

# Package ‘prrd’

September 22, 2021

**Type** Package

**Title** Parallel Runs of Reverse Depends

**Version** 0.0.5

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**Author** Dirk Eddelbuettel

**Maintainer** Dirk Eddelbuettel <edd@debian.org>

**Description** Reverse depends for a given package are queued such that multiple workers can run the tests in parallel.

**License** GPL (>= 2)

**Imports** config, liteq, data.table, crayon, DBI, RSQLite

**Suggests** docopt, foghorn

**URL** <https://github.com/eddelbuettel/prrd>,  
<https://dirk.eddelbuettel.com/code/prrd.html>

**BugReports** <https://github.com/eddelbuettel/prrd/issues>

**RoxygenNote** 6.0.1

**Encoding** UTF-8

**NeedsCompilation** no

**Repository** CRAN

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 prrd-package

*Parallel Runs of Reverse Depends*


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### Description

Reverse depends for a given package are queued such that multiple workers can run the tests in parallel.

### Package Content

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### Maintainer

Dirk Eddelbuettel <edd@debian.org>

### Author(s)

Dirk Eddelbuettel

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 dequeueJobs

*Dequeue and run reverse-dependency checks, possibly in parallel*


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### Description

Dequeue package for (potentially parallel) reverse-dependency check

### Usage

```
dequeueJobs(package, directory, exclude = NULL, date = format(Sys.Date()))
```

```
dequeueDepends(package, directory)
```

**Arguments**

package	A character variable denoting a package
directory	A character variable denoting a directory for the queuefile
exclude	An optional character variable denoting an exclusion set csv file.
date	Optional character variable describing a date (as part of the queue file, default is current date).

**Details**

This function consumes previously enqueued jobs for reverse dependency checks. It is set up in such a way that multiple distinct and independent process can run checks in parallel without effecting each other. If the underlying queue file is on a network drive, this should may also work across multiple machines.

**Value**

A queue is create as a side effect, its elements are returned invisibly

**Author(s)**

Dirk Eddelbuettel

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enqueueJobs	<i>Enqueues reverse-dependent packages</i>
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**Description**

Enqueue package for subsequent reverse-dependency check

**Usage**

```
enqueueJobs(package, directory, dbfile = "", addfailed = FALSE)
enqueueDepends(package, directory)
```

**Arguments**

package	A character variable denoting a package
directory	A character variable denoting a directory
dbfile	Optional character with path to previous runs db file
addfailed	Optional logical swith to add previous failures

**Details**

This function relies on the [available.packages](#) function from R along with the `liteq` package. The `getQueueFile` function is used to determine the queue file directory and name.

**Value**

A queue is create as a side effect, its elements are returned invisibly

**Author(s)**

Dirk Eddelbuettel

**Examples**

```
## Not run:
td <- tempdir()
options(repos=c(CRAN="https://cloud.r-project.org"))
jobsdf <- enqueueJobs(package="digest", directory=td)

## End(Not run)
```

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getDatabaseConnection *Database Helper Functions*

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**Description**

Several Database Connection Helper Functions

**Usage**

```
getDatabaseConnection(file)

createTable(con)

insertRow(con, df)

createRunDataTable(con)
```

**Arguments**

file	A character variable pointing to a sqlite3 file
con	A database connection object
df	A one-row data.frame with results to be appended

**Details**

These functions return a connection, create a table and insert a row of data, respectively.

**Value**

A connection object

**Author(s)**

Dirk Eddelbuettel

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runSanityChecks      *Various Helper Functions*

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**Description**

These functions create a data directory name given a package name and additional optional arguments which can be used to store test meta-data and results, return a queue file name, return the configuration object (retrieved from several standard locations) and load the exclusion set.

**Usage**

```
runSanityChecks()

runEnqueueSanityChecks()

getDataDirectory(package, date = format(Sys.Date()), path = ".",
  sep = "_")

getQueueFile(package, date = format(Sys.Date()), path = ".", sep = "_")

getConfig(debug = FALSE)

getExclusionSet(exclusionfile)
```

**Arguments**

package	Character variable providing the package name.
date	Optional character variable describing a date, default is current date.
path	Optional path, default is current directory.
sep	Optional character with component separator, default is “_”.
debug	Optional boolean
exclusionfile	Character variable with path and file for an optional exclusion set.

**Details**

Additional helper functions get particular directories, config settings or check some assumptions about files in PATH and alike,

**Value**

For `getDataDirectory`, a directory name. For `getQueueFile`, a queue database file name (used only internally). For `getConfig`, a named vector with config entries. For `getExclusionSet` a character vector of package names. Nothing is returned by `runSanityChecks` which is invoked for its side effect of validation (currently only if `run-xvfb-safe` is in the PATH).

**Config File**

An optional config file can be used to set several configuration variables. Currently supported are

**setup** The path to an R file that will be source'd.

**workdir** The directory used for the parallel run of reverse depends.

**libdir** The directory passed to `.libPaths` allow for additional build-dependencies.

**debug** A boolean switch to enable more debugging output.

**verbose** A boolean switch to enable more verbose output.

The `setup` field is particularly useful as the file being sourced can contain other R expressions setting environment variables or options. It is (currently) searched in the four locations `".prrd.yaml"`, `"~/R/prrd.yaml"`, `"~/prrd.yaml"`, and `"/etc/R/prrd.yaml"`. The first file found ends the search and is used, content is not merged from several files.

**Author(s)**

Dirk Eddelbuettel

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summariseQueue	<i>Summarisse results from a reverse-dependency check</i>
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**Description**

Summarise results from (potentially parallel) reverse-dependency check

**Usage**

```
summariseQueue(package, directory, dbfile = "", extended = FALSE,
               foghorn = FALSE)
```

**Arguments**

package	A character variable denoting a package
directory	A character variable denoting a directory
dbfile	A character variable for an optional override which, if present, is used over 'package' and 'directory'.
extended	A boolean variable to select extended analysis of failures, default is FALSE which skips this.
foghorn	A boolean variable to invoke the <b>foghorn</b> to retrieve and review CRAN result status, default is FALSE which skips this.

**Value**

NULL, invisibly

**Author(s)**

Dirk Eddelbuettel

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