

# Package ‘semver’

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**Type** Package

**Title** 'Semantic Versioning V2.0.0' Parser

**Version** 0.2.1

**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 <https://semver.org>.

**License** MIT + file LICENSE

**Encoding** UTF-8

**Imports** Rcpp (>= 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** 7.3.3

**VignetteBuilder** knitr

**NeedsCompilation** yes

**Author** John Harrison [aut] (R package semantic),  
Thomas Piernicke [ctb, cre],  
Marko Živanović [aut, cph] (semver cpp library,  
<https://github.com/zmarko/semver>)

**Maintainer** Thomas Piernicke <thomasp@gfz.de>

**Repository** CRAN

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increment_version	<i>Increment version field</i>
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## Description

Increment the version field. "Major", "minor" and "patch" fields are set as integers. Fields of lower precedence are reset to default value (0L)

## Usage

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

## S3 method for class 'svptr'
increment_version(x, field = c("major", "minor", "patch"), value, ...)

## S3 method for class 'svlist'
increment_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 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.

## Value

returns an object of class svptr or svlist

**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)
```

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parse_version	<i>Parse semantic version</i>
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**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)

```

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render_version	<i>Render semantic version</i>
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## Description

Render 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)

```

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reset_version	<i>Reset version field</i>
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### 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

```
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

```
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"))
```

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semver	<b>semver</b> <i>parse semantic versions.</i>
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## Description

semver has two functions: [parse\\_version](#), [render\\_version](#),

## Details

[parse\\_version](#) takes as input a character vector with elements following the specification at <https://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.

## Author(s)

**Maintainer:** Thomas Piernicke <thomasp@gfz.de> [contributor]

Authors:

- John Harrison <johndharrison@gmail.com> (R package semantic)
- Marko Živanović (semver cpp library, <https://github.com/zmarko/semver>) [copyright holder]

## See Also

Useful links:

- <https://github.com/johndharrison/semver>
- Report bugs at <https://github.com/johndharrison/semver/issues>

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set_version	<i>Set version field</i>
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## Description

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

**Usage**

```
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**

```
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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