Dot-Pipe: an S3 Extensible Pipe for R - reprodukcja

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```
library("wrapr")
5 %.>% sin(.)
```

```
## [1] -0.9589243
```

```
print(.)
```

```
## [1] 5
```

```
5 %.>% {1 + .}
```

```
## [1] 6
```

```
5 %.>% (1 + .)
```

```
## [1] 6
```

```
library("dplyr")
```

```
##
## Attaching package: 'dplyr'
```

```
## The following object is masked from 'package:wrapr':
##
##     coalesce
```

```
## The following objects are masked from 'package:stats':
##
##     filter, lag
```

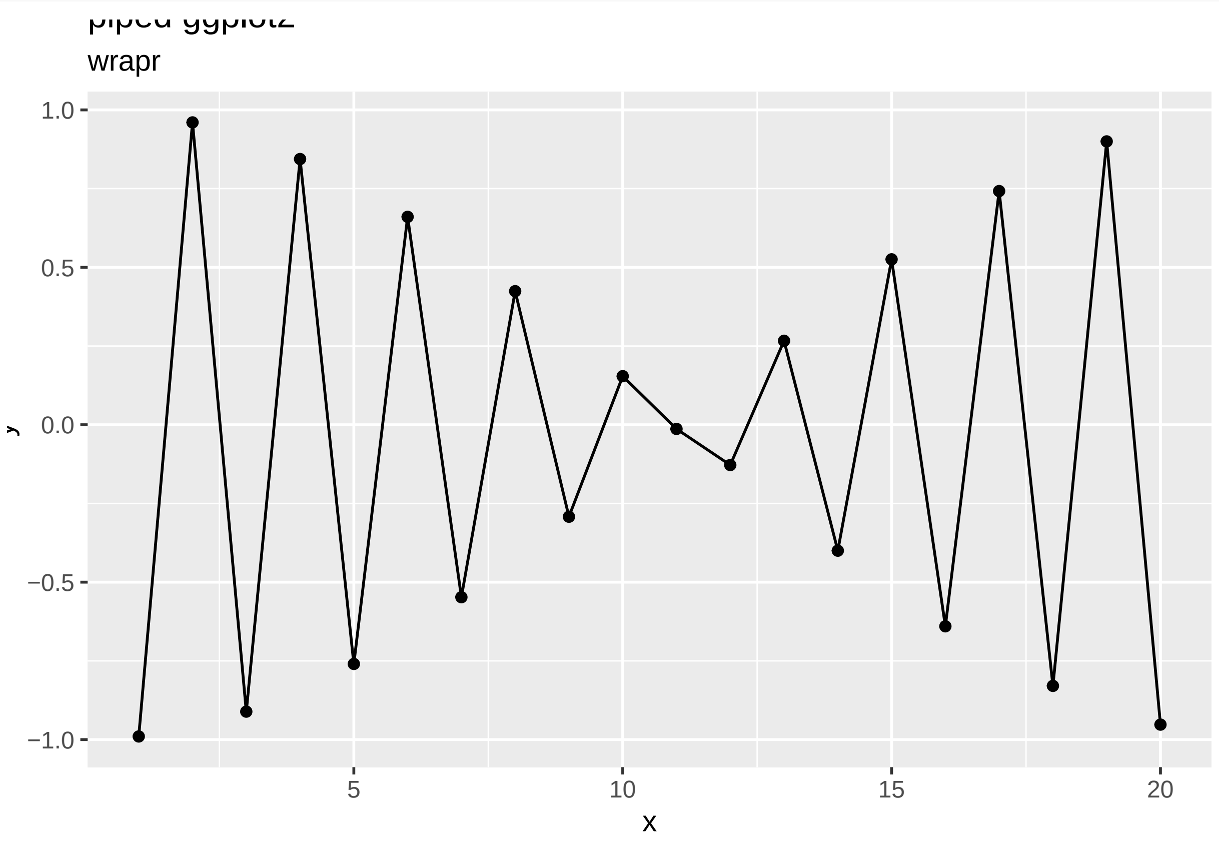
```
## The following objects are masked from 'package:base':
##
##     intersect, setdiff, setequal, union
```

```
disp <- 4
mtcars %.>%
  filter(., .data$cyl == .env$disp) %.>%
  nrow(.)
```

```
## [1] 11
```

```
library("ggplot2")
apply_left.gg <- function(pipe_left_arg,
                                                pipe_right_arg,
                                                pipe_environment,
                                                left_arg_name,
                                                pipe_string,
                                                right_arg_name) {
   pipe_right_arg <- eval(pipe_right_arg,
                          envir = pipe_environment,
                          enclos = pipe_environment)
   pipe_left_arg + pipe_right_arg  }
```

```r
data.frame(x = 1:20) %.>%
  mutate(., y = cos(3*x)) %.>%
  ggplot(., aes(x = x,  y = y)) %.>%
  geom_point() %.>%
  geom_line() %.>%
  ggtitle("piped ggplot2",
          subtitle = "wrapr")
```



```r
library("rquery")
```

```
##
## Attaching package: 'rquery'
```

```
## The following object is masked from 'package:ggplot2':
##
##     arrow
```

```r
optree <- mk_td(table_name = "d", columns = "x") %.>%
  extend_nse(., y = cos(2*x))

class(optree)
```

```
## [1] "relop_extend" "relop"
```

```r
print(optree)
```

```
## [1] "mk_td(\"d\", c( \"x\")) %.>% extend(., y := cos(2 * x))"
```

```r
column_names(optree)
```

```
## [1] "x" "y"
```

```
columns_used(optree)
```

```
## $d
## [1] "x"
```

```
# get a database connection
db = DBI::dbConnect(RSQLite::SQLite(),
                    ":memory:")
# make our db connection available to rquery package
options(list("rquery.rquery_db_executor" = list(db = db)))
data.frame(x = 1:3) %.>% optree
```

```
##   x          y
## 1 1 -0.4161468
## 2 2 -0.6536436
## 3 3  0.9601703
```

```
# apply optree to d

d1 <- data.frame(x = 1)
d2 <- data.frame(x = 2)
tryCatch(
  d1 %.>% d2,
  error = function(e) { invisible(cat(format(e))) })
```

```
## wrapr::apply_right_S4 default called with classes:
##  d1 data.frame
##  d2 data.frame
##   must have a more specific S4 method defined to dispatch
##  NULL
```

```
setMethod(
  "apply_right_S4",
  signature = c("data.frame", "data.frame"),
  definition = function(pipe_left_arg,
                        pipe_right_arg,
                        pipe_environment,
                        left_arg_name,
                        pipe_string,
                        right_arg_name) {
    rbind(pipe_left_arg, pipe_right_arg)
    })>  d1 %.>% d2
```

```
##         x
## [1,] TRUE
## [2,] TRUE
```

```
d1 %.>% data.frame(x = 2)
```

```
##   x
## 1 2
```

```
library("magrittr")
5 %>% sin
```

```
## [1] -0.9589243
```

```r
`%userpipe%`<- magrittr::`%>%`
tryCatch(
  5 %userpipe% sin,
  error = function(e) {e})
```

```
## <simpleError in pipes[[i]]: subscript out of bounds>
```

```r
`%userpipe%`<- wrapr::`%.>%`
5 %userpipe% sin
```

```
## [1] -0.9589243
```

```r
library("magrittr")
5 %>% substitute
```

```
## value
```

```r
tryCatch(
  5 %>% base::sin,
  error = function(e) {e})
```

```
## <simpleError in .::base: unused argument (sin)>
```

```r
library("wrapr")
5 %.>% substitute
```

```
## [1] 5
```

```r
5 %.>% base::sin
```

```
## [1] -0.9589243
```

```r
d <- data.frame(x = 1:5, y = c(1, 1, 0, 1, 0))
model <- glm(y~x, family = binomial, data = d)
apply_right.glm <-
  function(pipe_left_arg,
           pipe_right_arg,
           pipe_environment,
           left_arg_name,
           pipe_string,
           right_arg_name) {
    predict(pipe_right_arg,
            newdata = pipe_left_arg,
            type ='response')
    }
data.frame(x = c(1, 3)) %.>% model
```

```
##         1         2
## 0.9428669 0.6508301
```

```r
# get a database connection>
db = DBI::dbConnect(RSQLite::SQLite(),
                    ":memory:")
apply_right.SQLiteConnection <-
  function(pipe_left_arg,
           pipe_right_arg,
           pipe_environment,
           left_arg_name,
           pipe_string,
           right_arg_name) {
    DBI::dbGetQuery(pipe_right_arg, pipe_left_arg)
    }
"SELECT * FROM sqlite_temp_master" %.>% db
```

```
## [1] type     name     tbl_name rootpage sql
## <0 rows> (or 0-length row.names)
```

```
apply_left.character <- function(pipe_left_arg,
                                 pipe_right_arg,
                                 pipe_environment,
                                 left_arg_name,
                                 pipe_string,
                                 right_arg_name) {
  pipe_right_arg <- eval(pipe_right_arg,
                         envir = pipe_environment,
                         enclos = pipe_environment)
  paste0(pipe_left_arg, pipe_right_arg)
  }
"a" %.>% "b" %.>% "c"
```

```
## [1] "abc"
```

```
apply_left.formula <- function(pipe_left_arg,
                               pipe_right_arg,
                               pipe_environment,
                               left_arg_name,
                               pipe_string,
                               right_arg_name) {
  pipe_right_arg <- eval(pipe_right_arg,
                         envir = pipe_environment,
                         enclos = pipe_environment)
  pipe_right_arg <- paste(pipe_right_arg, collapse = " + ")
  update(pipe_left_arg, paste(" ~ . +", pipe_right_arg))
  }
(y~a) %.>% c("b", "c", "d") %.>% "e"
```

```
## y ~ a + b + c + d + e
```