Package 'rairai'

November 18, 2026

Title Model Context Protocol Server for Package Intelligence

Version 0.2.7

Description Helps artificial intelligence (AI) agents develop 'R' packages more efficiently and make better-informed code changes. Provides focused, package-aware context through the Model Context Protocol (MCP) so agents can understand existing behavior and assess changes with less manual exploration. Inspects packages without loading or executing their code.

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URL https://github.com/tosidata/rairai, https://tosidata.github.io/rairai/

BugReports https://github.com/tosidata/rairai/issues

Encoding UTF-8

Depends R (>= 4.3.0)

Imports mcplite, cachem, jsonlite, stringr, purrr, glue, rlang, fs, gert, R6, frontmatter, rvest, pkgsearch, treesitter, treesitter.r

Suggests knitr, quarto, testthat (>= 3.0.0), withr, pkgload

Config/testthat/edition 3

VignetteBuilder quarto

Config/roxygen2/version 8.1.0

Config/roxygen2/markdown TRUE

NeedsCompilation no

Author Juha Itkonen [aut, cre]

Maintainer Juha Itkonen <juha@tosidata.com>

Repository CRAN

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`serve` *Serve the MCP tools*

Description

Runs a Model Context Protocol (MCP) server over standard input and output.

Usage

```
serve(path = ".")
```

Arguments

`path`	Existing package directory to inspect by default. Accepts absolute, relative, and tilde paths. Defaults to the current working directory.

Details

Tools that inspect a local package can use `package_root` to select a different directory for one request. Supply an absolute path; this does not change the server's default directory.

Value

Called for its side effect of serving MCP requests over standard input and output. Blocks the current R process until standard input closes.

File access and security

The `path` argument is not a sandbox. It selects a default directory but does not restrict access to other directories. An MCP client can request any directory readable by the R process. Responses may disclose file names, file contents, and absolute paths to that client. The inspected package's code is not loaded or executed.

To limit access, run the server with restricted filesystem permissions or in a container that exposes only the files you intend to share.

See Also

`vignette("tools", package = "rairai")` for the tool guide.

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