



# Fact sheet Accessibility Web tests

## E-Accessibility Solutions for Everyone

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Orange guidelines :  
<https://a11y-guidelines.orange.com/en/>

## Testing methods and tools

Two types of tests can be performed on a page:

- **Technical tests**, which mainly consist of inspecting the color code and contrast.
- **Functional tests**, operation of the page (screen readers, zoom, keyboard navigation, etc.).

## Technical testing

Most tests require manual control using:

- Browser Developer Tools (F12 key)
- Browser extensions: a11y.css, aXe, Wave, ANDI...
- Color Contrast Analyzer to measure color contrast level
- The W3C HTML validator to validate the code of pages (<https://validator.w3.org/>)

Here are some examples of technical tests:

### Define a title for each page

Each page should have a title introducing its content.

```
<title> Page title - website name </title>
```

### Using headings

Check the page structure and identify headings. Check that heading tags are used (**<h1>** to **<h6>**).

```
<h1> Home - Orange </h1>
```

```
<h2> The news </h2>
```

### Indicate the main language of the page

Check the presence of the **lang** attribute.

```
<html lang="en">
```

### Respect HTML semantics

Check that HTML elements are used correctly and have start and end tags.

### Provide text alternative for images

Check that all images have an **alt** attribute.

For informative images:

```

```

For decorative images:

```

```

## Functional tests

These accessibility tests are performed manually.

- Check keyboard navigation (focus order, focus visibility, etc.).
- Check character enlargement, layout (browser zoom, responsive design...).
- Check navigation using a screen reader like JAWS or NVDA.

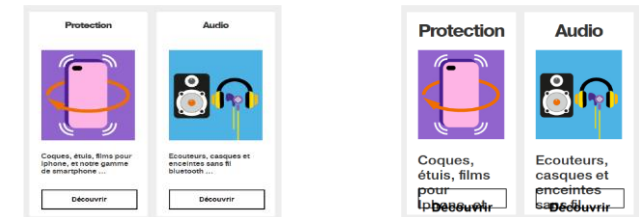
## Layout

### Test the zoom function and the responsive design

To check that the layout is suitable for the user, for example in Firefox:

- Go to View>Zoom>Zoom text only
- Increase zoom level up to 200%

Check the page layout, there must be no loss of information, or unusable features.



## Keyboard navigation

### Check the keyboard navigation

- All functionality available with the mouse must also be available with the keyboard.
- The focus must be always visible.
- Focus should move in a logical and consistent order without keyboard traps.

Main keys :

- TAB / Shift + TAB : move the focus (forward/backward).
- Enter: activate the focused element (link, button...)
- Space bar: check/uncheck a checkbox.
- Directional arrows : to modify the selection of the radio buttons, to move in a drop-down list, or to scroll through the scrollbar when they are present).

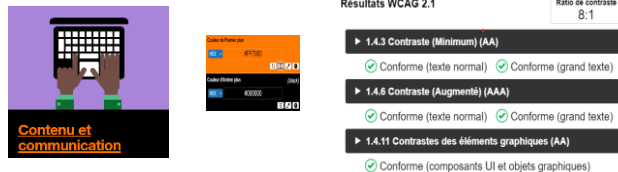
## Colors and contrasts

### Check color contrast

Check Text and Background for Sufficient Color Contrast.

To do this, you can use **Colour Contrast Analyser** tool:

<https://www.tpgi.com/color-contrast-checker/>



- Choose the text color using the eyedropper
- Then choose the background color
- The contrast level is displayed
- The tool indicates whether it is compliant

The contrast between the text and the background color must respect the following ratios:

- **4.5/1 min.**, for standard text, less than 24px.
- **3/1 min.**, for large text, greater than 24px (or 19px if bold).

### Don't just rely on color

Check that color is not used as the only visual means of conveying information.



The first example is invalid because only color is used to convey information.

The second is valid because information is also transmitted by the shape.

## Screen readers

### Screen readers navigation

A screen reader is text-to-speech software used by people with visual impairments to transcribe what is displayed on the screen. Here are some keyboard shortcuts for the main screen readers.

### NVDA shortcuts

For laptop users, the **INS** key can be replaced by the **Caps Lock** key.

- **Ctrl + Alt + N** to start NVDA.
- **INS + Q** to quit NVDA
- **INS + N** to access the NVDA menu and activate the speech viewer, among other things.
- **Up** and **down** keys to go to the next or the prior line.
- **Ctrl + Home** to return to the top of the page.
- **Ctrl + End** to move to the bottom of the page.
- **INS + F7** to display the heading list, link list, buttons...
- **Ctrl** to mute NVDA.
- **H** and **Shift + H** to go to the next or previous heading.

### Jaws shortcuts

- **Up** and **down** keys to go to the next or the prior line
- **INS + F5** to display form field list
- **INS + F6** to display heading list.
- **INS + F7** to display the link list.
- **Spacebar** to check/uncheck a checkbox.
- **Ctrl** to mute JAWS.

### Voiceover shortcuts

- **Ctrl + Option + right arrow** to read the page forward or **Ctrl + Option + left arrow** to go back.
- **Ctrl + Option + U** to access the heading list, links, form fields...
- **Ctrl** to mute VoiceOver.

## Toolbox

### Screen readers

- On Windows : **NVDA** (<https://www.nvaccess.org/>) and **Jaws** (<https://www.freedomscientific.com>)
- On MacOS and IOS: **VoiceOver**
- On Android, **TalkBack**

### Colour contrast Analyser

Nice tool to check contrast level.

<https://www.tpgi.com/color-contrast-checker/>

### Axe Dev Tools

Extensions available for Chrome and Firefox to perform automatic accessibility tests.

<http://bit.ly/aXe-Firefox> et <http://bit.ly/aXe-Chrome>

### Wave

To perform automatic accessibility tests:

<https://wave.webaim.org/extension/>

### Andi

A well done bookmarklet:

<https://www.ssa.gov/accessibility/andi/help/install.html>

### a11y.css

Extension to check focus, text alternatives, language, text spacing, etc.:

<https://ffoodd.github.io/a11y.css/>

### WCAG Criteria List for Testing

A Checklist for WCAG criteria:

<https://a11y-guidelines.orange.com/fr/web/tester/>

### La Va11ydette

The Orange tool to help you check that your site meets accessibility criteria.

<https://la-va11ydette.orange.com/?lang=en>

### Orange Digital Accessibility

Guidelines, tools and good practices on accessibility, offered by EASE.

<https://a11y-guidelines.orange.com/en/>