

Package ‘assertive’

August 1, 2020

Type Package

Title Readable Check Functions to Ensure Code Integrity

Version 0.3-6

Date 2020-07-30

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Description Lots of predicates (is_* functions) to check the state of your variables, and assertions (assert_* functions) to throw errors if they aren't in the right form.

URL <https://bitbucket.org/richierocks/assertive>

BugReports <https://bitbucket.org/richierocks/assertive/issues>

Depends R (>= 3.0.0)

Imports assertive.base (>= 0.0-4), assertive.properties (>= 0.0-2),
assertive.types (>= 0.0-2), assertive.numbers,
assertive.strings, assertive.dates, assertive.files,
assertive.sets (>= 0.0-2), assertive.matrices,
assertive.models, assertive.data, assertive.data.uk,
assertive.data.us, assertive.reflection (>= 0.0-2),
assertive.code, knitr

Suggests testthat, markdown

License GPL (>= 3)

LazyLoad yes

LazyData yes

VignetteBuilder knitr

Acknowledgments Development of this package was partially funded by the Proteomics Core at Weill Cornell Medicine - Qatar <<http://qatar-weill.cornell.edu>>. The Core is supported by 'Biomedical Research Program' funds, a program funded by Qatar Foundation.

RoxygenNote 7.1.1

NeedsCompilation no

Repository CRAN

Date/Publication 2020-08-01 01:00:02 UTC

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are_identical	<i>Are the inputs identical?</i>
---------------	----------------------------------

Description

See [are_identical](#).

are_same_length	<i>Are the inputs the same length/dimension?</i>
-----------------	--

Description

See [are_same_length](#).

are_set_equal	<i>Set comparisons</i>
---------------	------------------------

Description

See [are_set_equal](#).

assertionError	<i>Condition classes</i>
----------------	--------------------------

Description

See [assertionError](#).

assertive	<i>Readable check functions to ensure code integrity.</i>
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Description

assertive contains lots of `is_*` functions to check the state of your variables, and `assert_*` functions to throw errors if they aren't in the right form.

Details

When the package loads, it creates a global option "`assertive.severity`" that determines what happens when an `assert_*` function's input fails the condition. By default, an error is thrown but it is possible to generate warnings or messages instead (see the examples).

Author(s)

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Examples

```
is_numeric(1:10)
assert_all_are_positive(1:10)
dont_stop(assert_is_scalar(runif(10)))
```

assert_engine	<i>Throws an error if a condition isn't met</i>
---------------	---

Description

See [assert_engine](#).

assert_is_all_of	<i>Does x belong to these classes?</i>
------------------	--

Description

See [assert_is_all_of](#).

bapply	<i>Wrapper to vapply that returns booleans.</i>
--------	---

Description

See [bapply](#).

call_and_name	<i>Call a function, and give the result names.</i>
---------------	--

Description

See [call_and_name](#).

cause	<i>Get or set the "cause" attribute</i>
-------	---

Description

See [cause](#).

changes	<i>Important changes to assertive</i>
---------	---------------------------------------

Description

Changes since 0.3-0:

Virtuality

The assertive package is now a virtual package: that is, it no longer contains its own functions, but instead reexports them from lower-level packages.

For interactive use, you can carry on using assertive as before.

For programmatic use, you can have more fine-grained control over what gets loaded by using the lower-level packages.

`assertive.base` contains the core functionality. `assertive.properties` contains checks on properties of variables. `assertive.types` contains checks on types of variables. `assertive.numbers` contains checks for numbers. `assertive.strings` contains checks for strings. `assertive.dates` contains checks for dates and times. `assertive.files` contains checks for files and connections. `assertive.sets` contains checks for sets. `assertive.matrices` contains checks for matrices. `assertive.models` contains checks for models. `assertive.data` contains checks for complex data types. `assertive.data.uk` contains checks for UK-specific complex data types. `assertive.data.us` contains checks for US-specific complex data types. `assertive.reflection` contains checks on the state of R. `assertive.code` contains checks for code.

Translations

The infrastructure for errors and warnings in multiple languages is in place, and translations are planned for future versions. If you want to be a translator, email me at [<richierocks@gmail.com>](mailto:richierocks@gmail.com).

`character_to_list_of_integer_vectors`

Convert a character vector to a list of integer vectors See [character_to_list_of_integer_vectors](#).

Description

Convert a character vector to a list of integer vectors

See [character_to_list_of_integer_vectors](#).

`coerce_to`

Coerce variable to a different class

Description

See [coerce_to](#).

`DIM`

Get the dimensions of an object

Description

See [DIM](#).

See [DIM](#).

`dont_stop`

Run code without stopping

Description

See [dont_stop](#).

`false`

FALSE, with a cause of failure

Description

See [false](#).

`get_name_in_parent` *Get the name of a variable in the parent frame*

Description

See [get_name_in_parent](#).

`has_any_attributes` *Does the input have any attributes?*

Description

See [has_any_attributes](#).

`has_arg` *Does the current call have an argument? See [has_arg](#).*

Description

Does the current call have an argument?

See [has_arg](#).

`has_attributes` *Does the input have the specified attributes?*

Description

See [has_attributes](#).

`has_cols` *Does the input have rows/columns?*

Description

See [has_cols](#).

has_dims	<i>Does the input have dimensions?</i>
----------	--

Description

See [has_dims](#).

has_duplicates	<i>Does the input have duplicates?</i>
----------------	--

Description

See [has_duplicates](#).

has_names	<i>Does the input have names?</i>
-----------	-----------------------------------

Description

See [has_names](#).

has_slot	<i>Does the S4 input have a slot?</i>
----------	---------------------------------------

Description

See [has_slot](#).

has_terms	<i>Does the input have terms?</i>
-----------	-----------------------------------

Description

See [has_terms](#).

is2	<i>Alternative version of is</i>
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Description

See [is2](#).

is_array	<i>Is the input an array or matrix?</i>
----------	---

Description

See [is_array](#).

is_atomic	<i>Is the input atomic/recursive/vector?</i>
-----------	--

Description

See [is_atomic](#).

is_batch_mode	<i>How is R running?</i>
---------------	--------------------------

Description

See [is_batch_mode](#).

is_binding_locked	<i>Is the binding of a variable locked? See is_binding_locked.</i>
-------------------	--

Description

Is the binding of a variable locked?

See [is_binding_locked](#).

is_cas_number	<i>Does the character vector contain CAS registry numbers?</i>
---------------	--

Description

See [is_cas_number](#).

is_character	<i>Is the input of type character?</i>
--------------	--

Description

See [is_character](#).

is_class	<i>Is the input the name of a (formally defined) class?</i>
----------	---

Description

See [is_class](#).

is_closure_function	<i>Is the input a closure, builtin or special function?</i>
---------------------	---

Description

See [is_closure_function](#).

is_complex	<i>Is the input complex?</i>
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Description

See [is_complex](#).

is_connection	<i>Is the input a connection?</i>
---------------	-----------------------------------

Description

See [is_connection](#).

is_credit_card_number	<i>Does the character vector contain credit card numbers?</i>
-----------------------	---

Description

See [is_credit_card_number](#).

is_data.frame	<i>Is the input is a data.frame?</i>
---------------	--------------------------------------

Description

See [is_data.frame](#).

is_data.table	<i>Is the input a data.table?</i>
---------------	-----------------------------------

Description

See [is_data.table](#).

is_date	<i>Is the input a date?</i>
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Description

See [is_date](#).

is_date_string	<i>Does the character vector contain dates?</i>
----------------	---

Description

See [is_date_string](#).

is_debugged	<i>Is the input function being debugged? See is_debugged.</i>
-------------	---

Description

Is the input function being debugged?

See [is_debugged](#).

is_diagonal_matrix	<i>Is the input a diagonal matrix?</i>
--------------------	--

Description

See [is_diagonal_matrix](#).

is_dir	<i>Is the path a directory?</i>
--------	---------------------------------

Description

See [is_dir](#).

is_divisible_by	<i>Is the input divisible by a number?</i>
-----------------	--

Description

See [is_divisible_by](#).

is_email_address	<i>Does the character vector contain email addresses?</i>
------------------	---

Description

See [is_email_address](#).

is_empty	<i>Is the input empty/scalar?</i>
----------	-----------------------------------

Description

See [is_empty](#).

is_empty_character	<i>Does the input contain empty or missing strings?</i>
--------------------	---

Description

See [is_empty_character](#).

is_empty_file	<i>Is a file too big or small?</i>
---------------	------------------------------------

Description

See [is_empty_file](#).

is_empty_model	<i>Is the input the empty model?</i>
----------------	--------------------------------------

Description

See [is_empty_model](#).

is_environment	<i>Is the input an environment?</i>
----------------	-------------------------------------

Description

See [is_environment](#).

is_equal_to	<i>How does the input relate to a value?</i>
-------------	--

Description

See [is_equal_to](#).

is_error_free	<i>Does the code run without throwing an error? See is_error_free.</i>
---------------	--

Description

Does the code run without throwing an error?

See [is_error_free](#).

is_executable_file	<i>Is the file accessible?</i>
--------------------	--------------------------------

Description

See [is_executable_file](#).

is_existing	<i>Does the variable exist? See is_existing.</i>
-------------	--

Description

Does the variable exist?

See [is_existing](#).

is_existing_file *Does the file exist?*

Description

See [is_existing_file](#).

is_externalptr *Is the input an external pointer?*

Description

See [is_externalptr](#).

is_factor *Is the input a factor?*

Description

See [is_factor](#).

is_finite *Are the inputs (in)finite?*

Description

See [is_finite](#).

is_formula *Is the input a formula?*

Description

See [is_formula](#).

is_function	<i>Is the input a function?</i>
-------------	---------------------------------

Description

See [is_function](#).

is_hex_color	<i>Does the character vector contain hex colors?</i>
--------------	--

Description

See [is_hex_color](#).

is_honorific	<i>Is the string an honorific?</i>
--------------	------------------------------------

Description

See [is_honorific](#).

is_identity_matrix	<i>Is the input an identity matrix?</i>
--------------------	---

Description

See [is_identity_matrix](#).

is_if_condition	<i>Is suitable to be used as an if condition See is_if_condition.</i>
-----------------	---

Description

Is suitable to be used as an if condition

See [is_if_condition](#).

is_inherited_from *Does the object inherit from some class?*

Description

See [is_inherited_from](#).

is_integer *Is the input an integer?*

Description

See [is_integer](#).

is_internal_function *Is the input an internal function?*

Description

See [is_closure_function](#).

is_in_past *Is the input in the past/future?*

Description

See [is_in_past](#).

is_in_range *Is the input in range?*

Description

See [is_in_range](#).

is_ip_address	<i>Does the character vector contain IP addresses?</i>
---------------	--

Description

See [is_ip_address](#).

is_isbn_code	<i>Does the character vector contain ISBN book codes?</i>
--------------	---

Description

See [is_isbn_code](#).

is_language	<i>Is the input a language object?</i>
-------------	--

Description

See [is_language](#).

is_leaf	<i>Is the input a (dendrogram) leaf?</i>
---------	--

Description

See [is_leaf](#).

is_library	<i>Is the directory a known R library?</i>
------------	--

Description

See [is_library](#).

is_list	<i>Is the input a list?</i>
---------	-----------------------------

Description

See [is_list](#).

is_loaded	<i>Is the input DLL loaded? See is_loaded.</i>
-----------	--

Description

Is the input DLL loaded?

See [is_loaded](#).

is_logical	<i>Is the input logical?</i>
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Description

See [is_logical](#).

is_lower_triangular_matrix	<i>Is the matrix upper/lower triangular?</i>
----------------------------	--

Description

See [is_lower_triangular_matrix](#).

is_matching_fixed	<i>Does the string match a pattern? See is_matching_fixed.</i>
-------------------	--

Description

Does the string match a pattern?

See [is_matching_fixed](#).

is_monotonic_increasing

Is the vector monotonically increasing or decreasing?

Description

See [is_monotonic_increasing](#).

is_nan

Is the input (not) NaN?

Description

See [is_nan](#).

is_null

Checks to see if the input is (not) null.

Description

See [is_null](#).

is_numeric

Is the input numeric?

Description

See [is_numeric](#).

is_numeric_string

Does the string contain a number? See [is_numeric_string](#).

Description

Does the string contain a number?

See [is_numeric_string](#).

is_on_os_path	<i>Is the path on the OS path?</i>
---------------	------------------------------------

Description

See [is_on_os_path](#).

is_package_current	<i>Is the installed version of a package current?</i>
--------------------	---

Description

See [is_package_current](#).

is_qr	<i>Is the input a QR decomposition of a matrix?</i>
-------	---

Description

See [is_qr](#).

is_r	<i>Are you running R?</i>
------	---------------------------

Description

See [is_r](#).

is_raster	<i>Is the input a raster?</i>
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Description

See [is_raster](#).

is_raw	<i>Is the input raw?</i>
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Description

See [is_raw](#).

is_real	<i>Is the input real/imaginary?</i>
---------	-------------------------------------

Description

See [is_real](#).

is_relistable	<i>Is the input relistable?</i>
---------------	---------------------------------

Description

See [is_relistable](#).

is_rstudio_current	<i>Is RStudio the current version?</i>
--------------------	--

Description

See [is_rstudio_current](#).

is_rstudio_desktop	<i>Is RStudio running in desktop or server mode?</i>
--------------------	--

Description

See [is_rstudio_desktop](#).

is_r_current	<i>Is this version of R up to date?</i>
--------------	---

Description

See [is_r_current](#).

is_s3_generic	<i>Is the input an S3 generic or method?</i>
---------------	--

Description

See [is_s3_generic](#).

is_s4	<i>Is the input an S4 object?</i>
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Description

See [is_s4](#).

is_single_character	<i>Is the input a single character? See is_single_character.</i>
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Description

Is the input a single character?

See [is_single_character](#).

is_square_matrix	<i>Is the input a square matrix?</i>
------------------	--------------------------------------

Description

See [is_square_matrix](#).

is_symmetric_matrix *Is the input a symmetric matrix?*

Description

See [is_symmetric_matrix](#).

is_table *Is the input a table?*

Description

See [is_table](#).

is_tbl *Is the input a tbl?*

Description

See [is_tbl](#).

is_try_error *Is the input a condition?*

Description

See [is_try_error](#).

is_ts *Is the input a time series?*

Description

See [is_ts](#).

is_uk_car_licence *Is the string a valid UK car licence plate number?*

Description

See [is_uk_car_licence](#).

is_uk_national_insurance_number
Is the string a valid UK national insurance number?

Description

See [is_uk_national_insurance_number](#).

is_uk_postcode *Is the string a valid UK postcode?*

Description

See [is_uk_postcode](#).

is_uk_telephone_number
Is the string a valid UK telephone number?

Description

See [is_uk_telephone_number](#).

is_unsorted *Is the input unsorted?*

Description

See [is_unsorted](#).

is_us_social_security_number
Is the string a valid US SSN?

Description

See [is_us_social_security_number](#).

is_us_telephone_number
Is the string a valid US telephone number?

Description

See [is_us_telephone_number](#).

is_us_zip_code
Is the string a valid US zip code?

Description

See [is_us_zip_code](#).

is_valid_r_code
Is the input valid R code? See [is_valid_r_code](#).

Description

Is the input valid R code?

See [is_valid_r_code](#).

is_valid_variable_name
Is the string a valid variable name? See [is_valid_variable_name](#).

Description

Is the string a valid variable name?

See [is_valid_variable_name](#).

is_whole_number	<i>Is the input a whole number?</i>
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Description

See [is_whole_number](#).

is_windows	<i>What OS is running?</i>
------------	----------------------------

Description

See [is_windows](#).

is_xxx_for_decimal_point	<i>What does the current locale specify for the decimal point?</i>
--------------------------	--

Description

See [is_xxx_for_decimal_point](#).

is_zero_matrix	<i>Is the input a zero matrix?</i>
----------------	------------------------------------

Description

See [is_zero_matrix](#).

merge_dots_with_list	<i>Merge ellipsis args with a list.</i>
----------------------	---

Description

See [merge_dots_with_list](#).

na	<i>NA, with a cause of failure</i>
----	------------------------------------

Description

See [na](#).

n_elements	<i>Get the number of elements</i>
------------	-----------------------------------

Description

See [n_elements](#).

parenthesize	<i>Wrap a string in brackets</i>
--------------	----------------------------------

Description

See [parenthesize](#).

print_and_capture	<i>Print a variable and capture the output</i>
-------------------	--

Description

See [print_and_capture](#).

r_can_find_tools	<i>Can R find tools?</i>
------------------	--------------------------

Description

See [r_can_find_tools](#).

r_has_jpeg_capability *Does R have a capability?*

Description

See [r_has_jpeg_capability](#).

safe_deparse *Safe version of deparse*

Description

See [safe_deparse](#).

set_cause *Set a cause and return the input*

Description

See [set_cause](#).

strip_attributes *Strip all attributes from a variable*

Description

See [strip_attributes](#).

sys_get_locale *Get or set the system locale*

Description

See [sys_get_locale](#).

Truth	<i>Is the input TRUE/FALSE/NA?</i>
-------	------------------------------------

Description

See [Truth](#).

use_first	<i>Only use the first element of a vector</i>
-----------	---

Description

See [use_first](#).

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