Screen Reader - Font Size and High Contrast

VERSION 3.27

Introduction

Screen Reader with FontSize and HighContrast for Joomla! is an advanced and lightweight Joomla! extension plugin that will add an accessibility feature for reading content to all users with accessibility issues, thanks to its screen reader and font sizing features.
Everything is completely integrated in your Joomla! site! No additional resources are needed for you or for users, simply install the plugin and you are done!

Screen Reader will show in the frontend as a small toolbar that you can position at the top or at the bottom of the page. It supports multiple read mode with override, you can click on 'Play' button or use one single access key to start reading the main content of your pages!
Moreover if you select a specific text part on pages Screen Reader will read only the selected text with a priority algorithm. This ensures that users who need to use access keys can read the entire contents of your pages in a single keystroke. Thanks to a CSS3 selector parameter the main content area of pages can be adjusted to work on every Joomla! template.
Additional controls are provided like: pausing and resuming reading, stop / playback and volume adjustment.
In addition it's also possible to choose reading the text from images on the site, using the 'alt' or 'title' attribute of images.

Full support for access keys is available, so that users can control reading using keyboard following WCAG specification. Screen Reader is based on an advanced algorithm for the generation of voice, so that users will be able to listen to a natural sounding voice with interpretation of punctuaction.

Moreover Screen Reader supports a many languages: Arabic, Dutch, English, Greek, German, Italian, Polish, Portuguese, Russian, Japanese, Spanish and more! Up to 51 languages are supported (Hebrew is not supported)

It's fully integrated with Joomla! native multilingual system and optionally with GTranslate, so when users change or select desired language using Joomfish, the native Joomla! Multilanguage system or Gtranslate(requires the GTranslate parameter for integration enabled), also Screen Reader will be affected automatically choosing the appropriate language for reading!

It's shipped with 2 predefined templates and is easy customizable using CSS and custom icons.

Once installed the plugin, it can be enabled in the Joomla! list of installed plugins and the toolbar of the Screen Reader will be visible in the site frontend.

Configuration

The Screen Reader can be configured to match text rendered in whatever Joomla! Template you are using on your site. This is done using a system based on CSS selectors to match elements on pages. The Screen Reader can read selected portion of text if any or fallback on the main page text.

By default once installed, it's preconfigured to match the main text area for common Joomla! templates, if you experiment reading of wrong sections in your site the following setting needs to be customized.

Multiple CSS selectors can be specified comma separated to match multiple different elements and part of pages. This allows for example to configure it to read the main menu of the site and the text in the main area of the page.

Tip: you can use tool such as Firebug or Google Chrome Dev Tools pressing F12 to inspect the HTML structure of your Joomla! Template.

Notice: if you experiment no audio when clicking on the play button of the Screen Reader, ensure that direct access to this file is allowed on your server:

http://www.yourdomain.com/plugins/system/screenreader/screenreader/libraries/tts/proxy.php

Notice: if you experiment audio stopping at random point, try to change the 'Max chunk length' value and ensure that in the HTML there are no special characters or breaking tags that could not be accepted for the reading.

In some cases, some server settings, Joomla extensions such as Akeeba Admin Tools or the htaccess may block on the server with a 403 Forbidden the access to this kind of files.

The same system is used to match the text on pages to be increased/decreased by the font sizer. You can specify one or more CSS selectors comma separated to select the target text based on the structure of the template HTML.

The Screen Reader ships with 2 audio engines, Virtual Speaker and Natural Readers.

Notice: enabling the Natural Readers engine only the following languages will be supported: English UK, English US, French, Spanish, German, Italian, Arabic.

The Screen Reader is integrated with Joomla multilanguage, this means that it will work based on Joomla frontend language chosen.

Of course the contents text must be the same of the language chosen, you can't mix languages.

The Screen Reader always assumes that the contents are written in the Joomla current language chosen in frontend. If you are using the Gtranslate module and you want to integrate the Screen Reader with the GTranslate multilanguage, don't forget to enable the configuration parameter of the Screen Reader to enable the Gtranslate integration.

Tip: if you have inline styles(e.g. using the Joomla editor) applied to elements that require a custom CSS selector for the font sizing, you may experiment inline styles loss due to the resizing override. In this case switch the parameter 'Font size selector mode' to 'Append' instead of 'Overwrite'

High contrast and additional configurations

The Screen Reader is able to support up to 3 different high contrast modes., the default one and 2 alternate variations. They will be available in the frontend toolbar as 3 different buttons. You can also set a range for the minimum and maximun value used to increase or decrease font size.

Tip: Internet Explorer doesn't support alternate high contrast variations

You can switch it to another reading service if needed using the parameter below. When choosing the 'Natural readers' the languages supported are 'English UK, English US, Spanish, German, French, Italian, Arabic'

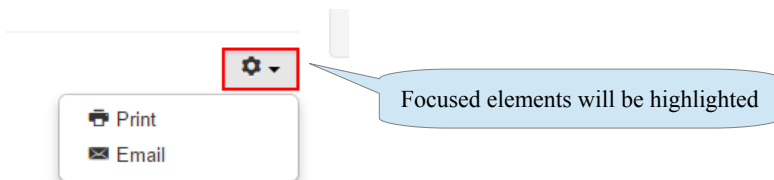# Accessibility improvements

In the accessibility improvements settings you can find useful options to enhance accessibility of your website.

- 'Skip to contents' button. If enabled the button will be showed in the frontend toolbar and when clicked the page will scroll directly to the target element of the page based on the CSS selector parameter

The 'Skip to contents' button
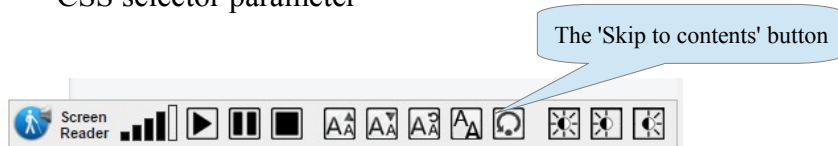
- The focus outline let you specify a border color and size used when elements in the page receive focus to improve readibility

Focused elements will be highlighted

- The 'Remove links target attribute' option will act based on WCAG requirements to fix anchor tags having the target attribute set as '_blank'. WCAG specs require that all links will open in the same page.

Accessibility improvements

Enable 'Skip to contents'   No   Yes

The 'Skip to contents' button will scroll the page to the matched target element

CSS selector for 'Skip to contents'   footer

Enable focus outline   No   Yes

The focus outline will surround focused elements with a border color

Focus outline color   #ff0000

Focus outline size   2px

Remove links target attribute   No   Yes

Fix anchor tags with target → _blank atttribute not compliant with WCAG

Frontend

The Screen Reader is rendered as a little toolbar in the frontend that can be positioned at a certain corner of the page.


The high contrast feature is based on an innovative and advanced HTML5 algorithm and it's capable to adapt automatically to every Joomla template and layout without any need of additional configurations.

This means that you have no more to deal with CSS classes to customized the high contrast view of your site, but the high contrast view will be calculated automatically as the inversion of colors on the page.
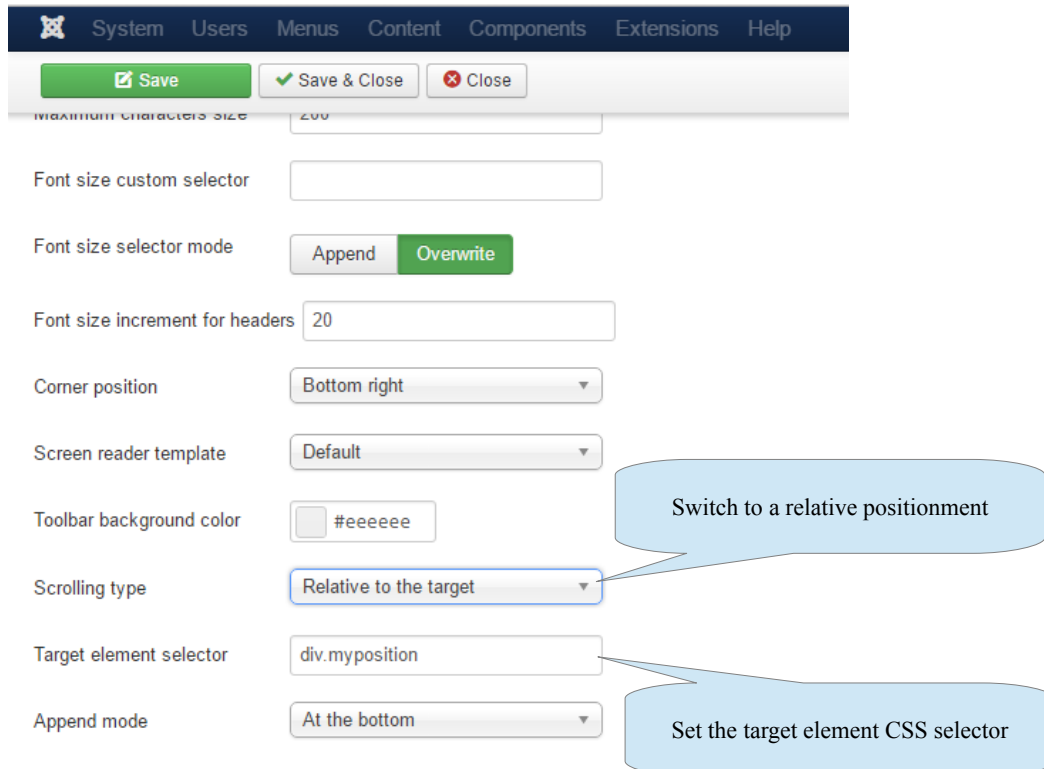

High contrast rendering on Chrome supporting also images high contrast.
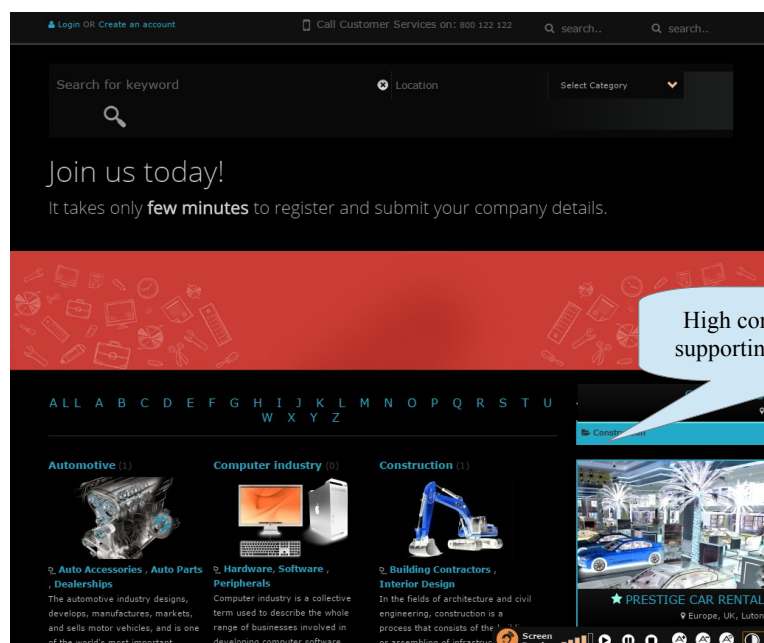
Custom position

The Screen Reader is rendered as a plugin and not as a module, so it's not possible to use a template position to show the toolbar in a specific position of your template.

However it uses css selectors to chose the target element to which the toolbar will be appended to, so you can take advantage of this system to show the toolbar in a specific location of your pages.

By default it's appended to the root html element using a fixed positionment, you can change the following settings to append the toolbar to a specific element using a relative positionment:
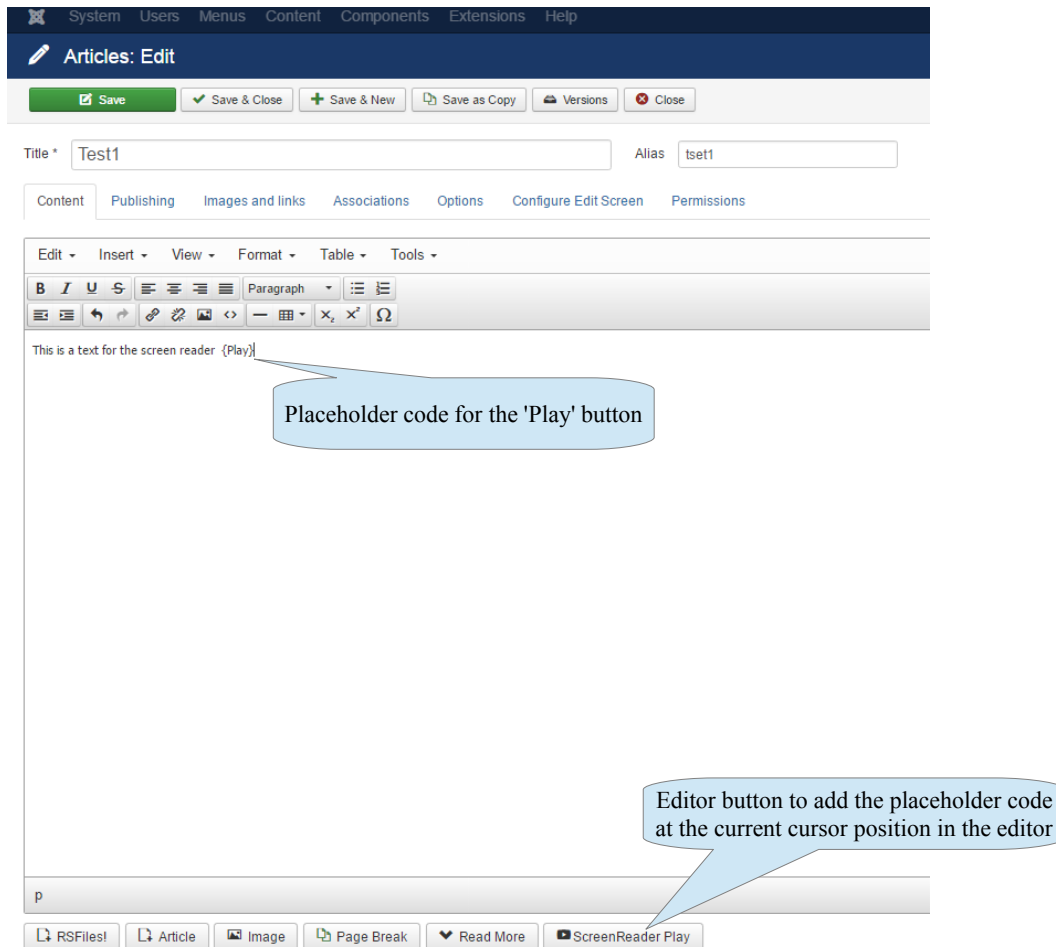
Embed 'Play' buttons

The Screen Reader supports a particular 'Play' mode based on buttons embedded directly inside your Joomla contents.

This can be easily done through the editor button visible in the screenshot below, clicking on it a specific HTML code will be added automatically at the current cursor position:

Once that the placeholder code is added into the contents, it will be automatically rendered in the frontend as a 'Play' button icon. When clicked, the Screenreader will read the text that is included in the direct parent element of the 'Play' button.
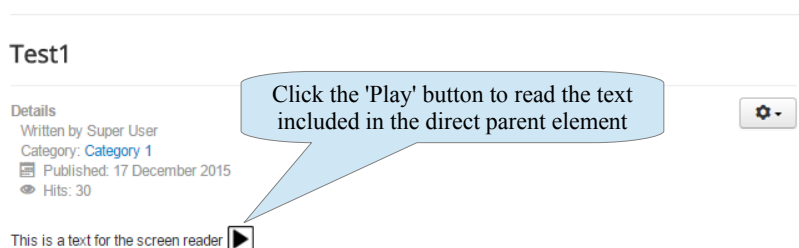
Take care to include the placeholder code inside the element for which you want to read the text. For example you can add it inside a paragraph element to read the paragraph text.

The editor button supports native Joomla contents and custom HTML modules, if you want to add the placeholder manually to other kind of contents you can add the following placeholder code wherever you want that a 'Play' button should be rendered:

* {Play}*

A typical structure looks like the following, so that the 'Play' button is inside the 'p' element and it will read the text in the parent 'p' element.

<p>This is a text for the screen reader {Play}</p>

Layout and features buttons

The Screen Reader supports 2 different layout variations, indeed the widget can be rendered as a:

1. Horizontal toolbar
2. Vertical sidebar

Layout for the horizontal toolbar

Layout for the vertical sidebar
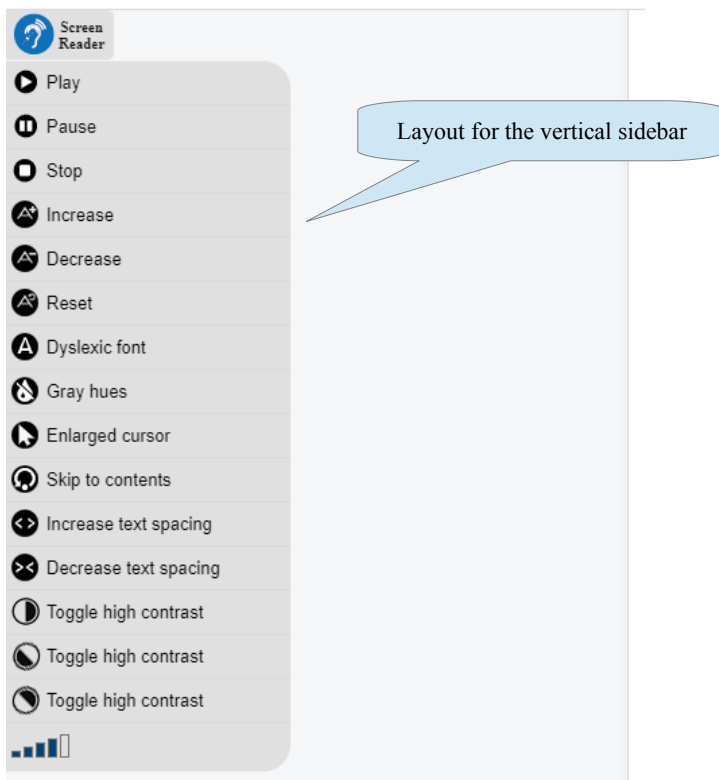
 For each layout it's possible to open/close the widget thanks to the feature 'Use minimized toolbar'.

Additionally you can add or remove various features and buttons that are optional:

- Audio reader
- Font size
- Dyslexic font
- Gray hues
- Enlarged cursor
- Skip to contents
- Text spacing
- High contrast