The RTest Package

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Load library

```
library(RTest)
```

```
## Loading required package: testthat
```

Create Test Adapter

```
## 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
)


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.

```
# 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 = "")
```