

Tips & tricks for creating lexicon entries by using orthographic or phonetic transcriptions:



voice reader
STUDIO 15

The Voice Reader Studio 15 language packages include comprehensive vocabularies and can convert texts easily into speech. In some cases however, it may be necessary to add individual words or expressions by yourself (e.g. proper names, unknown acronyms, abbreviations or foreign words). Similarly, you may want certain terms or characters to be ignored during playback (e.g. navigation elements in web documents). Voice Reader Studio 15 thus allows users to define individual entries in vocabularies and set instructions for their conversion into audio output.

1. 1. How to change the pronunciation of a word:

Voice Reader Studio 15 offers two ways to change the pronunciation of words:

1.1 Orthographic Transcription

In many cases, you can change the pronunciation of a word quickly and easily by rewriting it. For this, no linguistic skills are required; the word is just written in an alternative way that might be phonetically more accurate (How do I really say the word?), in order to achieve the expected pronunciation.

This method of orthographic transcription is particularly suitable to:

1.1.1 prevent acronyms/abbreviations to be spelled letter by letter:

SCSI	scuzzy	(instead of es-si-es-ai)
JPEG	jay peg	(instead of dzei-pi-i-dzi)
GUI	goo ey	(instead of dzi-ju-ai)

1.1.2 force spelling of acronyms/abbreviations letter by letter, by rewriting them accordingly:

ANA	a n a
SOS	s o s

1.1.3 control the pronunciation of compounds by separating the word parts:

underivable	un derivable
underpin	under pin

1.1.4 change the pronunciation of proper nouns/foreign words/special words by using an alternative spelling:

Ivica	Eyvitsa
Juncker	Yooncker

1.2. Phonetic Transcription

In addition to the orthographic transcription, the user has the option to create the phonetic transcription of a word or a phrase. If you have no experience with the phonetic alphabet, we recommend to first generate the transcription automatically and then to edit it. Users

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who have more experience can enter the phonetic transcription directly. Both approaches, with a little bit of joy of experimenting, will lead you to good results and you will acquire the necessary knowledge in a very short time. Here are a few tips and hints:

- Create a phonetic transcription for your word or phrase automatically, or put it together sound by sound (from the lists of vowels, consonants, diphthongs, affricates, depending on your language). For each sound, examples are given that will help you to make the right choice.
- Listen to the entire word or phrase that you have composed from single sounds.

If you are not satisfied with the word accent or with the pronunciation of single sounds in the word context, it is advisable to pay attention to the following phenomena when correcting the entries manually:

1.2.1 Vowels length and stress

- Is the vowel short or long?
 - hit = h**I**t (/I/ is short)
 - heat = h**i**t (/i/ is long)
- Is the vowel stressed or unstressed?

If the syllable is unstressed, it leads often to a vowel reduction, with the result that the unstressed vowel is reduced to schwa /ə/, or even deleted from the phonetic transcription:

 - enemy = 'E.n**ə**.mi
(the 2nd 'e' is unstressed and presented by a schwa /ə/)
 - allow = **ə**.'la&U ('a' is unstressed)

Optionally, for unstressed word/syllable endings **-le**, **-el** and **-al**, as well as **-on**, **-an** (i.e. in combinations *vowel + alveolar consonant*) use the alternative writing for schwa /ə/)

- | | |
|---|---|
| • local = 'lo&U.k ə) | [but, also possible: 'lo&U.k ə] |
| • table = 'te&I.bl ə) | [but, also possible: 'te&I.b ə] |
| • travel = 'tR+@.vl ə) | [but, also possible: 'tR+@.v ə] |
| • button = 'b [^] .tn ə) | [but, also possible: 'b [^] .t ə n] |
| • titan = 'ta&I.tn ə) | [but, also possible: 'ta&I.t ə n] |

1.2.2 What happens when two vowels come together?

- Is the first of the two vowels pronounced as a semivowel?

If two vowels come together and form only one syllable which is not stressed, the first of them may become a semivowel /j/:

 - onion = '^(.n**j**ʃn (,io' form only one syllable and is unstressed in the word)

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- Do the vowels form a diphthong?
If two vowels come together and form only one syllable which is stressed, they may be pronounced as a diphthong:
 - maus = 'maa&Us (,au` form only one syllable which is stressed)
 - foil = 'fO&I (,oi` form only one syllable which is stressed)
 - goal = 'go&U (,oa` form only one syllable which is stressed)
- Do we hear the glottal stop?
Sometimes we hear a crack sound /ʔ/, for example at the beginning of a word or syllable which starts with a vowel:
 - eat = 'ʔit
- Are the two adjacent vowels pronounced as only one?
In many cases, in English two adjacent vowels are read as only one. An old pronunciation rule for children may help: "When two vowels go walking, the first one does the talking - it says its name".
 - easy = 'i.zi
 - suit = 'sut
 - blue = 'blu
 - rain = 'R+e&In (the rule applies for many diphthong-pronunciation as well)

1.2.3 Changing the word stress

When changing the accent of word, the following things should be considered:

- Syllable breaks
The most important requirement for the marking of the word accents is the indicating of syllable breaks. This should be done by putting points between individual syllables in the phonetic transcription:
 - transcription = tR+@n.'skR+Ip.S\$n (tran-scrip-tion)
- Primary stress
The stressed syllable is marked by a preceding single quotation mark:
 - phenomenon = f\$. 'nA.m\$.nAn (/nA / is the stressed syllable)
 - original = \$. 'R+I.d&Z\$.nl%) (/R+I / is the stressed syllable)
- Secondary stress, if available
Some words such as compounds or derivatives can have a secondary stress /'2/ in addition to the primary one:
 - phenomenology = fI.'nA.m\$. '2nA.l\$.d&Zi
(first /nA / has the primary, the second /nA / has the secondary stress)
 - originality = \$. 'R+I.d&Z\$. '2n@.l\$.r6i
(/R+I / has the primary, /n@/ the secondary stress)

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- Silences (pauses) between the syllables
There are cases where you want to put stronger emphasis on the boundaries between syllables or single parts of the word. In the case that the marking syllable breaks does not lead to the expected result, you can also use other symbols from the phonetic keyboard such as word delimiter /_/ or pause /#/
 - millijoule = 'mI.li_'d&Zul

2. Further Information

How to create, manage and activate dictionaries for the conversion of text into speech is explained in the **Manual**, Chapter 2.7:

http://www.linguatec.net/documents/tts/manualvrs15_en.pdf

You can find the complete **phonetic transcription tables** for all available Voice Reader Studio 15 languages in PDF format on our website, at:

<http://www.linguatec.net/services/support/vrs15>