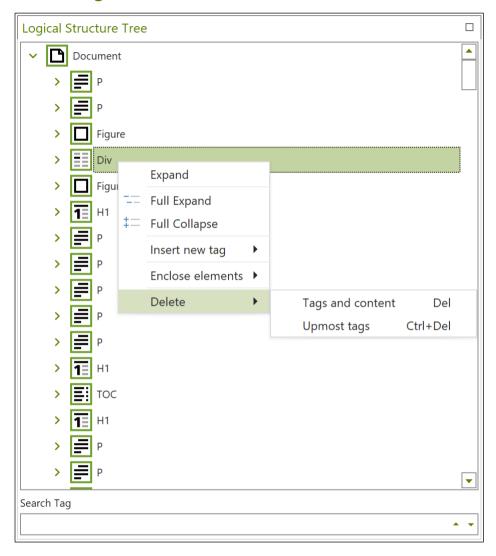
The selected tags are enclosed in a Div tag which can be renamed immediately.





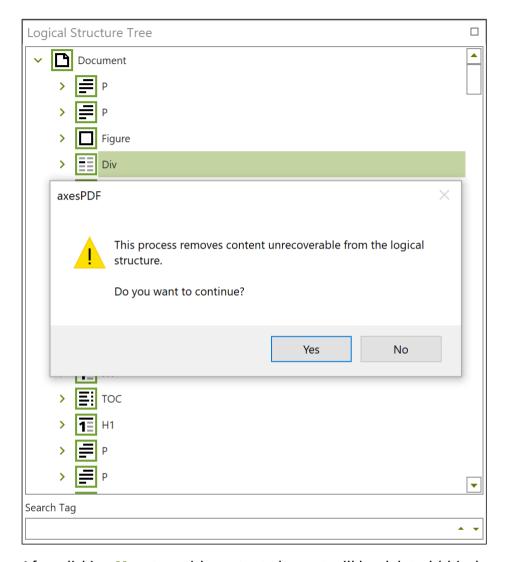


# 5.4 Delete tags



If you click on **Upmost tags**, just the upmost tag is deleted, the content elements will remain. If you click **Tags and content** you will see a warning message:





After clicking **Yes**, tag with content element will be deleted (this does not mean that the appearance of your PDF will be changed - no visible content will be deleted).



# 6 Fixing PDF/UA issues

### 6.1 Issue "First heading is not on the first level"

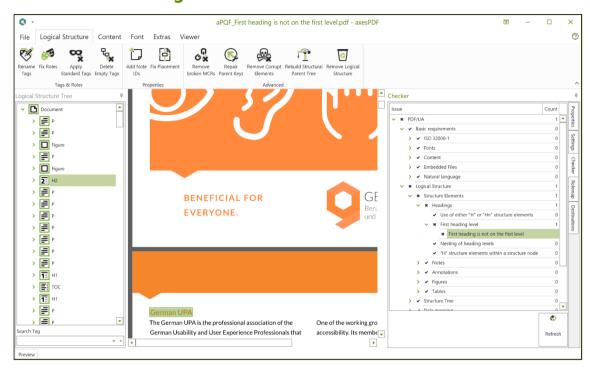


Figure 44: Issue "First heading is not on the first level"

#### What is the issue?

PDF/UA > Logical Structure > Structure Elements > Headings > First heading level > First heading is not on the first level

#### What does it mean?

In every document, the first heading has to be a H1. The first heading in your PDF, however, is not a H1.

#### How to fix it?

Change in the **Logical Structure Tree** task pane the first occurring heading-tag to H1. Be careful that there is no jump in the heading levels. You must not miss a level: an H1 must not follow a H3, for instance.



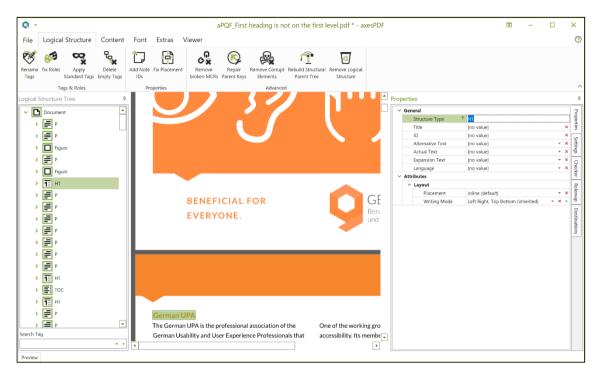


Figure 45: Tag name "H2" was changed to "H1"

# 6.2 Issue "Table header cell has no associated subcells"

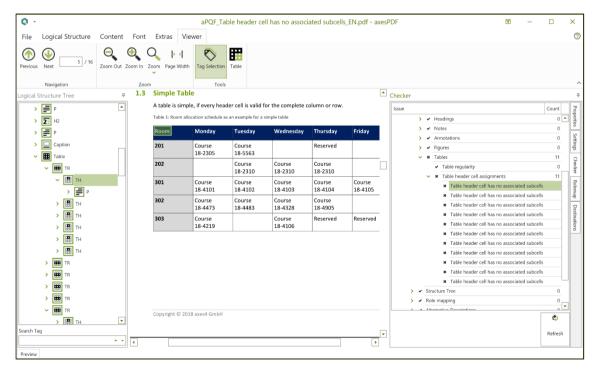


Figure 46: Issue "Table header cell has no associated subcells"



#### What is the issue?

PDF/UA > Logical Structure > Structure Elements > Tables > Table header cell assignments > Table header cell has no associated subcells

#### What does it mean?

In a table, there are header cells (<TH>) that do not have associated data cells (<TD>).

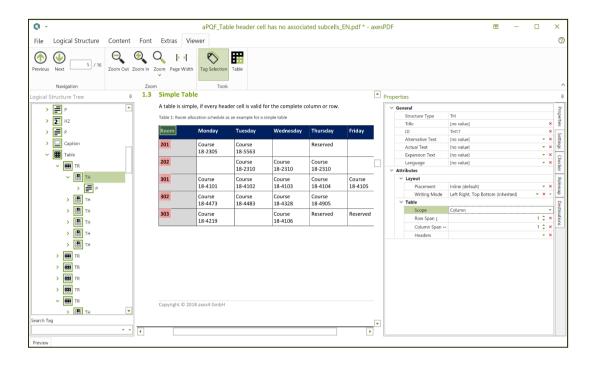
Therefore, programs like screen readers can not recognize the reference between header and data cells.

#### How to fix it?

- 1. Double click on the error message to jump to the corresponding header cell.

  The header cell is now also selected in the Logical Structure Tree task pane
- 2. In the case of a simple table: set the correct scope of the selected header cell in the **Properties** task pane choose "Row", "Column" or "Both".
- 3. If table header cells do not apply for a whole column or row, you have a complex table. In that case, you have to set the reference between header cells and data cells by using header IDs. For that purpose, use the table tool of axesPDF®.





# 6.3 Issue "Alternative description missing for an annotation"

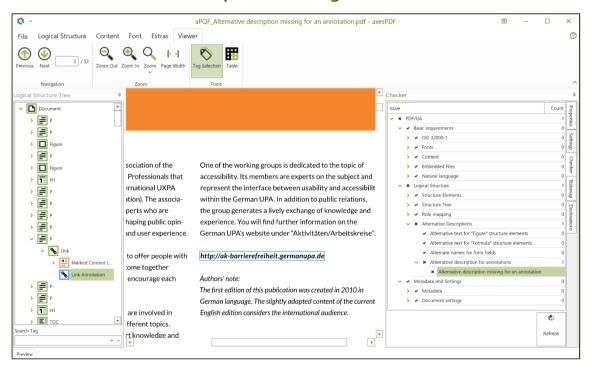


Figure 47: Issue "Alternative description missing for an annotation"

#### What is the issue?

PDF/UA > Logical Structure > Alternative Descriptions > Alternative descriptions for annotations > Alternative description missing for an annotation



An alternative description about the destination of a link is missing.

#### How to fix it?

Use the **Set Contents key of Link annotations** tool in axesPDF®. An alternative description is added to every link tag at a single blow.

#### 6.4 Issue "Art structure element used as root element"



Figure 48: Issue "Art structure element used as root element"

#### What is the issue?

PDF/UA > Logical Structure > Structure Tree > Art structure element > Art structure element used as root element

#### What does it mean?

There are Article structure elements in your document that are not used semantically correctly.

#### How to fix it?

Double-click on the error in axesPDF®. The related tag will be highlighted in the **Logical Structure Tree** task pane. Rename it by clicking on the tag and overwrite



its name with a semantically correct root tag name - for example "Document". Or create a new root tag "Document" in a PDF tag editor and nest all other tags in it.

# 6.5 Issue "Artifact present inside tagged content"

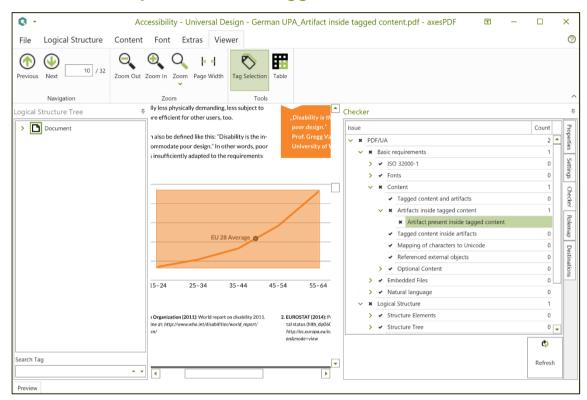


Figure 49: Issue "Artifact present inside tagged content"

#### What is the issue?

PDF/UA > Basic requirements > Content > Artifacts and tagged content > Artifact present inside tagged content

#### What does it mean?

A marked content element that is referenced by the logical structure contains a nested artifact.

#### How to fix it?

The standard method: remove all artifacts by using the **Remove Artifacts** button in axesPDF® and mark them again as artifacts by using the **Artifact non-tagged content** button.



# 6.6 Issue "Title missing in document's XMP metadata"



Figure 50: Issue "Title missing in document's XMP metadata"

#### What is the issue?

PDF/UA > Metadata and Settings > Metadata > Title in document's XMP metadata > Title missing in document's XMP metadata

#### What does it mean?

The document title in your PDF is missing.

#### How to fix it?

Add a document title in your PDF editor. In axesPDF® you can fix this in the task pane **Settings**.

#### 6.7 Issue "Div structure element used as root element"

#### What is the issue?

PDF/UA > Logical Structure > Structure Tree > Div structure element > Div structure element used as root element



There are Div structure elements in your document that are not used semantically correctly.

#### How to fix it?

Double-click on the error in axesPDF®. The related tag will be highlighted in the **Logical Structure Tree** task pane. Rename it by clicking on the tag and overwrite its name with a semantically correct root tag name - for example "Document". Or create a new root tag "Document" in a PDF tag editor and nest all other tags in it.

### 6.8 Issue "DisplayDocTitle entry is not set"

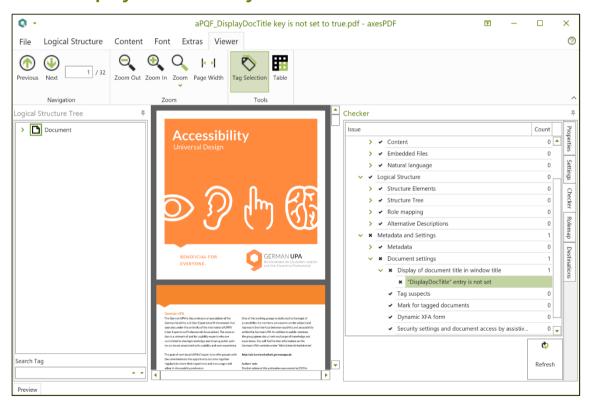


Figure 51: Issue "DisplayDocTitle entry is not set"

#### What is the issue?

PDF/UA > Metadata and Settings > Document Settings > Display of document title in window title > DisplayDocTitle entry is not set

#### What does it mean?

The file name is set as the window title.

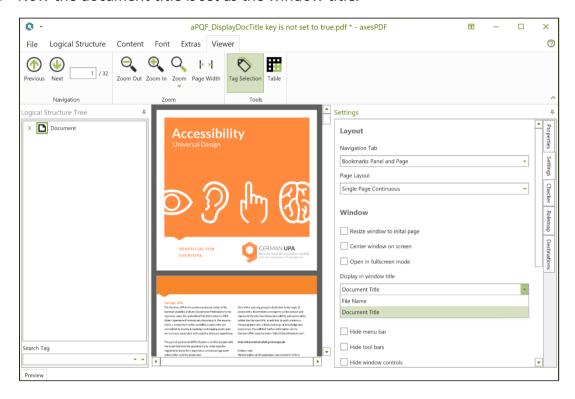


#### How to fix it?

- 1. Use the **Settings** task pane in axesPDF®.
- 2. Click on the **Defaults** button so that the standard settings for accessibility are determined in your document.



3. Now the document title is set as the window title.



# 6.9 Issue "Document structure element found which is not a root element"

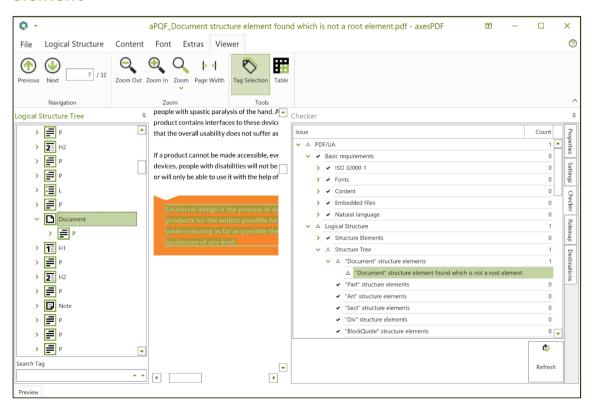




Figure 52: Issue "Document structure element found which is not a root element"

#### What is the issue?

PDF/UA > Logical Structure > Structure Tree > Document structure elements > Document structure element found which is not a root element

#### What does it mean?

There are Document structure elements in your document that are not used semantically correctly.

#### How to fix it?

Double-click on the error in axesPDF®. The related tag will be highlighted in the **Logical Structure Tree** task pane. Rename it by clicking on the tag and overwrite its name with a semantically correct tag name - for example "Part".

### 6.10 Issue "Figure element on a single page with no bounding box"



Figure 53: Issue "Figure element on a single page with no bounding box"

#### What is the issue?

PDF/UA > Logical Structure > Structure Elements > Figures > Bounding Boxes > Figure element on a single page with no bounding box



The bounding box of a figure is missing. The figure cannot be rendered correctly in alternate presentations.

#### How to fix it?

Double-click on the error so that the related figure and figure tag is highlighted. Go to the **Properties** task pane in axesPDF® and add a bounding box by clicking on "+" at one of the empty attribute fields - for example at the attribute "Left". axesPDF® creates automatically a correct bounding box.

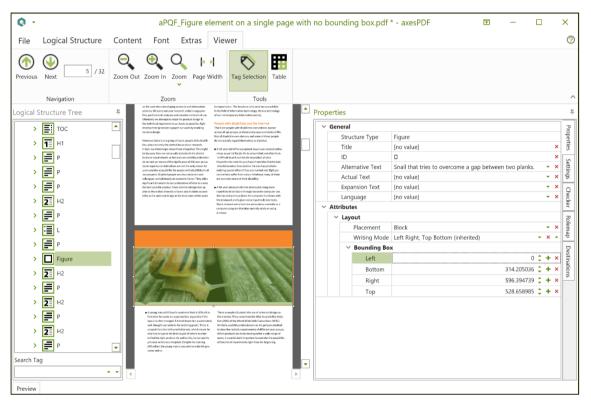


Figure 54: Set values for a bounding box of an image in "Properties" task pane



# 6.11 Issue "ID missing in Note structure element"

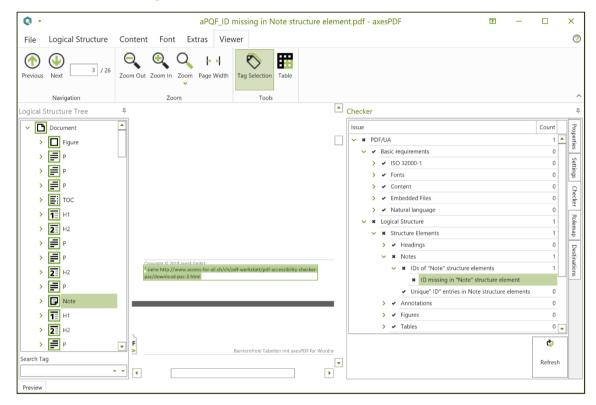


Figure 55: Issue "ID missing in Note structure element"

#### What is the issue?

PDF/UA > Logical Structure > Notes > ID entry in Note structure elements > ID missing in Note structure element

#### What does it mean?

There are Note-Tags without ID.

#### How to fix it?

Use the Add Note IDs tool in axesPDF®.



# 6.12 Issue "Image object not tagged"

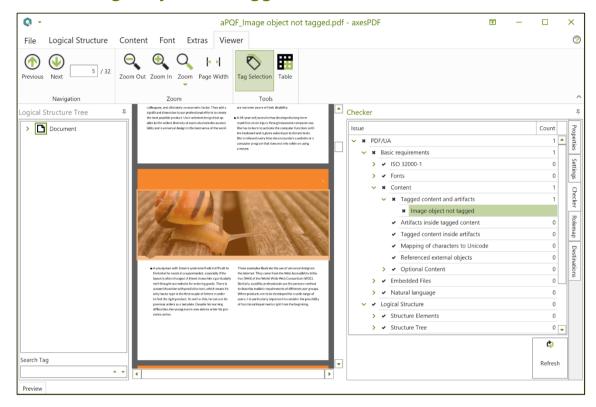


Figure 56: Issue "Image object not tagged"

#### What is the issue?

PDF/UA > Basic Requirements > Content > Tagged content and artifact > Image object not tagged

#### What does it mean?

There are objects without tags in your document.

#### How to fix it?

- 1. Check if the not tagged object is relevant content.
- 2. If "yes" then tag it with a PDF tagger.
- 3. If "no" then artifact it e.g., with the **Artifact non-tagged content** tool in axesPDF®.



# 6.13 Issue "Link annotation is not nested inside a Link structure element"

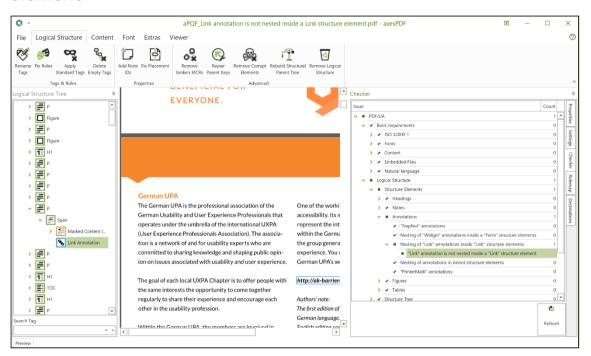


Figure 57: Issue "Link annotation is not nested inside a Link structure element"

#### What is the issue?

PDF/UA > Logical Structure > Structure Elements > Annotations > Nesting of Link annotations inside Link structure elements > Link annotation is not nested inside a Link structure element

#### What does it mean?

There is a link annotation (in the logical structure: the OBJR element) that is not part of a link tag.

#### How to fix it?

Tag the link with a PDF tagger.

# 6.14 Issue "Natural language of expansion text cannot be determined"

#### What is the issue?

PDF/UA > Basic requirements > Natural language > Natural language of expansion text > Natural language of expansion text cannot be determined



There is no document language determined. As a consequence: There is no language determined for the expansion text.

#### How to fix it?

Use the **Settings** task pane in axesPDF® and enter the language code into the **Language** text box: for example, "en-GB" for British English, "en-US" for US English or "de-DE" for German.

## 6.15 Issue "Natural language of text object cannot be determined"

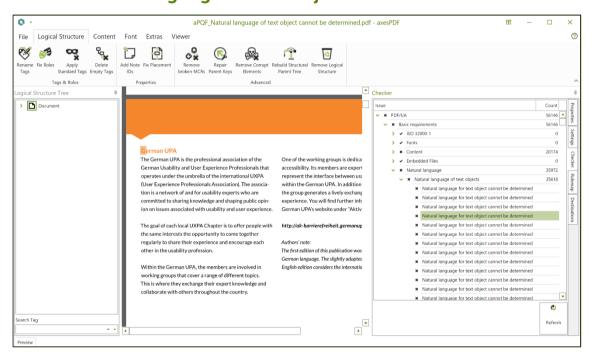


Figure 58: Issue "Natural language of text object cannot be determined"

#### What is the issue?

PDF/UA > Basic requirements > Natural language > Natural language of text object > Natural language of text object cannot be determined

#### What does it mean?

There is no document language determined.

#### How to fix it?

Use the **Settings** task pane in axesPDF® and enter the language code into the **Language** text box: for example, "en-GB" for British English, "en-US" for US English or "de-DE" for German.





Figure 59: Set document language in "Settings" task pane

### 6.16 Issue "Natural language of actual text cannot be determined"

#### What is the issue?

PDF/UA > Basic requirements > Natural language > Natural language of actual text > Natural language of actual text cannot be determined

#### What does it mean?

There is no document language determined. As a consequence: There is no language determined for the actual text.

#### How to fix it?

Use the **Settings** task pane task pane in axesPDF® and enter the language code into the **Language** text box: for example, "en-GB" for British English, "en-US" for US English or "de-DE" for German.

# 6.17 Issue "Natural language of alternative text cannot be determined"

#### What is the issue?

PDF/UA > Basic requirements > Natural language > Natural language of alternative text > Natural language of alternative text cannot be determined



There is no document language determined. As a consequence: There is no language determined for the alternative text.

#### How to fix it?

Use the **Settings** task pane in axesPDF® and enter the language code into the **Language** text box: for example, "en-GB" for British English, "en-US" for US English or "de-DE" for German.

# 6.18 Issue "Natural language of an alternate name of a form field cannot be determined"

#### What is the issue?

PDF/UA > Basic requirements > Natural language > Natural language of alternate names of form fields > Natural language of an alternate name of a form field cannot be determined

#### What does it mean?

There is no document language determined. As a consequence: There is no language determined for the quickinfo of a form field.

#### How to fix it?

Use the **Settings** task pane in axesPDF® and enter the language code into the **Language** text box: for example, "en-GB" for British English, "en-US" for US English or "de-DE" for German.

# 6.19 Issue "Natural language of an outline item cannot be determined"

#### What is the issue?

PDF/UA > Basic requirements > Natural language > Natural language of outlines can be determined > Natural language of an outline item cannot be determined

#### What does it mean?

There is no document language determined. As a consequence: There is no language determined for outline items.



#### How to fix it?

Use the **Settings** task pane in axesPDF® and enter the language code into the **Language** text box: for example, "en-GB" for British English, "en-US" for US English or "de-DE" for German.

# 6.20 Issue "Natural language of Contents entry cannot be determined"

#### What is the issue?

PDF/UA > Basic requirements > Natural language > Natural language of Contents entries in annotation > Natural language of Contents entry cannot be determined

#### What does it mean?

There is no document language determined. As a consequence: There is no language determined for contents entries.

#### How to fix it?

Use the **Settings** task pane in axesPDF® and enter the language code into the **Language** text box: for example, "en-GB" for British English, "en-US" for US English or "de-DE" for German.



# 6.21 Issue "Non-standard structure type "Story" is neither mapped to a standard structure type nor to another non-standard structure type"

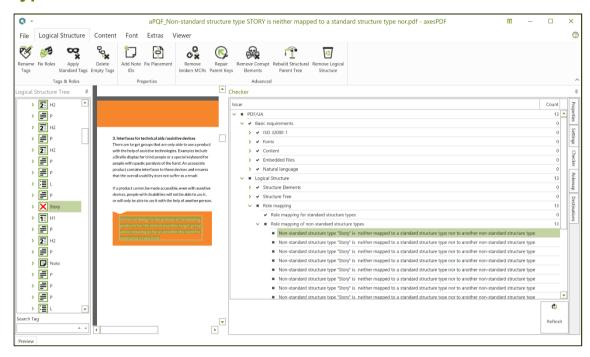


Figure 60: Issue "Non-standard structure type "Story" is neither mapped to a standard structure type nor to another non-standard structure type"

#### What is the issue?

PDF/UA > Logical Structure > Role mapping > Role mapping of non-standard structure types > Non-standard structure type "Story" is neither mapped to a standard structure type nor to another non-standard structure type

#### What does it mean?

Every non-standard structure type has to be mapped to standard structure type. This mapping is missing in your document.

#### How to fix it?

Go to the **Logical Structure** tab in axesPDF® and click on the **Fix Roles** button. Map every non-standard structure type to a standard structure type.

Example: For the non-standard structure type "Story" the correct standard type is "Sect".



## 6.22 Issue "Numbered heading skips one or more heading levels"

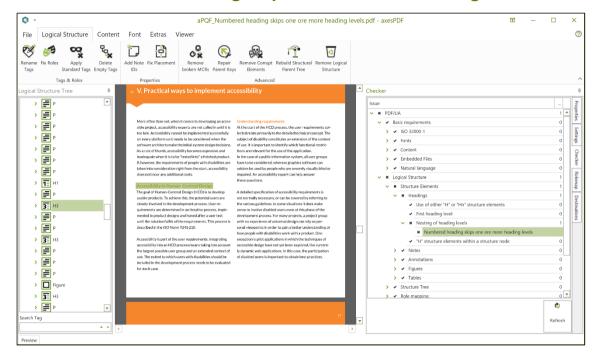


Figure 61: Issue "Numbered heading skips one or more heading levels"

#### What is the issue?

PDF/UA > Logical Structure > Structure Elements > Headings > Nesting of heading levels > Numbered heading skips one or more heading levels

#### What does it mean?

The headings hierarchy in your document is formally not correct. One or more heading levels are missing.

#### How to fix it?

Double-click on the error so that the related heading and heading tag are highlighted. Change the name of the tags by using the **Rename Tags** button or edit the tag names manually in the **Logical Structure Tree** task pane.



# 6.23 Issue "Path object not tagged"



Figure 62: Issue "Path object not tagged"

#### What is the issue?

PDF/UA > Basic Requirements > Content > Tagged content and artifact > Path object not tagged

#### What does it mean?

There are objects without tags in your document.

#### How to fix it?

- 1. Check if the not tagged object is relevant content.
- 2. If "yes" then tag it with a PDF tagger.
- 3. If "no" then artifact it e.g. with the **Artifact non-tagged content** tool in axesPDF®.



#### 6.24 Issue "Part structure element used as root element"



Figure 63: Issue "Part structure element used as root element"

#### What is the issue?

PDF/UA > Logical Structure > Structure Tree > Part structure element > Part structure element used as root element

#### What does it mean?

There are Part structure elements in your document that are not used semantically correctly.

#### How to fix it?

Double-click on the error in axesPDF®. The related tag will be highlighted in the **Logical Structure Tree** task pane. Rename it by clicking on the tag and overwrite its name with a semantically correct root tag name - for example "Document". Or create a new root tag "Document" in a PDF tag editor and nest all other tags in it.



# 6.25 Issue "PDF/UA identifier missing"

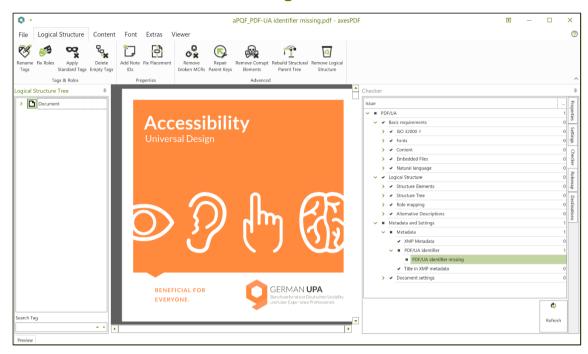


Figure 64: Issue "PDF/UA identifier missing"

#### What is the issue?

PDF/UA > Metadata and Settings > Metadata > PDF/UA identifier > PDF/UA identifier missing

#### What does it mean?

Your document is not marked as compliant with PDF/UA by the required XMP file.

#### How to fix it?

Use the Add PDF/UA identifier tool in axesPDF®.



## 6.26 Issue "Possibly inappropriate use of a Figure structure element"



Figure 65: Issue "Possibly inappropriate use of a Figure structure element"

#### What is the issue?

PDF/UA > Logical Structure > Structure Tree > Figure structure elements > Possibly inappropriate use of a figure structure element

#### What does it mean?

Some figures tags in your document are not used formally correctly. In most cases it is due to the placement attribute. Innately the Figure tag is an inline level element. If it is used as a block level element, the attribute "Placement: Block" is required. Otherwise, some assistive technologies are not able to present it correctly.

#### How to fix it?

Use the Fix Placement tool in der Logical Structure tab in axesPDF®.

# 6.27 Issue "Possibly inappropriate use of a Form structure element"

#### What is the issue?

PDF/UA > Logical Structure > Structure Tree > Form structure elements > Possibly inappropriate use of a Form structure element



Some Form tags in your document are not used formally correctly. In most cases it is due to the placement attribute. Innately the Form tag is an inline level element. If it is used as a block level element, the attribute "Placement: Block" is required. Otherwise, some assistive technologies are not able to present it correctly.

#### How to fix it?

Use the **Fix Placement** tool in der **Logical Structure** tab in axesPDF®.

# 6.28 Issue "Possibly inappropriate use of a Formula structure element"

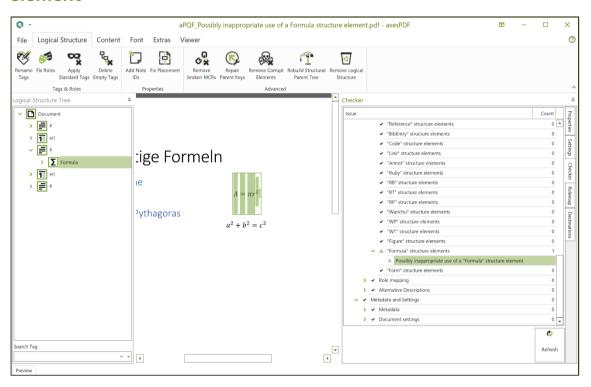


Figure 66: Issue "Possibly inappropriate use of a Formula structure element"

#### What is the issue?

PDF/UA > Logical Structure > Structure Tree > Formula structure elements > Possibly inappropriate use of a Formula structure element

#### What does it mean?

Some formula tags in your document are not used formally correctly. In most cases it is due to the placement attribute. Innately the formula tag is an inline level element. If it is used as a block level element, the attribute "Placement: Block" is required. Otherwise some assistive technologies are not able to present it correctly.



#### How to fix it?

Use the **Fix Placement** tool in der **Logical Structure** tab in axesPDF®.

### 6.29 Issue "Possibly inappropriate use of a Note structure element"

#### What is the issue?

PDF/UA > Logical Structure > Structure Tree > Note structure elements > Possibly inappropriate use of a Note structure element

#### What does it mean?

Some note tags in your document are not used formally correctly. In most cases it is due to the placement attribute. Innately the note tag is an inline level element. If it is used as a block level element, the attribute "Placement: Block" is required. Otherwise, some assistive technologies are not able to present it correctly.

#### How to fix it?

Use the **Fix Placement** tool in der **Logical Structure** tab in axesPDF®.

#### 6.30 Issue "Sect structure element used as root element"

#### What is the issue?

PDF/UA > Logical Structure > Structure Tree > Sect structure element > Sect structure element used as root element

#### What does it mean?

There are Section structure elements in your document that are not used semantically correctly.

#### How to fix it?

Double-click on the error in axesPDF®. The related tag will be highlighted in the **Logical Structure Tree** task pane. Rename it by clicking on the tag and overwrite its name with a semantically correct root tag name - for example "Document". Or create a new root tag "Document" in a PDF tag editor and nest all other tags in it.

# 6.31 Issue "Standard structure type '(0)' is remapped to '(1)'"

#### What is the issue?

PDF/UA > Logical Structure > Role mapping > Role mapping of standard structure types > Standard structure type '(0)' is remapped to '(1)'



There is a Standard structure type that is remapped to another structure type - according to PDF/UA this is not allowed.

#### How to fix it?

Go to the **Logical Structure** tab in axesPDF® and click on the **Fix Roles** button. Delete the mapping of the Standard structure type by clicking the cross.

### 6.32 Issue "Structure type 0 is mapped in a circular fashion"

#### What is the issue?

PDF/UA > Logical Structure > Role mapping > Role mapping of standard structure types > Structure type 0 is mapped in a circular fashion

#### What does it mean?

There is a Standard structure type that is remapped to the same standard structure type - according to PDF/UA this is not allowed.

#### How to fix it?

Go to the **Logical Structure** tab in axesPDF® and click on the **Fix Roles** button. Delete the mapping of the Standard structure type by clicking the cross.

# 6.33 Issue "Tab order entry in page with annotations not set to S"

#### What is the issue?

PDF/UA > Metadata and Settings > Document Settings > Tab order entry in page with annotations > Tab order entry in page with annotations not set to S

#### What does it mean?

The setting, that the tab order should orientate on the logical structure is missing, for one page, for several pages or for the whole document.

#### How to fix it?

Go to the Extras tab in axesPDF® and click on the Set Tab Order button.



## 6.34 Issue "Tagged content present inside an Artifact"

#### What is the issue?

PDF/UA > Basic requirements > Content > Artifacts and tagged content > Tagged content present inside an Artifact

#### What does it mean?

There is a marked content container with a MCID that is nested inside an artifact.

#### How to fix it?

There is no standard method. You need an exact diagnosis.

If the related element is marked content that is not referenced by the logical structure, you can remove the empty marked content container. You have to move the content out of the container before.

# 6.35 Issue "Text object not tagged"

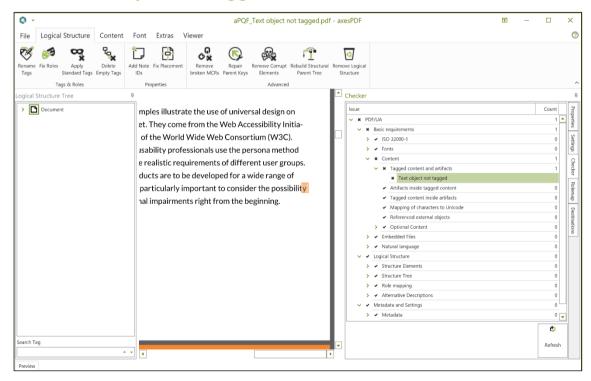


Figure 67: Issue "Text object not tagged"

#### What is the issue?

PDF/UA > Basic Requirements > Content > Tagged content and artifact > Text object not tagged



There are objects without tags in your document.

#### How to fix it?

- **1.** Check if the not tagged object is relevant content.
- 2. If "yes" then tag it with a PDF tagger.
- 3. If "no" then artifact it e.g., with the **Artifact non-tagged content** tool in axesPDF®.



# 7 Glossary

Assistive Technologies (AT)	All elements in a document, which have decorative character and/or are not relevant content.  Examples are background pictures, printer's imprints, page numbers or texts from headers and footers which appear repeatedly on several pages. Artifacts are not part of the logical structure tree and are not processed from assistive technologies.  Technical aids, which enable disabled persons to adapt digital contents according to their needs.  Examples are screenreaders for blind people or a
	Braille line.
Task pane	A task pane delivers a specific perspective on a document and provides options for analyzation and evaluation, often also options to change settings or for editing.  All task panes in axesPDF® are Dock Panels. There are the following task panes:  Logical Structure Tree  Properties  Settings  Checker  Rolemap  Destinations
Caption	A caption is a description text for a table or a figure and is positioned below or above the corresponding element. Captions are often numbered. In Word it is possible to create tables of content on the basis of these captions.
Data table	A grid or matrix used for presentation of data.
Definition list	Special form of a list with individual labels: the label can be a word or an abbreviation, the related list entry contains the corresponding explanation.
Dialogue box	Element of the user interface which appears after starting a function and requires interaction like input, confirmation etc. A typical dialogue box is the window for creating an accessible PDF document in axesWord®.
Dock Panel	A dock panel or panel is a kind of window which can be fastened and provides special views. Dock Panels can be moved freely or used as a separate window.



Glossary (see also definition list)	List of expressions with corresponding explanations.
context-sensitive	Display or function, which has a different appearance or is executed differently according to the specific context
Layout-Table	A table, which is used for layout purposes and not for the presentation of data.
linearized view	View of contents ordered in an unambiguous sequence
Link	Link between a source element (text or figure) and a destination element (foot-/endnote, reference, website, email address)
Logical document structure	All tags sequenced in a hierarchical structure build up the logical document structure. So, this structure does not necessarily correspond with the appearance of a document, but with the division in meaningful units and elements. Therefore, there is a logical information flow from one unit to another.
	The logical document structure is the basis for a machine-readable document. And so, it is also a precondition for an accessible document. A PDF-document, which has a logical structure, is called a "Tagged PDF".
Logical order	Logical order is the unambiguous linearized order of all content elements so that there is a logical information flow.
	The logical order results from the logical structure tree. It is independent from the positioning of an object on the respective page, even though logical order and visual positioning should be identical ideally – at least in documents with a simple layout.
	You can check the logical order by viewing the structure tree. The sequential arrangement of the tags determines the logical order. Simplified speaking, the logical order corresponds to the reading order (e.g. in case of assistive technologies).
Button	Interactive element, with which specific functions can be executed or tools can be started.



Table header	Heading of a data cell, column or row. A data cell is only understandable if you know the corresponding header cells. This can be column headings or row headings.
Tool group	You find tool groups within the ribbon tabs. Each group contains tools which belong thematically together (e.g. the tool group <b>Zoom</b> , which contains all tools to change the zoom settings).