

# Package ‘wayback’

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**Type** Package

**Title** Rock Solid Package Installation for Legacy R Versions

**Version** 0.2.4

**Date** 2020-09-11

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**Description** Make sure packages are available at runtime without any setup.

Package installation, reproducibility and exchanging code can be frustrating especially if code is used on older R versions.

Often it is hard to puzzle out which package versions are able to work together after some years have passed and packages evolved further and further. The 'wayback' package aims to make this process as painless and robust as possible by using 'MRAN's 'CRAN' snapshots to build local package libraries from way back.

**License** GPL-3

**Encoding** UTF-8

**LazyData** true

**RoxygenNote** 7.1.1

**Imports** checkpoint

**NeedsCompilation** no

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**Repository** CRAN

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<code>wb_info_split</code>	<i><code>wb_info_split</code></i>
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**Description**

`wb_info_split`

**Usage**

`wb_info_split(x)`

**Arguments**

`x`                      list of package dependencies

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<code>wb_install</code>	<i>Package Installation</i>
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**Description**

Installs packages and its dependencies.

**Usage**

`wb_install(pkg, repo_url, library_path, package_path, dependencies)`

**Arguments**

<code>pkg</code>	character - package name specified as cha
<code>repo_url</code>	url of repository to get packages from
<code>library_path</code>	character - lib_path to use first
<code>package_path</code>	character - path to look for binary packages to install
<code>dependencies</code>	character vector - specifies which types of dependencies should be installed also

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wb_pkg_base_packages	<i>wb_pkg_base_packages</i>
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**Description**

wb\_pkg\_base\_packages

**Usage**

wb\_pkg\_base\_packages()

**Value**

character vector with packages already part of the R installation

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wb_pkg_dependencies	<i>Dependencies</i>
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**Description**

Function to retrieve package dependencies.

**Usage**

```
wb_pkg_dependencies(  
  pkg,  
  library_path = NULL,  
  dep_types = c("imports", "depends", "linkingto")  
)
```

**Arguments**

- |              |                                                  |
|--------------|--------------------------------------------------|
| pkg          | package to get dependencies from                 |
| library_path | library path to look for package                 |
| dep_types    | character vector of dependency types to retrieve |

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wb_pkg_install_worker	<i>wb_pkg_install_worker</i>
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**Description**

wb\_pkg\_install\_worker

**Usage**

wb\_pkg\_install\_worker(pkg, repo\_url, package\_path, library\_path, dependencies)

**Arguments**

pkg	character - package name specified as cha
repo_url	url of repository to get packages from
package_path	character - path to look for binary packages to install
library_path	character - lib_path to use first
dependencies	character vector - specifies which types of dependencies should be installed also

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wb_repo_url	<i>wb_repo_url</i>
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**Description**

wb\_repo\_url

**Usage**

wb\_repo\_url(date)

**Arguments**

date	date for which to get repo url
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**Description**

This function will make sure a specified package is available within the current R session. If the package is not available it will attempt to install it and load it thereafter. If its already installed it will only load the package.

**Usage**

```
wb_require(
  pkg,
  library_path = getOption("wb_require_lib_path", NULL),
  date = getOption("wb_require_date", NULL),
  date_shift = getOption("wb_require_shift_date", NULL),
  package_path = getOption("wb_require_package_path", NULL),
  dependencies = getOption("wb_require_dependencies", c("Depends", "Imports",
    "LinkingTo")),
  url_fun = getOption("wb_require_url", wb_repo_url)
)
```

**Arguments**

pkg	character - package name specified as cha
library_path	character - lib_path to use first
date	character - date specified in ISO format, defaults to date specified in sessionInfo()\$R.version\$version
date_shift	integer - number of days to add to date
package_path	character - path to look for binary packages to install
dependencies	character vector - specifies which types of dependencies should be installed also
url_fun	function transforming a date into a repository url

**Details**

Other than the normal `install.packages` function this function will not use the newest package available but one that was available at a specific point in time on CRAN. For CRAN snapshots the Microsoft R Open snapshots and the checkpoint package are used.

The default date is the date of the release of the R version currently in use plus an additional 60 days.

The `lib_path` argument can be used to make use a project specific R package library path.

Also, its possible to specify a path were binary packages can be found and installed from.

**Examples**

```
## Not run:

# set options
options(wb_require_lib_path = "./r_lib_path")

# make sure package is available
wb_require("data.table")

# use packages released up to 365 days younger than the current R-versions
# release date
wb_require("data.table", date_shift = 365)

# use a specific lib path for loading and installing
wb_require("data.table", lib_path = "./r_lib_path")

## End(Not run)
```

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