Package 'RcppAPT'

November 29, 2024

Type Package

Title 'Rcpp' Interface to the APT Package Manager

Version 0.0.10

Date 2024-11-29

Description The 'APT Package Management System' provides Debian and
Debian-derived Linux systems with a powerful system to resolve package
dependencies. This package offers access directly from R. This can
only work on a system with a suitable 'libapt-pkg-dev' installation
so functionality is curtailed if such a library is not found.

License GPL (>= 2)

Imports Rcpp (>= 0.11.0)

LinkingTo Rcpp

Suggests simplermarkdown

VignetteBuilder simplermarkdown

URL https://github.com/eddelbuettel/rcppapt,
https://dirk.eddelbuettel.com/code/rcpp.apt.html

BugReports https://github.com/eddelbuettel/rcppapt/issues

RoxygenNote 6.1.0

NeedsCompilation yes

Author Dirk Eddelbuettel [aut, cre] (<https://orcid.org/0000-0001-6419-907X>)

Maintainer Dirk Eddelbuettel <edd@debian.org>

Repository CRAN

Date/Publication 2024-11-29 19:30:02 UTC

Contents

RcppAPT-package   *Rcpp Interface to the APT Package Manager*

Description

Debian-based systems such as Debian, Ubuntu, or their derivatives use the APT Package Manager, commonly via programs such as `apt-get`, `apt-cache` or other frontends written against the APT libraries.

This package offers a simple interface from R, mostly so that the package management system can be queried.

Details

The APT library API is described in the package `libapt-pkg-doc`.

Author(s)

Dirk Eddelbuettel

Maintainer: Dirk Eddelbuettel <edd@debian.org>

References

See the `libapt-pkg-doc` package on a Debian-based system.

---

buildDepends   *Return Build-Depends for given packages*

Description

The APT Package Management system uses a data-rich caching structure. This accessor function returns the Build-Depends for a set of packages matching the given regular expression.

Usage

```
buildDepends(regexp = ".")
```

Arguments

regexp   A regular expression for the package name(s) with a default of all (".")

Details

Note that the package lookup uses regular expressions. If only a single package is desired, append a single $ to terminate the expression. *Ie* r-cran-rcpp$ will *not* return results for r-cran-rcpparmadillo and r-cran-rcppeigen.

Value

A character vector containing package names is returned.

Author(s)

Dirk Eddelbuettel

Examples

```
buildDepends("r-cran-rcpp$")
```

---

dumpPackages   *Display information for given packages*

Description

The APT Package Management system uses a data-rich caching structure. This accessor function displays the information for a set of packages matching the given regular expression. It corresponds somewhat to apt-cache showpkg pkgname but displays more information.

Usage

```
dumpPackages(regexp = ".")
```

Arguments

regexp   A regular expression for the package name(s) with a default of all (".")

Details

Note that the package lookup uses regular expressions. If only a single package is desired, append a single $ to terminate the expression. *Ie* r-cran-rcpp$ will *not* return results for r-cran-rcpparmadillo and r-cran-rcppeigen.

Value

A boolean is returned indicating whether or not the given regular expression could be matched to source packages – but the function is invoked ' for the side effect of displaying information.

Author(s)

Dirk Eddelbuettel

Examples

```
dumpPackages("^r-(base|doc)-")
```

---

getDepends   *Return Depends for given packages*

Description

The APT Package Management system uses a data-rich caching structure. This accessor function returns the Depends for a set of packages matching the given regular expression.

Usage

```
getDepends(regexp = ".")
```

Arguments

regexp   A regular expression for the package name(s) with a default of all (".")

Details

Note that the package lookup uses regular expressions. If only a single package is desired, append a single $ to terminate the expression. *Ie* r-cran-rcpp$ will *not* return results for r-cran-rcpparmadillo and r-cran-rcppeigen.

Value

A data frame with four columns listing (source) package, dependend packages, comparison operator, and, where available, minimal version.

Author(s)

Dirk Eddelbuettel

Examples

```
reverseDepends("r-cran-rcpp$")
```

---

getPackages   *Retrieve Names of All Installable Packages*

Description

The APT Package Management system uses a data-rich caching structure. This accessor function returns the names of installable packages for a given regular expression.

Usage

```
getPackages(regexp = ".")
```

Arguments

regexp   A regular expression for the package name(s) with a default of all (".").

Details

Note that the package lookup uses regular expressions. If only a single package is desired, append a single $ to terminate the expression. *Ie* `r-cran-rcpp$` will *not* return results for `r-cran-rcpparmadillo` and `r-cran-rcppeigen`.

Value

A data frame with columns containing the package name and version (or NA if unavailable).

Author(s)

Dirk Eddelbuettel

Examples

```
getPackages("^r-(base|doc)-")
```

---

hasPackages   *Test for Existence of Given Package*

Description

The APT Package Management system uses a data-rich caching structure. This accessor function tests whether a given package exists.

Usage

```
hasPackages(pkg)
```

Arguments

pkg   A character vector with name of the package

Value

A boolean result vector is returned indicating if the package at the given position is available.

Author(s)

Dirk Eddelbuettel

Examples

```
hasPackages(c("r-base-core", "somethingThatDoesNotExist"))
```

---

reverseDepends   *Return Reverse-Depends for given packages*

Description

The APT Package Management system uses a data-rich caching structure. This accessor function returns the Reverse-Depends for a set of packages matching the given regular expression.

Usage

```
reverseDepends(regexp = ".")
```

Arguments

regexp   A regular expression for the package name(s) with a default of all (".")

Details

Note that the package lookup uses regular expressions. If only a single package is desired, append a single $ to terminate the expression. *Ie* r-cran-rcpp$ will *not* return results for r-cran-rcpparmadillo and r-cran-rcppeigen.

Value

A data frame with two column listing packages and, where available, minimal version.

Author(s)

Dirk Eddelbuettel

Examples

```
reverseDepends("r-cran-rcpp$")
```

---

showSrc   *Display information for given packages*

Description

The APT Package Management system uses a data-rich caching structure. This accessor function displays the information for a set of packages matching the given regular expression. The output corresponds to `apt-cache showsrc pkgname`.

Usage

```
showSrc(regexp = ".")
```

Arguments

regexp   A regular expression for the package name(s) with a default of all (".")

Details

Note that the package lookup uses regular expressions. If only a single package is desired, append a single $ to terminate the expression. *Ie* `r-cran-rcpp$` will *not* return results for `r-cran-rcpparmadillo` and `r-cran-rcppeigen`.

Value

A boolean is returned indicating whether or not the given regular expression could be matched to source packages – but the function is invoked ' for the side effect of displaying information.

Author(s)

Dirk Eddelbuettel

Examples

```
showSrc("^r-(base|doc)-")
showSrc("r-cran-rcpp")  # also finds RcppEigen and RcppArmadillo
showSrc("r-cran-rcpp$") # just Rcpp
```

suitable	*Test for Suitability of System*

Description

The APT Package Management system uses a data-rich caching structure. This accessor function tests whether a given package exists.

Usage

```
suitable()
```

Details

CRAN does not manage to blacklist this package for builds where it has little to no chance of building (macOS amongt them). So we now build everywhere whether it makes sense or not.

Value

A boolean result vector is returned indicating if the system is making any sense at all.

Author(s)

Dirk Eddelbuettel

Examples

```
suitable()
```

Index