Package ‘semver’

January 6, 2017

Type Package

Title 'Semantic Versioning V2.0.0' Parser

Version 0.2.0

Description Tools and functions for parsing, rendering and operating on semantic version strings. Semantic versioning is a simple set of rules and requirements that dictate how version numbers are assigned and incremented as outlined at <http://semver.org>.

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Encoding UTF-8

LazyData true

Imports Rcpp (&gt;= 0.12.8), assertthat, utils

LinkingTo Rcpp

URL https://github.com/johndharrison/semver

URLNote https://github.com/johndharrison/semver

BugReports https://github.com/johndharrison/semver/issues

Suggests testthat, covr, knitr, rmarkdown

RoxygenNote 5.0.1

SystemRequirements C++11

VignetteBuilder knitr

NeedsCompilation yes


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Repository CRAN

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\textbf{R topics documented:}

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<td>increment_version</td>
<td>Increment the version field. &quot;Major&quot;, &quot;minor&quot; and &quot;patch&quot; fields are set as integers. Fields of lower precedence are reset to default value (0L)</td>
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\textbf{Usage}

```r
increment_version(x, field, value, ...)
```

\texttt{## S3 method for class 'svptr'}

```r
increment_version(x, field = c("major", "minor", "patch"),
value, ...)
```

\texttt{## S3 method for class 'svlist'}

```r
increment_version(x, field, value, ...)
```

\textbf{Arguments}

- \texttt{x} An object of class "svlist" or "svptr".
- \texttt{field} For the "svptr" class a character string detailing the field to set (major, minor etc...). For the "svlist" class a character vector detailing the field to set for each list member.
- \texttt{value} The value to increment the field by. For fields "major", "minor" and "patch" this is an integer. For the "svptr" class value is a scalar. For the "svlist" class value is an integer vector detailing the value to increment by for each list member.
- ... Additional arguments passed on to methods.

\textbf{Value}

returns an object of class svptr or svlist
parse_version

Examples

semver <- parse_version(c("1.2.3", "1.2.4-alpha+bld1"))
increment_version(semver[2], "major", 1L)
increment_version(semver[2], "major", -1L)
increment_version(semver, c("minor", "patch"), c(3L, 9L))
increment_version(semver, c("minor", "patch"), c(-1L, -3L))
increment_version(semver, c("minor"), 1L)

parse_version  Parse semantic version

Description

Parse a character vector to semantic versions

Usage

parse_version(version)

Arguments

version  A character vector

Value

A list of "svptr" objects. The list itself is of class "svlist"

Examples

semver <- parse_version(c("1.2.3", "1.2.4", "1.0.0", "1.2.4-beta", "2.1.3-alpha", "1.9.4"))
max(semver)
ver124a <- semver[semver > "1.2.4-alpha"]
sort(ver124a)
# compare versions
semver[[1]] < semver[[2]]

# compare against a version
semver > semver[1]

# compare against a character string
semver > "1.7.2"

# sort versions
sort(semver)
order(semver)
rank(semver)

# get summary statistics
min(semver)
max(semver)
range(semver)

# coerce versions
as.character(semver)
as.data.frame(semver)

render_version

 Renders a semantic version list or a semantic version pointer as an R list giving the major, minor and patch version as an integer and the prerelease and build version as a character.

Usage

render_version(x, ...)

## S3 method for class 'svptr'
render_version(x, ...)

## S3 method for class 'svlist'
render_version(x, ...)

Arguments

x An object of class "svlist" or "svptr".

... Additional arguments passed on to methods.

Value

A list of semantic versions represented as integers (major, minor, patch) and characters (prerelease, build)

Examples

semver <- parse_version(c("1.2.3", "1.2.4", "1.0.0", "1.2.4-beta+2", "2.1.3-alpha", "1.9.4"))
render_version(semver[[4]])
render_version(semver)
**reset_version**

**Reset version field**

**Description**

Reset the version field. "Major", "minor" and "patch" fields are set as integers, "prerelease" and "build" are set with character strings. Fields of lower precedence are reset to default value (0L or "")

**Usage**

```r
reset_version(x, field, value, ...)  
## S3 method for class 'svptr'
reset_version(x, field = c("major", "minor", "patch", "prerelease", "build"), value, ...)  
## S3 method for class 'svlist'
reset_version(x, field, value, ...)
```

**Arguments**

- **x**: An object of class "svlist" or "svptr".
- **field**: For the "svptr" class a character string detailing the field to set (major, minor etc...). For the "svlist" class a character vector detailing the field to set for each list member.
- **value**: The value to set the field to. For fields "major", "minor" and "patch" this is an integer. For fields "prerelease" and "build" this is a character. For the "svptr" class value is a scalar. For the "svlist" class value is a list detailing the value to set for each list member.
- **...**: Additional arguments passed on to methods.

**Value**

returns an object of class svptr or svlist

**Examples**

```r
semver <- parse_version(c("1.2.3", "1.2.4-alpha+bld1"))
reset_version(semver[[2]], "major", 1L)
semver[[1]] <- reset_version(semver[[1]], "major", 2L)
reset_version(semver, c("minor", "prerelease"), list(3L, "beta"))
reset_version(semver, c("prerelease"), list("hello", "world"))
```
semver has two functions: `parse_version`, `render_version`.

Details

`parse_version` takes as input a character vector with elements following the specification at `http://semver.org/`.

Comparisons can be done on the "svlist" and "svptr" classes returned by `parse_version`. Ops and `summary` methods are implemented for both classes.

Description

Set the version field. "Major", "minor" and "patch" fields are set as integers, "prerelease" and "build" are set with character strings.

Usage

```r
set_version(x, field, value, ...)  
## S3 method for class 'svptr'
set_version(x, field = c("major", "minor", "patch",  
                  "prerelease", "build"), value, ...)

## S3 method for class 'svlist'
set_version(x, field, value, ...)  
```

Arguments

- `x`: An object of class "svlist" or "svptr".
- `field`: For the "svptr" class a character string detailing the field to set (major, minor etc..). For the "svlist" class a character vector detailing the field to set for each list member.
- `value`: The value to set the field to. For fields "major", "minor" and "patch" this is an integer. For fields "prerelease" and "build" this is a character. For the "svptr" class value is a scalar. For the "svlist" class value is a list detailing the value to set for each list member.
- `...`: Additional arguments passed on to methods.
**Value**

returns an object of class svptr or svlist

**Examples**

```r
semver <- parse_version(c("1.2.3", "1.2.4-alpha+bld1"))
semver[[1]] <- set_version(semver[[1]], "major", 2L)
set_version(semver, c("prerelease", "build"), list("hello"))
set_version(semver, c("prerelease"), list("hello", "world"))
```
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