

Package ‘forge’

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Type Package

Title Casting Values into Shape

Version 0.2.0

Description Helper functions with a consistent interface to coerce and verify the types and shapes of values for input checking.

License Apache License (>= 2.0)

Encoding UTF-8

LazyData true

Depends R (>= 3.1.2)

Imports rlang (>= 0.3.1), magrittr

RoxygenNote 6.1.0

Suggests testthat, covr

NeedsCompilation no

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Contents

cast	2
certify	4
Index	6

cast

Cast values into shape

Description

These functions verify and attempt to coerce values into the specified types and shapes. If they are unsuccessful in the coercion, an error is thrown.

Usage

```
cast_integer(x, n = NULL, allow_na = FALSE, allow_null = FALSE,
  id = NULL, return_id = FALSE)
```

```
cast_scalar_integer(x, allow_na = FALSE, allow_null = FALSE,
  id = NULL, return_id = FALSE)
```

```
cast_nullable_integer(x, n = NULL, allow_na = FALSE, id = NULL,
  return_id = FALSE)
```

```
cast_nullable_scalar_integer(x, allow_na = FALSE, id = NULL,
  return_id = FALSE)
```

```
cast_integer_list(x, n = NULL, allow_na = FALSE, allow_null = FALSE,
  id = NULL, return_id = FALSE)
```

```
cast_nullable_integer_list(x, n = NULL, allow_na = FALSE, id = NULL,
  return_id = FALSE)
```

```
cast_double(x, n = NULL, allow_na = FALSE, allow_null = FALSE,
  id = NULL, return_id = FALSE)
```

```
cast_scalar_double(x, allow_na = FALSE, allow_null = FALSE,
  id = NULL, return_id = FALSE)
```

```
cast_nullable_double(x, n = NULL, allow_na = FALSE, id = NULL,
  return_id = FALSE)
```

```
cast_nullable_scalar_double(x, allow_na = FALSE, id = NULL,
  return_id = FALSE)
```

```
cast_double_list(x, n = NULL, allow_na = FALSE, allow_null = FALSE,
  id = NULL, return_id = FALSE)
```

```
cast_nullable_double_list(x, n = NULL, allow_na = FALSE, id = NULL,
  return_id = FALSE)
```

```
cast_character(x, n = NULL, allow_na = FALSE, allow_null = FALSE,
```

```
id = NULL, return_id = FALSE)

cast_scalar_character(x, allow_na = FALSE, allow_null = FALSE,
  id = NULL, return_id = FALSE)

cast_nullable_character(x, n = NULL, allow_na = FALSE, id = NULL,
  return_id = FALSE)

cast_nullable_scalar_character(x, allow_na = FALSE, id = NULL,
  return_id = FALSE)

cast_character_list(x, n = NULL, allow_na = FALSE,
  allow_null = FALSE, id = NULL, return_id = FALSE)

cast_nullable_character_list(x, n = NULL, allow_na = FALSE,
  id = NULL, return_id = FALSE)

cast_string(x, allow_na = FALSE, allow_null = FALSE, id = NULL,
  return_id = FALSE)

cast_nullable_string(x, allow_na = FALSE, id = NULL,
  return_id = FALSE)

cast_string_list(x, n = NULL, allow_na = FALSE, allow_null = FALSE,
  id = NULL, return_id = FALSE)

cast_nullable_string_list(x, n = NULL, allow_na = FALSE, id = NULL,
  return_id = FALSE)

cast_logical(x, n = NULL, allow_na = FALSE, allow_null = FALSE,
  id = NULL, return_id = FALSE)

cast_scalar_logical(x, allow_na = FALSE, allow_null = FALSE,
  id = NULL, return_id = FALSE)

cast_nullable_logical(x, n = NULL, allow_na = FALSE, id = NULL,
  return_id = FALSE)

cast_nullable_scalar_logical(x, allow_na = FALSE, id = NULL,
  return_id = FALSE)

cast_logical_list(x, n = NULL, allow_na = FALSE, allow_null = FALSE,
  id = NULL, return_id = FALSE)

cast_nullable_logical_list(x, n = NULL, allow_na = FALSE, id = NULL,
  return_id = FALSE)

cast_choice(x, choices, allow_na = FALSE, allow_null = FALSE,
```

```
id = NULL, return_id = FALSE)
```

Arguments

x	A vector.
n	The required length of the vector. If NULL, the length is not checked.
allow_na	Whether to allow NAs in the vector.
allow_null	Whether to allow NULL.
id	Name given to the input to aid the user in identifying the bad value.
return_id	Whether to return the ID as an attribute. This should only be set to TRUE when piping the result to another forge function. Defaults to FALSE.
choices	A character, numeric, or integer vector of allowed values.

Examples

```
# Cast a double vector to integer
cast_integer(c(1, 2))

# Cast a numeric to a string
cast_string(4.5)

# Cast an integer vector to a list of doubles
cast_double_list(1:4)
```

certify

Ensure Conditions on a Value

Description

Checks that the input value satisfies specified conditions

Usage

```
certify(x, ..., allow_null = FALSE, id = NULL, return_id = FALSE)

gt(l)

gte(l)

lt(u)

lte(u)

bounded(l = NULL, u = NULL, incl_lower = TRUE, incl_upper = TRUE)
```

Arguments

x	The value to be checked.
...	Conditions to be checked; should be functions that return TRUE/FALSE.
allow_null	Whether to allow null input.
id	Name given to the input to aid the user in identifying the bad value.
return_id	Whether to return the ID as an attribute. This should only be set to TRUE when piping the result to another forge function. Defaults to FALSE.
l	Lower bound for the inequality condition.
u	Upper bound for the inequality condition.
incl_lower	Whether to include the left endpoint.
incl_upper	Whether to include the right endpoint.

Index

`bounded (certify)`, 4

`cast`, 2

`cast_character (cast)`, 2

`cast_character_list (cast)`, 2

`cast_choice (cast)`, 2

`cast_double (cast)`, 2

`cast_double_list (cast)`, 2

`cast_integer (cast)`, 2

`cast_integer_list (cast)`, 2

`cast_logical (cast)`, 2

`cast_logical_list (cast)`, 2

`cast_nullable_character (cast)`, 2

`cast_nullable_character_list (cast)`, 2

`cast_nullable_double (cast)`, 2

`cast_nullable_double_list (cast)`, 2

`cast_nullable_integer (cast)`, 2

`cast_nullable_integer_list (cast)`, 2

`cast_nullable_logical (cast)`, 2

`cast_nullable_logical_list (cast)`, 2

`cast_nullable_scalar_character (cast)`, 2

`cast_nullable_scalar_double (cast)`, 2

`cast_nullable_scalar_integer (cast)`, 2

`cast_nullable_scalar_logical (cast)`, 2

`cast_nullable_string (cast)`, 2

`cast_nullable_string_list (cast)`, 2

`cast_scalar_character (cast)`, 2

`cast_scalar_double (cast)`, 2

`cast_scalar_integer (cast)`, 2

`cast_scalar_logical (cast)`, 2

`cast_string (cast)`, 2

`cast_string_list (cast)`, 2

`certify`, 4

`gt (certify)`, 4

`gte (certify)`, 4

`lt (certify)`, 4

`lte (certify)`, 4