

# Package ‘pkgGraphR’

April 2, 2024

**Type** Package

**Title** Graph the Relationship Between Functions in an R Package

**Version** 0.2.0

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**BugReports** <https://gitlab.com/doliv071/pkggraphr/-/issues>

**URL** <https://gitlab.com/doliv071/pkggraphr>

**Description** It is often useful when developing an R package to track the relationship between functions in order to appropriately test and track changes. This package generates a graph of the relationship between all R functions in a package. It can also be used on any directory containing .R files which can be very useful for 'shiny' apps or other non-package workflows.

**License** GPL (>= 3)

**Encoding** UTF-8

**RoxygenNote** 7.3.1

**Imports** DiagrammeR, dplyr, purrr, stats, utils

**Suggests** knitr, rmarkdown, testthat (>= 3.0.0)

**Config/testthat/edition** 3

**VignetteBuilder** knitr

**NeedsCompilation** no

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**Repository** CRAN

**Date/Publication** 2024-04-02 13:02:04 UTC

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buildPackageGraph      *Build a graph of an R package or directory*

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**Description**

Generates the Nodes and Edges of a set of functions in an R package or directory

**Usage**

```
buildPackageGraph(x, unique.edges = TRUE, only.connected = FALSE)
```

**Arguments**

x                      A character string specifying the path to an R package or directory

unique.edges      Logical indicating whether there should be only a single edge between nodes.  
DEFAULT: TRUE

only.connected      Logical indicating whether unconnected nodes should be removed from the  
graph. DEFAULT: FALSE

**Value**

A named list of length 2 containing a character vector of nodes and a data.frame of edges.

**Examples**

```
system.file("extdata", package = "pkgGraphR") |>  
  buildPackageGraph()
```

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collectFunNames      *Collect all functions in a package or directory*

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**Description**

collect all the functions defined in an R program, directory, or file

**Usage**

```
collectFunNames(x)
```

**Arguments**

x                      A character string specifying the path to an R package, directory, or file

**Value**

A named list of function assignments in each '.R' file in 'x'

**Examples**

```
system.file("extdata", package = "pkgGraphR") |>
  collectFunNames()
```

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plotPackageGraph	<i>Plot a graph or diagram of a package</i>
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**Description**

From a list of nodes and edges, plots a diagram or graph

**Usage**

```
plotPackageGraph(graph, fun.list, use.subgraphs = FALSE, use.colors = FALSE)
```

**Arguments**

graph	A list generated by <a href="#">buildPackageGraph</a> containing edges and nodes of the graph.
fun.list	An optional list generated by <a href="#">collectFunNames</a> containing each files function assignments. Used only if 'use.subgraphs' or 'use.colors' are true
use.subgraphs	Logical indicating whether the graph should be partitioned into subgraphs by the file in which the function assignment was made. DEFAULT: FALSE
use.colors	Logical indicating whether the nodes of the graph should be colored by the file in which the function assignment was made. N.B. No legend is plotted for the colors. DEFAULT: FALSE

**Value**

A grviz plot.

**See Also**

[collectFunNames](#), [buildPackageGraph](#)

**Examples**

```
pkgGraph <- system.file("extdata", package = "pkgGraphR") |>
  buildPackageGraph()
plotPackageGraph(graph = pkgGraph)

pkgFuns <- system.file("extdata", package = "pkgGraphR") |>
  collectFunNames()

plotPackageGraph(graph = pkgGraph, fun.list = pkgFuns, use.subgraphs = TRUE)
plotPackageGraph(graph = pkgGraph, fun.list = pkgFuns, use.colors = TRUE)
plotPackageGraph(graph = pkgGraph, fun.list = pkgFuns, use.colors = TRUE, use.subgraphs = TRUE)
```

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