

# Package ‘RLumBuild’

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**Type** Package

**Title** RLum Universe Package Building

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**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 (>= 3.4.0),  
utils

**Imports** crayon (>= 1.3.4),  
rmarkdown (>= 1.12),  
cli (>= 1.1.0),  
codemetar (>= 0.1.8),  
devtools (>= 2.0.2),  
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** 6.1.1

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RLumBuild-package	<i>RLum Universe Package Building #'</i>
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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	<i>Check and Build Package</i>
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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., 2019. build\_package(): Check and Build Package. Function version 0.1.0. In: Kreutzer, S., Burow, C., 2019. RLumBuild: RLum Universe Package BuildingR package version 0.1.4.9000-22. <https://github.com/R-Lum/RLumBuild>

**Author(s)**

Sebastian Kreutzer, IRAMAT-CRP2A, UMR 5060, CNRS - Université Bordeaux Montaigne (France)  
, RLum Developer Team

**Examples**

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

## Not run:
build_package()

## End(Not run)
```

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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., 2019. module\_add\_HowToCite(): Add How to Cite Section. Function version 0.3.0. In: Kreutzer, S., Burow, C., 2019. RLumBuild: RLum Universe Package BuildingR package version 0.1.4.9000-22. <https://github.com/R-Lum/RLumBuild>

**Author(s)**

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

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module_add_RLumTeam	<i>Module: add RLum-Team and update version timestamp</i>
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**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., 2019. module\_add\_RLumTeam(): Module: add RLum-Team and update version timestamp. Function version 0.1.0. In: Kreutzer, S., Burow, C., 2019. RLumBuild: RLum Universe Package BuildingR package version 0.1.4.9000-22. <https://github.com/R-Lum/RLumBuild>

**Author(s)**

Sebastian Kreutzer, IRAMAT-CRP2A, UMR 5060, CNRS - Université Bordeaux Montaigne (France) , RLum Developer Team

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`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., 2019. `module_build_documentation()`: Module: Build Documentation. Function version 0.1.0. In: Kreutzer, S., Burow, C., 2019. RLumBuild: RLum Universe Package BuildingR package version 0.1.4.9000-22. <https://github.com/R-Lum/RLumBuild>

**Author(s)**

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, 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., 2019. `module_check_ReverseDependencies()`: Check Reverse Dependencies. Function version 0.1.0. In: Kreutzer, S., Burow, C., 2019. RLumBuild: RLum Universe Package BuildingR package version 0.1.4.9000-22. <https://github.com/R-Lum/RLumBuild>

**Author(s)**

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 , RLum Developer Team

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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., 2019. module\_compile\_Attributes(): Module: Compile attributes. Function version 0.1.0. In: Kreutzer, S., Burow, C., 2019. RLumBuild: RLum Universe Package BuildingR package version 0.1.4.9000-22. <https://github.com/R-Lum/RLumBuild>

**Author(s)**

Sebastian Kreutzer, IRAMAT-CRP2A, UMR 5060, CNRS - Université Bordeaux Montaigne (France)  
 , 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., 2019. module\_create\_DependencyGraph(): Create Dependency Graph. Function version 0.1.0. In: Kreutzer, S., Burow, C., 2019. RLumBuild: RLum Universe Package BuildingR package version 0.1.4.9000-22. <https://github.com/R-Lum/RLumBuild>

**Note**

Module currently not accivated

**Author(s)**

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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., 2019. module\_knit\_NEWS(): Module: Knit NEWS. Function version 0.1.0. In: Kreutzer, S., Burow, C., 2019. RLumBuild: RLum Universe Package BuildingR package version 0.1.4.9000-22. <https://github.com/R-Lum/RLumBuild>

**Author(s)**

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, RLum Developer Team

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module_knit_README	<i>Module: Knit README</i>
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### Description

Create README.md from README.Rmd

### Usage

```
module_knit_README()
```

### Function version

0.1.0

### How to cite

Kreutzer, S., 2019. module\_knit\_README(): Module: Knit README. Function version 0.1.0. In: Kreutzer, S., Burow, C., 2019. RLumBuild: RLum Universe Package BuildingR package version 0.1.4.9000-22. <https://github.com/R-Lum/RLumBuild>

### Author(s)

Sebastian Kreutzer, IRAMAT-CRP2A, UMR 5060, CNRS - Université Bordeaux Montaigne (France)  
, RLum Developer Team

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module_set_VersionNumber	<i>Module: set_VersionNumber</i>
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### 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 there, increase such number by '1' every time the package is built.

For release versions the pattern '.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., 2019. module\_set\_VersionNumber(): Module: set\_VersionNumber. Function version 0.1.0. In: Kreutzer, S., Burow, C., 2019. RLumBuild: RLum Universe Package BuildingR package version 0.1.4.9000-22. <https://github.com/R-Lum/RLumBuild>

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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., 2019. module\_update\_datalist(): Update datalist. Function version 0.1.0. In: Kreutzer, S., Burow, C., 2019. RLumBuild: RLum Universe Package BuildingR package version 0.1.4.9000-22. <https://github.com/R-Lum/RLumBuild>

**Author(s)**

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---

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., 2019. module\_verify\_ExampleTimings(): Verify Example Timings. Function version 0.1.0. In: Kreutzer, S., Burow, C., 2019. RLumBuild: RLum Universe Package BuildingR package version 0.1.4.9000-22. <https://github.com/R-Lum/RLumBuild>

**Author(s)**

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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., 2019. module\_write\_BibTeX(): Create Package BibTeX file. Function version 0.1.0. In: Kreutzer, S., Burow, C., 2019. RLumBuild: RLum Universe Package BuildingR package version 0.1.4.9000-22. <https://github.com/R-Lum/RLumBuild>

**Author(s)**

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`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., 2019. module\_write\_codemetar(): Create Codemetar JSON-LD file. Function version 0.1.0. In: Kreutzer, S., Burow, C., 2019. RLumBuild: RLum Universe Package BuildingR package version 0.1.4.9000-22. <https://github.com/R-Lum/RLumBuild>

**Author(s)**

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**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., 2019. `module_write_FunctionList()`: Write Function Argument List. Function version 0.1.0. In: Kreutzer, S., Burow, C., 2019. `RLumBuild`: `RLum` Universe Package BuildingR package version 0.1.4.9000-22. <https://github.com/R-Lum/RLumBuild>

**Author(s)**

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