Package: provisionr (via r-universe)

June 22, 2024

Title Provision a Library
Author Rich FitzJohn
Maintainer Rich FitzJohn < rich.fitzjohn@gmail.com>
Version 0.1.14
Description Provision a set of packages into a new library, possibly for use on a different architecture.
License MIT + file LICENSE
Imports R6, curl, drat, prettyunits, progress (>= 1.2.0), remotes, rversions, storr (>= 1.1.0), withr, yaml
Suggests testthat, zip
RoxygenNote 6.1.1
Encoding UTF-8
Repository https://mrc-ide.r-universe.dev
RemoteUrl https://github.com/mrc-ide/provisionr
RemoteRef master
RemoteSha 3350a3872b175d678622fd5b4a392e861aac969c
Contents
check_r_version download_cran download_files package_sources provision_dependencies provision_library
Index

2 download_cran

check_r_version

Check R version

Description

Utility function for checking an R version

Usage

```
check_r_version(version = NULL)
```

Arguments

version

Something to coerce into an R version. Valid values are NULL (the current session's R version), a character string of the form x.y.z, a character string oldrel or release or a numeric_version object.

download_cran

Download some of CRAN

Description

Download a fraction of CRAN to serve locally.

Usage

```
download_cran(packages, path, r_version = NULL, target = "windows",
   suggests = FALSE, package_sources = NULL,
   missing_index_is_error = TRUE, progress = NULL)
```

Arguments

packages Character vector of packages to download

path Destination r_version Target R version

target Target platform (use "ALL" for all platforms)

suggests Include suggested packages too?

package_sources

A provisionr::package_sources object

missing_index_is_error

Is a missing PACKAGES index an error? Set this to FALSE when downloading from incomplete repositories (e.g., a drat repo that contains only source files if

you are trying to download binaries)

progress Control progress bar printing

download_files 3

	download_files	Download multiple files	
--	----------------	-------------------------	--

Description

Download multiple files.

Usage

```
download_files(urls, dest_dir, ..., labels = NULL, overwrite = FALSE,
  count = TRUE, dest_file = NULL, copy_file_urls = TRUE,
  progress = NULL, report = TRUE, headers = NULL)
```

Arguments

dest_dir A single existing directory to download files into Currently ignored
labels A character vector of labels to use to describe the files being downloaded when printing (defaults to basename(urls))
Overwrite Grant Overwrite files that exist already? If FALSE (the default) then existing files are skipped.
count Logical, indicating if a count of progress across the urls should be included.
dest_file If the files should be renamed as they are downloaded, include a vector of filenames here the same length as urls. Directory components will be created, within dest_dir.
copy_file_urls Logical, indicating if file:/// urls should be copied into dest_dir
progress Print a progress bar?
report Print a summary?
headers Named character vector of HTTP headers (optional)

Value

A character vector, the same length as urls, with the destination file paths (even if no downloading was done). A failure to download a file (e.g., a 403 forbidden, 404 not found, or general network error) will result in an R error.

4 package_sources

package_sources	Collect information on package sources	

Description

Collect information on package sources

Usage

```
package_sources(cran = NULL, repos = NULL, github = NULL,
  local = NULL, expire = NULL, local_drat = NULL, data = NULL,
  spec = NULL)
```

Arguments

cran	A single URL for the CRAN repo to use. If NULL, then this will use the rstudio mirror.
repos	A character vector of additional repositories to use. Repositories of the form drat://username will be translated to a drat repository hosted on github (e.g., https://username.github.io/drat)
github	A vector of github package specifications (e.g., username/password). The full syntax as implemented in parse_github_repo_spec is supported (packages in subdirectories, or referencing a particular branch, commit or tag).
local	A character vector of local files to include. Can be directories or built packages (source or binary)
expire	Optional period, in days, to expire the local copy of the package. If specified, then if a package was downloaded more thanexpire days ago when the local copy is checked, a new version will be downloaded. Can be a fractional value (e.g., expire = 0.04 for an expiry of around an hour).
local_drat	Optional location to cache downloaded packages, when github or local packages are used. If not given, this can be set at any time by setting the local_drat element of the returned element. If not given by the time that the packages need to be downloaded then a session-specific temporary directory will be used.
data	An object of class package_sources_list, created by running the as_list() method of a package_sources object. This is useful for serialisation without saving references to provisionr.
spec	Raw entries of the form <type>::<user>/<repo></repo></user></type>

provision_dependencies

provision_dependencies

Provision dependencies for a package

Description

Provision dependencies for a package. The provision_dependencies_bootstrap function writes out a bootstrap script.

Usage

```
provision_dependencies(lib, path_description = ".", ..., src = NULL,
    read_travis = FALSE)

provision_dependencies_bootstrap(lib = ".packages", src = NULL,
    read_travis = FALSE, strict_lib = TRUE)
```

Arguments

lib Library to provision

path_description

Path to the DESCRIPTION file

Additional arguments to provision_library

src An optional description of additional packages, using package_sources.

read_travis Logical, indicating if the .travis.yml should be read (if present). If TRUE then packages listed within r_github_packages will be used in provisioning.

strict_lib Should the bootstrap script install provisionr within the local library too?

provision_library

Create or update a library

Description

Create or update a library of packages.

Usage

```
provision_library(packages, lib, platform = NULL, version = NULL,
    src = NULL, check_dependencies = TRUE,
    installed_action = "upgrade", allow_missing = FALSE,
    refresh_drat = FALSE, quiet = FALSE, progress = NULL)
```

6 provision_library

Arguments

packages A character vector of packages to include

1ib A path to the library; if it does not exist, it will be created. If given as a vector

of libraries (i.e., with more than one element) then packages will be installed into the first library, but subsequent libraries will be checked to make sure that

dependencies are satisfied.

platform The platform to create the library for. If NULL then we build for the current plat-

form (using install_packages if version is NULL or compatible with our cur-

rent version). Otherwise this can be one of "windows", "macosx", "macosx/mavericks"

or "linux", correspinding to the different directories that binaries live in (in the case of "linux" there are no binaries and things are a little more complicated).

version The version of R to install packages for. By default, we use the same version

(major.minor) as the current running R version. Otherwise provide the desired

 $version \ number \ as \ a \ string \ or \ numeric_version \ object.$

src An optional description of additional packages, using package_sources. It

will only be rebuilt (fetching packages) if it has never been built, or of packages

listed in the spec element are not found in the repository.

check_dependencies

Logical, indicating if dependencies of packges should be checked. If TRUE, then any missing dependencies (packages in Depends, Imports or LinkingTo of the

requested packages) will be installed.

installed_action

The behaviour when some packages are already installed. Options are "replace" (will re-install the package and for cross installation, its dependencies), "upgrade of

(will re-install the package and, for cross-installation, its dependencies), "upgrade_all" (upgrade all packages that lag behind the versions in repositories), "upgrade" (upgrade packages listed in "packages" only, but not their dependencies) and

"skip" (do not install or upgrade any package that is already installed).

allow_missing For cross-installation (via cross_install when platform is non-NULL), allow

packages to be missing that need to be compiled? The interface here is going to

change a bunch, so watch out...

refresh_drat Logical indicating if the cache of packages pointed to by src should be re-

freshed. The other way of forcing this would be to pass expire = 0 through to

the package_sources argument but this is likely to be tidier.

quiet Passed through to to install.packages, indicating if package installation should

be done quietly. With this as FALSE (the default) rather a lot of output can be

generated.

progress Passed through to the package downloading to control printing of the progress

bar.

Details

Cross installation of binary files is difficult and I need to come up with a way of making that work nicely.

provision_library 7

Author(s)

Rich FitzJohn

Index