RBloomberg Developer Documentation

Ana Nelson

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1 Interfaces

RBloomberg currently implements COM and Java interfaces to Bloomberg.

The package is intended to be written so that each interface returns data in the same format, so that the interface used should be invisible to the user except at startup or when using advanced or special features only available via a particular interface.

1.1 COM Interface

This interface is available with either Version 2 or Version 3 of the Bloomberg API. The rcom R package, and the statconnDCOM server, must be installed.

Here are examples of raw calls to COM for fetching data:

```
conn <- comCreateObject("Bloomberg.Data.1")

# Optional, set a timeout.
comSetProperty(conn, "Timeout", 12000)

# Basic "Hello, World!"
comGetProperty(conn, "BLPSubscribe", "RYA ID Equity", "TODAY_DT")

# These all work too...
comGetProperty(conn, "BLPSubscribe", c("RYA ID Equity"), c("TODAY_DT"))
comGetProperty(conn, "BLPSubscribe", Security = "RYA ID Equity", Fields = "TODAY_DT")

comGetProperty(conn, "BLPSubscribe", Security=c("RYA ID Equity"),
   Fields=c("NAME", "COUNTRY", "PX_LAST"))

# Get historical data with various periodicities.
# Try both ways of setting properties.
comSetProperty(conn, "Periodicity", 1)
comGetProperty(conn, "BLPGetHistoricalData", Security=c("RYA ID Equity"), Fields=c("PX_LAST"),
   StartDate=as.POSIXct("2008-01-01"))

conn[["Periodicity"]] <- 6
comGetProperty(conn, "BLPGetHistoricalData", Security=c("RYA ID Equity"), Fields=c("PX_LAST"),
   StartDate=as.POSIXct("2008-01-01"))

comSetProperty(conn, "Periodicity", 7)
comGetProperty(conn, "BLPGetHistoricalData", Security=c("RYA ID Equity"), Fields=c("PX_LAST"),
   StartDate=as.POSIXct("2008-01-01"))

# Examples of fetching prices in different currencies using BLPGetHistoricalData2
comGetProperty(conn, "BLPGetHistoricalData", Security = "RYA ID Equity", Fields = "PX_LAST",
   StartDate = as.POSIXct("2009-01-01"), EndDate = as.POSIXct("2009-02-01"))
```

```
comGetProperty(conn, "BLPGetHistoricalData2", Security = "RYA ID Equity", Fields = "PX_LAST",
   StartDate = as.POSIXct("2009-01-01"), Currency = "USD", EndDate = as.POSIXct("2009-02-01"))

# Intraday tick example.
comGetProperty(conn, "BLPGetHistoricalData", Security="ED1 Comdty", Fields=c("BID","ASK"),
   StartDate=Sys.time() - 3600, EndDate = Sys.time(), BarSize=as.integer(0))
```

1.2 Java Interface

This is a new interface in the Version 3 API. Java must be installed, and the rJava library which allows R to interface with the JVM.

2 Unit Testing

RBloomberg uses the RUnit package for testing. Tests can be found in inst/runit-tests. A test suite is defined in the file test.helper.R as follows:

```
allBloombergTests <- defineTestSuite("All Tests",
   dirs=system.file("runit-tests", package="RBloomberg"),
   testFileRegexp="Test.R$")

runAllBloombergTests <- function() {
   testResults <- runTestSuite(allBloombergTests)
   printTextProtocol(testResults)
}
```

Tests can be run with a HTML report by running the file run.tests.R in the runit-tests directory:

```
library(RBloomberg)

testResults <- runTestSuite(allBloombergTests)
sink("tests.html")
printHTMLProtocol(testResults)
sink()
```

More unit tests are always welcome and they can be added to one of the existing files or by creating a new file named according to the convention *Test.R.

3 Literate Documentation

This document, the RBloomberg manual and the RBloomberg home page are literate documents which take code samples directly from live, runnable R files.