

Package ‘mauricer’

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Type Package

Title Work with 'BEAST2' Packages

Version 2.5.1

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Description 'BEAST2' (<<https://www.beast2.org>>) is a widely used Bayesian phylogenetic tool, that uses DNA/RNA/protein data and many model priors to create a posterior of jointly estimated phylogenies and parameters. 'BEAST2' is commonly accompanied by 'BEAUti 2' (<<https://www.beast2.org>>), which, among others, allows one to install 'BEAST2' package. This package allows to work with 'BEAST2' packages from 'R'.

License GPL-3

Encoding UTF-8

RoxygenNote 7.1.1

Depends beastier (>= 2.4.7)

Imports stringr

Suggests beautier (>= 2.6.2), curl, knitr, markdown, rmarkdown, testit, testthat (>= 2.1.0)

VignetteBuilder knitr

URL <https://docs.ropensci.org/mauricer/> (website)
<https://github.com/ropensci/mauricer/>

BugReports <https://github.com/ropensci/mauricer/issues>

SystemRequirements BEAST2 (<https://www.beast2.org/>)

NeedsCompilation no

Repository CRAN

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default_params_doc	<i>This function does nothing. It is intended to inherit is parameters' documentation.</i>
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Description

This function does nothing. It is intended to inherit is parameters' documentation.

Usage

```
default_params_doc(beast2_folder, has_internet, name, show_warnings, verbose)
```

Arguments

beast2_folder	the folder where the BEAST2 is installed. Note that this is not the folder where the BEAST2 executable is installed: the BEAST2 executable is in a subfolder. Use get_default_beast2_folder to get the default BEAST2 folder. Use get_default_beast2_bin_path to get the full path to the default BEAST2 executable. Use get_default_beast2_jar_path to get the full path to the default BEAST2 jar file.
has_internet	boolean to indicate if the user has access to the internet. By default, this value equals the result of <code>curl::has_internet</code>
name	the package's name
show_warnings	set to TRUE to show warnings
verbose	set to TRUE for extra output, as can be used in debugging

Note

This is an internal function, so it should be marked with `@noRd`. This is not done, as this will disallow all functions to find the documentation parameters

Author(s)

Richèl J.C. Bilderbeek

get_beast2_pkg_names *Get all BEAST2 package names*

Description

List all BEAST2 packages that are available and installed. Will [stop](#) if there is no internet connection

Usage

```
get_beast2_pkg_names(  
  beast2_folder = beastier::get_default_beast2_folder(),  
  has_internet = curl::has_internet(),  
  verbose = FALSE  
)
```

Arguments

beast2_folder the folder where the BEAST2 is installed. Note that this is not the folder where the BEAST2 executable is installed: the BEAST2 executable is in a subfolder. Use [get_default_beast2_folder](#) to get the default BEAST2 folder. Use [get_default_beast2_bin_path](#) to get the full path to the default BEAST2 executable. Use [get_default_beast2_jar_path](#) to get the full path to the default BEAST2 jar file.

has_internet boolean to indicate if the user has access to the internet. By default, this value equals the result of `curl::has_internet`

verbose set to TRUE for extra output, as can be used in debugging

Value

a data frame with columns

1. name package name, for example, codebdmm
2. installed_version the installed version, for example, 2.6.2. installed_version will be NA if the package is not installed
3. latest_version version number of the latest version, for example, 2.6.3
4. dependencies packages the package depends on, for example BEASTLabs, GEO_SPHERE. dependencies will be empty if there are no dependencies
5. description description of the package, for example Nested sampling for model selection and posterior inference

Author(s)

Richèl J.C. Bilderbeek

Examples

```
if (is_beast2_installed() && curl::has_internet()) {  
  get_beast2_pkg_names()  
}
```

`get_mrc_path`*Get the full path of a mauricer file*

Description

Get the full path of a file in the inst/extdata folder. If there is no mauricer file, [get_mrc_path](#) will `stop`.

Usage

```
get_mrc_path(filename)
```

Arguments

`filename` the file's name, without the path

Value

the full path of the filename, if and only if the file is present. Will stop otherwise.

Author(s)

Richèl J.C. Bilderbeek

See Also

for more files, use [get_mrc_paths](#)

Examples

```
get_mrc_path("anthus_aco_sub.fas")
```

get_mrc_paths	<i>Get the full path of one or more mauricer files</i>
---------------	--

Description

Get the full paths of files in the inst/extdata folder. If there is a mauricer file absent, [get_mrc_paths](#) will *stop*.

Usage

```
get_mrc_paths(filenamees)
```

Arguments

filenamees the files' names, without the path

Value

the filenamees' full paths

Author(s)

Richard J.C. Bilderbeek

See Also

for one file, use [get_mrc_path](#)

Examples

```
get_mrc_paths(c("anthus_aco_sub.fas", "anthus_nd2_sub.fas"))
```

install_beast2_pkg	<i>Install a BEAST2 package</i>
--------------------	---------------------------------

Description

Install a BEAST2 package. If the package is already installed, (see [is_beast2_pkg_installed](#)), this function *stops*.

Usage

```
install_beast2_pkg(  
  name,  
  beast2_folder = beastier::get_default_beast2_folder(),  
  verbose = FALSE,  
  has_internet = curl::has_internet()  
)
```

Arguments

name	the package's name
beast2_folder	the folder where the BEAST2 is installed. Note that this is not the folder where the BEAST2 executable is installed: the BEAST2 executable is in a subfolder. Use get_default_beast2_folder to get the default BEAST2 folder. Use get_default_beast2_bin_path to get the full path to the default BEAST2 executable. Use get_default_beast2_jar_path to get the full path to the default BEAST2 jar file.
verbose	set to TRUE for extra output, as can be used in debugging
has_internet	boolean to indicate if the user has access to the internet. By default, this value equals the result of <code>curl::has_internet</code>

Value

nothing. It does install the BEAST2 package

Note

Installing or uninstalling a BEAST2 package for a (singular) BEAST2 installation, does so for all BEAST2 installations

Author(s)

Richèl J.C. Bilderbeek

Examples

```
## Not run:
  install_beast2_pkg("NS")

## End(Not run)
```

```
is_beast2_ns_pkg_installed
```

Is the BEAST2 NS package installed?

Description

Determine if the BEAST2 NS package is installed.

Usage

```
is_beast2_ns_pkg_installed(
  show_warnings = FALSE,
  verbose = FALSE,
  beast2_folder = beastier::get_default_beast2_folder()
)
```

Arguments

show_warnings set to TRUE to show warnings

verbose set to TRUE for extra output, as can be used in debugging

beast2_folder the folder where the BEAST2 is installed. Note that this is not the folder where the BEAST2 executable is installed: the BEAST2 executable is in a subfolder. Use [get_default_beast2_folder](#) to get the default BEAST2 folder. Use [get_default_beast2_bin_path](#) to get the full path to the default BEAST2 executable. Use [get_default_beast2_jar_path](#) to get the full path to the default BEAST2 jar file.

Details

Unlike [is_beast2_pkg_installed](#), this function does not need an internet connection. Instead, the function calls BEAST2 to read a BEAST2 XML file that uses NS.

Value

TRUE if the BEAST2 NS package is installed, FALSE otherwise

Author(s)

Richèl J.C. Bilderbeek

Examples

```
## Not run:  
  is_beast2_ns_pkg_installed()  
  
## End(Not run)
```

is_beast2_pkg_installed

Is a BEAST2 package installed?

Description

Checks if a BEAST2 package is installed.

Usage

```
is_beast2_pkg_installed(  
  name,  
  beast2_folder = beastier::get_default_beast2_folder(),  
  has_internet = curl::has_internet()  
)
```

Arguments

name	the package's name
beast2_folder	the folder where the BEAST2 is installed. Note that this is not the folder where the BEAST2 executable is installed: the BEAST2 executable is in a subfolder. Use get_default_beast2_folder to get the default BEAST2 folder. Use get_default_beast2_bin_path to get the full path to the default BEAST2 executable. Use get_default_beast2_jar_path to get the full path to the default BEAST2 jar file.
has_internet	boolean to indicate if the user has access to the internet. By default, this value equals the result of <code>curl::has_internet</code>

Details

To be able to check this, an internet connection is needed. Without an internet connection, NULL is returned.

Value

- TRUE if the BEAST2 package is installed
- FALSE if the BEAST2 package is not installed
- NULL if there is no internet connection

Author(s)

Richèl J.C. Bilderbeek

See Also

Use [is_beast2_ns_pkg_installed](#) to see if the NS package is installed without an internet connection

Examples

```
## Not run:
  is_beast2_pkg_installed("Beasy")

## End(Not run)
```

mauricer

mauricer: Install BEAST2 packages.

Description

'BEAST2' (<<http://www.beast2.org>>) is a widely used Bayesian phylogenetic tool, that uses DNA/RNA/protein data and many model priors to create a posterior of jointly estimated phylogenies and parameters.

Details

'BEAST2' is commonly accompanied by 'BEAUti 2' (<<http://www.beast2.org>>), which, among others, allows one to install 'BEAST2' package. This package allows to install 'BEAST2' packages from 'R'.

* [get_beast2_pkg_names](#): get the names of all BEAST2 packages * [install_beast2_pkg](#): install a BEAST2 package * [is_beast2_pkg_installed](#): determine if a BEAST2 package is installed * [uninstall_beast2_pkg](#): uninstall a BEAST2 package

See Also

[mauricer](#) is part of the *babette* package suite:

- [babette](#): work with BEAST2
- [beautier](#): create BEAST2 input files
- [beastier](#): run BEAST2
- [mauricer](#): install BEAST2 packages
- [tracerer](#): parse and analyse BEAST2 output

`uninstall_beast2_pkg` *Uninstall a BEAST2 package*

Description

Uninstall a BEAST2 package

Usage

```
uninstall_beast2_pkg(
  name,
  beast2_folder = beastier::get_default_beast2_folder(),
  verbose = FALSE,
  has_internet = curl::has_internet()
)
```

Arguments

<code>name</code>	the package's name
<code>beast2_folder</code>	the folder where the BEAST2 is installed. Note that this is not the folder where the BEAST2 executable is installed: the BEAST2 executable is in a subfolder. Use get_default_beast2_folder to get the default BEAST2 folder. Use get_default_beast2_bin_path to get the full path to the default BEAST2 executable. Use get_default_beast2_jar_path to get the full path to the default BEAST2 jar file.
<code>verbose</code>	set to TRUE for extra output, as can be used in debugging
<code>has_internet</code>	boolean to indicate if the user has access to the internet. By default, this value equals the result of <code>curl::has_internet</code>

Value

nothing. It does install the BEAST2 package

Note

Installing or uninstalling a BEAST2 package for a (singular) BEAST2 installation, does so for all BEAST2 installations

Author(s)

Richèl J.C. Bilderbeek

Examples

```
## Not run:  
  uninstall_beast2_pkg("Beasy")  
  
## End(Not run)
```

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