

# ReadSpeaker® webReader

ReadSpeaker webReader (webReader for short) speech enables the text content of websites so that visitors can listen to the text.

## Product Description

ReadSpeaker webReader displays a Listen button on the web pages of the customer's website. The customer decides on which web pages webReader should be implemented.



When a visitor to the customer's website ("user") clicks on the Listen button the Listen button expands to become a player and the content of the web page is read out loud.



webReader reads the content out loud whilst highlighting the sentence and the word currently being read in two different colors.

Using the buttons on the player, the user can stop the audio version of the content, replay from the top after stopping, pause the reading, restart the reading from where it was paused, forward or rewind to content further or earlier on the page using the skip buttons, adjust the volume and reading speed, and close the player (which stops the reading).

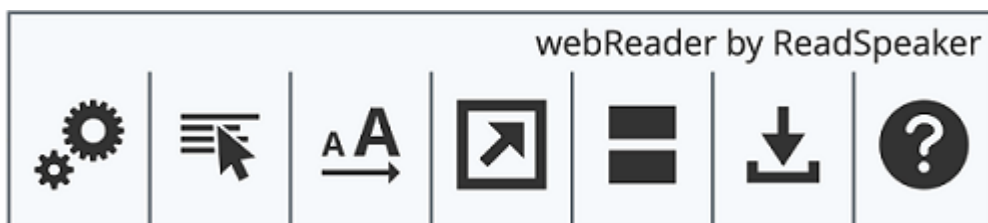
### Features for selected text

When text is selected, a pop-up menu appears with a Listen button and Translate and Dictionary buttons.

- Listen button - reads the selected text
- Translate - translates the selected text to the language the user selects from the list of available languages shown and allows the user to listen to the automated translation
- Dictionary - shows the dictionary entry for a selected word from an online dictionary for the language currently selected as reading language

### The webReader toolbar

The menu button (three horizontal lines) on the Listen button and the player can be used to expand or collapse a toolbar, which can show buttons for the following features:



- Settings - Allows the user to
  - turn highlighting off or on,
  - choose whether to highlight only words, only sentences, or both,
  - choose the colors used for highlighting words and sentences and for the text being highlighted,
  - determine whether the page should scroll automatically following

- the audio version,
  - and determine whether a pop-up menu with options for selected text will appear when text on the web page is selected.
  - for how long this pop-up menu for selected text will show
- Reading Language - shows a list of licensed languages/voices to choose from for reading content on the web page. This button is hidden by default and not shown in the above image of the toolbar; its icon is:

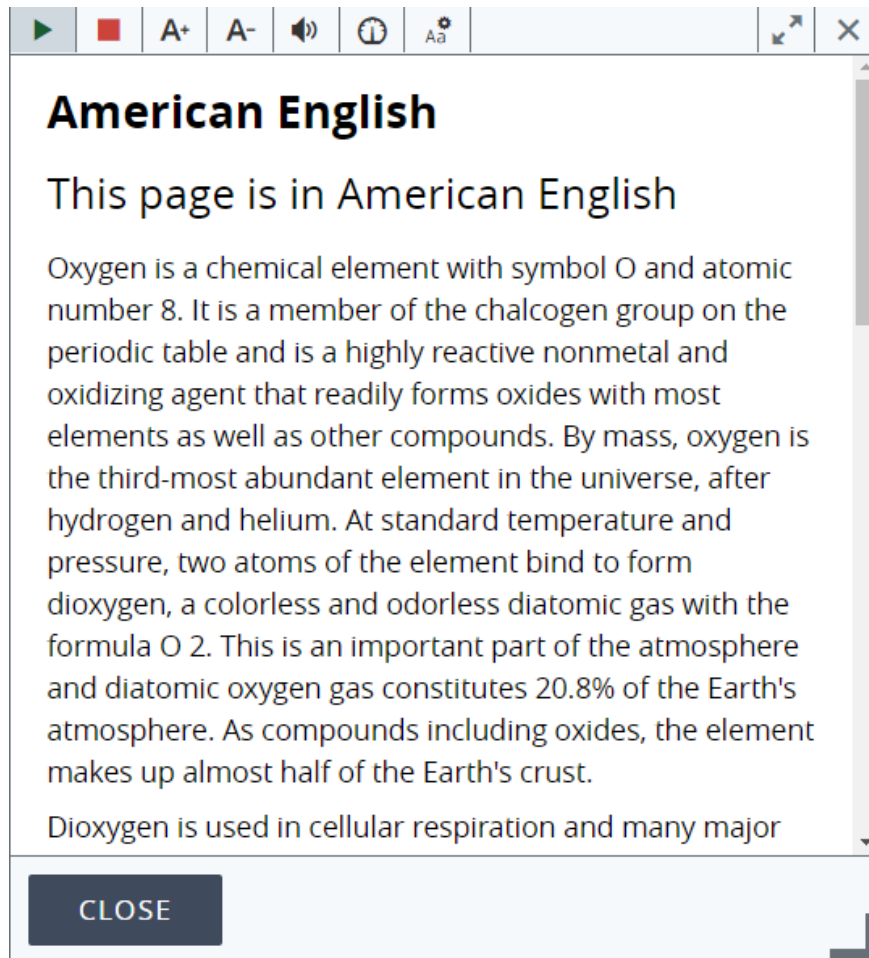


- Read on Hover - when activated, webReader starts reading a paragraph when you hover over it
- Enlarge Text - shows and highlights the text being read aloud in a large font in a box at the bottom of the screen
- Text Mode - shows a text oriented version of the content using the text settings (font, font size, and colors) of the user's choice (see below)
- Page Mask - opens a reading tool that brings out a horizontal bar on the screen by masking the rest of the screen above and below it. The user can move it down along with the reading for better focus.
- Download mp3 - download an mp3 file with an audio version of the content
- Help - provides clear instructions for all webReader features

### **Text settings for Text Mode and all pop-up windows**

Some of webReaders features, such as Text Mode, Help, Dictionary, and Translate, will open a pop-up window. All webReader pop-up windows show content using the text settings (font, font size, and colors) of the user's choice. These can be adjusted by the user from any pop-up window. Pop-up windows have a play button for listening to the content shown. You can play, pause, or stop the audio and adjust the text settings for pop-up windows as well as volume and reading speed, using the buttons shown at the top of each pop-up window.

There is also a button to maximize the window size for easier and undistracted reading.



The audio is generated by webReader using ReadSpeaker text-to-speech technology. The customer can purchase licenses for one or multiple languages and for one or multiple voices in each language.

webReader is a SAAS (Software As A Service) that can be made available to users by inserting a link to a JavaScript application and a section of HTML code on each web page that should be speech-enabled.

# Features

## Text to Speech

webReader can read text out loud using state-of-the-art text to speech (TTS). For images on web pages, webReader will read the title or alt text entered for the image. webReader can read in 50+ languages. For a complete list of available languages go to [our languages web page](#).

## Accessibility

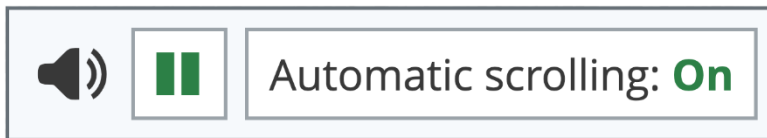
The Listen button, the player, and the toolbar, and therefore webReader's full functionality, are fully keyboard accessible. webReader can be activated, i.e. focus can be set on the Listen button with the access key "K" or on the player (whereby reading is started) with the access key "L". Many of the webReader tools and features also have a dedicated access key. Access keys are activated with modifier keys, which differ depending on the browser and the operating system used. Inside the player, i.e. when the user has set focus on the player, tab/shift+tab can be used to navigate and the enter key to activate a certain button or option.

webReader has a tool tip system so that when the user sets focus on a new button in the toolbar using the keys, the tool's name will be shown.

## Pop-up control panel with player

When a web page is opened, the Listen button, player, and toolbar, whether collapsed or expanded, will show in the top left corner of the web page or another default position determined by the customer. A different default position would be logical for right-to-left languages such as Hebrew for instance.

When the page scrolls down the Listen button, player, and toolbar will become invisible at some point. Provided webReader is reading, a pop-up control panel will appear at the bottom right of the screen.



The pop-up control panel includes a mini player to pause and restart the reading and a button to toggle the automatic scrolling of the page (on/off). This pop-up control panel will show when the webReader player is out of sight and/or when automatic scrolling is off. The customer can disable this feature.

## Synchronized highlighting

Words and sentences are simultaneously highlighted as they are read.

For some non-Western languages (like Japanese and Thai), only sentence highlighting is available.

The customer can choose a default for the website: highlight only words, only sentences, or both, or turn highlighting off. The user can personalize these settings provided the Settings button is enabled on the toolbar.

## Help - user support

The toolbar offers a help button. It opens a pop-up window with clear instructions for all webReader features.

## Colors for highlighting

A default combination of colors is provided for highlighting words (light blue) and sentences (light green), and the highlighted text (black).

The customer can choose other default colors for the website. The user can personalize these colors provided the Settings button is enabled on the toolbar.

Eight colors are available as background color for highlighting sentences and/or words. Underlining can be chosen as an alternative. 6 colors are available for the highlighted text.

## Customizable text settings

The text settings are the font, font size, and colors that will be used when showing content in text mode (see below) in pop-up windows. The default text settings are black text on white background in Open Sans font and normal font size.

The customer can choose other default text settings for the website. The user can personalize the text settings in every pop-up window, for instance the Text Mode pop-up window.

There are 12 color combinations available for the text and background, 6 font sizes, and 6 fonts. The choices were ergonomically determined. The user's settings are saved and applied for all content shown in pop-up windows, but can be changed again at any time.

## Reading Speed

The default reading speed (or speaking rate) is "normal". The customer can choose a different default reading speed for the website. The user can personalize the reading speed from very slow to very fast on a sliding scale using the Reading Speed button in the player, provided it is enabled. The reading speed can always be adjusted using the Reading Speed button in the top of any pop-up window.

## Reading selected text

If text is selected on the web page, only the selected text will be read out when the Listen button is clicked, rather than the entire content of the page.

## Pop-up menu for selected text

When text is selected a pop-up menu will show near the cursor with buttons for up to three features.



The user can enable and disable the pop-up menu for selected text and choose how long the pop-up menu will show, provided the Settings button is enabled on the toolbar.

## Listen button for reading selected text

The user can select text and click the Listen button from the pop-up menu that appears (or the main Listen button) to have the selected text read out. This allows for quick access to the reading function for selected text.

The customer can disable this feature.

## Read on Hover

Clicking the Read on Hover button on the toolbar enables or disables this feature. When enabled a green dot is shown on the button.

If the Read on Hover feature is activated in the toolbar, webReader will start reading a paragraph 3 seconds after the cursor points to it. This can help readers focus on the content they want to listen to. The customer can disable this feature.

## Automatic scrolling

Unless If automatic scrolling is deactivated in the user's settings, the page will scroll automatically so that the text being read will always be visible on screen. By default, automatic scrolling is on. The user can enable and disable the feature,



provided the customer has not disabled the Settings button on the toolbar and the pop-up control panel (see above).

## Enlarge text - for enhanced text visibility

Clicking the Enlarge Text button on the toolbar enables or disables this feature. When enabled a green dot is shown on the button.

When enabled this feature will show a box at the bottom of the screen where the text will be shown sentence by sentence in a large font as it is read out, also showing synchronized word highlighting. The user can change the font size for the enlarged text and stop, pause, and restart the reading from the Enlarged Text box. The customer can disable this feature.

## Text Mode - for easy reading

Web pages or selected text can be viewed in text mode in a separate pop-up window. When in text mode, a text oriented version of the content is shown using the font, font size, and colors determined by the user's text settings, which can be personalized from any pop-up window (see Customizable text settings above).

When in text mode, webReader highlights the text in the text mode pop-up window during reading. Reading is started and stopped or paused from buttons at the top of the text mode pop-up window. The customer can disable this feature.

## Page Mask

Page Mask is a tool for reading support. When the page mask is activated from the toolbar, one horizontal strip of the page will be bright, while the rest of the page will be shaded. The user can move the bright bar along with the text as it is being read, to help him focus on one or a few lines of text. The user can adjust the height of the bar using the plus and minus buttons on the right end of the bar. The customer can disable this feature.

## Downloadable audio file

The user can download an mp3 file with an audio version of the content of the current web page (or of the selected text) by clicking the download button in the toolbar. The user is asked to confirm that the audio file will be used for personal use only. The customer can predefine a string of characters for each web page to be used as the filename when the audio is downloaded.

The customer can disable this feature.

## Customer-defined reading area

For each web page, the customer can define which sections of the content should be read.

## Multiple languages - different languages for different pages

Available if the customer has purchased a license for more than one language. For each web page, the customer can define which language (and voice) should be used.

## Reading multiple languages - automatic language switch

Available if the customer has purchased a license for more than one language. webReader can automatically read different sections of a single web page in different languages, provided the text is correctly marked up for each target language with language tags according to the W3C standard. The automatic language switch does not support all combinations of voices and languages.

## Reading multiple languages - manual language switch

This feature is off by default. The customer can choose to activate it if a license for more than one language/voice was purchased. When activated, the user can select text on the page and use the Reading Language feature on the toolbar to determine in which language/with which voice the text must be read. This is only practical when there are multiple languages on the same page or when there are multiple licensed voices for the same language, e.g. a male and a female voice. NB: if the user selects text and asks for it to be read in a language that does not match the text, the reading will not sound correct.

## Translation

The user can select text on the page (if in a language supported for translation), click the Translate button from the pop-up menu that appears, and select a language to translate into from the languages shown. The translation is shown in a pop-up window. This feature is supported only for some languages. For a complete and up-to-date list of languages supported for translation, go to [our languages web page](#). The customer can disable this feature.

## Dictionary

Dictionary is a tool for reading support. The user can select a word and click the Dictionary button from the pop-up menu that appears. webReader will show the dictionary entry for the selected word from an online dictionary for the language currently selected as reading language in a pop-up window.

This feature is supported only for some languages. See the requirements and limitations section below. For a complete and up-to-date list of languages supported for Dictionary, go to [our languages web page](#). The customer can disable this feature.

## Progress bar

When webReader is reading, the progress bar at the top of the player will show the progress of the reading in relation to the total text to be read, coloring orange from left to right as the text is read.

## Multiple user interface languages

Several user interface (UI) languages are supported. The UI language can be determined per web page if the customer has purchased a license for more than one language. Only one UI language can be used per web page. The user cannot modify the UI language. For a complete and up-to-date list of languages supported as UI language for webReader go to [our languages web page](#).

## Pronunciation dictionaries

webReader can be customized to pronounce words or sequences of words in a specific way to increase the quality of the reading. The linguists at ReadSpeaker can correct mispronunciations in the general dictionary for the language used upon request. If a different pronunciation is website specific, it will be edited in the customer dictionary for that language.

## Access to online statistics

The customer has access to ReadSpeaker's customer portal, which provides detailed customer specific information about the usage of webReader, including how often web pages have been listened to, and when.

## Online access to FAQ, instructions, and troubleshooting

All information about the customer's account, including user and implementation instructions for webReader, answers to frequently asked questions, and other documentation, is made available to the customer through the customer portal.

# Technical Specifications

## Device independent

webReader is a device-independent and cross-platform solution. It should work with:

- all commonly used online devices: pc, laptop, Chromebook, tablet, smartphone, and more
- all major operating systems: Windows, Chrome, Android, iOS, macOS, and more
- all major browsers:
  - for laptops and PCs: IE7+, Edge, Chrome, Firefox and Safari
  - for mobile devices: Safari and Chrome on iOS devices, Chrome on Android devices, Chrome and Edge on Windows Phone

## Fully server-based, no software downloads or installation

Neither the customer nor the users need to download or install any software for webReader to work on their computers and/or mobile devices. The customer does not need to host webReader since it is cloud-based and hosted by ReadSpeaker.

## Simple implementation

webReader consists of two sections of HTML code. The first, to be inserted in the <head> element of web pages that should display the webReader Listen button, contains a link to a JavaScript hosted by ReadSpeaker. The second, to be inserted in the <body> element of those web pages, ensures that the Listen button is actually shown and determines where it is shown, contains a link to start the application call when the Listen button is clicked, and defines which section(s) of

the content on the web page must be read. Clear implementation instructions are included and available to the customer through the customer portal.

Plugins for even simpler implementation into your system are available for a number of CMSs. Please refer to [our plugins web page](#).

## Implementation support

webReader includes implementation support by the ReadSpeaker support team, who will assist the customer in understanding and carrying out the implementation instructions provided by ReadSpeaker.

## Product hosting

webReader is hosted by ReadSpeaker in a high-security environment with a high level of redundancy and failover and with the following properties:

- double redundant enterprise load balancing and failover
- 100% Gigabit network (internally and to the Internet)
- IBM server hardware with virtualization engine
- redundant power supply
- highly scalable and high availability design
- environmentally friendly
- Storage Area Network (SAN) storage over Gigabit iScsi
- UPS and diesel engine power backup
- 24/7 video and audio surveillance
- Level 3 security
- Argonite-based automatic fire-fighting system
- automatic server monitoring every 3 seconds with alarm system
- automatic daily backup

## Customer hosting

If agreed between ReadSpeaker and the customer, the JavaScript can be hosted from the customer's own web server.

## Reads web pages over HTTPS

webReader can read web pages that are encrypted using SSL encryption.

## Reads static and dynamic text content

webReader can read any text content as long as it is presented using standard HTML technology regardless of how it is generated on the customer's web server.

## Streaming audio

The audio containing the speech is streamed to the user from the hosting server. This means that the audio will start to play before it has been fully generated. It also means the length of the audio output cannot be determined in advance.

## Audio caching system

Audio from web pages that have been listened to using webReader are stored on caching servers to maximize performance. If the content of the page has changed since the cached audio file was created, the audio file will be automatically updated.

## Cookie for user settings

The settings the user selects through the settings pop-up window are saved as a cookie, so that webReader will have the same settings for that user, when using the service again on the same device and in the same browser. The customer can also choose to allow session cookies only, that store the user settings while the user stays on the website, or disable cookies entirely.

## Graphical Design

The customer can change the appearance of the Listen button and player, including colors, font, skins, tool tips, and button combinations, using CSS and an inline JavaScript API. An extensive manual is available for making changes to the graphical design.

This feature is not supported by Internet Explorer 6. If this browser is used, the default Listen button and player will be shown.

## Configuration settings

Using a configuration JavaScript API, the customer can modify a number of settings that turn off or change some of the features. Some examples of customer modifiable settings are:

- Which buttons to activate/deactivate on the toolbar, in the player and in the pop-up menu for selected text
- How long the settings cookie should survive on the user's computer
- Default reading speed
- How long the pop-up menu is shown by default when text is selected (or turn the feature off)
- Default for synchronous highlighting on/off
- Default for synchronous highlighting words only/sentences only/both
- Default for synchronous highlighting colors
- Labels that are used in the user interface, e.g. one could change the default "Play" to "Start audio"

An extensive manual is available for the configuration JavaScript API.

## Modifiable reading limit

webReader has a default reading limit of 20,000 characters, excluding spaces.

This limit can be modified on a per customer basis.



## JavaScript support

If the user's web browser does not support JavaScript, clicking the Listen button will open a new screen with a fully keyboard accessible audio player created with HTML elements (i.e. not the ReadSpeaker player), which can be used to play the audio version of the content of the web page or of the selected text.

## Support for Flash or HTML5

If the customer uses a browser that supports neither Flash nor HTML5, clicking the Listen button will create a file in MP3 format containing the audio version of the content of the web page or of the selected text. Depending on the browser, the user can then listen to the audio via a link to that audio file, or the file will be downloaded automatically and can be listened to by opening the file. In this case, synchronized highlighting is not supported.

## Translation

For translation, webReader uses translation software powered by Google Translate.

## Dictionary

For Dictionary, webReader uses different third party dictionaries. For the languages supported for this feature webReader uses different online dictionaries, e.g. the online Oxford dictionaries for English and Spanish and Wiktionary for the other supported languages.

# Product Components

## SAAS application

The core of webReader is the ReadSpeaker webReader SAAS (Software As A

Service) application, hosted by ReadSpeaker, and accessible to all users after successful implementation of the Javascript and HTML code on the customer's website.

## JavaScript and HTML code

webReader consists of two sections of HTML code, one of which contains a link to the SAAS application, to be inserted in web pages that should display the Listen button. The other section is the code for the Listen button itself. It should be inserted where the Listen button should appear on the web page and it must be modified to specify which areas of the page should be read.

## Implementation instructions

Clear implementation instructions and other documentation such as FAQ are included and available to the customer through the ReadSpeaker customer portal.

## Customer portal

The Customer receives a username and password to login to the ReadSpeaker customer portal. Here, the customer can access account information, statistical information about the use of webReader, implementation instructions, information on FAQs and how to contact support in case of questions or problems.

## Options

Options are features that can be added to webReader at a cost. Please contact your Account Manager for pricing information.

## Survey function

A built in survey function can let your users answer question(s). Survey results can be sent to the users. Surveys are built on request by ReadSpeaker at standard consultancy rate.

## Customer dictionary

From the customer portal the customer can edit a basic customer specific dictionary for each licensed language to change the pronunciation of words by respelling those words.

## Multiple voices per language

An add-on available for customers that have purchased licenses for multiple voices for a language. The customer can determine per web page which voice will be used.

## Custom Listen button, player and toolbar

A custom Listen button, player, and toolbar can be obtained by request.

## docReader add-on

Customers who purchase webReader can also have ReadSpeaker docReader integrated into their website, so that online documents can also be speech-enabled. Please refer to the product specification for ReadSpeaker docReader for further details.

## Requirements and Limitations

### Web pages

webReader can only be implemented on web pages where content is presented using standard HTML technology and placed in an HTML element with a uniquely identifiable id (or class) specified in the id (or class) attribute.

### Support for JavaScript and either HTML5 or Flash

The user must use a web browser with support for JavaScript as well as either HTML5 or Flash to be able to enjoy the full functionality provided by webReader.

### Reading multiple languages - automatic language switch

Switching language within a page does not work with all available voices, so if the customer wants to implement this feature, suitable voices must be chosen.

### Translation

This feature is supported only for some languages. For a complete and up-to-date list of languages supported for translation, go to [our languages web page](#). For translation, webReader uses translation software powered by Google Translate. Reasonable efforts are made to provide an accurate translation, however, no automated translation is perfect nor is it intended to replace human translators. Translations are provided as a service to the users, and are provided "as is." No warranty of any kind, either expressed or implied, is made as to the accuracy, reliability, or correctness.

## Dictionary

This feature is supported only for some languages. For a complete and up-to-date list of languages supported for Dictionary, go to [our languages web page](#).

Different dictionary databases are used for Dictionary. No dictionary tool is perfect nor is it intended to replace contextual definitions of words. Dictionary is provided as a service to users, and is provided "as is." No warranty of any kind, either expressed or implied, is made as to the accuracy, reliability, or correctness.

## webReader on mobile devices

The user interface on mobile devices with a touch screen is different from on laptops and computers. Here are the differences:

- Rather than clicking the Listen button, the user will of course tap the Listen button to start the reading.
- Rather than a player and a toolbar expanding separately from the Listen button, a combined toolbar and player will appear in the lower right corner of the screen.
- This combined toolbar and player can be collapsed and expanded by tapping the collapse/expand button.
- Not all features are available. Enlarged Text, Text Mode, Translate, Pop-up menu for selected text, and Help features are not available.
- The Reading Languages feature is found in the Settings pop-up window rather than on the combined toolbar and player.
- The Read on Hover feature is replaced by the similar Point and Listen feature. When the feature has been activated, the user can tap in a paragraph to start the reading of that paragraph.
- The player in the combined toolbar and player has fewer options. Not available are the skip buttons for forwarding and rewinding to content further or earlier on the page and volume control.

## Intended Use

Customers may only use webReader, which is a licensed service for text to speech, in accordance with this product specification. It may be used only to allow visitors to the website(s) agreed upon in the order confirmation to listen to the content of those websites, and only when the visitors activate the service with the Listen button generated and displayed by webReader.

Any other use of webReader is not considered intended use.

## Disclaimer

Features listed in this document are guaranteed only if webReader has been implemented according to our implementation instructions. Specifications and features as described in this product specification can be changed by the manufacturer without prior notice.