# Package: RcppMeCab (via r-universe)

November 11, 2024

**Title** 'rcpp' Wrapper for 'mecab' Library

**Version** 0.0.1.2

**Author** Junhewk Kim [aut, cre], Taku Kudo [aut]

**Maintainer** Junhewk Kim <junhewk.kim@gmail.com>

**Description** R package based on 'Rcpp' for 'MeCab': Yet Another
Part-of-Speech and Morphological Analyzer. The purpose of this
package is providing a seamless developing and analyzing
environment for CJK texts. This package utilizes parallel
programming for providing highly efficient text preprocessing
'posParallel()' function. For installation, please refer to
README.md file.

**Depends** R (>= 3.4.0)

**License** GPL

**Encoding** UTF-8

**LazyData** true

**BugReports** https://github.com/junhewk/RcppMeCab/issues

**LinkingTo** Rcpp, RcppParallel, BH

**Imports** Rcpp, RcppParallel

**SystemRequirements** MeCab 0.996 (or mecab-ko 0.9.2) or higher, GNU make

**RoxygenNote** 6.0.1

**NeedsCompilation** yes

**Repository** CRAN

**Date/Publication** 2018-07-04 16:40:03 UTC

**Config/pak/sysreqs** make libmecab-dev

## Contents

---

pos                                  *part-of-speech tagger*

---

### Description

pos returns part-of-speech (POS) tagged morpheme of the sentence.

### Usage

```
pos(sentence, join = TRUE, format = c("list", "data.frame"), sys_dic = "",
  user_dic = "")
```

### Arguments

| | |
|---|---|
| sentence | A character vector of any length. For analyzing multiple sentences, put them in one character vector. |
| join | A bool to decide the output format. The default value is TRUE. If FALSE, the function will return morphemes only, and tags put in the attribute. if format="data.frame", then this will be ignored. |
| format | A data type for the result. The default value is "list". You can set this to "data.frame" to get a result as data frame format. |
| sys_dic | A location of system MeCab dictionary. The default value is "". |
| user_dic | A location of user-specific MeCab dictionary. The default value is "". |

### Details

This is a basic function for MeCab part-of-speech tagger. The function gets a character vector of any length and runs a loop inside C++ to provide faster processing.

You can add a user dictionary to user_dic. It should be compiled by mecab-dict-index. You can find an explatation about compiling a user dictionary in the https://github.com/junhewk/RcppMeCab.

You can also set a system dictionary especially if you are using multiple dictionaries (for example, using both IPA and Juman dictionary at the same time in Japanese) in sys_dic. Using options(mecabSysDic=), you can set your prefered system dictionary to the R terminal.

If you want to get a morpheme only, use join = False to put tag names on the attribute. Basically, the function will return a list of character vectors with (morpheme)/(tag) elements.

### Value

A string vector of POS tagged morpheme will be returned in conjoined character vecter form. Element name of the list are original phrases

## Examples

```
## Not run:
sentence <- c(#some UTF-8 texts)
pos(sentence)
pos(sentence, join = FALSE)
pos(sentence, format = "data.frame")
pos(sentence, user_dic = "~/user_dic.dic")
# System dictionary example: in case of using mecab-ipadic-NEologd
pos(sentence, sys_dic = "/usr/local/lib/mecab/dic/mecab-ipadic-neologd/")

## End(Not run)
```

---

posParallel                    *parallel version of part-of-speech tagger*

---

## Description

posParallel returns part-of-speech (POS) tagged morpheme of the sentence.

## Usage

```
posParallel(sentence, join = TRUE, format = c("list", "data.frame"),
  sys_dic = "", user_dic = "")
```

## Arguments

| | |
|---|---|
| sentence | A character vector of any length. For analyzing multiple sentences, put them in one character vector. |
| join | A bool to decide the output format. The default value is TRUE. If FALSE, the function will return morphemes only, and tags put in the attribute. if format="data.frame", then this will be ignored. |
| format | A data type for the result. The default value is "list". You can set this to "data.frame" to get a result as data frame format. |
| sys_dic | A location of system MeCab dictionary. The default value is "". |
| user_dic | A location of user-specific MeCab dictionary. The default value is "". |

## Details

This is a parallelized version of MeCab part-of-speech tagger. The function gets a character vector of any length and runs a loop inside C++ with Intel TBB to provide faster processing.

Parallelizing over a character vector is not supported by RcppParallel. Thus, this function makes duplicates of the input and the output. Therefore, if your data volume is large, use pos or divide the vector to several sub-vectors.

You can add a user dictionary to user_dic. It should be compiled by mecab-dict-index. You can find an explatation about compiling a user dictionary in the https://github.com/junhewk/RcppMeCab.

You can also set a system dictionary especially if you are using multiple dictionaries (for example, using both IPA and Juman dictionary at the same time in Japanese) in sys_dic. Using options(mecabSysDic=), you can set your prefered system dictionary to the R terminal.

If you want to get a morpheme only, use join = False to put tag names on the attribute. Basically, the function will return a list of character vectors with (morpheme)/(tag) elements.

### Value

A string vector of POS tagged morpheme will be returned in conjoined character vecter form. Element name of the list are original phrases

### Examples

```
## Not run:
sentence <- c(#some UTF-8 texts)
posParallel(sentence)
posParallel(sentence, join = FALSE)
posParallel(sentence, format = "data.frame")
posParallel(sentence, user_dic = "~/user_dic.dic")
# System dictionary example: in case of using mecab-ipadic-NEologd
pos(sentence, sys_dic = "/usr/local/lib/mecab/dic/mecab-ipadic-neologd/")

## End(Not run)
```

---

RcppMeCab                          *RcppMeCab: Rcpp Wrapper for MeCab Library*

---

### Description

R package based on Rcpp for MeCab: Yet Another Part-of-Speech and Morphological Analyzer (http://taku910.github.io/mecab/). The purpose of this package is providing a seamless developing and analyzing environment for CJK texts. This package utilizes parallel programming for providing highly efficient text preprocessing posParallel() function. For installation, please refer to README.md file.

### Details

This package utilizes MeCab C API and Rcpp codes.

### Author(s)

Junhewk Kim Taku Kudo

### References

- MeCab
- Rcpp: Seamless R and C++ Integration
- Eunjeon project

# Index