Package ‘cyclocomp’

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Title Cyclomatic Complexity of R Code

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Description Cyclomatic complexity is a software metric (measurement), used to indicate the complexity of a program. It is a quantitative measure of the number of linearly independent paths through a program's source code. It was developed by Thomas J. McCabe, Sr. in 1976.

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LazyData true

URL https://github.com/MangoTheCat/cyclocomp

BugReports https://github.com/MangoTheCat/cyclocomp/issues

Imports callr, crayon, desc, remotes, withr

Suggests testthat

RoxygenNote 5.0.1.9000

NeedsCompilation no

Repository CRAN

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R topics documented:

cyclocomp *Cyclomatic Complexity of R Code*

Description

Cyclomatic complexity is a software metric (measurement), used to indicate the complexity of a program. It is a quantitative measure of the number of linearly independent paths through a program's source code. It was developed by Thomas J. McCabe, Sr. in 1976.

Calculate the cyclomatic complexity of an R function or expression.

Usage

```
cyclocomp(expr)

cyclocomp_q(expr)
```

Arguments

expr	An R function or expression.

Value

Integer scalar, the cyclomatic complexity of the expression.

See Also

Other cyclomatic complexity: cyclocomp_package_dir, cyclocomp_package

Examples

```
## Supply a function
cyclocomp(
  function(arg) { calulate(this); and(that) }
)
cyclocomp(ls)
cyclocomp(cyclocomp)

## Or a quoted expression
cyclocomp(quote( if (condition) "foo" else "bar" ))

## cyclocomp_q quotes the expression for you
cyclocomp_q(while (condition) { loop })

## Complexity of individual control flow constructs
cyclocomp(quote({
  if (condition) this
}))

cyclocomp(quote({
```

```
  if (condition) this else that
}))

cyclocomp(quote({
  for (var in seq) expr
}))

cyclocomp(quote({
  while (cond) expr
}))

cyclocomp(quote({
  repeat expr
}))

cyclocomp(quote({
  for (var in seq) {
    this
    break
    that
  }
}))

cyclocomp(quote({
  for (var in seq) {
    this
    next
    that
  }
}))
```

`cyclocomp_package` *Cyclomatic complexity of the objects in an installed package*

Description

Note that the package must be installed.

Usage

```
cyclocomp_package(package)
```

Arguments

`package`	Package name, character scalar.

Value

Data frame with two columns: `name` and `cyclocomp`.

See Also

Other cyclomatic complexity: cyclocomp_package_dir, cyclocomp

Examples

```
## They might take a while to run
## Not run:
cyclocomp_package("grDevices")
cyclocomp_package("methods")

## End(Not run)
```

---

cyclocomp_package_dir *Cyclomatic complexity of a local package*

Description

Automatically builds the package and installs it to a temporary directory.

Usage

```
cyclocomp_package_dir(path = ".")
```

Arguments

path	Path to the root directory of the R package.

Value

Data frame with two columns: name and cyclocomp.

See Also

Other cyclomatic complexity: cyclocomp_package, cyclocomp

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