

# The RTest Package

*Matthias Pfeifer*

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## Load library

```
library(RTest)

## Loading required package: testthat
## Loading required package: magick
## Linking to ImageMagick 6.9.7.4
## Enabled features: fontconfig, freetype, fftw, lcms, pango, x11
## Disabled features: cairo, ghostscript, rsvg, webp
## Loading required package: XML
## Loading required package: stringr
```

## Create Test Adapter

```
library(RTest)

## Define the functions to be tested
test_fun <- function(dat, mult) {
  cbind(dat, "sum" = apply(dat, 1, sum)*mult)
}

assign("test_fun", test_fun, envir = .GlobalEnv)

# Create test adapter
setClass(
  Class      = "TestPackageTestCase",
  representation = representation(),
  prototype  = list(),
  contains   = "RTestCase",
  where = .GlobalEnv
)

RTest::setTestMethod(
  "test.Pkg_1.funct_01",
  signature = "TestPackageTestCase",
  definition = function(object, inputData, execCache, xmlDef, ...) {

    # Read parameters
    mult <- xmlReadData_variable(xmlDef[["params"]][["mult"]])
```

```

# Calculate result
result <- test_execution(
  what      = test_fun,
  args      = list(c(inputData[[1]], mult)),
  xmlTestSpec = xmlDef[["testspec"]][["execution"]])

# Read reference
reference <- xmlReadData_data.frame(xmlDef[["reference"]])

# Execute test
if(!is.null(xmlDef[["testspec"]][["return-value"]]))
  test_returnValue_data.frame_cellbycell(
    result,
    reference,
    xmlDef[["testspec"]][["return-value"]]
  )

# Return result (will be cached)
return(result)
},
where = .GlobalEnv
)

```

```
## [1] "test.Pkg_1.funct_01"
```

## Execute test

Right after execution a browser window with the Test Report will open automatically.

```

“r # Create test collection testCollection <- new(“RTestCollection”, project.name = “RTest Vignette”,
project.details = “Example test exectuion”, tester = “Example tester”, test.start = format(Sys.time(),
“%Y-%m-%d %H:%M:%S”)

```

```

# Import TCs TCDir <- paste0(find.package(“RTest”),“/xml-templates”)

```

```

testCollection <- importTCsFromDir(testCollection, xml.dPath = TCDir)

```

```

# Execute test cases testCollection <- exec(testCollection)

```

```

# Write test report outf <- tempfile(fileext=“html”) writeExecSummary.html(testCollection, out.fPath =
outf)

```

```

cat(“Output written to”,outf,“,”, sep = “”) ““

```