

Package: rho.async (via r-universe)

July 15, 2026

Type Package

Depends R (>= 4.4.0)

Title Rho Async Task and Stream Contracts

Version 0.0.1.9000

Description Defines S7 task, stream, cancellation, and composition contracts for asynchronous R interfaces. Adapters connect nanonext asynchronous handles and promises while keeping every blocking wait explicit.

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Encoding UTF-8

Roxygen list(markdown = TRUE)

Imports S7, s7contract, nanonext, coro, later, promises

Suggests tinytest, knitr

URL <https://github.com/souunkou-bioinfo/Rho>,
<https://souunkou-bioinfo.github.io/Rho/rho.async/>

BugReports <https://github.com/souunkou-bioinfo/Rho/issues>

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rho_async_contracts *Asynchronous task and stream contracts*

Description

Rho tasks represent one eventual value, while Rho streams represent an asynchronous sequence of typed stream items. Effectful callers compose tasks with `rho_then()` or coroutines and block only at `rho_await()`.

Details

`rho_new_state()` and the concrete adapter task classes are exported for packages implementing new async backends. Polling actions return one of the typed `RhoPollDecision` subclasses; timing remains inside `rho.async`. `rho_serial_queue()` orders asynchronous actions without blocking the event loop. Cancelling a queued task removes only that entry; cancelling active work propagates to the task returned by its action.

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