

A Guide to Writing Word Documents for Distribution as PDFs

Introduction – Accessibility in Microsoft Applications

Many documents and files generated by researchers are created using Microsoft Word, PowerPoint, or Excel. Microsoft facilitates accessibility in several ways including their Accessibility Checker and controls to rework content. Follow the best practice guidance in this document, developed working with accessibility consultants [All Able](#), to ensure your document is accessible.

Microsoft Accessibility Checker

Microsoft's Accessibility Checker is built into Microsoft Word, PowerPoint, and Excel. It will continuously review your work and notify you of common accessibility issues. We recommend that the Accessibility Checker is always turned on, and that you actively review issues and warnings if you see a notification.

If the Accessibility Checker is on, you will be able to see an Accessibility button in the status bar at the bottom of your document. If not, you can turn it on by going to: Review, Check Accessibility. You can then select the option to 'Keep accessibility checker running while I work'. The checker can then be accessed at any time by clicking on the button in the status bar or in the Review tab.

The checker will identify accessibility issues and suggest fixes, whilst also providing warnings for possible issues that you can investigate.

Errors

Accessibility Checker will pick up the following issues:

1. **No alternative text** – all images and objects should have alternative text for assistive technologies to read. This should be sufficiently descriptive of the image. If the image is purely decorative, it can be marked as decorative within the issue fix options.
2. **Low contrast** – text should meet a contrast ratio of at least 4.5:1 against the background colour, whilst large text or objects should meet a ratio of at least 3:1. The suggested fix is to adapt the colours to increase contrast.
3. **Missing table header** – tables should have a header row specified to help the screen reader convey information about where the user is in the table and what the table is presenting. To do this, select the header row, and from the Table Design menu, tick Header Row.
4. **No slide headings** – each slide in PowerPoint should have a heading in place that is clear to the user.
5. **Poor alignment** – images and objects should be aligned to the left to ensure that screen readers can navigate the page.

Warnings

The checker will also provide warnings on issues that may require your judgement on whether or not a fix is necessary. These could include:

1. **Low contrast** – if the checker cannot be certain about contrast between two elements, such as when the background is an image containing multiple colours, it will flag as a warning. [TPGi's Colour Contrast Analyser](#) is a good way of manually checking this.
2. **Sheet tabs** – in Excel, each sheet should be given a meaningful name.
3. **Slide titles and order** – in PowerPoint, slides should be given unique, meaningful titles and be ordered logically.

Additional checks

The built-in Accessibility Checker is a good way to ensure that your documents have a good level of accessibility, but the tool will not pick up every accessibility issue.

Therefore, you will need to do your own checks to ensure your document meets the further requirements:

1. **Sensory characteristics** – ensure that your document does not rely on sensory abilities. An example is 'see the red text for more information'.
2. **Link purpose** – links should be clear and provide a clear description of where the link will take the reader when read out of context. Avoid text links such as 'Click Here' and 'Read More'.
3. **Alt text** – it is up to you to determine whether alternate text for images and objects is sufficient to describe the object, or whether it is a decorative object.
4. **Text in images** – your images should not contain text unless it is essential to what the image is conveying such as in diagrams or logos. If there is essential text in your image, make sure that an accessible alternative is in also place on the page. For example, the image has a short alt text description and is fully described in text on the page or in a long description tag.
5. **Headings** – use the headings option within the 'Styles' pane in the 'Home' tab. This structures them properly for accessibility and navigation.
6. **Videos** – ensure any embedded videos have captions or provide a text transcript. If a video conveys information that is visual, it should be described by the narrator in the video. If not, you will also require audio descriptions for the video.
7. **Audio** – ensure that any embedded audio has an associated text transcript and controls to play, stop and pause it.
8. **Bookmarks** – if your document is particularly long, use bookmarks to help the user navigate. For more information on how to do this, please see the [Microsoft tutorial on using bookmarks](#).
9. **Text justification** – do not justify text as it creates inconsistencies in how it is displayed that can affect users with disabilities (e.g., spaces between words are different sizes). Left align all text.

10. **Document titles** – if the file name is not clear, ensure the document title is set manually by going to: File, Info, Properties, Advanced Properties, Summary, Title. Ideally, you should use naming conventions for files that are clear and accessible.

For more information on making Office documents accessible, see [Microsoft Office's Accessibility Centre](#).

Note: The checker may say that it is not compatible with the file type of your document. If this happens, 'Save As' and create a new version of the document and select 'Ok' when it asks to convert the file to the latest file type.

PDFs

Many documents are converted to PDFs for publishing, particularly online. PDFs are fixed and non-editable by design, but this causes problems for users who require compatibility with assistive technologies. However, there are steps you can take to ensure that your PDFs are accessible.

If possible, please explore alternative formats to PDFs when publishing online such as HTML web pages or Word documents.

Converting from Office format

If you've created your document in Microsoft Office and would like to export it as an accessible PDF, firstly ensure that your document is accessible by following the steps in the Document section of this guide.

To create an accessible PDF, click: File, Export, Create PDF. Click on the 'Options...' button and ensure that the following options are selected:

1. Create bookmarks using headings.
2. Document structure tags for accessibility.
3. PDF/A compliant.

After choosing these options, click 'Publish' to create the accessible PDF.

PDF accessibility checks

Once you have created an accessible PDF, you should check that it is accessible before publishing. We recommend using Adobe Acrobat (Reader or Pro) for these tests; Microsoft Edge will let you test against most of the requirements as well.

1. **Title** – ensure that the PDF has an appropriate title.
2. **Reading** – using a screen reader, ensure that all parts of the PDF are distinguishable. Text should read as written; links should be clear in purpose.
3. **Bookmarks** – if the document is longer than a page, ensure that bookmarks are used and that they match the document structure.
4. **Contrast** – make sure that minimum contrast requirements are met for text (minimum 4.5:1) and non-text/large text (3:1).

5. **Sensory characteristics** – make sure that instructions do not rely on sensory characteristics such as colours.
6. **Images** – make sure that images have alt text and, where possible, do not have text embedded within the image.
7. **Tables** – make sure that tables have descriptions and headers.
8. **Logical order** – you should have assigned a ‘tag’ to each element of your document (e.g., title, body text); tab through your document to ensure that the content reads in a meaningful order.

There is also a built-in accessibility checker for PDFs in Adobe Acrobat Pro (see Adobe Acrobat Pro section of this guide).

Adobe Acrobat Pro

Acrobat Pro is another common way of creating PDFs, which has its own powerful accessibility checker to evaluate PDFs once they have been created.

For details on how to use Acrobat to evaluate and repair accessibility, see [WebAIM's guide to Acrobat and Accessibility](#).

For a breakdown of what the full accessibility check within Adobe Acrobat picks up and how to fix each issue within the program, see [Adobe's Accessibility User Guide](#).

Scanned documents

Scanned documents and PDFs are a significant accessibility challenge. Scanning creates an image of the content that assistive technologies cannot interpret – for example, text within this scan cannot be read by a screen reader or magnified. These documents still need to meet accessibility requirements, so you will need to perform additional steps to ensure they are accessible.

It is recommended that documents that will be published are not scanned or do not contain any scanned items. If the information can be collected in a digital way (for example, an online form), you should explore avenues to improve your processes.

If you must publish a scanned document (such as for a statutory process), there are ways to improve accessibility. Some software packages such as [Adobe Acrobat](#) contain optical character recognition (OCR) capabilities that can help convert non-text information into accessible text format. You could also include the scan in an otherwise accessible PDF, class the scan as an image and ensure there is an equivalent accessible alternative within the PDF (e.g., alt text).

Hand-drawn elements

Your PDFs and documents may contain hand-drawn elements such as drawings, signatures, and annotations. These are non-accessible by default but there are techniques to improve their accessibility.

You should determine if there is a way to digitalise or change the format of your hand-drawn elements. Example techniques include:

- adding your drawing to the document/PDF as an image, then providing a suitable accessible alternative such as a text description or alt text.
- using digital signature and annotation methods.

Further information

- Microsoft Office's Accessibility Centre. Microsoft 365 is committed to inclusive design and developing accessible products and content. On this page, you'll find resources and tools to make your content accessible for all to support the disability community as allies.
- Make things accessible. A repository for guidance material and useful resources for organisations looking to improve their digital accessibility.