# Package 'RLumBuild'

December 11, 2020

**Type** Package

**Title** RLum Universe Package Building

**Version** 0.1.6.9000-17

**Date** 2020-12-11

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**Maintainer** Sebastian Kreutzer <sebastian.kreutzer@aber.ac.uk>

**Description** Build packages from the RLum-universe.
A collection of tools and scripts to unify the building of packages.

**License** GPL-3

**BugReports** <https://github.com/R-Lum/RLumBuild/issues>

**URL** <https://github.com/R-Lum/RLumBuild>

**Depends** R (>= 3.5.0),
utils

**Imports** crayon (>= 1.3.4),
rmarkdown (>= 1.12),
cli (>= 1.1.0),
codemetar (>= 0.1.8),
devtools (>= 2.0.2),
jsonlite (>= 1.7.1),
miniCRAN (>= 0.2.11),
pander (>= 0.6.3),
pkgbuild (>= 1.0.3),
roxygen2 (>= 6.1.1),
Rcpp (>= 1.0.1),
R2HTML (>= 2.3.2),
stringi (>= 1.4.3),
stringr (>= 1.4.0),
tools,
xtable (>= 1.8-4)

**Encoding** UTF-8

**LazyData** true

**RoxygenNote** 7.1.1

# R topics documented:

---

RLumBuild-package          *RLum Universe Package Building #'*

---

## Description

Build packages from the RLum-universe. A collection of tools and scripts to unify the building of packages.

## Details

### Funding

In 2019, the work of Sebastian Kreutzer as maintainer of the package was supported by the LabEx LaScArBxSK (ANR - n. ANR-10-LABX-52).

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build_package          *Check and Build Package*

---

## Description

Central function to run the package build process.

## Usage

```
build_package(
  path = ".",
  exclude = NULL,
  write_Rbuildignore = TRUE,
  as_cran = FALSE
)
```

## Arguments

| | |
|---|---|
| path | [character] (with default): set package path |
| exclude | [character] (optional): names of build modules you want to exclude] |
| write_Rbuildignore | |
| | [logical] (optional): writes are master build-ignore |
| as_cran | [logical] (with default): enable/disable `--as-cran` check |

## Function version

0.1.0

## How to cite

Kreutzer, S., 2020. build_package(): Check and Build Package. Function version 0.1.0. In: Kreutzer, S., Burow, C., 2020. RLumBuild: RLum Universe Package Building. R package version 0.1.6.9000-17. https://github.com/R-Lum/RLumBuild

## Author(s)

Sebastian Kreutzer, Geography & Earth Sciences, Aberystwyth University (United Kingdom) , RLum Developer Team

## Examples

```
print("This is only to silence the CRAN check")

## Not run:
build_package()


## End(Not run)
```

---

module_add_HowToCite  *Add How to Cite Section*

---

## Description

Adds a function tailored section 'How to Cite' to each manual page as long as author names and a section 'Function version' exists.

## Usage

```
module_add_HowToCite()
```

## Details

### Output example

Burow, C., Kreutzer, S. (2019). module_add_HowToCite(): Add How to Cite Section. Function version 0.1.0. In: Kreutzer, S., Burow, C. (2019). RLumBuild: RLum Universe Package BuildingR package version 0.1.1.9000-5. https://github.com/R-Lum/RLumBuild

**Function version**

0.3.0

**How to cite**

Burow, C., Kreutzer, S., 2020. module_add_HowToCite(): Add How to Cite Section. Function version 0.3.0. In: Kreutzer, S., Burow, C., 2020. RLumBuild: RLum Universe Package Building. R package version 0.1.6.9000-17. https://github.com/R-Lum/RLumBuild

**Author(s)**

Christoph Burow (Germany), Sebastian Kreutzer, IRAMAT-CRP2A, UMR 5060, CNRS - Université Bordeaux Montaigne (Frange) , RLum Developer Team

---

module_add_RLumTeam          *Module: add RLum-Team and update version timestamp*

---

**Description**

If the package was supported by the RLumTeam (the standard) the RLum-Team is added as author to all functions.

**Usage**

```
module_add_RLumTeam()
```

**Function version**

0.1.0

**How to cite**

Kreutzer, S., 2020. module_add_RLumTeam(): Module: add RLum-Team and update version timestamp. Function version 0.1.0. In: Kreutzer, S., Burow, C., 2020. RLumBuild: RLum Universe Package Building. R package version 0.1.6.9000-17. https://github.com/R-Lum/RLumBuild

**Author(s)**

Sebastian Kreutzer, Geography & Earth Sciences, Aberystwyth University (United Kingdom) , RLum Developer Team

---

module_build_documentation

*Module: Build Documentation*

---

## Description

Create documentation using roxygen2

## Usage

```
module_build_documentation()
```

## Function version

0.1.0

## How to cite

Kreutzer, S., 2020. module_build_documentation(): Module: Build Documentation. Function version 0.1.0. In: Kreutzer, S., Burow, C., 2020. RLumBuild: RLum Universe Package Building. R package version 0.1.6.9000-17. https://github.com/R-Lum/RLumBuild

## Author(s)

Sebastian Kreutzer, Geography & Earth Sciences, Aberystwyth University (United Kingdom) , RLum Developer Team

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module_check_ReverseDependencies

*Check Reverse Dependencies*

---

## Description

Check the reverse dependencies of the package

## Usage

```
module_check_ReverseDependencies()
```

## Function version

0.1.0

## How to cite

Kreutzer, S., 2020. module_check_ReverseDependencies(): Check Reverse Dependencies. Function version 0.1.0. In: Kreutzer, S., Burow, C., 2020. RLumBuild: RLum Universe Package Building. R package version 0.1.6.9000-17. https://github.com/R-Lum/RLumBuild

**Author(s)**

Sebastian Kreutzer, Geography & Earth Sciences, Aberystwyth University (United Kingdom) , RLum Developer Team

---

module_compactVignette

*Module: compact_Vignette*

---

**Description**

Try to further downsize the vignette, so far available

**Usage**

```
module_compactVignette()
```

**Function version**

0.1.0

**How to cite**

Kreutzer, S., 2020. module_compactVignette(): Module: compact_Vignette. Function version 0.1.0. In: Kreutzer, S., Burow, C., 2020. RLumBuild: RLum Universe Package Building. R package version 0.1.6.9000-17. https://github.com/R-Lum/RLumBuild

**Author(s)**

Sebastian Kreutzer, Geography & Earth Sciences, Aberystwyth University (United Kingdom) , RLum Developer Team

---

module_compile_Attributes

*Module: Compile attributes*

---

**Description**

Compile C++ attributes if such code is part of the package

**Usage**

```
module_compile_Attributes()
```

**Function version**

0.1.0

## How to cite

Kreutzer, S., 2020. module_compile_Attributes(): Module: Compile attributes. Function version 0.1.0. In: Kreutzer, S., Burow, C., 2020. RLumBuild: RLum Universe Package Building. R package version 0.1.6.9000-17. https://github.com/R-Lum/RLumBuild

## Author(s)

Sebastian Kreutzer, Geography & Earth Sciences, Aberystwyth University (United Kingdom) , RLum Developer Team

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module_create_DependencyGraph

*Create Dependency Graph*

---

## Description

Create package dependency graph

## Usage

```
module_create_DependencyGraph(
  Rversion = paste(R.version[c("major", "minor")], collapse = ".")
)
```

## Arguments

Rversion        [character] (with default): R version for which the graph is created

## Details

The script based on:

## Function version

0.1.0

## How to cite

Kreutzer, S., 2020. module_create_DependencyGraph(): Create Dependency Graph. Function version 0.1.0. In: Kreutzer, S., Burow, C., 2020. RLumBuild: RLum Universe Package Building. R package version 0.1.6.9000-17. https://github.com/R-Lum/RLumBuild

## Note

Module currently not acctivated

## Author(s)

Sebastian Kreutzer, Geography & Earth Sciences, Aberystwyth University (United Kingdom) , RLum Developer Team

---

module_knit_NEWS *Module: Knit NEWS*

---

### Description

Create NEWS.md from NEWS.Rmd

### Usage

```
module_knit_NEWS()
```

### Function version

0.1.0

### How to cite

Kreutzer, S., 2020. module_knit_NEWS(): Module: Knit NEWS. Function version 0.1.0. In: Kreutzer, S., Burow, C., 2020. RLumBuild: RLum Universe Package Building. R package version 0.1.6.9000-17. https://github.com/R-Lum/RLumBuild

### Author(s)

Sebastian Kreutzer, Geography & Earth Sciences, Aberystwyth University (United Kingdom) , RLum Developer Team

---

module_knit_README *Module: Knit README*

---

### Description

Create README.md from README.Rmd

### Usage

```
module_knit_README()
```

### Function version

0.1.0

### How to cite

Kreutzer, S., 2020. module_knit_README(): Module: Knit README. Function version 0.1.0. In: Kreutzer, S., Burow, C., 2020. RLumBuild: RLum Universe Package Building. R package version 0.1.6.9000-17. https://github.com/R-Lum/RLumBuild

### Author(s)

Sebastian Kreutzer, Geography & Earth Sciences, Aberystwyth University (United Kingdom) , RLum Developer Team

---

module_set_VersionNumber

*Module: set_VersionNumber*

---

#### Description

Automatically set version number in DESCRIPTION file if the pattern '.9000' is found.

#### Usage

```
module_set_VersionNumber()
```

#### Details

If the package is under development it is somehow meaningful to easily distinguish between different build versions. In the R community the pattern '.9000' in a version number is used to declare a package under development. If such pattern is found, the module either adds '-1' or if already their, increase such number by '1' every time the package is built.

For release versions the patter '.9000' is removed from the DESCRIPTION file and nothing is done if the module is run.

#### Function version

0.1.0

#### How to cite

Kreutzer, S., 2020. module_set_VersionNumber(): Module: set_VersionNumber. Function version 0.1.0. In: Kreutzer, S., Burow, C., 2020. RLumBuild: RLum Universe Package Building. R package version 0.1.6.9000-17. https://github.com/R-Lum/RLumBuild

#### Author(s)

Sebastian Kreutzer, Geography & Earth Sciences, Aberystwyth University (United Kingdom) , RLum Developer Team

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module_update_datalist

*Update datalist*

---

#### Description

Updates the file 'data/datalist' if available. The standard CRAN functionality only works for data > 1 MB. For whatever reason.

#### Usage

```
module_update_datalist()
```

**Function version**

0.1.0

**How to cite**

Kreutzer, S., 2020. module_update_datalist(): Update datalist. Function version 0.1.0. In: Kreutzer, S., Burow, C., 2020. RLumBuild: RLum Universe Package Building. R package version 0.1.6.9000-17. https://github.com/R-Lum/RLumBuild

**Author(s)**

Sebastian Kreutzer, Geography & Earth Sciences, Aberystwyth University (United Kingdom) , RLum Developer Team

---

module_update_zenodoJSON

*Module: Update .zenodo.json file*

---

**Description**

Automatically update the .zenodo.json file

**Usage**

```
module_update_zenodoJSON()
```

**Details**

A small helper to make sure that we have not to take care update 'version', 'title' and 'description' in the 'zenodo.json' file

**Function version**

0.1.0

**How to cite**

Kreutzer, S., 2020. module_update_zenodoJSON(): Module: Update .zenodo.json file. Function version 0.1.0. In: Kreutzer, S., Burow, C., 2020. RLumBuild: RLum Universe Package Building. R package version 0.1.6.9000-17. https://github.com/R-Lum/RLumBuild

**Author(s)**

Sebastian Kreutzer, Geography & Earth Sciences, Aberystwyth University (United Kingdom) , RLum Developer Team

```
module_verify_ExampleTimings
```
*Verify Example Timings*

### Description

Check and display the timing results of the example checks to avoid too long example runs.

### Usage

```
module_verify_ExampleTimings()
```

### Function version

0.1.0

### How to cite

Kreutzer, S., 2020. module_verify_ExampleTimings(): Verify Example Timings. Function version 0.1.0. In: Kreutzer, S., Burow, C., 2020. RLumBuild: RLum Universe Package Building. R package version 0.1.6.9000-17. https://github.com/R-Lum/RLumBuild

### Author(s)

Sebastian Kreutzer, Geography & Earth Sciences, Aberystwyth University (United Kingdom) , RLum Developer Team

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```
module_write_BibTeX
```
*Create Package BibTeX file*

### Description

A BibTeX file to be used to cite the package is automatically created.

### Usage

```
module_write_BibTeX()
```

### Function version

0.1.0

### How to cite

Kreutzer, S., 2020. module_write_BibTeX(): Create Package BibTeX file. Function version 0.1.0. In: Kreutzer, S., Burow, C., 2020. RLumBuild: RLum Universe Package Building. R package version 0.1.6.9000-17. https://github.com/R-Lum/RLumBuild

### Author(s)

Sebastian Kreutzer, Geography & Earth Sciences, Aberystwyth University (United Kingdom) , RLum Developer Team

---

module_write_codemetar

*Create Codemetar JSON-LD file*

---

### Description

Add JSON-LD file file to make the package more tracable

### Usage

```
module_write_codemetar()
```

### Function version

0.1.0

### How to cite

Kreutzer, S., 2020. module_write_codemetar(): Create Codemetar JSON-LD file. Function version 0.1.0. In: Kreutzer, S., Burow, C., 2020. RLumBuild: RLum Universe Package Building. R package version 0.1.6.9000-17. https://github.com/R-Lum/RLumBuild

### Author(s)

Sebastian Kreutzer, Geography & Earth Sciences, Aberystwyth University (United Kingdom) , RLum Developer Team

### See Also

[codemetar::create_codemeta]

---

module_write_FunctionList

*Write Function Argument List*

---

### Description

Create a spread-sheet table with all function arguments

Create a HTML and markdown list of all major functions in the package

### Usage

```
module_write_FunctionList()

module_write_FunctionList()
```

### Details

Pevious versions were written by Michael Dietze and Sebastian Kreutzer. This version programmatically fetches all functions and arguments and does not rely on parsing the .Rd files with regular expressions.

**Function version**

0.1.0

0.1.0

**How to cite**

Burow, C., Kreutzer, S., 2020. module_write_FunctionList(): Write Function Argument List. Function version 0.1.0. In: Kreutzer, S., Burow, C., 2020. RLumBuild: RLum Universe Package Building. R package version 0.1.6.9000-17. https://github.com/R-Lum/RLumBuild

**Author(s)**

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# Index