Package ‘RcppAPT’

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Type Package
Title ‘Rcpp’ Interface to the APT Package Manager
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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)
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R topics documented:

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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.

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. I.e r-cran-rcpp$ will not return results for r-cran-rcpparmadillo and r-cran-rcppeigen.
dumpPackages

Value

A character vector containing package names is returned.

Author(s)

Dirk Eddelbuettel

Examples

buildDepends("r-cran-rcpp$")

dumpPackages(regexp = "\^r-(base|doc)-")

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. I.e 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. I.e 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 = ".")
hasPackages

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
  get Packages("^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. I.e. 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 = ".")
suitable

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. *e.g. 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 amongst 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
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