

Sentiment Analysis in Tableau using R

Setting up R

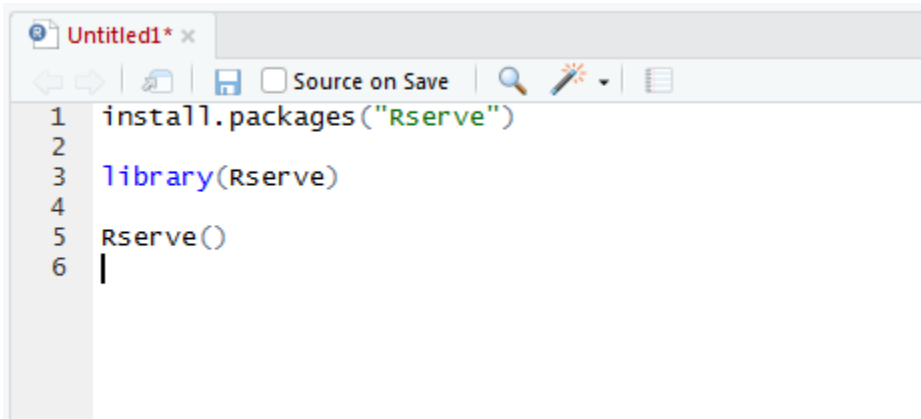
- Go to <https://www.r-project.org/>
- Download CRAN <https://cran.r-project.org/mirrors.html>
 - Download from the UC Berkeley <https://cran.cnr.berkeley.edu/>
 - Download for either Linux/OS X/Windows
 - Download **base**
 - Download the most recent version of R
- Follow wizard to install

Setting up R-Studio

- Download R Studio from here: <https://www.rstudio.com/products/rstudio/download/>
 - Under Installers for Supported Platforms – download for appropriate system
- Follow wizard to install

Connecting Tableau & R

- **Starting with R Studio**
- Type in the following commands:



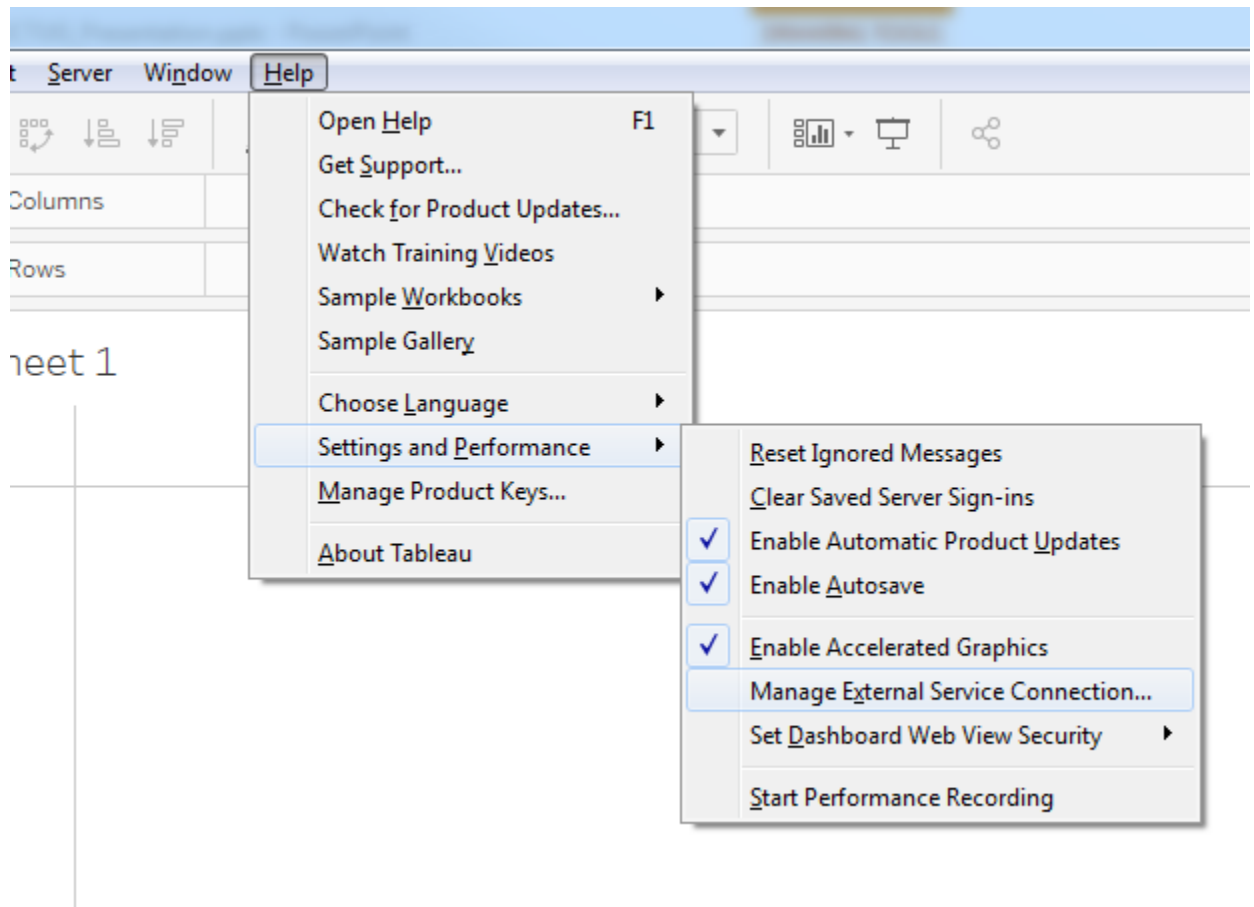
```
1 install.packages("Rserve")
2
3 library(Rserve)
4
5 Rserve()
6 |
```

- You have created a local server within your machine

- **Tableau Set Up**

- Open Tableau – Connect to your data

- Help -> Setting and Performance → Manage External Service Connection...



-
- Server = localhost
- Port = 6311 (Default)
- Test Connection

Sentiment Analysis

- We are putting in text to be analyzed & to give a score that we categorized
- Tableau allows us to slice and dice the data as we see fit to find insights.
- Sentiment Score formula:

Sentiment Score

Results are computed along Table (across).

```
SCRIPT_REAL ("
library(SentimentAnalysis);
scores <- analyzeSentiment(.arg1)[,12]
"
,
ATTR([Service Comments])
)
```

Opening Library to use functions

Sentiment Function

Must pass aggregate field

Default Table Calculation

The calculation is valid. Sheets Affected ▾ Apply OK

Sentiment Scale

Sentiment Scale

```
IF [Sentiment Score] > .6 THEN 'Positive'
ELSEIF [Sentiment Score] > .2 THEN 'Somewhat Positive'
ELSEIF [Sentiment Score] > -.2 THEN 'Neutral'
ELSEIF [Sentiment Score] > -.6 THEN 'Somewhat Negative'
ELSEIF [Sentiment Score] >= -1 THEN 'Negative'
ELSE 'Null'
END
```

Self-made Scale

The calculation is valid. Sheets Affected ▾ Apply OK

Noteworthy things:

Calculations are TABLE Calculations – meaning that the pills that you use the view matter.

Can be rather slow, but insightful.