RblDataLicense: R Interface to “Bloomberg Data License”

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Bloomberg is a major global provider of 24-hour financial news and information, including real-time and historic price data

Bloomberg Terminal

- Computer software system that enables professionals to monitor and analyze real-time financial market data and place trades
- All-in-one service, including data extraction
- $24.000 per year

Bloomberg Data License

- Delivers Bloomberg’s datasets
- No installation required
- Pay-per-use

Bloomberg Data Provider

Terminal

- $24.000 per year
- Access granted from the Terminal desktop only
- Manual login needed to access the data
- Windows only

Data License

- Pay-per-use
- Access granted from any IP (previously whitelisted)
- Easily manage cron jobs via programmatic login
- Any operating system

R Bloomberg Interface

Terminal

Rblpapi

by Dirk Eddelbuettel

Requirements: a valid Bloomberg Terminal installation

Data License

RblDataLicense

by Emanuele Guidotti

Requirements: valid Data License credentials and whitelisting of the IP address in use

RblDataLicense Usage

1. Establish a Bloomberg connection
2. Build the request file to query Bloomberg
3. Upload the request file to Bloomberg
4. Download the response file from Bloomberg
5. Parse the response file to import Bloomberg data in R

Establish a Bloomberg connection

```
# These are dummy credentials.
# Replace with the credentials received from Bloomberg

RblConnect(
    user = 'dl000000', # Data License User
    pw = '0000000000000000' # Data License Password
)
```

Build the request file to query Bloomberg

```
RblRequest <- RblRequestBuilder(
    header = c(
        FIRMNAME = RblUser(), # Data License User
        PROGRAMNAME = 'gethistory', # Bloomberg Program
        DATERANGE = '20050101|20151231', # Date Range
    ),
    fields = c('PX_LAST'), # Fields to retrieve
    identifiers = c('SXXE Index') # Bloomberg Tickers
)
```

Upload the request file to Bloomberg

```
# Upload the request file to Bloomberg
# Generate the corresponding response file
# The response filename is stored in 'req$out'

req <- RblUpload(RblRequest)
```

Download the response file from Bloomberg

```
# Download the response file from Bloomberg.
# If the file is not available yet, the function waits
  until the response file is there or the timeout is
  reached


out <- RblDownload(req$out)
```

Parse the response file to import Bloomberg data in R

```
# Parse Bloomberg response file
# Import data into R

data <- RblParse(out)
```

Putting Things Together

```
# This function provides a high level interface to
# Bloomberg Data License
RblQuery(
    identifiers, fields,
    from = NULL, to = Sys.Date(),
    auto.assign = FALSE, env = parent.frame(),
    category = c(), add_headers = c(), overrides = c(),
    limit = 5, split = 100,
    frequency = 60, timeout = 3600,
    verbose = TRUE
)
```

Example

```
# Connect to Bloomberg
RblConnect(user = 'dl000000', pw = '0000000000000000')

# Retrieve Data
x <- RblQuery(
        fields = c('PX_LAST','PX_OPEN','PX_HIGH', 'PX_LOW'),
        identifiers = c('SXXE Index', "SX5E Index"),
        from = '2005-01-01')
```

https://cran.r-project.org/package=RblDataLicense

https://github.com/emanuele-guidotti/RblDataLicense

https://emanueleguidotti.dev/RblDataLicense

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