Package 'RcppTOML'

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Type Package

Title 'Rcpp' Bindings to Parser for Tom's Obvious Markup Language

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Description The configuration format defined by 'TOML' (which expands to
``Tom's Obvious Markup Language'') specifies an excellent format (described at
<https://github.com/toml-lang/toml>) suitable for both human editing as well
as the common uses of a machine-readable format. This package uses 'Rcpp' to
connect the 'cpptoml' parser written by Chase Geigle (in modern C++11) to R.

SystemRequirements A C++11 compiler; g++ (>= 4.8.*) should be fine.

BugReports https://github.com/eddelbuettel/rcpptoml/issues

URL http://dirk.eddelbuettel.com/code/rcpp.toml.html

Imports Rcpp (>= 0.11.5)

Depends R (>= 3.3.0)

LinkingTo Rcpp

Suggests tinytest

License GPL (>= 2)

NeedsCompilation yes

Repository CRAN

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R topics documented:

RcppTOML-package   *R Access to Parser for TOML (Tom's Obvious Markup Language)*

Description

TOML ("Tom's Obvious Markup Language") is a configuration file grammar for humans. It is easier to read and edit than the alternatives yet arguably more useful as it is stronly types: values come back as integer, double, (multiline-) character (strings), boolean or Datetime. Moreover, complex nesting and arrays are supported as well.

Details

At present, a single parsing function `parseTOML` (with convenience aliases `tomlparse` and `parseToml`) is implemented. It returns a list object corresponding to the configuration from the supplied file.

Author(s)

Dirk Eddelbuettel put togther the R package. Charles Geigle wrote the cpptoml parser. Tom Preston-Werner is the Tom behind TOML.

Maintainer: Dirk Eddelbuettel <edd@debian.org>

References

TOML: https://github.com/toml-lang/toml

Examples

```
library(RcppTOML)

file <- system.file("toml", "example.toml", package="RcppTOML")

toml <- parseTOML(file)  # given file, return parsed object

summary(toml)            # really sparse summary method
print(toml)              # print is a wrapper around str()
```

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parseTOML   *Parse a TOML configuration file*

Description

The `parseTOML` function parses 'TOML' (for 'Tom's Obvious Markup Language') files. The TOML format both highly readable and expressive, allows comments, indentation and other aspects suitable for *human* readers, contains typed objects yet allows everything similar configuration languages permit.

Usage

```
 parseTOML(input, verbose = FALSE, fromFile=TRUE, includize=FALSE, escape=TRUE)

  ## S3 method for class 'toml'
 print(x, ...)
  ## S3 method for class 'toml'
 summary(object, ...)
```

Arguments

input
: A character object either denoting a path and file (where tilde-expansion is performed as well) from parsing from file, or a containing a suitable 'TOML' expression that is parsed from this expression.

verbose
: A logical switch to turn on (very) verbose operation which can be useful in debugging a parsing issue in a file.

fromFile
: A logical switch indicating whether input is interpreted as a filename (with path) which is to be parsed, or a whether the 'TOML' expression in the string is parsed; default is file mode.

includize
: A logical switch indicating whether the includize stream buffer class for (non-standard but very useful) include statements should be used.

escape
: A logical switch indicating whether special characters in strings (namely new line, double quotation mark and backslash) should be escaped in both printed output (when verbose = TRUE) and returned values or only in the printed output. Defaults to TRUE for the sake of backward compatibility.

x
: A toml object.

object
: A toml object.

...
: Furter arguments.

Details

The package uses the 'cpptoml' C++11 parser by Charles Geigle. This requires a recent-enough C++11 compiler which excludes one deployed by Rtools on Windows at the time the package was initially put together.

Following TOML specification this package assumes that any file input is a UTF-8 encoded text file. Any non-file input (when fromFile = FALSE) is converted to UTF-8 if necessary (using R's enc2utf(). Note that the conversion to UTF-8 may fail for input with "unknown" declared encoding if the true encoding does not match system's locale.

Value

A toml object is returned, which is really just a list object with a class attribute to allow for print and summary methods.

Author(s)

Dirk Eddelbuettel put togther the R package. Charles Geigle wrote the cpptoml parser. Tom Preston-Werner is the Tom behind TOML.

Maintainer: Dirk Eddelbuettel <edd@debian.org>

References

TOML: https://github.com/toml-lang/toml cpptoml: https://github.com/skystrife/cpptoml

Examples

```
library(RcppTOML)

file <- system.file("toml", "example.toml", package="RcppTOML")

toml <- parseTOML(file)  # given file, return parsed object

summary(toml)            # really sparse summary method
print(toml)              # print is a wrapper around str()

txt <- "value='''\nHello\nWorld!'''"      # input with \n is ..
parseTOML(input = txt, fromFile = FALSE)  # ... (doubly) escaped by default
parseTOML(input = txt, fromFile = FALSE, escape = FALSE) # ... kept 'as is'
```

Index