Package: asciicast (via r-universe)

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Julie 17, 2024
Title Create 'Ascii' Screen Casts from R Scripts
Version 2.3.1.9000
Description Record 'asciicast' screen casts from R scripts. Convert them to animated SVG images, to be used in 'README' files, or blog posts. Includes 'asciinema-player' as an 'HTML' widget, and an 'asciicast' 'knitr' engine, to embed 'ascii' screen casts in 'Rmarkdown' documents.
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<pre>URL https://asciicast.r-lib.org/, https://github.com/r-lib/asciicast</pre>
<pre>BugReports https://github.com/r-lib/asciicast/issues</pre>
Imports cli (>= 3.3.0.9000), curl, jsonlite, magick (>= 2.2.9002), processx (>= 3.7.0), tibble, utils, V8, withr
Suggests callr, covr, cpp11, decor, htmlwidgets, knitr, mockery, rmarkdown, rstudioapi, testthat (>= 3.2.0)
LinkingTo processx
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Description

You can set asciicast parameters in the header of the recorded R script. The header is in DCF format (see read.dcf()), but all lines are prefixed with #' comments.

Details

The DCF header may specify arbitrary parameters. We list here the parameters that are interpreted by the asciicast functions.

Recording parameters:

- allow_errors: Whether to cast errors properly. If this is set to TRUE, then asciicast overwrites the "error" option. Only change this if you know what you are doing.
- cols: Width of the terminal, in number of characters.
- empty_wait: How long to wait for empty lines in the script file, in seconds.
- end_wait: Delay at the very end, in seconds.
- env: Environment variables to include in the case JSON file. Defaults to list(TERM = "xterm-256color", SHELL = "/bin/zsh").
- idle_time_limit: Time limit for the cast not printing anything, in seconds. By default there is no limit.
- record_env: Environment variables to set for the R subprocess.
- rows: Height of the terminal, in number of characters.
- start_wait: Delay at the beginning, in seconds.

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• timeout: Idle timeout, in seconds If the R subprocess running the recording does not answer within this limit, it is killed and the recording stops. Update this for slow running code, that produces no output as it runs.

- timestamp: Time stamp of the recording, defaults to Sys.time(), this is included in the cast ISON file.
- title: Title of the cast, this is included in the cast JSON file.
- typing_speed: Average typing speed, per keypress, in seconds.

Asciinema player parameters:

- author: Author, displayed in the titlebar in fullscreen mode.
- author_img_url: URL of the author's image, displayed in the titlebar in fullscreen mode.
- author_url: URL of the author's homepage/profile. Author name (author above) is linked to this URL.
- autoplay: Whether to start playing the cast automatically.
- cols: Width of the terminal, in number of characters.
- font_size: Size of terminal font. Possible values: small, medium, big, any css font-size value (e.g. 15px).
- idle_time_limit: Time limit for the cast not printing anything, in seconds. By default there is no limit.
- loop: Whether to loop the playback.
- poster_frame: Which frame to use (in seconds) as the preview picture.
- poster_text: Text to use as the preview picture. Defaults to the title.
- rows: Height of the terminal, in number of characters.
- speed: Whether to play slower or faster. 1 is normal speed.
- start_at: Where to start the playback from, in seconds.
- theme: Theme to use, currently it has to be a string, one of "asciinema", "tango", "solarized-dark", "solarized-light", "monokai". The first one is the default.
- title: Title of the cast.

Parameters for SVG files:

- at: Timestamp of single frame to render, in seconds.
- cols: Width of the terminal, in number of characters.
- cursor: Enable cursor rendering.
- end_at: Upper range of timeline to render in seconds.
- padding: Distance between text and image bounds.
- padding_x: Distance between text and image bounds on x axis.
- padding_y: Distance between text and image bounds on y axis.
- rows: Height of the terminal, in number of characters.
- start_at: Where to start the playback from, in seconds.
- window: Render with window decorations.

• theme: Theme to use, currently it has to be a string referring to a build-in theme, or a named list of theme properties, see default_theme(). The built-in themes are "asciinema", "tango", "solarized-dark", "solarized-light", "seti", "monokai", "github-light", "github-dark", "pkgdown", "readme". "readme" is a special theme the switches between light and dark mode automatically in README.md files on GitHub.

See Also

Other asciicast functions: asciicast_start_process(), read_cast(), record(), write_json()

asciicast_options

Default options to set in the asciicast subprocess.

Description

Default options to set in the asciicast subprocess.

Usage

```
asciicast_options()
```

Value

Named list.

Examples

```
asciicast_options()
```

```
asciicast_start_process
```

Start an asciicast background process

Description

This is for expert use, if you want to run multiple recordings in the same process.

```
asciicast_start_process(
  startup = NULL,
  timeout = 10,
  record_env = NULL,
  interactive = TRUE,
  locales = get_locales(),
  options = NULL,
  show_output = FALSE
)
```

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Arguments

startup Quoted language object to run in the subprocess before starting the recording. timeout Idle timeout, in seconds If the R subprocess running the recording does not answer within this limit, it is killed and the recording stops. record_env Environment variables to set for the R subprocess. interactive Whether to run R in interactive mode. Note that in interactive mode R might ask for terminal input. locales Locales to set in the asciicast subprocess. Defaults to the current locales in the main R process. Specify a named character vector here to override some of the defaults. See also get_locales(). Options to set in the subprocess, a named list. They are departed to code, and options then the code setting them is executed in the subprocess. See asciicast_options() for the defaults. Supply a named list here to override the defaults or set additionsl ones. Passing large and/or complicated options here might not work, or might be slow.

Whether to show the output of the subprocess in real time.

Value

show_output

The R process, a processx::process object.

See Also

```
Other asciicast functions: asciicast-package, read_cast(), record(), write_json()
```

Examples

```
# Use the same R process to record multiple casts
process <- asciicast_start_process()
script1 <- "a <- runif(10)\n"
script2 <- "a\n"
cast1 <- record(textConnection(script1), process = process)
cast2 <- record(textConnection(script2), process = process)
cast1
cast2</pre>
```

asciinema_player

asciinema player HTML widget

Description

You can use this widget in Rmd files or Shiny applications, the same way as other HTML widgets.

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Usage

```
asciinema_player(
  cast,
  start_at = 0,
  rows = NULL,
  cols = NULL,
  autoplay = NULL,
  loop = NULL,
  speed = NULL,
  title = NULL,
  author = NULL,
  author_url = NULL,
  author_img_url = NULL,
  poster_text = NULL,
  poster_frame = NULL,
  font_size = NULL,
  theme = NULL,
  idle_time_limit = NULL,
  html_height = NULL,
  html_width = NULL,
  element_id = NULL
)
```

asciicast object.

value (e.g. 15px).

Arguments

cast

font_size

start_at	Where to start the playback from, in seconds.
rows	Number of rows, defaults to the number of rows in the recording, or 24 if not specified in the cast.
cols	Number of columns, defaults to the number columns in the recording, or 80 if not specified in the cast.
autoplay	Whether to start playing the cast automatically.
loop	Whether to loop the playback.
speed	Whether to play slower or faster. 1 is normal speed.
title	If specified, it overrides the title in the recording.
author	Author, displayed in the titlebar in fullscreen mode.
author_url	URL of the author's homepage/profile. Author name (author above) is linked to this URL.
author_img_url	URL of the author's image, displayed in the titlebar in fullscreen mode.
poster_text	if not NULL, used as the text of the poster (preview).
poster_frame	Which frame to use for the preview. A number means seconds. Defaults to the

last frame. This is only used if poster_text is NULL.

Size of terminal font. Possible values: small, medium, big, any css font-size

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theme Theme.

idle_time_limit

Time limit for the cast not printing anything, in seconds. By default there is no

limit.

html_height HTML height of the widget. html_width HTML width of the widget.

element_id HTML id of the widget's element. If NULL, then the id is generated randomly.

Examples

```
cast <- read_cast(system.file("examples", "hello.cast", package = "asciicast"))
asciinema_player(cast)</pre>
```

clear_screen

Merge multiple ASCII casts into one

Description

The new cast will inherit its options (screen size, etc.) from the first cast in the argument list. The options of the rest of the casts are ignored.

Usage

```
clear_screen()
pause(secs)
merge_casts(...)
```

Arguments

secs Number of seconds to wait.

Ascii casts to merge or merge commands. Merge commands provide a way to insert pause, clear the screen, etc., between casts.

Details

pause() inserts a pause of the specified seconds between the casts.

clear_screen() clears the screen between two casts.

Value

An asciicast object.

Examples

```
# merge two casts, with a pause, and clear screen between them
cast1 <- read_cast(system.file("examples", "hello.cast", package = "asciicast"))
cast2 <- read_cast(system.file("examples", "dplyr.cast", package = "asciicast"))
cast <- merge_casts(cast1, pause(3), clear_screen(), cast2)
play(cast)</pre>
```

default_theme

The default asciicast theme

Description

Currently only used for write_svg()

Usage

```
default_theme()
```

Value

A named list.

See Also

```
Other SVG functions: play(), write_svg()
```

Examples

```
cast <- read_cast(system.file("examples", "hello.cast", package = "asciicast"))
svg_file <- tempfile(fileext = ".svg")
mytheme <- modifyList(default_theme(), list(cursor = c(255, 0, 0)))
write_svg(cast, svg_file, theme = mytheme)</pre>
```

```
expect_snapshot_r_process
```

testthat snapshot test with asciicast

Description

This function is very similar to testthat::expect_snapshot_output(), but it runs the code in an asciciast subprocess, using record_output().

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Usage

```
expect_snapshot_r_process(
    ...,
    interactive = TRUE,
    echo = TRUE,
    startup = NULL,
    transform = NULL,
    variant = NULL
)
```

Arguments

Code to run (unnamed arguments) and arguments to pass to record_output()
(named arguments). The code is evaluated in a new asciicast subprocess. Their
output is returned and used in a testthat snapshot test.

Whether to use an interactive R process to evaluate the code.

Whether to echo the code in the subprocess before running it.

Expression to evaluate in the subprocess before recording the snapshot. By default it loads and attaches the calling package, including its internal functions.

Transform Passed to testthat::expect_snapshot().

Passed to testthat::expect_snapshot().

Details

THe Code part of the snapshot is always the same, but the Output part shows the code, assuming echo = TRUE (the default).

Examples

```
Sys.getpid()
testthat::local_edition(3)
expect_snapshot_r_process(Sys.getpid())
```

get_locales

Helper function to query locales as a named character vector.

Description

Helper function to query locales as a named character vector.

```
get_locales()
```

init_knitr_engine

Value

Named character vector with entries:

• LC_COLLATE, LC_CTYPE, LC_MONETARY, LC_NUMERIC and LC_TIME.

init_knitr_engine

Initialize the asciicast knitr engine

Description

Call this function in your Rmd file to enable creating asciinema casts from code chunks.

Usage

```
init_knitr_engine(
  echo = FALSE,
  same_process = TRUE,
  timeout = 10,
  startup = NULL,
  record_env = NULL,
  echo_input = TRUE,
  interactive = TRUE
)
```

Arguments

echo	Whether to print the code of asciicast chunks.
same_process	Whether to run all asciicast chunks <i>in the same</i> R process. To restart this R process, call init_knitr_engine() again.
timeout	Idle timeout, in seconds If the R subprocess running the recording does not answer within this limit, it is killed and the recording stops.
startup	Quoted language object to run in the subprocess before starting the recording.
record_env	Environment variables to set for the R subprocess.
echo_input	Whether to echo the input in the asciicast recording.
interactive	Whether to run R in interactive mode. Note that in interactive mode R might ask for terminal input.

Details

Limitations:

• purl() or setting the purl = TRUE chunk option, does not work properly, in that knitr thinks that asciicast chunks are not R code, so they will appear as comments. If you know how to fix this, please contact us.

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Examples

Call this function from an Rmd chunk and then you can use the asciicast knitr engine:

```
"" {r setup, include = FALSE}
asciicast::init_knitr_engine()
"" {asciicast, cache = TRUE}"
#' Rows: 10
# This is an asciicast example
loadedNamespaces()
""
```

install_phantomjs

Install PhantomJS

Description

Download the zip package, unzip it, and copy the executable to a system directory in which **asciicast** can look for the PhantomJS executable.

Usage

```
install_phantomjs(
  version = "2.1.1",
  baseURL = "https://github.com/wch/webshot/releases/download/v0.3.1/",
  quiet = FALSE
)
```

Arguments

version The version number of PhantomJS.

baseURL The base URL for the location of PhantomJS binaries for download. If the

default download site is unavailable, you may specify an alternative mirror, such

as "https://bitbucket.org/ariya/phantomjs/downloads/".

quiet If TRUE suppress status messages and progress bar.

Details

This function was designed primarily to help Windows users since it is cumbersome to modify the PATH variable. Mac OS X users may install PhantomJS via Homebrew. If you download the package from the PhantomJS website instead, please make sure the executable can be found via the PATH variable.

On Windows, the directory specified by the environment variable APPDATA is used to store 'phantomjs.exe'. On OS X, the directory '~/Library/Application Support' is used. On other platforms (such as Linux), the directory '~/bin' is used. If these directories are not writable, the directory 'PhantomJS' under the installation directory of the **asciicast** package will be tried. If this directory still fails, you will have to install PhantomJS by yourself.

read_cast

Value

NULL (the executable is written to a system directory).

play

Play asciinema cast as an SVG image in the default browser

Description

Uses write_svg() to create an SVG image for a cast, in a temporary file, and then previews a minimal HTML file with the SVG image, in the default browser.

Usage

```
play(cast, ...)
```

Arguments

cast asciicast object

... Additional arguments are passed to write_svg().

Value

The path of the temporary SVG file, invisibly.

See Also

```
Other SVG functions: default_theme(), write_svg()
```

Examples

```
cast <- read_cast(system.file("examples", "hello.cast", package = "asciicast"))
play(cast)</pre>
```

read_cast

Import an asciicast from an asciicast JSON file

Description

Import an asciicast from an asciicast JSON file

```
read_cast(json)
```

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Arguments

json

Path to JSON asciicast file, version 2: https://github.com/asciinema/asciinema/blob/master/doc/asciicast-v2.md. If a numeric id, then it is taken as a public https://asciinema.org recording id, that is downloaded. It can also be a URL of private https://asciinema.org link.

Value

asciicast object.

See Also

Other asciicast functions: asciicast-package, asciicast_start_process(), record(), write_json()

Examples

```
c1 <- read_cast("https://asciinema.org/a/uHQwIVpiZvu0Ioio8KYx6Uwlj.cast?dl=1")
play(c1)

c2 <- read_cast(258660)
play(c2)

c3 <- read_cast(system.file("examples", "hello.cast", package = "asciicast"))
play(c3)</pre>
```

record

Record an asciinema screencast

Description

Record an asciinema screencast

```
record(
   script,
   typing_speed = NULL,
   empty_wait = NULL,
   cols = NULL,
   rows = NULL,
   title = NULL,
   timestamp = NULL,
   env = NULL,
   idle_time_limit = NULL,
   timeout = NULL,
   start_wait = NULL,
```

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```
end_wait = NULL,
record_env = NULL,
startup = NULL,
echo = TRUE,
speed = NULL,
process = NULL,
interactive = TRUE,
locales = get_locales(),
options = asciicast_options(),
incomplete_error = NULL,
show_output = FALSE
)
```

Arguments

script Path of an R script to record. It can also be a readable R connection or URL, as

it is passed to base::readLines(). It can also be a language object, which is

deparsed, or a character vector with the source code itself.

typing_speed Average typing speed, per keypress, in seconds.

empty_wait How long to wait for empty lines in the script file, in seconds.

cols Width of the terminal, in number of characters.

rows Height of the terminal, in number of characters. If it the string "auto", then it

will be determined automatically, by including all output on the screen.

title Title of the cast, this is included in the cast JSON file.

timestamp Time stamp of the recording, defaults to Sys.time(), this is included in the cast

JSON file.

env Environment variables to include in the case JSON file. Defaults to list(TERM

= "xterm-256color", SHELL = "/bin/zsh").

idle_time_limit

Time limit for the cast not printing anything, in seconds. By default there is no

limit.

timeout Idle timeout, in seconds If the R subprocess running the recording does not

answer within this limit, it is killed and the recording stops. Update this for

slow running code, that produces no output as it runs.

start_wait Delay at the beginning, in seconds.
end_wait Delay at the very end, in seconds.

record_env Environment variables to set for the R subprocess.

startup Quoted language object to run in the subprocess before starting the recording.

echo Whether to echo the input to the terminal. If FALSE, then only the output is

shown.

speed Rescale the speed of the recorded cast with this factor. The delay of the first

frame is kept constant.

process A processx subprocess to run the cast in. By default a new subprocess is started.

You can reuse a process by calling asciicast_start_process() first, and sup-

plying the returned process here.

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Whether to run R in interactive mode. This argument is ignored if process is interactive specified. If process is NULL then it is passed to asciicast_start_process(). locales Locales to set in the asciicast subprocess. Defaults to the current locales in the main R process. Specify a named character vector here to override some of the defaults. See also get_locales(). Options to set in the subprocess, a named list. They are departed to code, and options then the code setting them is executed in the subprocess. See asciicast_options() for the defaults. Supply a named list here to override the defaults or set additionsl ones. Passing large and/or complicated options here might not work, or might be slow. incomplete_error Whether to error on incomplete expressions. You might need to set this to FALSE for R code that does keyboard input, e.g. in browser(). The default is TRUE.

show_output Whether to show the output of the subprocess in real time.

Value

An asciicast object, write this to file with write_json().

See Also

Other asciicast functions: asciicast-package, asciicast_start_process(), read_cast(), write_json()

Examples

```
script <- system.file("examples", "hello.R", package = "asciicast")
cast <- record(script)
play(cast)</pre>
```

record_output

Record output of an R script and return it as a character vector

Description

This function uses record() internally, but instead of creating an ascii cast, it just returns the output of the code in a character vector.

```
record_output(
   script,
   echo = FALSE,
   prompt = echo,
   stdout = TRUE,
   stderr = TRUE,
   ...
)
```

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Arguments

script	The code to record, passed to record().
echo	Whether to include the input in the return value.
prompt	Whether to include the R prompt in the return value.
stdout	Whether to include the standard output in the return value.
stderr	Whether to include the standard error in the return value.
•••	Additional arguments are passed to record(). (You cannot use typing_speed and echo, though, because these are used internally by record_output().

Value

Character vector of output (plus input if echo, plus prompt if prompt), as it would appear on a terminal.

See record() for additional options.

write_gif

Export ascii screencast to animated GIF file

Description

Export ascii screencast to animated GIF file

Usage

```
write_gif(
  cast,
  path,
  show = NULL,
  cols = NULL,
  rows = NULL,
  theme = NULL,
  scale = 2,
  speed = 1,
  max_colors = 256,
  loop = 0,
  end_wait = 10,
  optimize = TRUE
)
```

Arguments

```
cast asciicast object.
path Path to GIF file to create.
```

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Whether to show the GIF on the screen, in the viewer pane in RStudio, or using show the image viewer in the magick package. By default it only show the image in RStudio. If not NULL, *clip* terminal width to this number of columns. cols If not NULL, clip terminal height to this number of rows. rows theme Theme. Currently supported themes: asciinema, tango, solarized-dark, solarizedlight, monokai. Defaults to the theme specified in the cast, or asciiname if not specified. Image scale / pixel density. scale speed Playback speed. Higher number means faster. max_colors Maximum number of colors in the GIF. This is currently per frame. How many times to loop the animation. Zero means infinite loop. loop end_wait

Number of seconds to wait at the end, before looping.

optimize Whether to try to create smaller GIF files. This might be slow for casts with

many frames.

Value

path, invisibly.

write_html

Create a HTML snapshot of an asciicast

Description

Create a HTML snapshot of an asciicast

```
write_html(
  cast,
  path,
  at = "end",
  omit_last_line = NULL,
  prefix = "",
  theme = NULL,
  details = FALSE,
  summary = "See output"
)
```

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Arguments

cast asciicast object.

path Path to the HTML file to create.

at When to take the snapshot, defaults to the end of the cast ("end"). Can also be

a number, in seconds.

omit_last_line Whether to omit the last line of the cast. This often just the prompt, and some-

times it is not worth showing.

prefix Prefix to add to the beginning to every line. E.g. #> is usually added to knitr

output.

theme A theme name to use, or a a named list to override the default theme (see

default_theme()).

details Whether to put the output in a <details> tag.

summary Summary of the <details> tag, ignored if details is FALSE.

write_json Write an ascii cast to file

Description

The file uses the asciinema file format, version 2: https://github.com/asciinema/asciinema/blob/master/doc/asciicast-v2.md.

Usage

```
write_json(cast, path)
```

Arguments

cast asciicast object.
path Path to write to.

See Also

Other asciicast functions: asciicast-package, asciicast_start_process(), read_cast(), record()

Examples

```
script <- system.file("examples", "hello.R", package = "asciicast")
cast <- record(script)
json <- tempfile(fileext = ".json")
write_json(cast, json)</pre>
```

write_svg

write_svg

 $Create\ animated\ SVG\ from\ an\ asciicast$

Description

Create animated SVG from an asciicast

Usage

```
write_svg(
  cast,
  path,
  window = NULL,
  start_at = NULL,
  end_at = NULL,
  at = NULL,
  cursor = NULL,
  rows = NULL,
  cols = NULL,
  padding = NULL,
  padding_x = NULL,
  padding_y = NULL,
  omit_last_line = NULL,
  theme = NULL,
  show = NULL
)
```

Arguments

cast	asciicast object.
path	Path to the SVG file to create.
window	Render with window decorations.
start_at	Lower range of timeline to render in seconds.
end_at	Upper range of timeline to render in seconds.
at	Timestamp of single frame to render, in seconds. Alternatively it can be "end", to take a snapshot at the end of the cast, after all output is done.
cursor	Enable cursor rendering.
rows	Height in lines.
cols	Width in columns.
padding	Distance between text and image bounds.
padding_x	Distance between text and image bounds on x axis.
padding_y	Distance between text and image bounds on y axis.
omit_last_line	Whether to omit the last line of the cast. This often just the prompt, and sometimes it is not worth showing.

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theme A named list to override the default theme (see default_theme()).

show Whether to show the SVG file on the screen, in the viewer pane in RStudio, or

in the web browser.

See Also

```
Other SVG functions: default_theme(), play()
```

Examples

```
cast <- read_cast(system.file("examples", "hello.cast", package = "asciicast"))
svg_file <- tempfile(fileext = ".svg")
write_svg(cast, svg_file)</pre>
```

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