

Package ‘scriptexec’

April 12, 2019

Title Execute Native Scripts

Version 0.3.1

Description Run complex native scripts with a single command, similar to system commands.

License Apache License 2.0

URL <https://github.com/sagiegurari/scriptexec>

BugReports <https://github.com/sagiegurari/scriptexec/issues>

Depends R (>= 3.2.3)

Encoding UTF-8

RoxygenNote 6.1.1

Suggests knitr (>= 1.22), testthat (>= 2.0.1), lintr (>= 1.0.3),
formatR (>= 1.6), devtools (>= 2.0.2), roxygen2 (>= 6.1.1),
rmarkdown (>= 1.12), Rd2md (>= 0.0.2)

VignetteBuilder knitr

NeedsCompilation no

Author Sagie Gur-Ari [aut, cre]

Maintainer Sagie Gur-Ari <sagiegurari@gmail.com>

Repository CRAN

Date/Publication 2019-04-12 17:22:38 UTC

R topics documented:

build_output	2
create_script_file	2
create_system_call_args	3
execute	4
generate_args_setup_script	5
generate_env_setup_script	6
get_command	6
get_platform_value	7
is_windows	8

modify_script	8
on_invoke_error	9
scriptexec	9

Index	10
--------------	-----------

build_output	<i>Builds the output structure.</i>
--------------	-------------------------------------

Description

Builds the output structure.

Usage

```
build_output(output, wait)
```

Arguments

output	The invocation output
wait	A TRUE/FALSE parameter, indicating whether the function should wait for the command to finish, or run it asynchronously

Value

The script output structure

Examples

```
output <- c('line 1', '\n', 'line 2')
attr(output, 'status') <- 15
script_output <- build_output(output)
```

create_script_file	<i>Creates a temporary file, writes the provided script content into it and returns the file name.</i>
--------------------	--

Description

Creates a temporary file, writes the provided script content into it and returns the file name.

Usage

```
create_script_file(script = "")
```

Arguments

script	The script text
--------	-----------------

Value

The temporary file name

Examples

```
filename <- create_script_file('echo test')
```

```
create_system_call_args
```

Returns the system call arguments.

Description

Returns the system call arguments.

Usage

```
create_system_call_args(command, cli_args, wait, env, is_windows_os)
```

Arguments

command	The command to invoke
cli_args	Possible list of command line arguments
wait	A TRUE/FALSE parameter, indicating whether the function should wait for the command to finish, or run it asynchronously
env	Optional character vector of name=value strings to set environment variables
is_windows_os	True if windows based OS, false for unix based OS

Value

The system call arguments

Examples

```
filename <- './myfile.sh'  
arg_list <- create_system_call_args('sh', c(filename), TRUE, character(), FALSE)
```

execute	<i>Executes a script and returns the output. The stdout and stderr are captured and returned. In case of errors, the exit code will return in the status field.</i>
---------	---

Description

Executes a script and returns the output. The stdout and stderr are captured and returned. In case of errors, the exit code will return in the status field.

Usage

```
execute(script = "", args = c(), env = character(), wait = TRUE,
        runner = NULL, print_commands = FALSE, get_runtime_script = FALSE)
```

Arguments

script	The script text
args	Optional script command line arguments (arguments are added as variables in the script named ARG1, ARG2, ...)
env	Optional character vector of name=value strings to set environment variables
wait	A TRUE/FALSE parameter, indicating whether the function should wait for the command to finish, or run it asynchronously (output status will be -1)
runner	The executable used to invoke the script (by default cmd.exe for windows, sh for other platforms)
print_commands	True if to print each command before invocation (not available for windows)
get_runtime_script	True to return the actual invoked script in a script output parameter

Value

The process output, status code (in case wait=TRUE), error message (in case of any errors) and invoked script in the form of list(status = status, output = output_text, error = error_message, script = script)

Examples

```
library('scriptexec')
library('testthat')

# execute script text
output <- scriptexec::execute('echo command1\necho command2')
expect_equal(output$status, 0)
expect_equal(grepl('command1', output$output), TRUE)
expect_equal(grepl('command2', output$output), TRUE)
```

```

if (.Platform$OS.type == 'windows') {
  ls_command <- 'dir'
} else {
  ls_command <- 'ls'
}
output <- scriptexec::execute(c('echo user home:', ls_command))
expect_equal(output$status, 0)

# execute multiple commands as a script
output <- scriptexec::execute(c('cd', 'echo test'))
expect_equal(output$status, 0)

# pass arguments (later defined as ARG1, ARG2, ...) and env vars
if (.Platform$OS.type == 'windows') {
  command <- 'echo %ARG1% %ARG2% %MYENV%'
} else {
  command <- 'echo $ARG1 $ARG2 $MYENV'
}
output <- scriptexec::execute(command, args = c('TEST1', 'TEST2'), env = c('MYENV=TEST3'))
expect_equal(output$status, 0)
expect_equal(grepl('TEST1 TEST2 TEST3', output$output), TRUE)

# non zero status code is returned in case of errors
expect_warning(output <- scriptexec::execute('exit 1'))
expect_equal(output$status, 1)

# do not wait for command to finish
output <- scriptexec::execute('echo my really long task', wait = FALSE)
expect_equal(output$status, -1)

```

```
generate_args_setup_script
```

Generates and returns a script which sets up the env vars for the script arguments

Description

Generates and returns a script which sets up the env vars for the script arguments

Usage

```
generate_args_setup_script(args = character())
```

Arguments

args Optional script command line arguments

Value

The script text which sets up the env vars for the script arguments

Examples

```
script <- generate_args_setup_script(args = c('first', 'second'))
```

```
generate_env_setup_script
```

Generates and returns a script which sets up the env vars for the script execution.

Description

Generates and returns a script which sets up the env vars for the script execution.

Usage

```
generate_env_setup_script(env = character())
```

Arguments

env Optional character vector of name=value strings to set environment variables

Value

The script text which sets up the env

Examples

```
script <- generate_env_setup_script(c('ENV_TEST=MYENV'))
```

```
get_command
```

Returns the command and arguments needed to execute the provided script file on the current platform.

Description

Returns the command and arguments needed to execute the provided script file on the current platform.

Usage

```
get_command(filename, runner = NULL)
```

Arguments

filename The script file to execute

runner The executable used to invoke the script (by default cmd.exe for windows, sh for other platforms)

Value

A list holding the command and arguments

Examples

```
command_struct <- get_command('myfile.sh')
command <- command_struct$command
cli_args <- command_struct$args
```

get_platform_value *Returns the value based on the current platform.*

Description

Returns the value based on the current platform.

Usage

```
get_platform_value(unix_value = c(), windows_value = c()),
force_windows = FALSE)
```

Arguments

- unix_value The unix platform value
- windows_value The windows platform value
- force_windows True to force windows (defaulted to OS validation)

Value

unix_value in case of unix system, else the windows_value

Examples

```
platform_value <- get_platform_value('.sh', '.bat')
```

is_windows	<i>Returns true if windows, else false.</i>
------------	---

Description

Returns true if windows, else false.

Usage

```
is_windows()
```

Value

True if windows, else false.

Examples

```
windows <- is_windows()
```

modify_script	<i>Modifies the provided script text and ensures the script content is executed in the correct location.</i>
---------------	--

Description

Modifies the provided script text and ensures the script content is executed in the correct location.

Usage

```
modify_script(script, args = c(), env = character(),
  print_commands = FALSE, is_windows_os = FALSE)
```

Arguments

script	The script text
args	Optional script command line arguments
env	Optional character vector of name=value strings to set environment variables
print_commands	True if to print each command before invocation (not available for windows)
is_windows_os	True if windows based OS, false for unix based OS

Value

The modified script text

Examples

```
script <- modify_script(script = 'echo test', args = c('first', 'second'), env = c('MYENV=MYENV'))
```

on_invoke_error	<i>Internal error handler.</i>
-----------------	--------------------------------

Description

Internal error handler.

Usage

```
on_invoke_error(error)
```

Arguments

error	The invocation error
-------	----------------------

Value

The invocation output

scriptexec	<i>scriptexec: Execute native scripts</i>
------------	---

Description

This package provides one main function: `execute` which executes the provided script and returns its output.

Index

`build_output`, 2

`create_script_file`, 2

`create_system_call_args`, 3

`execute`, 4

`generate_args_setup_script`, 5

`generate_env_setup_script`, 6

`get_command`, 6

`get_platform_value`, 7

`is_windows`, 8

`modify_script`, 8

`on_invoke_error`, 9

`scriptexec`, 9

`scriptexec-package (scriptexec)`, 9