

# Using the syllable-struct-forest package

Alan Munn

Department of Linguistics and Languages

[amunn@msu.edu](mailto:amunn@msu.edu)

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## Abstract

This is a package that allows you to draw syllable trees quickly with a simple input.

## 1 Package options

The package has one option: `[xslot]` which displays timing units as  $\times$ . If this option is not specified, segments are dominated simply by C or V as appropriate. The choice can be selectively changed within a document using the macros `\xslottrue` and `\xslotfalse`.

## 2 Package commands

### 2.1 Syllable commands

The package provides commands for the range of syllables shown in Table 1: The commands are straightforward: each macro consists simply of the CV specification of the syllable, and takes as many arguments as slots in that syllables. Each macro takes an optional argument to pass extra **forest** options if necessary. For most uses this will not be needed.

Table 1: Package syllable commands

Example Command	Number of arguments
<code>\V{a}</code>	1
<code>\CV{b}{a}</code>	2
<code>\VC{a}{b}</code>	2
<code>\CVC{k}{a}{v}</code>	3
<code>\CCV{s}{t}{a}</code>	3
<code>\VCC{a}{l}{p}</code>	3
<code>\CCVC{s}{t}{a}{l}</code>	4
<code>\CVCC{s}{a}{l}{t}</code>	4
<code>\CCCV{s}{t}{r}{i}</code>	4
<code>\CCVCC{s}{l}{a}{r}{p}</code>	5
<code>\CCVC{s}{t}{r}{i}{k}</code>	5
<code>\CCCVCC{s}{t}{r}{i}{l}{k}</code>	6
<code>\CCCVCCC{s}{t}{r}{i}{l}{k}{s}</code>	7

## 3 Long vowels

All of the macros listed in Table 1 also have versions in which the V slot is doubled. If the two vowels provided as arguments are the same, then the single vowel will be doubly linked to two V slots. These

macros therefore have one more argument each). For example: `\CVVC{b}{a}{a}{b}` will yield a doubly linked *a* vowel, as in (1a) while `\CVVC{b}{a}{i}{b}` will link each vowel to its own slot as in (1b):



The width of the double linking is controlled by the length `\longVlen`. This is set initially to `-5pt`.

## 4 IPA Fonts

When used with pdfLaTeX, the **tipa** package is automatically loaded, and segments are rendered in TIPA automatically.

When used with XeLaTeX or LuaLaTeX, Linux Libertine O is loaded as the default IPA font. If you are using another font for your IPA symbols, define the font using **fontspec**. For example if you are using Doulos SIL as your IPA font, you would use `\newfontfamily\myipafont{Doulos SIL}` and then use `\setIPAFont{\myipafont}` to set the font used in the syllables.

## 5 Other user macros

Table 2: Other user macros

Macro	Description
<code>\setIPAFont{&lt;fontmacro&gt;}</code>	for XeLaTeX or LuaLaTeX: set the IPA font to <code>&lt;fontmacro&gt;</code>
<code>\xslottrue</code>	render subsequent slots as ×
<code>\xslotfalse</code>	render subsequent slots as C or V
<code>\longVlen</code>	spacing adjustment for long vowels.

## 6 Examples

$\backslash V\{a\}$



$\backslash WV\{a\}\{a\}$



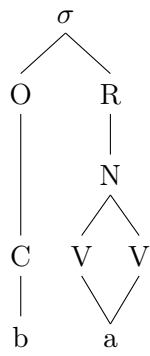
$\backslash WV\{a\}\{i\}$



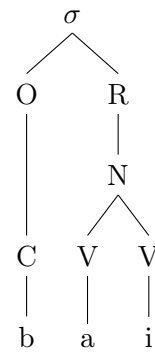
$\backslash CV\{b\}\{a\}$



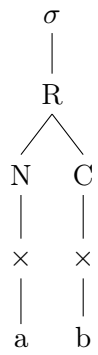
$\backslash CVV\{b\}\{a\}\{a\}$



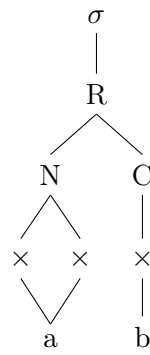
$\backslash CVV\{b\}\{a\}\{i\}$



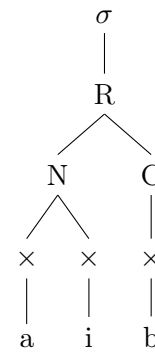
$\backslash VC\{a\}\{b\}$



$\backslash VVC\{a\}\{a\}\{b\}$

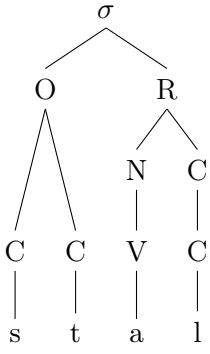


$\backslash VVC\{a\}\{i\}\{b\}$

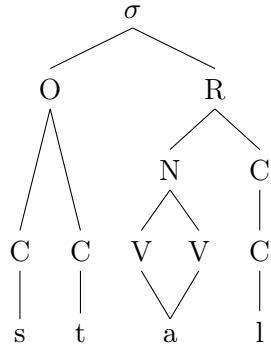




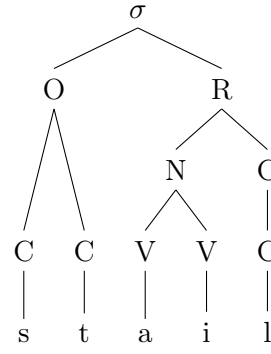
$\backslash\text{CCVC}\{s\}\{t\}\{a\}\{l\}$



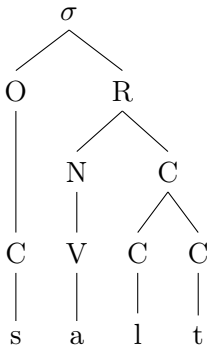
$\backslash\text{CCVVC}\{s\}\{t\}\{a\}\{a\}\{l\}$



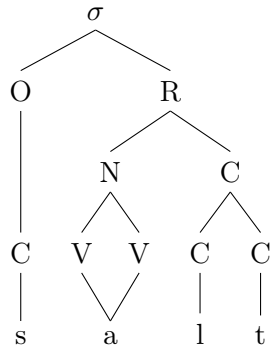
$\backslash\text{CCVVC}\{s\}\{t\}\{a\}\{i\}\{l\}$



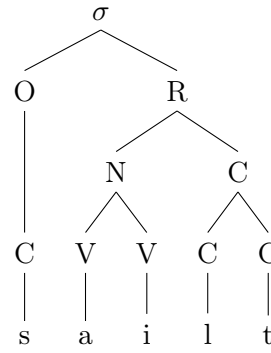
$\backslash\text{CVCC}\{s\}\{a\}\{l\}\{t\}$



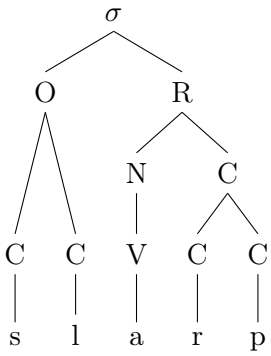
$\backslash\text{CVVCC}\{s\}\{a\}\{a\}\{l\}\{t\}$



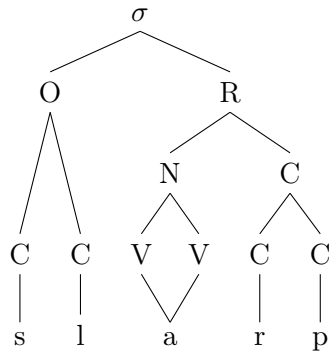
$\backslash\text{CVVCC}\{s\}\{a\}\{i\}\{l\}\{t\}$



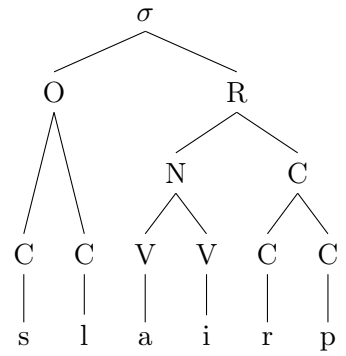
$\backslash\text{CCVCC}\{s\}\{l\}\{a\}\{r\}\{p\}$



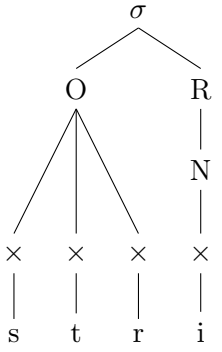
$\backslash\text{CCVVCC}\{s\}\{l\}\{a\}\{a\}\{r\}\{p\}$



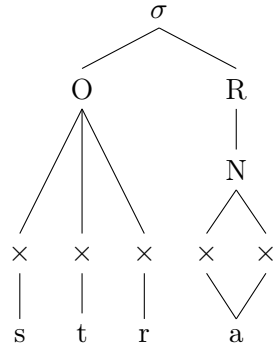
$\backslash\text{CCVVCC}\{s\}\{l\}\{a\}\{i\}\{r\}\{p\}$



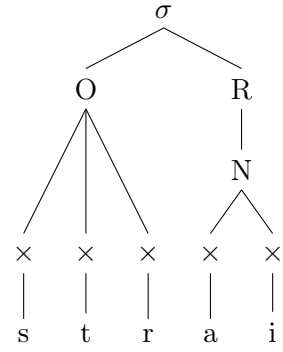
\CCCV{s}{t}{r}{i}



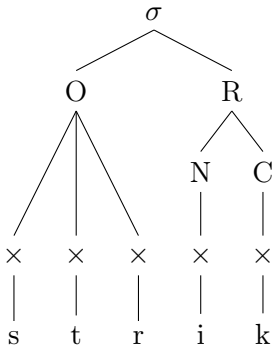
\CCCVV{s}{t}{r}{a}{a}



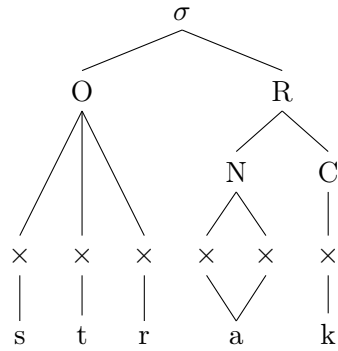
\CCCVV{s}{t}{r}{a}{i}



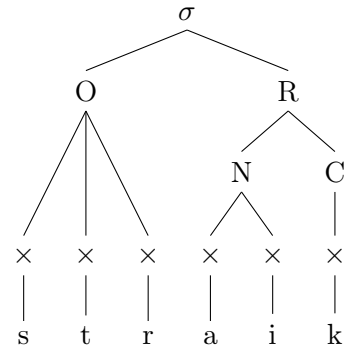
\CCCV{C}{s}{t}{r}{i}{k}



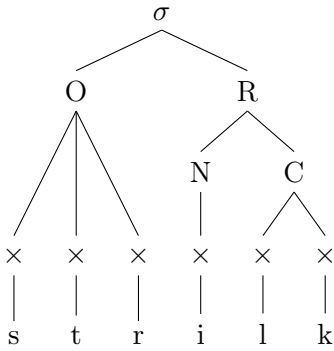
\CCCVVC{s}{t}{r}{a}{a}{k}



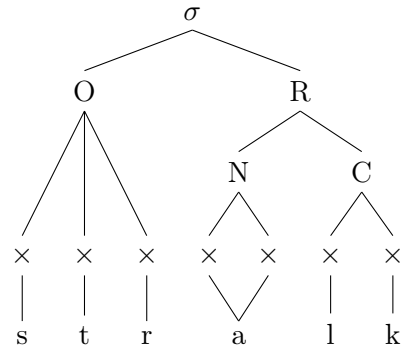
\CCCVVC{s}{t}{r}{a}{i}{k}



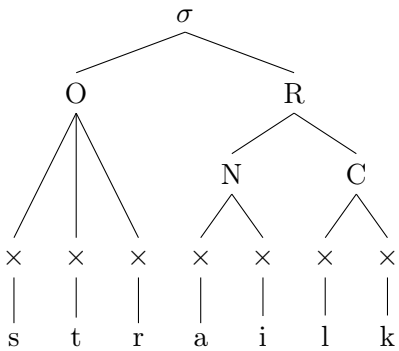
\CCCVCC{s}{t}{r}{i}{l}{k}



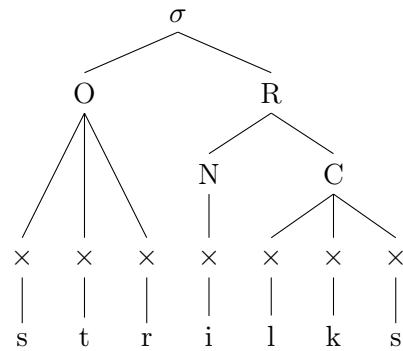
\CCCVVCC{s}{t}{r}{a}{a}{l}{k}



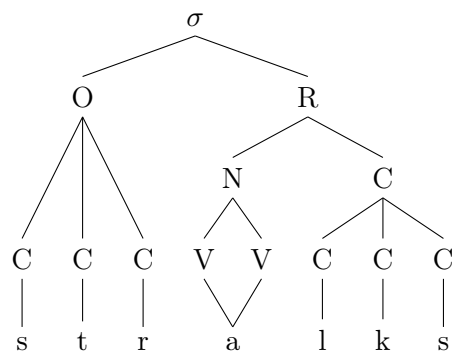
\CCCVCC{s}{t}{r}{a}{i}{l}{k}



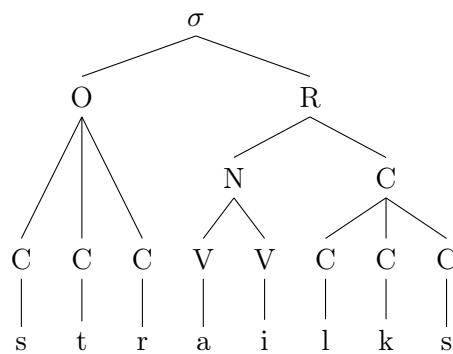
\CCCVCCC{s}{t}{r}{i}{l}{k}{s}



\CCCWCCC{s}{t}{r}{a}{a}{l}{k}{s}



\CCCWCCC{s}{t}{r}{a}{i}{l}{k}{s}



## 7 Limitations

The package currently does not represent geminate consonants with a shared segment linked to two slots. This would require more work than I have time and interest for.