

Package ‘bakerrr’

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Title Background-Parallel Jobs

Version 0.1.0

Description Easily launch, track, and control functions as background-parallel jobs. Includes robust utilities for job status, error handling, resource monitoring, and result collection. Designed for scalable workflows in interactive and automated settings (local or remote). Integrates with multiple backends; supports flexible automation pipelines and live job tracking. For more information, see <https://anirbanshaw24.github.io/bakerrr/>.

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URL <https://github.com/anirbanshaw24/bakerrr>

BugReports <https://github.com/anirbanshaw24/bakerrr/issues>

Depends R (>= 4.1.0)

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bakerrr	<i>S7 bakerrr class for job orchestration and background processing</i>
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Description

Defines the bakerrr S7 class for parallel and background job execution. Stores the function to run (fun), argument lists (args_list), background job arguments (bg_args), job objects, results, and runtime properties. Supports retrieval of job status/results and validation of provided properties.

Usage

```
bakerrr(  
  fun,  
  args_list,  
  bg_args = list(),  
  n_daemons = ceiling(parallel::detectCores()/5),  
  cleanup = TRUE  
)
```

Arguments

fun	Function to be executed for each job.
args_list	List of argument sets for each job.
bg_args	List of arguments passed to background job handler.
n_daemons	Number of parallel workers (default: ceiling of cores/5).
cleanup	Logical; whether to clean up jobs after execution (default: TRUE).

Value

An S7 bakerrr class object with job orchestration methods and properties.

Examples

```
# Create a bakerrr object to process jobs in parallel  
bakerrr::bakerrr(fun = sum, args_list = list(list(1:10), list(10:20)))
```

bg_func

*Background parallel processing of jobs using purrr and tryCatch***Description**

Executes a list of job specifications in parallel, applies the given function with error handling, and collects the results or error messages.

Usage

```
bg_func(jobs, n_daemons)
```

Arguments

jobs	A list of job specifications, each containing a function (fun) and arguments (args).
n_daemons	Number of parallel workers

Value

A list of results, with error messages in case of failure.

print

*Print method for bakerrr S7 job objects***Description**

Displays a concise summary of the bakerrr job object, including current status, function name, number of argument sets, daemon count, cleanup setting, process status, and result summary. Outputs a status icon and key runtime information for quick inspection.

Arguments

x	A bakerrr S7 job object.
...	Additional arguments (currently ignored).

Value

The input x, invisibly, after printing the summary.

run_bg	<i>Generic for running background jobs in bakerrr</i>
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Description

Initiates background execution for a bakerrr job object, launching jobs via `callr::r_bg`. Stores process status in `bg_job_status`.

Usage

```
run_bg(x, ...)
```

Arguments

<code>x</code>	A bakerrr S7 job object.
<code>...</code>	Not used. For future expansion.

Value

The input `x`, invisibly, after launching background jobs.

run_jobs	<i>Run bakerrr jobs and wait for completion</i>
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Description

Launches the parallel jobs, manages daemon setup (`mirai::daemons`), initiates background jobs, provides a console spinner for progress, and optionally waits for results. Cleans up daemons after execution.

Usage

```
run_jobs(job, wait_for_results, ...)
```

Arguments

<code>job</code>	A bakerrr S7 job object.
<code>wait_for_results</code>	Logical; whether to block and wait for completion (default: TRUE).
<code>...</code>	Not used. For future expansion.

Value

The updated bakerrr job object, invisibly.

status	<i>Status method for bakerrr S7 job objects</i>
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Description

Returns job status as "waiting", "running", or "done".

Usage

```
status(x, ...)
```

Arguments

x	A bakerrr S7 job object.
...	Further arguments (ignored).

Value

One of "waiting", "running", "done".

summary	<i>Summary method for bakerrr S7 job objects</i>
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Description

Provides a one-line summary of a bakerrr job object, indicating the status, function name, number of worker daemons, and total jobs. Prints a status icon and brief job info.

Usage

```
summary(x, ...)
```

Arguments

x	A bakerrr S7 job object.
...	Additional arguments (currently ignored).

Value

The input x, invisibly, after printing the summary.

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