Package: tinytrail (via r-universe)

November 3, 2026

Title Lightweight Auto-Updating Project Tracker and Data Dictionary

Version 0.1.0

Description Once initialized, the package leaves a 'tiny trail' of human- and AI-readable text that makes it effortless to keep track of small to medium-sized projects. The package is lightweight (hence 'tiny') and maintains a YAML trail file recording which scripts produced which output files. Call tinytrail() once at the top of each script to record metadata, wrap any save call with tinytrail_write() to log the output path, and optionally use tinytrail_dict() to capture a data dictionary for each input data frame.

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Depends R (>= 4.1.0)

Imports yaml

Encoding UTF-8

Language en-US

Roxygen list(markdown = TRUE)

RoxygenNote 8.0.0

URL https://github.com/tinytrail-r/tinytrail, https://tinytrail-r.github.io/tinytrail/

BugReports https://github.com/tinytrail-r/tinytrail/issues

Suggests arrow, data.table, ggplot2, haven, jsonlite, kableExtra, knitr, openxlsx, purrr, readr, rmarkdown, rstudioapi, testthat (>= 3.0.0), tinytable, withr, writexl

VignetteBuilder knitr

Config/testthat/edition 3

Repository https://tinytrail-r.r-universe.dev

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`tinytrail` *Register a script in the project trail*

Description

Call once near the top of every script. Creates or updates an entry in `_tinytrail.yaml` and sets the script name so that outputs can be recorded.

Usage

```
tinytrail(
  description,
  data_source = NULL,
  pin_to_top = FALSE,
  record_runtime = TRUE,
  name = NULL,
  auto = TRUE,
  extra_hooks = NULL
)
```

Arguments

`description`	Character. Description of what the script does.
`data_source`	Character. Optional. Enter the sources of data used in this script — name the dataset or survey, not a file path (e.g. `"Current Population Survey (BLS)"`).
`pin_to_top`	Logical. Pin this script to the top of the trail. Useful for a `main.R` that sources other scripts — keeps it visible at the top of `_tinytrail.yaml` regardless of alphabetical order. Default `FALSE`.
`record_runtime`	Logical. Record elapsed time on exit. Default `TRUE`.
`name`	Character. Override the auto-detected script name. Intended for use in tests and non-standard execution environments where auto-detection is unavailable.
`auto`	Logical. Automatically intercept common write functions and record their output paths. Default `TRUE`. Set to `FALSE` to use explicit `tinytrail_write()` calls instead.
`extra_hooks`	A `list` with elements `fn` and `arg` specifying additional write functions to intercept when `auto = TRUE`. `fn` is a character vector of function names (`"my_save"` for a script-level function, or `"pkg::fn"` for a package function). `arg` is a character vector of the corresponding file-path argument names. Functions from packages that are not installed are silently skipped.

Details

By default (`auto = TRUE`) common write functions (`write.csv`, `saveRDS`, `readr::write_csv`, `ggplot2::ggsave`, etc.) are hooked automatically so their output file paths are captured without any `tinytrail_write()` wrapper. Set `auto = FALSE` to use explicit `tinytrail_write()` calls instead.

Value

`name` (the script name), invisibly. Called for its side effect of creating or updating the YAML trail file in the project root.

See Also

`tinytrail_write()` to record output paths explicitly, `tinytrail_dict()` to capture a data dictionary.

Examples

```
withr::with_tempdir({
  writeLines("Package: testproject\nVersion: 0.1.0", "DESCRIPTION")

  tinytrail(
    description    = "Clean and summarise survey data",
    data_source    = "Current Population Survey (BLS)",
    record_runtime = FALSE,
    name           = "clean.R"
  )
  write.csv(mtcars, "clean.csv")
  png("age_dist.png"); hist(mtcars$mpg, main = "MPG"); dev.off()
})
```

---

tinytrail_dict *Add a data frame to the project data dictionary*

Description

Place at the end of a read/clean pipeline to capture column names and optionally sample values. Returns the data frame unchanged.

Usage

```
tinytrail_dict(
  df,
  df_name = NULL,
  sample_values = TRUE,
  sample_string_length = 18L
)
```

Arguments

df	A data frame.
df_name	Character. Label for this entry in the data dictionary. Defaults to the variable name of df as written in the calling code (e.g. mtcars |> tinytrail_dict() records as "mtcars"). Override when the expression is not a simple name or when you need a custom label.
sample_values	Logical. Record 5 sample values per column. Default TRUE.
sample_string_length	Integer or Inf. Maximum characters per sample value before truncating with "...". Default 18L.

Details

Requires tinytrail() to have been called first in the same session.

Value

df, invisibly.

See Also

tinytrail() to initialise the trail, tinytrail_write() to record output paths explicitly.

Examples

```
withr::with_tempdir({
  writeLines("Package: testproject\nVersion: 0.1.0", "DESCRIPTION")

  tinytrail("Analyse data", name = "analysis.R", record_runtime = FALSE)
  dat <- mtcars |> tinytrail_dict(df_name = "cars")
})
```

---

tinytrail_write *Record an output file path in the trail*

Description

Wraps the file path argument of any save call. Registers the path under the current script's trail entry and returns the path unchanged, so it can be dropped inline into any save function.

Usage

```
tinytrail_write(file)
```

Arguments

file	Character. Path to the output file.

Details

Requires `tinytrail()` to have been called first in the same session.

Value

`file`, invisibly.

See Also

`tinytrail()` to initialise the trail, `tinytrail_dict()` to capture a data dictionary.

Examples

```
withr::with_tempdir({
  writeLines("Package: testproject\nVersion: 0.1.0", "DESCRIPTION")

  tinytrail("Process raw data", name = "analysis.R", record_runtime = FALSE,
            auto = FALSE)
  write.csv(mtcars, tinytrail_write("clean.csv"))
  saveRDS(lm(mpg ~ wt, mtcars), tinytrail_write("model.rds"))
})
```

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