

Package: animejs (via r-universe)

July 20, 2026

Title R Bindings to the 'Anime.js' Animation Library

Version 1.0.0

Description Provides low-level R bindings to the 'Anime.js' library ([\(<https://animejs.com>](https://animejs.com)), enabling the creation of browser-native SVG and HTML animations via the 'htmlwidgets' framework.

License MIT + file LICENSE

URL <https://github.com/long39ng/animejs>,
<https://long39ng.github.io/animejs/>

BugReports <https://github.com/long39ng/animejs/issues>

Depends R (>= 4.1.0)

Imports cli, htmlwidgets, rlang

Suggests htmltools, jsonlite, knitr, rmarkdown, shiny, testthat (>= 3.0.0)

VignetteBuilder knitr

Config/Needs/website rmarkdown

Config/testthat/edition 3

Encoding UTF-8

Config/roxygen2/version 8.0.0

NeedsCompilation no

Author Long Nguyen [aut, cre] (ORCID:
[<https://orcid.org/0000-0001-8878-7386>](https://orcid.org/0000-0001-8878-7386))

Maintainer Long Nguyen <nguyen@dezim-institut.de>

Repository <https://cran.r-universe.dev>

Date/Publication 2026-07-20 10:10:02 UTC

RemoteUrl <https://github.com/cran/animejs>

RemoteRef HEAD

RemoteSha a6956208bbbd9a84670d90746c90389d0253d74f

Contents

anime_add	2
anime_animate	3
anime_easing	5
anime_from_to	6
anime_keyframes	7
anime_on	8
anime_playback	9
anime_render	10
anime_stagger	11
anime_target_class	12
anime_target_css	13
anime_target_id	13
anime_target_layer	14
anime_timeline	14
animejs-shiny	15
animejs_widget	16
Index	17

anime_add	<i>Add an animation segment to a timeline</i>
-----------	---

Description

Pipe-friendly. Each call appends one segment: a set of CSS property animations applied to a target selector.

Usage

```
anime_add(  
  timeline,  
  selector,  
  props,  
  offset = "+=0",  
  duration = NULL,  
  ease = NULL,  
  delay = NULL,  
  stagger = NULL  
)
```

Arguments

- | | |
|----------|--|
| timeline | An anime_timeline object. |
| selector | CSS selector string identifying the SVG/HTML elements to animate. Use anime_target_*(
helpers to construct selectors. |

props	A named list of property animations. Values may be scalars, two-element numeric vectors (from/to), anime_from_to() objects, or anime_keyframes() objects.
offset	Timeline position. "+=N" means N ms after the previous segment ends; a bare number is an absolute position in ms.
duration	Overrides the timeline default for this segment.
ease	Overrides the timeline default for this segment.
delay	Overrides the timeline default for this segment.
stagger	An anime_stagger object for per-element delay offsets.

Value

The modified [anime_timeline](#) object.

Examples

```
anime_timeline() |>
  anime_add(
    selector = anime_target_class("circle"),
    props    = list(opacity = anime_from_to(0, 1)),
    duration = 600
  )
```

anime_animate

Create a single Anime.js animation

Description

The R equivalent of Anime.js v4's `animate(targets, parameters)`: one set of property animations applied to one target selector, without a timeline. Use [anime_timeline\(\)](#) and [anime_add\(\)](#) instead when several segments must be sequenced.

Usage

```
anime_animate(
  selector,
  props,
  duration = NULL,
  ease = NULL,
  delay = NULL,
  loop = FALSE,
  alternate = FALSE,
  reversed = FALSE,
  autoplay = TRUE,
  stagger = NULL
)
```

Arguments

selector	CSS selector string identifying the SVG/HTML elements to animate. Use <code>anime_target_*</code> () helpers to construct selectors.
props	A named list of property animations. Values may be scalars, two-element numeric vectors (from/to), <code>anime_from_to()</code> objects, or <code>anime_keyframes()</code> objects.
duration	Duration in milliseconds. NULL uses the Anime.js default.
ease	Easing, an <code>anime_easing</code> object or an Anime.js easing name string. NULL uses the Anime.js default.
delay	Delay in milliseconds before the animation starts. NULL uses the Anime.js default.
loop	Logical or positive integer. FALSE for no looping, TRUE for infinite looping, or a fixed number of iterations.
alternate	Logical. Alternate direction on each iteration.
reversed	Logical. Play in reverse from the end.
autoplay	Logical. Start playing immediately on load.
stagger	An <code>anime_stagger</code> object for per-element delay offsets.

Details

Like a timeline, an `anime_animation` can be modified with `anime_playback()` and `anime_on()`, and is rendered with `anime_render()`.

Value

An `anime_animation` object.

Examples

```
anime_animate(  
  selector = anime_target_class("circle"),  
  props = list(  
    translateY = anime_from_to(-40, 0),  
    opacity = anime_from_to(0, 1)  
  ),  
  duration = 600,  
  ease = anime_easing_spring()  
)
```

anime_easing

Easing constructors

Description

A family of constructors for Anime.js v4 easing specifications. Each returns an `anime_easing` object that serialises to the corresponding Anime.js v4 easing inside `anime_timeline()`, `anime_add()`, `anime_animate()`, or `anime_playback()`.

Usage

```
anime_easing(family = "Quad", direction = "out")

anime_easing_elastic(direction = "out", amplitude = 1, period = 0.3)

anime_easing_back(direction = "out", overshoot = 1.70158)

anime_easing_bezier(x1, y1, x2, y2)

anime_easing_steps(count, from_start = FALSE)

anime_easing_spring(bounce = 0.5, duration = 628)
```

Arguments

family	Character. One of "linear", "Quad", "Cubic", "Quart", "Quint", "Sine", "Expo", "Circ", "Bounce".
direction	Character. One of "in", "out", "inOut", "outIn".
amplitude, period	(Elastic easing) Numeric. Overshoot amplitude in [1, 10] and oscillation period in (0, 2].
overshoot	(Back easing) Numeric. Overshoot amount.
x1, y1, x2, y2	(Cubic bezier easing) Coordinates of the first and second control point. x1 and x2 must be in [0, 1].
count	(Steps easing) Positive integer. Number of discrete steps.
from_start	(Steps easing) Logical. If TRUE, the value jumps at the start of each step instead of the end (CSS jump-start vs jump-end).
bounce	(Spring easing) Number in [-1, 1]. Controls bounciness. Values from 0 to 1 produce bouncy curves; values below 0 produce over-damped curves. Keep within [-0.5, 0.5] for predictable behaviour.
duration	(Spring easing) Number in [10, 10000]. The perceived duration in milliseconds at which the animation feels visually complete.

Details

Plain Anime.js v4 easing name strings (e.g. "inOutSine", "outElastic(1,0.3)") are also accepted wherever an anime_easing object is expected. Note that Anime.js v4 has removed the string syntax for cubicBezier(), steps(), and spring easings; use the constructors below for those, and the widget reconstructs the corresponding function calls in JavaScript.

Value

An anime_easing object.

Examples

```
anime_easing("linear")
anime_easing("Quad", "outIn")

anime_easing_elastic()
anime_easing_elastic("in", amplitude = 1.5, period = 0.3)

anime_easing_back()
anime_easing_back("in", overshoot = 2.5)

anime_easing_bezier(0.4, 0, 0.2, 1)
anime_easing_bezier(0.68, -0.55, 0.265, 1.55)

anime_easing_steps(10)
anime_easing_steps(5, from_start = TRUE)

anime_easing_spring()
anime_easing_spring(bounce = 0.65, duration = 350)
```

anime_from_to	<i>Specify a from/to property range</i>
---------------	---

Description

Convenience constructor for a two-value property animation that runs from from to to. An optional CSS unit suffix is concatenated into both values during serialisation (e.g. 100 with unit = "px" becomes "100px").

Usage

```
anime_from_to(from, to, unit = "", ease = NULL)
```

Arguments

from	Numeric. Starting value.
to	Numeric. Ending value.
unit	Character. Optional CSS unit suffix, e.g. "px", "%", "deg".
ease	Optional easing override for this property alone, an anime_easing object or an Anime.js easing name string.

Value

An anime_from_to object.

Examples

```
anime_from_to(0, 1)
anime_from_to(0, 360, unit = "deg")
anime_from_to(0, 1, ease = anime_easing_spring())
```

anime_keyframes	<i>Specify per-property keyframes for an animation</i>
-----------------	--

Description

Constructs a keyframes object for use in the props argument of [anime_add\(\)](#) or [anime_animate\(\)](#). Each positional argument is one keyframe.

Usage

```
anime_keyframes(...)
```

Arguments

... [<dynamic-dots>](#) Keyframe values. Either bare atomic values, or lists each with a \$to key and optional \$ease, \$duration, and \$delay overrides. \$ease accepts an anime_easing object or an Anime.js easing name string.

Value

An anime_keyframes object.

Examples

```
# Bare numeric keyframe values
anime_add(
  anime_timeline(),
  selector = ".circle",
  props = list(
    opacity = anime_keyframes(0, 1, 0.5),
    translateY = anime_keyframes(-20, 0, 10)
  )
)

# Per-keyframe lists with optional ease and duration overrides
anime_add(
  anime_timeline(),
  selector = ".circle",
  props = list(
    opacity = anime_keyframes(
      list(to = 0),
      list(to = 1, ease = anime_easing("Cubic"), duration = 400),
      list(to = 0.5, ease = "linear", duration = 200)
    )
  )
)
```

anime_on	<i>Attach a JavaScript callback to an animation event</i>
----------	---

Description

The callback must be the name of a globally scoped JavaScript function already present on the page, for example one injected via `htmltools::tags$script()`. At render time the JavaScript binding resolves the name to `window[callback]` and attaches it to the corresponding Anime.js callback.

Usage

```
anime_on(x, event, callback)
```

Arguments

x	An <code>anime_timeline</code> or <code>anime_animation</code> object.
event	One of "onBegin", "onBeforeUpdate", "onUpdate", "onRender", "onLoop", "on-Pause", "onComplete", matching the Anime.js v4 callback API.
callback	Character scalar. Name of the global JS function to invoke.

Value

The modified object.

Examples

```

if (interactive() && rlang::is_installed("htmltools")) {
  svg_src <- '<svg viewBox="0 0 200 100" xmlns="http://www.w3.org/2000/svg">
    <circle class="circle" cx="100" cy="50" r="20" fill="#4e79a7"/>
  </svg>'

  widget <- anime_timeline(duration = 800) |>
    anime_add(selector = ".circle", props = list(opacity = c(0, 1))) |>
    anime_on("onComplete", "handleAnimationDone") |>
    anime_render(svg = svg_src)

  callback_js <- htmltools::tags$script(
    "function handleAnimationDone() {
      console.log('Animation complete.');"
    }"
  )

  htmltools::browsable(htmltools::tagList(callback_js, widget))
}

```

anime_playback

*Configure animation playback***Description**

Sets autoplay, looping, direction, speed, and optional controls UI on an `anime_timeline` or `anime_animation`. Arguments left as `NULL` keep the settings already stored on the object.

Usage

```

anime_playback(
  x,
  autoplay = NULL,
  loop = NULL,
  loop_delay = NULL,
  playback_rate = NULL,
  reversed = NULL,
  alternate = NULL,
  controls = NULL
)

```

Arguments

<code>x</code>	An <code>anime_timeline</code> or <code>anime_animation</code> object.
<code>autoplay</code>	Logical. Start playing immediately on load.
<code>loop</code>	Logical or positive integer. <code>FALSE</code> for no looping, <code>TRUE</code> for infinite looping, or a fixed number of iterations.

loop_delay	Numeric. Delay in milliseconds between iterations.
playback_rate	Numeric. Playback speed multiplier (1 is normal speed).
reversed	Logical. Play in reverse from the end.
alternate	Logical. Alternate direction on each iteration (requires loop to be TRUE or a positive integer to have any visible effect).
controls	Logical. Inject a play/pause/seek control bar into the widget container.

Value

The modified anime_timeline or anime_animation object.

Examples

```
anime_timeline() |>
  anime_playback(loop = TRUE, alternate = TRUE, controls = TRUE)
```

anime_render	<i>Render an animation or timeline as an htmlwidget</i>
--------------	---

Description

Serialises an [anime_timeline\(\)](#) or [anime_animate\(\)](#) object to JSON and wraps it together with an SVG payload in an htmlwidget.

Usage

```
anime_render(x, svg = NULL, width = NULL, height = NULL, elementId = NULL)
```

Arguments

x	An anime_timeline object produced by anime_timeline() , or an anime_animation object produced by anime_animate() .
svg	Character. Raw SVG markup to embed in the widget. If NULL, an empty string is used (the animation will run against existing DOM content – advanced use only).
width	Fixed width for widget (in css units). The default is NULL, which results in intelligent automatic sizing based on the widget's container.
height	Fixed height for widget (in css units). The default is NULL, which results in intelligent automatic sizing based on the widget's container.
elementId	Use an explicit element ID for the widget (rather than an automatically generated one). Useful if you have other JavaScript that needs to explicitly discover and interact with a specific widget instance.

Value

An object of class `c("animejs", "htmlwidget")`.

Examples

```
t1 <- anime_timeline(duration = 800) |>
  anime_add(
    selector = anime_target_class("dot"),
    props = list(opacity = anime_from_to(0, 1))
  )
svg <- '<svg viewBox="0 0 100 100"><circle class="dot" cx="50" cy="50" r="10"/></svg>'
if (interactive()) {
  anime_render(t1, svg)
}
```

anime_stagger

Create a stagger configuration for per-element delay offsets

Description

When applied to a multi-element selector, Anime.js distributes animation start times across elements according to the stagger value.

Usage

```
anime_stagger(
  value,
  from = "first",
  start = NULL,
  reversed = FALSE,
  grid = NULL,
  axis = NULL,
  ease = NULL
)
```

Arguments

value	Numeric. Base delay in milliseconds between each element.
from	One of "first", "last", "center", or a numeric index. Controls which element starts first.
start	Numeric. Starting value added to every staggered delay.
reversed	Logical. Reverse the stagger order.
grid	Integer vector of length 2 (<code>c(rows, cols)</code>) for 2D grid stagger.
axis	One of "x", "y". Used together with grid.
ease	Easing applied to the stagger distribution itself, an <code>anime_easing</code> object or an Anime.js easing name string.

Value

An anime_stagger object.

Examples

```
# Simple linear stagger, 100 ms between elements
anime_stagger(100)

# Stagger from centre outward
anime_stagger(200, from = "center")

# 2-D grid stagger along the x axis
anime_stagger(50, grid = c(3, 4), axis = "x")
```

anime_target_class	<i>Target elements by CSS class</i>
--------------------	-------------------------------------

Description

Target elements by CSS class

Usage

```
anime_target_class(cls)
```

Arguments

cls	Character scalar. Class name without a leading dot.
-----	---

Value

A CSS selector string of the form ".<cls>".

Examples

```
anime_target_class("circle")
```

anime_target_css	<i>Target elements by an arbitrary CSS selector</i>
------------------	---

Description

A pass-through for selectors not covered by the other anime_target_*() helpers.

Usage

```
anime_target_css(selector)
```

Arguments

selector Character scalar. A valid CSS selector string.

Value

selector unchanged.

Examples

```
anime_target_css(".panel > circle")
```

anime_target_id	<i>Target SVG or HTML elements by a data-animejs-id attribute</i>
-----------------	---

Description

The primary mechanism for targeting individual elements annotated with a data-animejs-id attribute, by hand or by an upstream SVG annotation tool.

Usage

```
anime_target_id(id)
```

Arguments

id Character scalar. Value of the data-animejs-id attribute.

Value

A CSS selector string of the form "[data-animejs-id='<id>']".

Examples

```
anime_target_id("c1")
```

anime_target_layer	<i>Target elements by a data-layer attribute</i>
--------------------	--

Description

Produces an attribute selector matching a data-layer attribute, a convention used by SVG annotation pipelines that tag all data elements belonging to one plot layer (e.g. ggplot2 layers) with their layer index.

Usage

```
anime_target_layer(layer_index)
```

Arguments

layer_index	Integer scalar. 1-based index of the layer.
-------------	---

Value

A CSS selector string of the form "[data-layer='<layer_index>']".

Examples

```
anime_target_layer(1L)
```

anime_timeline	<i>Initialise an Anime.js timeline</i>
----------------	--

Description

Initialise an Anime.js timeline

Usage

```
anime_timeline(duration = 1000, ease = anime_easing(), delay = 0, loop = FALSE)
```

Arguments

duration	Default duration in milliseconds for all segments.
ease	Default easing for all segments, an anime_easing object or an Anime.js easing name string.
delay	Default delay in milliseconds between segments.
loop	Logical or positive integer. FALSE for no looping, TRUE for infinite looping, or a fixed number of iterations.

Value

An `anime_timeline` object.

Examples

```
anime_timeline(duration = 800, ease = anime_easing())
```

animejs-shiny

Shiny bindings for animejs

Description

Output and render functions for using animejs widgets within Shiny applications and interactive R Markdown documents.

Usage

```
animejsOutput(outputId, width = "100%", height = "400px")
```

```
renderAnimejs(expr, env = parent.frame(), quoted = FALSE)
```

Arguments

<code>outputId</code>	Output variable to read from.
<code>width, height</code>	Must be a valid CSS unit (like "100%", "400px", "auto") or a number, which will be coerced to a string and have "px" appended.
<code>expr</code>	An expression that generates an animejs widget, typically a call to anime_render() .
<code>env</code>	The environment in which to evaluate <code>expr</code> .
<code>quoted</code>	Is <code>expr</code> a quoted expression (with <code>quote()</code>)? This is useful if you want to save an expression in a variable.

Value

`animejsOutput()` returns a Shiny output function that can be used in a UI definition; `renderAnimejs()` returns a Shiny render function that can be assigned to an output slot.

Examples

```
if (interactive() && rlang::is_installed("shiny")) {
  library(shiny)

  svg_src <- '<svg viewBox="0 0 200 100" xmlns="http://www.w3.org/2000/svg">
    <circle class="dot" cx="100" cy="50" r="20" fill="#4e79a7"/>
  </svg>'

  ui <- fluidPage(
```

```

    sliderInput("duration", "Duration (ms)", 200, 2000, 800),
    animejsOutput("anim", height = "200px")
  )

  server <- function(input, output, session) {
    output$anim <- renderAnimejs({
      anime_animate(
        selector = anime_target_class("dot"),
        props = list(opacity = anime_from_to(0, 1)),
        duration = input$duration
      ) |>
      anime_render(svg = svg_src)
    })
  }

  shinyApp(ui, server)
}

```

animejs_widget

Create a bare animejs htmlwidget

Description

This is the low-level constructor. Most users will not call this directly; it is the final rendering step called by [anime_render\(\)](#).

Usage

```
animejs_widget(svg, config, width = NULL, height = NULL, elementId = NULL)
```

Arguments

svg	Character. Raw SVG markup to embed in the widget. If NULL, an empty string is used (the animation will run against existing DOM content – advanced use only).
config	List. A serialisable animation specification produced by anime_timeline() or anime_animate() and their modifiers, then serialised by anime_render() .
width	Fixed width for widget (in css units). The default is NULL, which results in intelligent automatic sizing based on the widget's container.
height	Fixed height for widget (in css units). The default is NULL, which results in intelligent automatic sizing based on the widget's container.
elementId	Use an explicit element ID for the widget (rather than an automatically generated one). Useful if you have other JavaScript that needs to explicitly discover and interact with a specific widget instance.

Value

An object of class `c("animejs", "htmlwidget")`.

Index

`anime_add`, [2](#)
`anime_add()`, [3](#), [5](#), [7](#)
`anime_animate`, [3](#)
`anime_animate()`, [5](#), [7](#), [10](#), [16](#)
`anime_easing`, [5](#)
`anime_easing_back` (`anime_easing`), [5](#)
`anime_easing_bezier` (`anime_easing`), [5](#)
`anime_easing_elastic` (`anime_easing`), [5](#)
`anime_easing_spring` (`anime_easing`), [5](#)
`anime_easing_steps` (`anime_easing`), [5](#)
`anime_from_to`, [6](#)
`anime_from_to()`, [3](#), [4](#)
`anime_keyframes`, [7](#)
`anime_keyframes()`, [3](#), [4](#)
`anime_on`, [8](#)
`anime_on()`, [4](#)
`anime_playback`, [9](#)
`anime_playback()`, [4](#), [5](#)
`anime_render`, [10](#)
`anime_render()`, [4](#), [15](#), [16](#)
`anime_stagger`, [11](#)
`anime_target_class`, [12](#)
`anime_target_css`, [13](#)
`anime_target_id`, [13](#)
`anime_target_layer`, [14](#)
`anime_timeline`, [14](#)
`anime_timeline()`, [3](#), [5](#), [10](#), [16](#)
`animejs-shiny`, [15](#)
`animejs_widget`, [16](#)
`animejsOutput` (`animejs-shiny`), [15](#)

`renderAnimejs` (`animejs-shiny`), [15](#)