

# Simple and Reliable R Package Documentation with Sinew

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## Whoami

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## R Packages

- **What:** Bundled script to reproduce analysis
  - Code
  - Data
  - Documentation
  - Tests
- **Why:** Promotes collaboration across researchers
- **Added Value:** Consistent help documentation format

## Structure

- **DESCRIPTION** : Package Metadata
- **NAMESPACE** : Manages how the packages interacts with other packages
- **R/** : script
- **man/** : documentation (Rd files)
- **data/** : data
- **tests/** : unit tests

## Roxygen2

Roxygen2 is a R package that creates an easy api to maintain the documentation for each function and the package namespace.

- You do not have to manually write the Rd files that are needed to populate the man subdirectory.

- The documentation is in the same place as the object that it is describing.
- You do not have to manually maintain the NAMESPACE file.
  - Namespacing for the object is part of the documentation.

## High Bars

This is great, but is still a pretty high bar to pass for a non-expert developers.

- You have to understand and track what are the **depends**, **imports** and **suggests** of the package.
  - **@import** and **@importFrom**
- You have to keep a consistent documentation layout across functions.
  - **@params**, **@examples**
- You have to manage links across packages
  - **@seealso**

## Juggling Act

For more seasoned package developers this also can be an arduous task.

- Every change to the script
  - e.g. using another package, add a formal argument
- You need to update the **Roxygen2** documentation
  - update **@params**, **@imports**, **@importFrom**

## Sinew

- Sinew is a package that programmatically populates roxygen2 fields with information found within the function you are documenting.
- Allowing the developer to focus on the development and not on the continuous management of the namespacing and mundane manual documentation tasks.

CRAN: <https://cran.r-project.org/web/packages/sinew/index.html>

Github Repository: <https://www.github.com/metrumresearchgroup/sinew>

Gitbook: <https://metrumresearchgroup.github.io/sinew/>

## Package Goal

The goal of `{sinew}` is to - automate nearly all of the manual tasks needed to document functions - properly set up the import fields for oxygenation - make it easier to attain documentation consistency across functions and packages. - change and append updated parameters, definitions, namespacing to existing documentation

## Sinew Workflow Example

In the following example we will create a fully functional package with valid namespacing and documentation that passes `R CMD check --as-cran` using `{sinew}` in 10 minutes.

Time permitting we will see the interactive shiny gadget of `{sinew}`

Moving to Rmd...

```
library(rstudioapi)
navigateToFile('sinew_example_notebook.Rmd')
```