

# Package ‘jsonify’

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**Type** Package

**Title** Convert Between 'R' Objects and Javascript Object Notation (JSON)

**Version** 1.2.2

**Date** 2022-11-10

**Description** Conversions between 'R' objects and Javascript Object Notation (JSON) using the 'rapidjsonr' library <<https://CRAN.R-project.org/package=rapidjsonr>>.

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**Depends** R (>= 3.3.0)

**SystemRequirements** C++11

**Imports** Rcpp (>= 0.12.18)

**LinkingTo** rapidjsonr (>= 1.2.0), Rcpp

**RoxygenNote** 7.1.0

**Suggests** covr, testthat, knitr, rmarkdown

**Encoding** UTF-8

**VignetteBuilder** knitr

**NeedsCompilation** yes

**Author** David Cooley [aut, cre],  
Chris Muir [ctb],  
Brendan Knapp [ctb] (ORCID: <<https://orcid.org/0000-0003-3284-4972>>)

**Maintainer** David Cooley <dcooley@symbolix.com.au>

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as.json	<i>Coerce string to JSON</i>
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### Description

Coerce string to JSON

### Usage

```
as.json(x)
```

### Arguments

x                      string to coerce to JSON

### Examples

```
js <- '{"x":1,"y":2}'
as.json(js)
```

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from_json	<i>From JSON</i>
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### Description

Converts JSON to an R object.

### Usage

```
from_json(json, simplify = TRUE, fill_na = FALSE, buffer_size = 1024)
```

### Arguments

json	JSON to convert to R object. Can be a string, url or link to a file.
simplify	logical, if TRUE, coerces JSON to the simplest R object possible. See Details
fill_na	logical, if TRUE and simplify is TRUE, data.frames will be na-filled if there are missing JSON keys. Ignored if simplify is FALSE. See details and examples.
buffer_size	size of buffer used when reading a file from disk. Defaults to 1024

**Details**

When `simplify = TRUE`

- single arrays are coerced to vectors
- array of arrays (all the same length) are coerced to matrices
- objects with the same keys are coerced to data.frames

When `simplify = TRUE` and `fill_na = TRUE`

- objects are coerced to data.frames, and any missing values are filled with NAs

**Examples**

```

from_json('{ "a": [1, 2, 3] }')
from_json('{ "a": 8, "b": 99.5, "c": true, "d": "cats", "e": [1, "cats", 3] }')
from_json('{ "a": 8, "b": { "c": 123, "d": { "e": 456 } } }')

lst <- list("a" = 5L, "b" = 1.43, "c" = "cats", "d" = FALSE)
js <- jsonify::to_json(lst, unbox = TRUE)
from_json( js )

## Return a data frame
from_json('[{"id":1,"val":"a"}, {"id":2,"val":"b"}]')

## Return a data frame with a list column
from_json('[{"id":1,"val":"a"}, {"id":2,"val":["b","c"]} ]')

## Without simplifying to a data.frame
from_json('[{"id":1,"val":"a"}, {"id":2,"val":["b","c"]} ]', simplify = FALSE )

## Missing JSON keys
from_json('[{"x":1}, {"x":2, "y": "hello"}]')

## Missing JSON keys - filling with NAs
from_json('[{"x":1}, {"x":2, "y": "hello"}] ', fill_na = TRUE )

## Duplicate object keys
from_json('[{"x":1, "x": "a"}, {"x":2, "x": "b"}]')

from_json('[{"id":1, "val": "a", "val": 1}, {"id":2, "val": "b"}] ', fill_na = TRUE )

```

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from\_ndjson

*from ndjson*

---

**Description**

Converts ndjson into R objects

**Usage**

```
from_ndjson(ndjson, simplify = TRUE, fill_na = FALSE)
```

**Arguments**

ndjson	new-line delimited JSON to convert to R object. Can be a string, url or link to a file.
simplify	logical, if TRUE, coerces JSON to the simplest R object possible. See Details
fill_na	logical, if TRUE and simplify is TRUE, data.frames will be na-filled if there are missing JSON keys. Ignored if simplify is FALSE. See details and examples.

**Examples**

```
js <- to_ndjson( data.frame( x = 1:5, y = 6:10 ) )
from_ndjson( js )
```

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minify\_json

*Minify Json*


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**Description**

Removes indentation from a JSON string

**Usage**

```
minify_json(json, ...)
```

**Arguments**

json	string of JSON
...	other arguments passed to <a href="#">to_json</a>

**Examples**

```
df <- data.frame(id = 1:10, val = rnorm(10))
js <- to_json( df )
jsp <- pretty_json(js)
minify_json( jsp )
```

---

pretty\_json

*Pretty Json*

---

### Description

Adds indentation to a JSON string

### Usage

```
pretty_json(json, ...)
```

### Arguments

json            string of JSON  
...             other arguments passed to [to\\_json](#)

### Examples

```
df <- data.frame(id = 1:10, val = rnorm(10))  
js <- to_json( df )  
pretty_json(js)  
  
## can also use directly on an R object  
pretty_json( df )
```

---

to\_json

*To JSON*

---

### Description

Converts R objects to JSON

### Usage

```
to_json(  
  x,  
  unbox = FALSE,  
  digits = NULL,  
  numeric_dates = TRUE,  
  factors_as_string = TRUE,  
  by = "row"  
)
```

**Arguments**

x	object to convert to JSON
unbox	logical indicating if single-value arrays should be 'unboxed', that is, not contained inside an array.
digits	integer specifying the number of decimal places to round numerics. Default is NULL - no rounding
numeric_dates	logical indicating if dates should be treated as numerics. Defaults to TRUE for speed. If FALSE, the dates will be coerced to character in UTC time zone
factors_as_string	logical indicating if factors should be treated as strings. Defaults to TRUE.
by	either "row" or "column" indicating if data.frames and matrices should be processed row-wise or column-wise. Defaults to "row"

**Examples**

```

to_json(1:3)
to_json(letters[1:3])

## factors treated as strings
to_json(data.frame(x = 1:3, y = letters[1:3], stringsAsFactors = TRUE ))
to_json(data.frame(x = 1:3, y = letters[1:3], stringsAsFactors = FALSE ))

to_json(list(x = 1:3, y = list(z = letters[1:3])))
to_json(seq(as.Date("2018-01-01"), as.Date("2018-01-05"), length.out = 5))
to_json(seq(as.Date("2018-01-01"), as.Date("2018-01-05"), length.out = 5), numeric_dates = FALSE)

psx <- seq(
  as.POSIXct("2018-01-01", tz = "Australia/Melbourne"),
  as.POSIXct("2018-02-01", tz = "Australia/Melbourne"),
  length.out = 5
)
to_json(psx)
to_json(psx, numeric_dates = FALSE)

## unbox single-value arrays
to_json(list(x = 1), unbox = TRUE)
to_json(list(x = 1, y = c("a"), z = list(x = 2, y = c("b"))), unbox = TRUE)

## rounding numbers using the digits argument
to_json(1.23456789, digits = 2)
df <- data.frame(x = 1L:3L, y = rnorm(3), z = letters[1:3], stringsAsFactors = TRUE )
to_json(df, digits = 0 )

## keeping factors
to_json(df, digits = 2, factors_as_string = FALSE )

```

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to_ndjson	<i>To ndjson</i>
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## Description

Converts R objects to ndjson

## Usage

```
to_ndjson(  
  x,  
  unbox = FALSE,  
  digits = NULL,  
  numeric_dates = TRUE,  
  factors_as_string = TRUE,  
  by = "row"  
)
```

## Arguments

x	object to convert to JSON
unbox	logical indicating if single-value arrays should be 'unboxed', that is, not contained inside an array.
digits	integer specifying the number of decimal places to round numerics. Default is NULL - no rounding
numeric_dates	logical indicating if dates should be treated as numerics. Defaults to TRUE for speed. If FALSE, the dates will be coerced to character in UTC time zone
factors_as_string	logical indicating if factors should be treated as strings. Defaults to TRUE.
by	either "row" or "column" indicating if data.frames and matrices should be processed row-wise or column-wise. Defaults to "row"

## Details

Lists are converted to ndjson non-recursively. That is, each of the objects in the list at the top level are converted to a new-line JSON object. Any nested sub-elements are then contained within that JSON object. See examples

## Examples

```
to_ndjson( 1:5 )  
to_ndjson( letters )  
  
mat <- matrix(1:6, ncol = 2)  
  
to_ndjson( x = mat )
```

```
to_ndjson( x = mat, by = "col" )

df <- data.frame(
  x = 1:5
  , y = letters[1:5]
  , z = as.Date(seq(18262, 18262 + 4, by = 1 ), origin = "1970-01-01" )
)

to_ndjson( x = df )
to_ndjson( x = df, numeric_dates = FALSE )
to_ndjson( x = df, factors_as_string = FALSE )
to_ndjson( x = df, by = "column" )
to_ndjson( x = df, by = "column", numeric_dates = FALSE )

## Lists are non-recursive; only elements `x` and `y` are converted to ndjson
lst <- list(
  x = 1:5
  , y = list(
    a = letters[1:5]
    , b = data.frame(i = 10:15, j = 20:25)
  )
)

to_ndjson( x = lst )
to_ndjson( x = lst, by = "column")
```

---

validate\_json

*validate JSON*

---

### Description

Validates JSON

### Usage

```
validate_json(json)
```

### Arguments

json            character or json object

### Value

logical vector



**Examples**

```
validate_json('[]')
df <- data.frame(id = 1:5, val = letters[1:5])
validate_json( to_json(df) )

validate_json('{ "x":1, "y":2, "z": "a" }')

validate_json( c('{ "x":1, "y":2, "z": "a" }', to_json(df) ) )
validate_json( c('{ "x":1, "y":2, "z": a }', to_json(df) ) )
```

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