

# Package: ViewR (via r-universe)

June 3, 2026

**Type** Package

**Title** Advanced Interactive Data Tables and Data Explorer

**Version** 2.0.0

**Description** An advanced, interactive data table and data explorer for R, delivered as a modern, self-contained 'htmlwidget' with a high-performance virtualized grid. ViewR renders 'Kaggle'-style micro-dashboard column headers complete with data-type badges, mini distribution spark-histograms, and data-completeness (missingness) bars. It provides hover metadata cards, a sliding Data Insights drawer with interactive histograms and 'Pareto' category charts, a multi-condition visual query builder (AND/OR), a column visibility picker, and a reproducible code generator that emits 'dplyr', base R, and 'SQL' that matches the active filter and column state. The interface is implemented entirely in dependency-free vanilla 'JavaScript' (no 'React' or build toolchain) and works in the 'RStudio'/'Positron' Viewer, inside 'Shiny' apps, in 'R Markdown'/'Quarto', or as a portable standalone 'HTML' file. A single call to `viewr()` opens the explorer; the legacy 'Shiny'-gadget `ViewR()` editor remains available.

**License** MIT + file LICENSE

**Encoding** UTF-8

**Language** en-GB

**Depends** R (>= 4.1.0)

**URL** <https://github.com/itsmdivakaran/viewR>,  
<https://itsmdivakaran.github.io/viewR/>

**BugReports** <https://github.com/itsmdivakaran/viewR/issues>

**Imports** htmlwidgets (>= 1.6.0), htmltools (>= 0.5.4), jsonlite (>= 1.8.0), shiny (>= 1.7.0), DT (>= 0.27), rhandsontable (>= 0.3.8), shinyjs (>= 2.1.0), shinythemes (>= 1.2.0), stats, utils

**Suggests** haven, tibble, dplyr, knitr, rmarkdown, testthat (>= 3.0.0),  
covr

**VignetteBuilder** knitr

**Config/testthat/edition** 3

**Config/roxygen2/version** 8.0.0

**Repository** https://itsmdivakaran.r-universe.dev

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install_viewr_deps	<i>Install All ViewR Dependencies</i>
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## Description

Checks which required packages are missing from the user's library and installs them via `install.packages`.

## Usage

```
install_viewr_deps(ask = TRUE)
```

## Arguments

`ask` Logical. If TRUE (default), prompt before installing.

## Value

Invisibly returns a character vector of packages that were (or needed to be) installed.

## Examples

```
## Not run:
install_viewr_deps()

## End(Not run)
```

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save_viewdt	<i>Save a ViewR explorer to a standalone HTML file</i>
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### Description

Exports any data frame as a fully interactive, offline ViewR explorer that runs in any browser without R or an internet connection.

### Usage

```
save_viewdt(  
  data,  
  file,  
  options = viewdt_options(),  
  selfcontained = TRUE,  
  title = "ViewR",  
  dataset_name = NULL,  
  open = FALSE  
)
```

### Arguments

data	A 'data.frame' or 'tibble' to export.
file	Output '.html' path.
options	A list created by [viewdt_options()].
selfcontained	Logical. If 'TRUE' (default) bundle all assets into a single file (requires <b>pan-doc</b> ); if 'FALSE', write a lightweight HTML file plus a companion '_files/' directory (recommended for large data).
title	Browser tab title. Default "'ViewR"'.
dataset_name	Variable name used in generated code. Defaults to the deparsed 'data' expression.
open	Logical. Open the file in a browser after saving (interactive sessions only). Default 'FALSE'.

### Value

The output file path, invisibly.

### Examples

```
## Not run:  
save_viewdt(mtcars, "mtcars.html", open = TRUE)  
save_viewdt(iris, "iris.html", selfcontained = FALSE)  
  
## End(Not run)
```

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`viewdt`*Modern interactive data explorer widget*

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## Description

Opens a high-performance, self-contained data explorer for a data frame. ‘`viewdt()`’ profiles every column in R and renders a virtualized grid with “Kaggle”-style micro-dashboard headers (data-type badges, mini spark-histograms, and data-completeness bars), hover metadata cards, a sliding Data Insights drawer, a multi-condition visual query builder, a column-visibility picker, and a reproducible code generator (**dplyr**, base R, and SQL).

## Usage

```
viewdt(  
  data,  
  options = viewdt_options(),  
  dataset_name = NULL,  
  width = NULL,  
  height = NULL,  
  elementId = NULL  
)
```

## Arguments

<code>data</code>	A ‘data.frame’ or ‘tibble’ to explore.
<code>options</code>	A list created by [ <code>viewdt_options()</code> ].
<code>dataset_name</code>	Character used as the data variable name in generated code. Defaults to the deparsed ‘data’ expression.
<code>width, height</code>	Optional widget dimensions; default to a full-container responsive layout.
<code>elementId</code>	Optional explicit element id.

## Details

The interface is implemented entirely in dependency-free vanilla JavaScript (no **React** or build toolchain) and works in the RStudio / Positron Viewer, inside Shiny, in R Markdown / Quarto, or as a portable standalone HTML file via [`save_viewdt()`].

## Value

An ‘htmlwidget’ object.

## Examples

```
## Not run:  
viewdt(mtcars)  
viewdt(iris, options = viewdt_options(theme = "dark", hidden_columns = "Species"))  
  
## End(Not run)
```

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viewdt-shiny	<i>Shiny bindings for viewdt</i>
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**Description**

Output and render functions for using [viewdt()] within Shiny applications and interactive R Markdown documents.

**Usage**

```
viewdtOutput(outputId, width = "100%", height = "600px")
renderViewdt(expr, env = parent.frame(), quoted = FALSE)
```

**Arguments**

outputId	Output variable to read from.
width, height	Must be valid CSS units (e.g. "100%") or numbers.
expr	An expression that generates a [viewdt()] widget.
env	The environment in which to evaluate 'expr'.
quoted	Is 'expr' a quoted expression (with 'quote()')?

**Value**

'viewdtOutput()' returns a Shiny output UI element; 'renderViewdt()' returns a Shiny render function.

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viewdt_options	<i>Configure the ViewR data explorer</i>
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**Description**

Builds the option list consumed by [viewdt()] and [save\_viewdt()]. Every argument has a sensible default, so 'viewdt\_options()' with no arguments returns a fully usable configuration.

**Usage**

```
viewdt_options(
  theme = c("auto", "light", "dark"),
  show_labels = TRUE,
  histograms = TRUE,
  missing_bars = TRUE,
  type_badges = TRUE,
  insights = TRUE,
```

```

query_builder = TRUE,
column_picker = TRUE,
code_export = TRUE,
global_search = TRUE,
na_string = "NA",
hidden_columns = NULL,
page_size = 200L,
hist_bins = 20L,
top_n = 10L,
max_cells = 5e+06
)

```

### Arguments

theme	UI appearance: one of "auto" (default, follows the host/system colour scheme), "light", or "dark".
show_labels	Logical. Display variable-label attributes (e.g. as set by <b>haven</b> or clinical ADaM data) inline in the column headers. Default 'TRUE'.
histograms	Logical. Render mini spark-histograms / category bars inside the column headers. Default 'TRUE'.
missing_bars	Logical. Render the data-completeness (missingness) bar at the bottom of each header. Default 'TRUE'.
type_badges	Logical. Show data-type badges in headers. Default 'TRUE'.
insights	Logical. Enable the sliding Data Insights drawer. Default 'TRUE'.
query_builder	Logical. Enable the multi-condition visual query builder. Default 'TRUE'.
column_picker	Logical. Enable the column-visibility picker. Default 'TRUE'.
code_export	Logical. Enable the reproducible code generator (dplyr / base R / SQL). Default 'TRUE'.
global_search	Logical. Enable the global search box. Default 'TRUE'.
na_string	Character. Placeholder shown for missing values. Default "NA".
hidden_columns	Character vector of column names hidden on first render. Default 'NULL'.
page_size	Integer. Rows kept in the virtualized DOM buffer. Default '200L'.
hist_bins	Integer. Number of bins for numeric histograms. Default '20L'.
top_n	Integer. Number of categories profiled for character columns. Default '10L'.
max_cells	Integer. Soft safeguard; data frames with more than this many cells ('nrow * ncol') trigger a warning. Default '5e6'.

### Value

A named list of class "viewdt\_options".

### Examples

```
viewdt_options(theme = "dark", hidden_columns = c("cyl", "hp"))
```

**Description**

Opens a feature-rich, popup-based Shiny interface for viewing, exploring, filtering, sorting, editing, and analysing R data frames. All operations are reflected in real-time as copy-pasteable **dplyr** code.

**Usage**

```
ViewR(
  data,
  edit = FALSE,
  popup = TRUE,
  labels = NULL,
  title = NULL,
  viewer = c("dialog", "browser", "pane"),
  generate_code = TRUE,
  theme = c("flatly", "cerulean", "cosmo", "darkly", "lumen", "paper", "readable",
    "sandstone", "simplex", "spacelab", "united", "yeti"),
  max_display = 50000L,
  return_data = TRUE,
  ...
)
```

**Arguments**

<code>data</code>	A data.frame or tibble to view / edit.
<code>edit</code>	Logical. Enable the Excel-like editing tab. Default FALSE.
<code>popup</code>	Logical. If TRUE (default), open in a popup dialog; if FALSE, open in the system browser.
<code>labels</code>	Optional named character vector of variable labels. Names must match column names of data. If NULL, labels are read from column attributes (e.g. as set by <b>haven</b> ).
<code>title</code>	Window title. Defaults to the name of data.
<code>viewer</code>	Where to display the interface: "dialog" Popup dialog (default when popup = TRUE). "browser" System web browser. "pane" RStudio Viewer pane.
<code>generate_code</code>	Logical. Show the R Code tab. Default TRUE.
<code>theme</code>	Bootstrap theme for the UI. One of "flatly" (default), "cerulean", "cosmo", "darkly", "lumen", "paper", "readable", "sandstone", "simplex", "spacelab", "united", "yeti".

max_display	Integer. Maximum rows rendered in the Data View table (for performance). Default 50000.
return_data	Logical. When the user clicks <i>Done</i> , return the (possibly edited) data frame. Default TRUE.
...	Reserved for future arguments; currently ignored.

### Value

If `return_data = TRUE` and the user clicked *Done*, returns the modified data frame invisibly. Otherwise returns the original data frame invisibly.

### Features

- **Data View** - searchable, paginated DT table with optional variable-label tooltips and column-level search filters.
- **Sidebar Filters** - add unlimited filter conditions with operators `==`, `!=`, `>`, `>=`, `<`, `<=`, *contains*, *starts with*, *ends with*, *is NA*, *is not NA*; combine with AND / OR logic.
- **Multi-column Sort** - add multiple sort levels; choose ascending or descending per column.
- **Column Visibility** - show/hide any columns via checkboxes.
- **Excel-like Editor** (`edit = TRUE`) - powered by **rhandsontable**; supports in-cell editing, adding rows, and unlimited undo/redo.
- **Find & Replace** - find literal text or regex across one or all columns with case-sensitivity and exact-match options; preview changes before applying.
- **Variable Info** - data type, N, missing min, max, and sample values for every column.
- **R Code Generation** - the *R Code* tab always shows the complete, runnable **dplyr** pipeline for the current state. One click copies it to the clipboard.

### Examples

```
## Not run:
## -- Basic view -----
ViewR(mtcars)

## -- Edit mode: returns modified data -----
new_iris <- ViewR(iris, edit = TRUE)

## -- Custom labels + dark theme -----
ViewR(mtcars,
  labels = c(mpg = "Miles per Gallon",
             cyl = "Number of Cylinders",
             hp = "Gross Horsepower"),
  theme = "darkly")

## -- Open in the system browser -----
ViewR(iris, viewer = "browser", generate_code = TRUE)

## -- View a haven-imported dataset (labels read automatically) -----
# df <- haven::read_sav("my_survey.sav")
```

*ViewR*

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```
# ViewR(df)
```

```
## End(Not run)
```

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