

PDF Authoring for Web Accessibility

Creating PDF documents that are accessible to people with disabilities

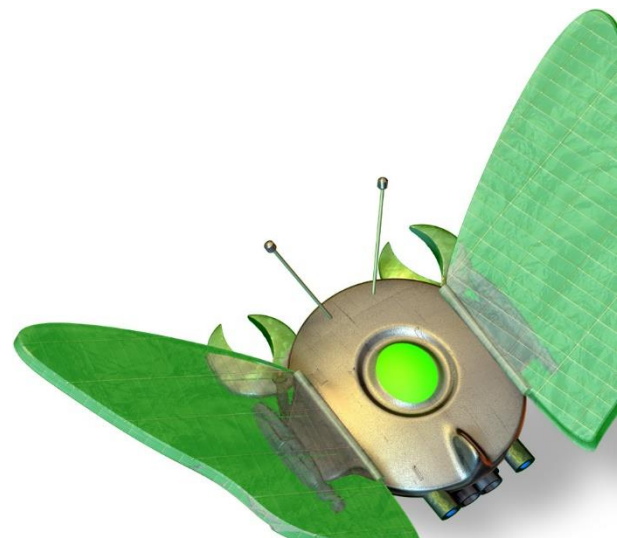
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Contact: Mandy Hall, Danielle Kennedy

DDSN Net Pty. Ltd.
ABN 67 165 575 039
Level 5, 111 Cecil Street, South Melbourne VIC 3205

W: www.ddsn.com
W: www.cm3cms.com
E: info@ddsn.com
P: +61 (3) 9533 8800





Contents

Introduction	3
Basic checklist.....	3
Create Your Word document.....	4
Check Your PDF in Adobe Acrobat	6
For Reference: Markup	10
For Reference: Breaking Down the Sections of Your Document	11
About DDSN Interactive	12
Contact Details.....	12
Key Services.....	12
Technical Capabilities.....	12



Introduction

A lot of companies use a specific Word template which often includes default info in the Properties. This is then exported when the PDF is created and becomes a problem on the website, because all the PDFs on the website have the same markup information. This penalizes your site in Google, as well as making it very hard for a person with disabilities to identify the PDF.

The reason tagging and structure are important is because they make navigation easier, organize information, and make things easier/quicker to find.

If you don't have a vision impairment, imagine that the only way you can sort through a 40 page document is by reading it from start to finish.

Creating structure through tagging and optimisation will organize information so that you can skip to a pertinent section of the document without having to read through 25 pages to get to it.

If you do this as you are creating your document it will become second nature. Marking up a document doesn't have to be hard work if you are aware of it as you go along.

Basic checklist

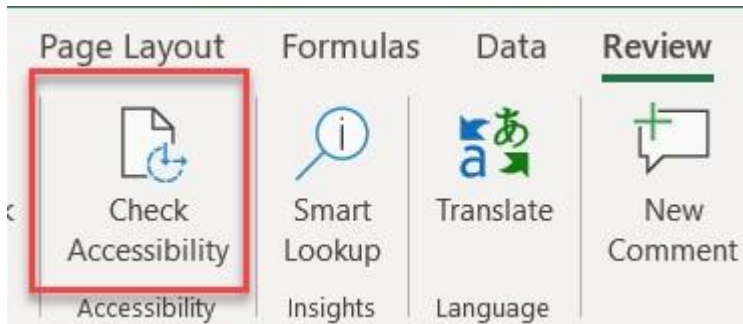
1. Use Microsoft Word to create your basic document
2. Structure your Word document correctly as you work using the built in Accessibility checker
3. In Acrobat revise your document with tags and clean up any problems
4. Save with a unique name



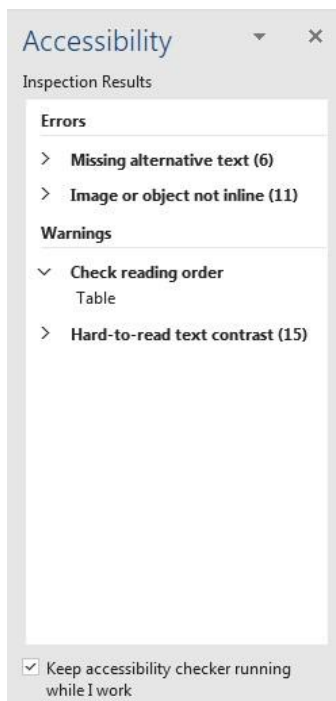
Create Your Word document

Microsoft Office now has a built in Accessibility Checker that you can use to make sure your content is easy for people of all abilities to read and edit.

From the menu at the top of the page go to Review > Check Accessibility



Clicking "Check Accessibility" will open the Accessibility pane to the right of the page. You'll see a list of errors, warnings, and tips with how-to-fix recommendations for each.



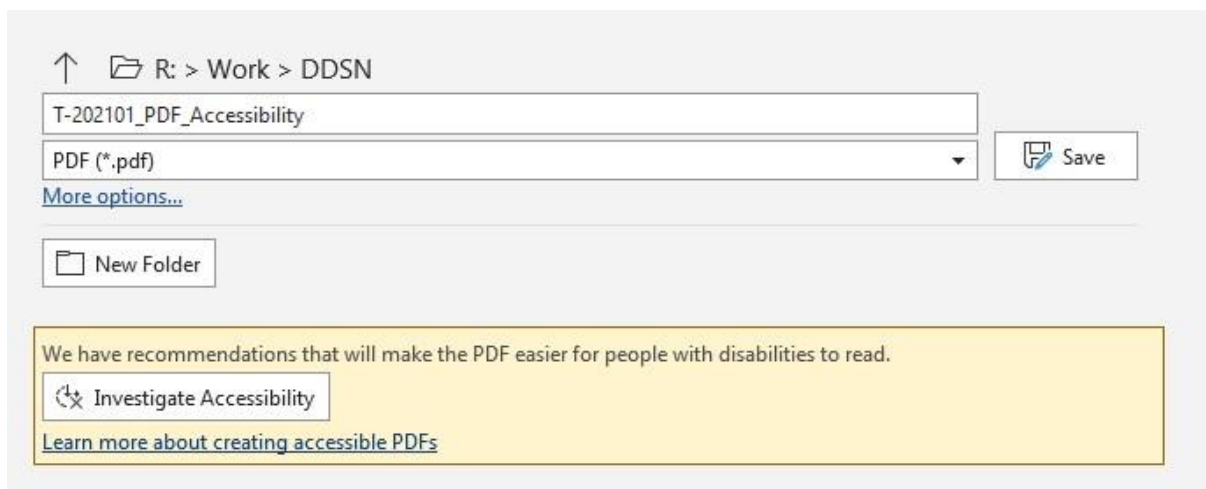
To be notified of accessibility issues in your document as you continue working on it, tick the "Keep accessibility checker running while I work" check box". This also adds the Accessibility button to your status bar at the bottom of the page, and keeps track of accessibility issues in real time, so it will keep running when the pane is closed. You can open the Accessibility Checker whenever you want by clicking on the status bar button.



When an error shows up you can click on it for more information. It will take you to the source of the problem and show you how to fix it.

Once the item is fixed it will disappear from the error menu.

When you save your document it will give you the option to do a final check of the accessibility of the document. If you have been updating it as you go this should bring up very few errors. Correct any that are outstanding.

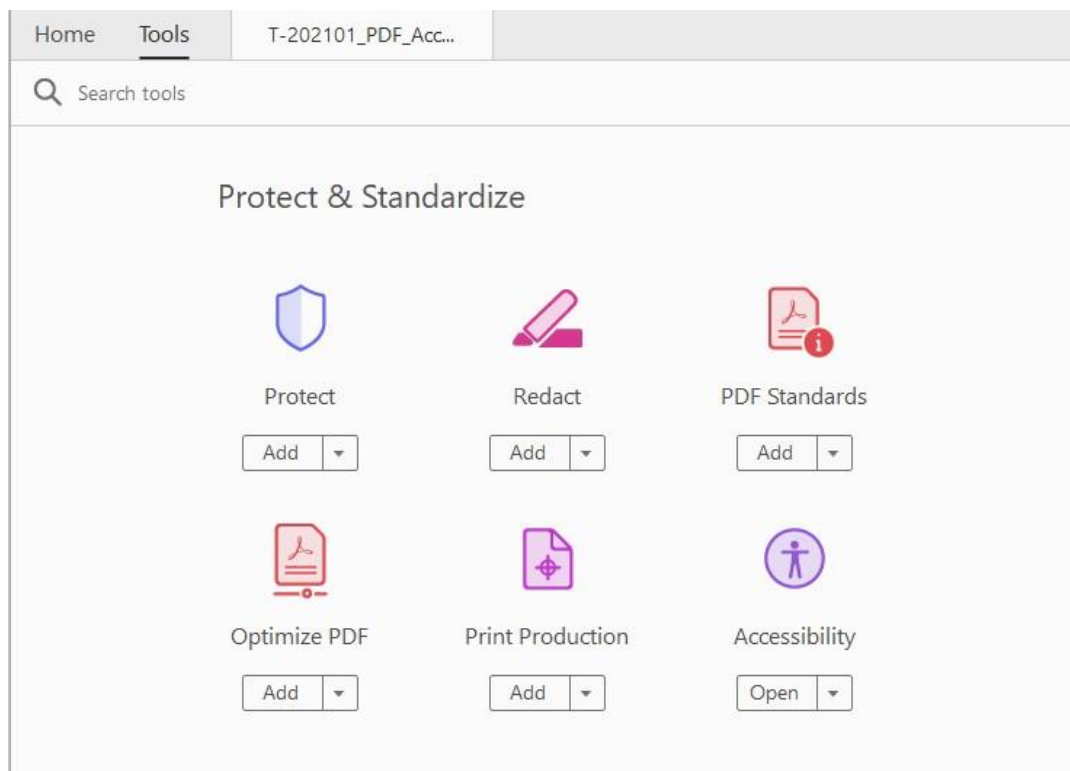


Save your document as a PDF (also keep a copy of the original Word document in case you need to make updates in the future). You can now open it in Acrobat and finish it off.

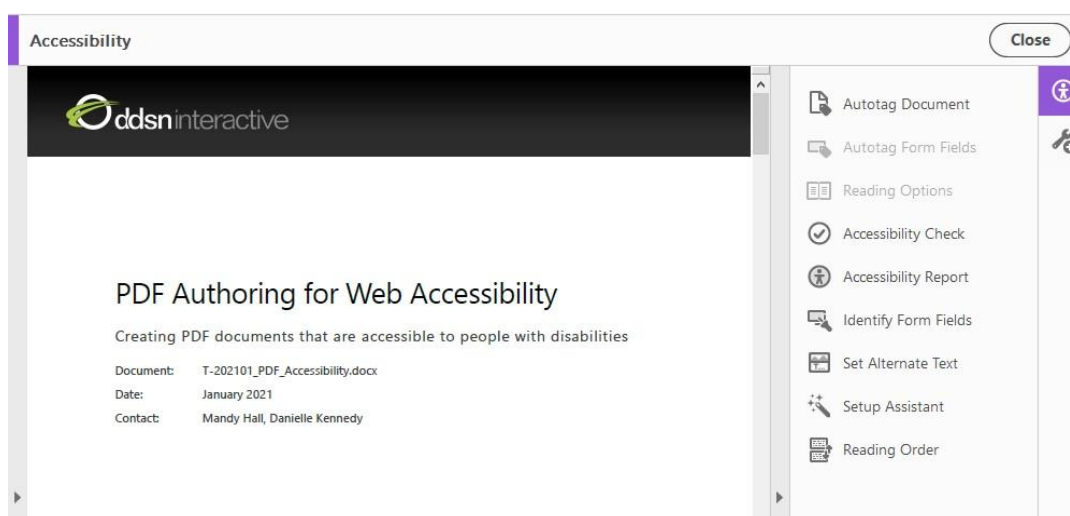


Check Your PDF in Adobe Acrobat

Open your document in Acrobat. Go to the Tools tab and choose Accessibility from the Protect & Standardise section.

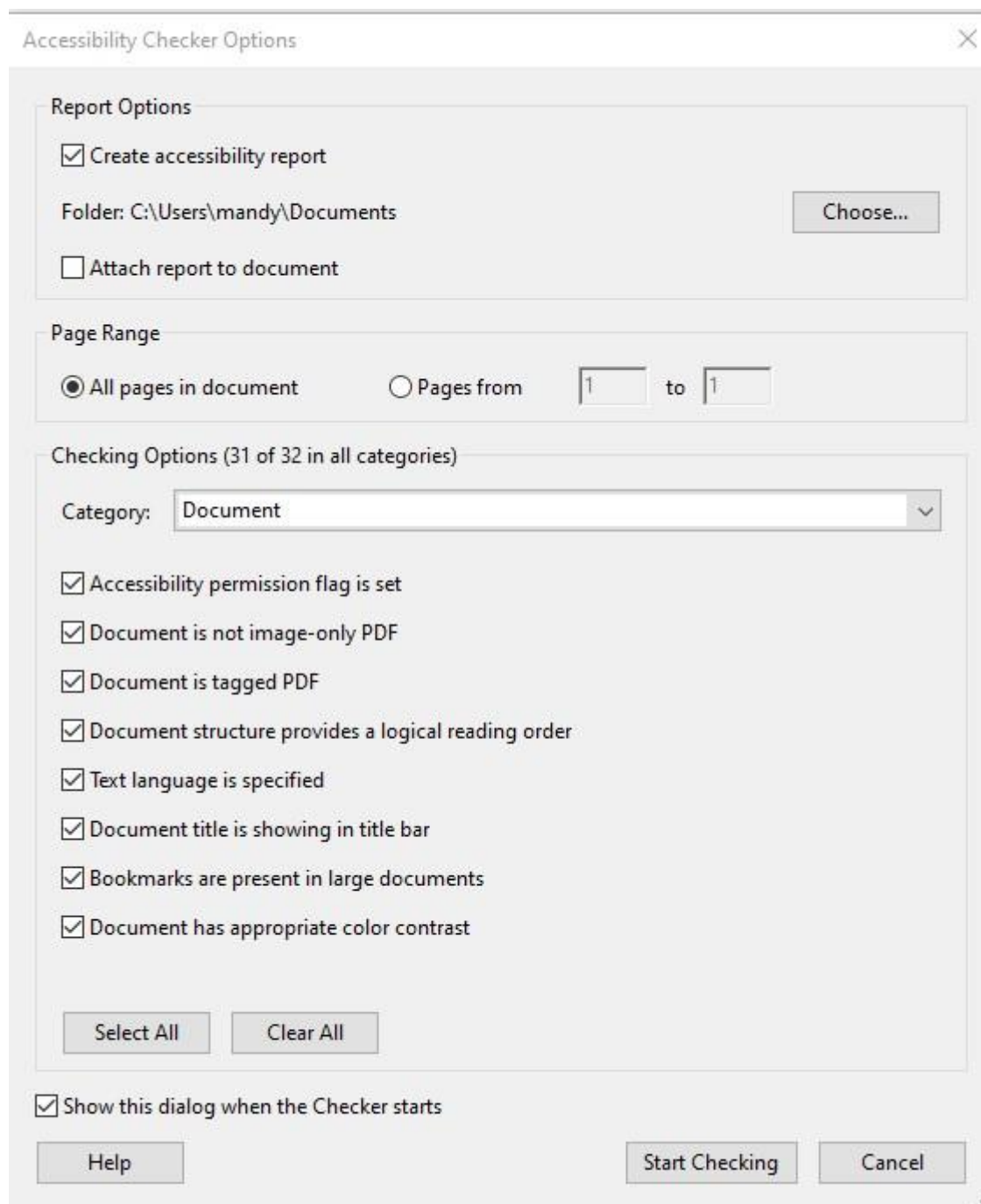


This will open the Accessibility tools pane



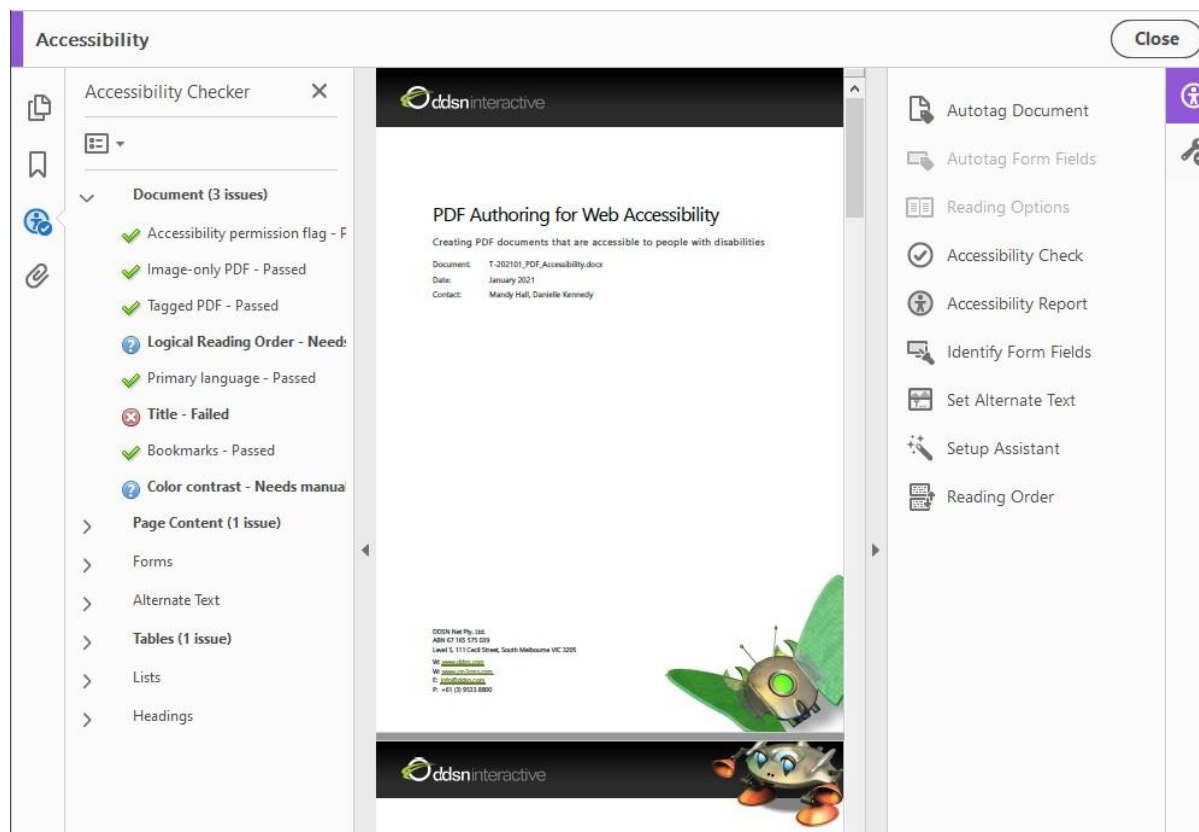


Click Accessibility check. This will bring up the Accessibility Checker Options

A screenshot of the "Accessibility Checker Options" dialog box. The dialog has a title bar with the text "Accessibility Checker Options" and a close button (X). The main content area is divided into three sections: "Report Options", "Page Range", and "Checking Options (31 of 32 in all categories)".
- "Report Options" section: Contains a checked checkbox "Create accessibility report", a text field "Folder: C:\Users\mandy\Documents" with a "Choose..." button to its right, and an unchecked checkbox "Attach report to document".
- "Page Range" section: Contains two radio buttons. The first is "All pages in document" (selected). The second is "Pages from" followed by two input fields containing the number "1" and the word "to".
- "Checking Options (31 of 32 in all categories)" section: Contains a "Category:" label and a dropdown menu showing "Document". Below this are eight checked checkboxes: "Accessibility permission flag is set", "Document is not image-only PDF", "Document is tagged PDF", "Document structure provides a logical reading order", "Text language is specified", "Document title is showing in title bar", "Bookmarks are present in large documents", and "Document has appropriate color contrast". At the bottom of this section are two buttons: "Select All" and "Clear All".
At the bottom of the dialog are three buttons: "Help", "Start Checking", and "Cancel". A checkbox "Show this dialog when the Checker starts" is checked and located above the "Help" button.

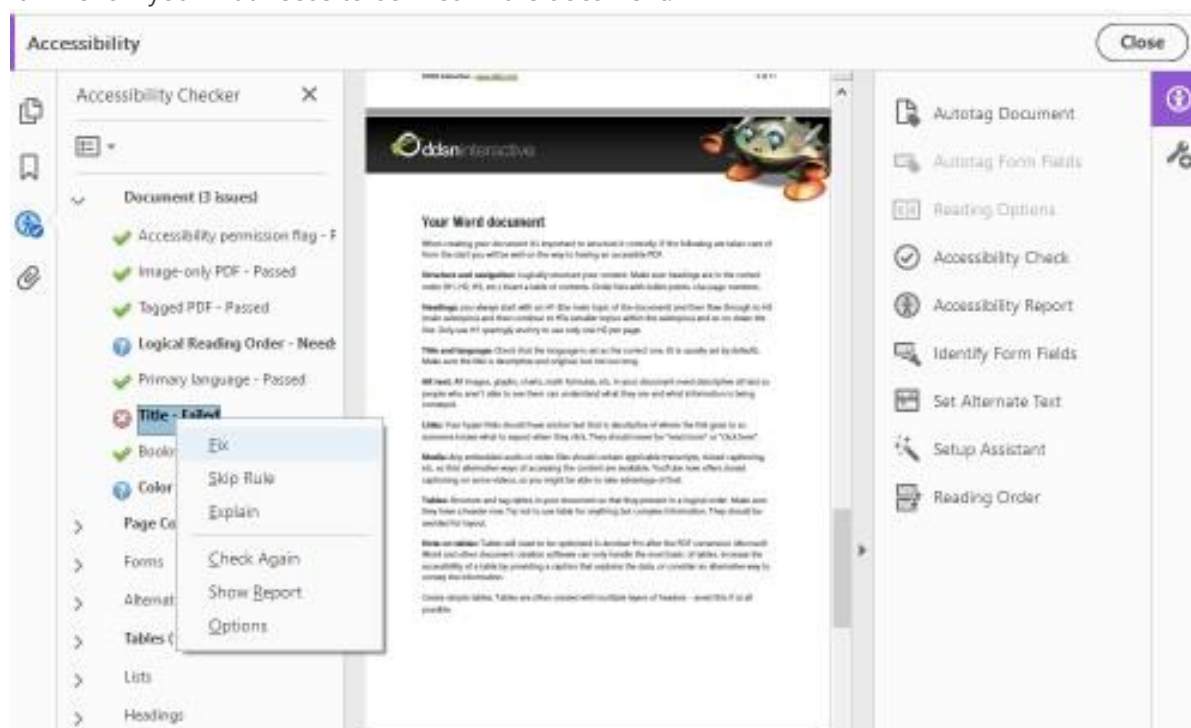


Select all options then click Start Checking.



The screenshot shows the Accessibility Checker window. On the left, under 'Document (3 issues)', the following items are listed: 'Accessibility permission flag - Passed', 'Image-only PDF - Passed', 'Tagged PDF - Passed', 'Logical Reading Order - Needs manual review', 'Primary language - Passed', 'Title - Failed', 'Bookmarks - Passed', and 'Color contrast - Needs manual review'. The 'Title - Failed' item is highlighted. In the center, a PDF document titled 'PDF Authoring for Web Accessibility' is displayed. On the right, a list of actions is available: 'Autotag Document', 'Autotag Form Fields', 'Reading Options', 'Accessibility Check', 'Accessibility Report', 'Identify Form Fields', 'Set Alternate Text', 'Setup Assistant', and 'Reading Order'.

It will show you what needs to be fixed in the document.



This screenshot shows the same Accessibility Checker window, but with a context menu open over the 'Title - Failed' issue. The menu options are: 'Fix', 'Skip Rule', 'Explain', 'Check Again', 'Show Report', and 'Options'. The 'Fix' option is highlighted. The document preview in the center shows the first page of the PDF, which has a title 'Your Word document' and some introductory text.

If an item can't be fixed within Acrobat, for example marking up a table, you will need to return to your Word document to fix the issue. (If you had been fixing the issues as you go this should not occur).

Once you have resolved all the issue in the Checker you can save your PDF and be confident that it is easy for people of all abilities to read and edit. You can now add it to the website.



For Reference: Markup

The most basic markup is to make sure that the document properties specify a unique Title, Company Name & Author. It's also advised to add Tags (keywords), and a Category.

Basic markup includes

- Document title
- Assigned language
- Implementing heading structure
- Correct tag usage and alignment
- Alt text
- Descriptive links
- Logical reading order
- No images of text
- Color contrast ratio
- Text zoom up to 200%
- Not using color alone to convey information

Advanced techniques include

- Adding bookmarks
- Merging separated cells
- Associating header cell IDs with data cells
- Ensuring all heading tags appropriately correspond to content



For Reference: Breaking Down the Sections of Your Document

When creating your document it's important to structure it correctly. If the following are taken care of from the start you will be well on the way to having an accessible PDF.

Structure and navigation: Logically structure your content. Make sure headings are in the correct order (H1, H2, H3, etc.) Insert a table of contents. Order lists with bullet points. Use page numbers.

Headings: you always start with an H1 (the main topic of the document) and then flow through to H2 (main subtopics) and then continue to H3s (smaller topics within the subtopics) and so on down the line. Only use H1 sparingly and try to use only one H2 per page.

Title and language: Check that the language is set as the correct one. (It is usually set by default). Make sure the title is descriptive and original, but not too long.

Alt text: All images, graphs, charts, math formulas, etc. in your document need descriptive alt text so people who aren't able to see them can understand what they are and what information is being conveyed.

Links: Your hyper links should have anchor text that is descriptive of where the link goes to so someone knows what to expect when they click. They should never be "read more" or "click here".

Media: Any embedded audio or video files should contain applicable transcripts, closed captioning, etc. so that alternative ways of accessing the content are available. YouTube now offers closed captioning on some videos, so you might be able to take advantage of that.

Tables: Structure and tag tables in your document so that they present in a logical order. Make sure they have a header row. Try not to use table for anything but complex information. They should be avoided for layout.

Note on tables: Tables will need to be optimized in Acrobat Pro after the PDF conversion. Microsoft Word and other document creation software can only handle the most basic of tables. Increase the accessibility of a table by providing a caption that explains the data, or consider an alternative way to convey the information.

Create simple tables. Tables are often created with multiple layers of headers - avoid this if at all possible.



About DDSN Interactive

DDSN Interactive is a best of the breed digital agency, specialising in the design and development of rich online user experiences for web and mobile since 1997.

Our key competitive advantages are quality, creativity, and a strong modularity in our process that allows us to work with both large and small customers. It is our creativity coupled with our focus on best practises that has earned major awards over the years.

As well as design and development services, we offer a range of technology products for developers – content management systems, hosting, e-commerce and custom software.

Contact Details

Website www.ddsn.com | www.cm3cms.com
Phone +61 3 9533 8800
Address Level 5, 111 Cecil Street, South Melbourne VIC 3205

Key Services

- Digital strategy
- Website design, intranets & extranets
- Mobile apps and responsive design
- User experience & information architecture
- Graphic & user interface design
- Content management strategy & technology
- Digital systems development – Web based software, integration, e-commerce, mobile
- Online brand development, marketing solutions. email campaign management
- Advanced web hosting – www.ddsn.net
- Maintenance and support
- Training

Technical Capabilities

- Responsive web and app design
- Accessibility – "AA" WCAG 2.0 standards
- Front end and back end
- Content management systems – cm3 Acora CMS, Kentico CMS, Wordpress, open source
- Mobile app frameworks – Ionic, PhoneGap, Xamarin + push messaging
- E-commerce – Order and payment systems
- Integration – APIs, CMS, CRM, ERP, more
- Advanced hosting and security
- Custom application design and development
- Continuous integration / agile development
- ASP.net and PHP
- HTML5, CSS3, Javascript