

Joint Research Centre (JRC)

Getting started with R



Iago Mosqueira

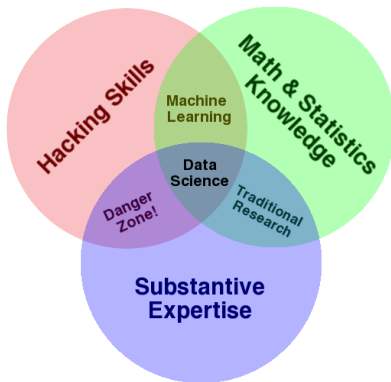
FishReg – Maritime Affairs Unit

IPSC - Institute for the Protection and Security of the Citizen

Ispra - Italy

<http://ipsc.jrc.ec.europa.eu/>

Data analyst



Why programming

“Can one be a good data analyst without being a half-good programmer? The short answer to that is, ‘No’. The long answer to that is, ‘No!’.”

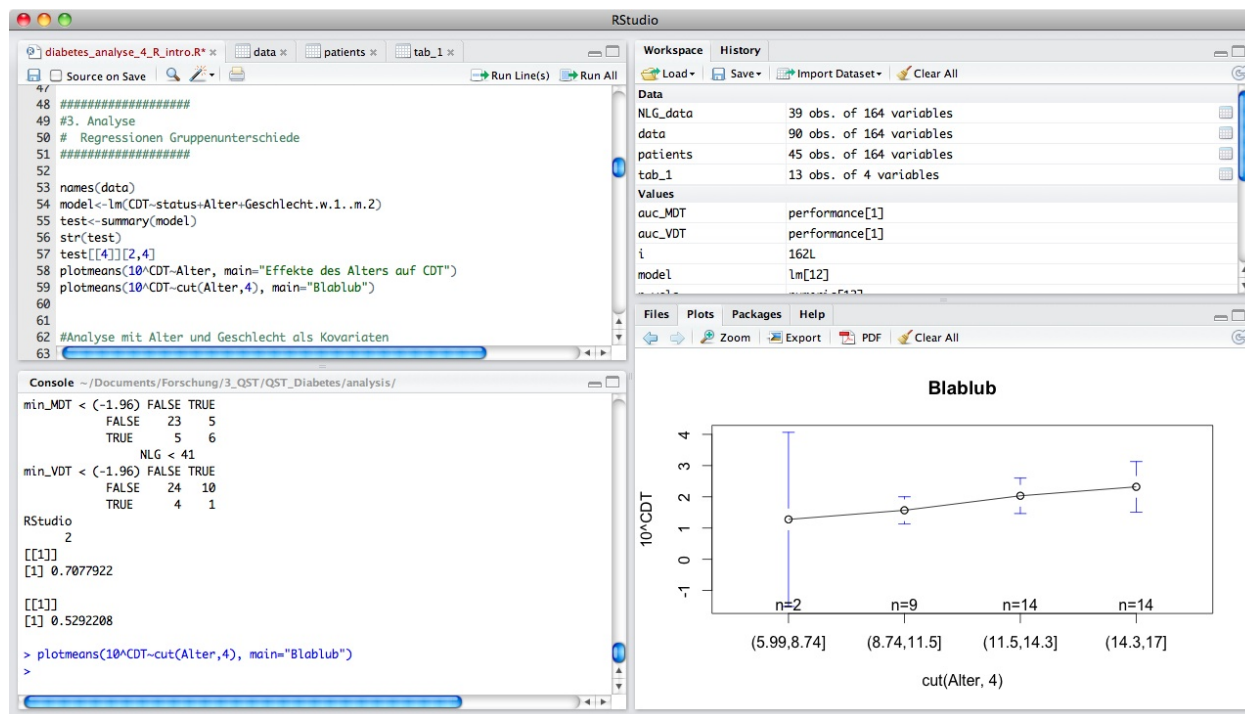
– Frank Harrell, 1999 S-PLUS User Conference, New Orleans (October 1999)

Sexy data analysis





Language, environment, collection of software, community, foundation, core team, *lingua franca*.





Free as in Freedom

Contributed Packages

Available Packages

Currently, the CRAN package repository features 3545 available packages.



FLR PROJECT

Data handling and storage

Matrix algebra

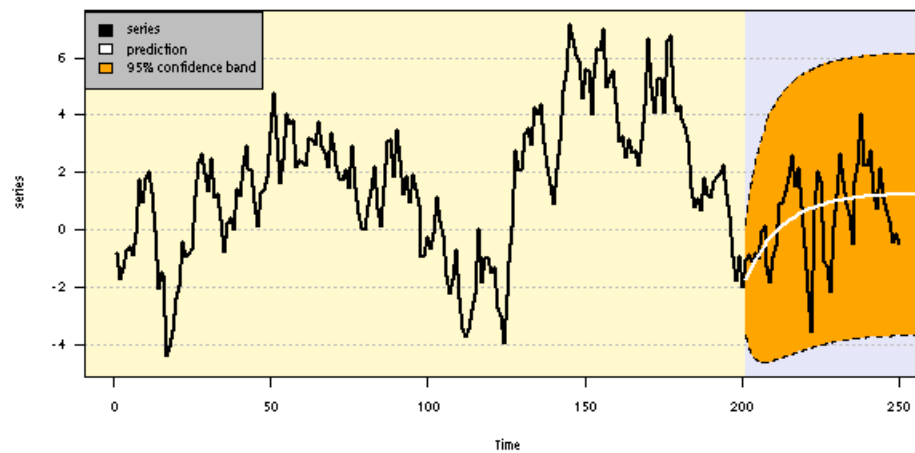
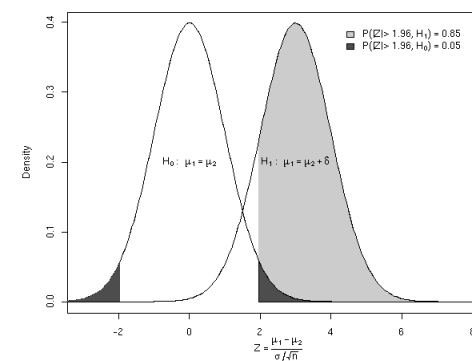
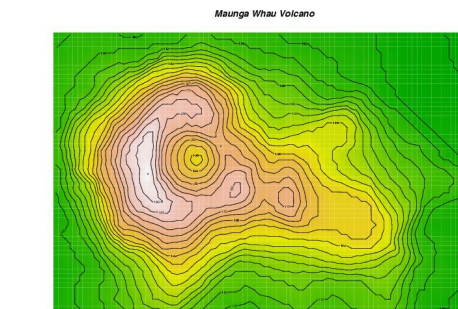
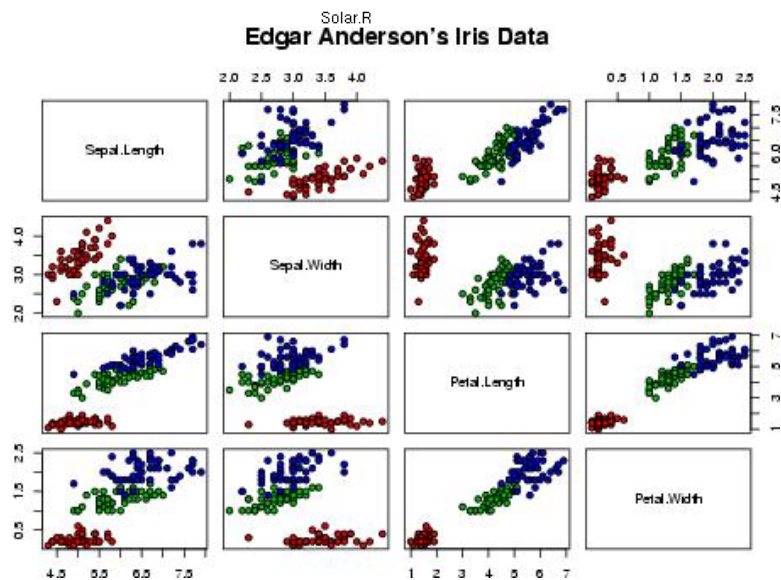
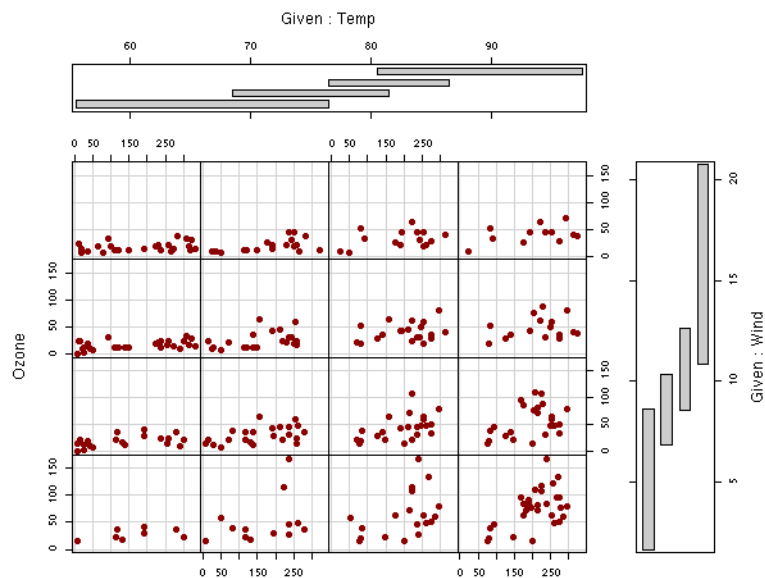
Regular expressions

Statistics!

OOP

Graphics

Programming



Not a database, BUT connects to RDMBS

No GUI, BUT GUI-making and IDE

Slow, BUT connects to C/C++, HPC

No spreadsheet, BUT I/O to them

No commercial support, BUT community



CRAN
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The Comprehensive R Archive Network

Download and Install R

Precompiled binary distributions of the base system and contributed packages, **Windows** and **Mac** users most likely want one of these versions of R:

- [Download R for Linux](#)
- [Download R for MacOS X](#)
- [Download R for Windows](#)

Source Code for all Platforms

<http://cran.r-project.org>



Home

Screenshots

Download

Docs

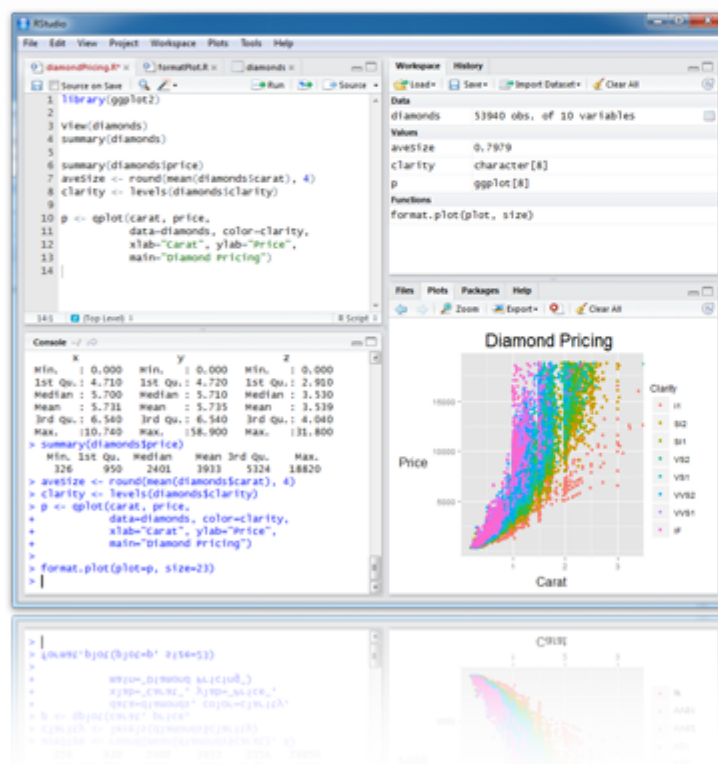
Support

Development

Blog

Introducing RStudio

RStudio™ is a new integrated development environment (IDE) for R. RStudio combines an intuitive user interface with powerful coding tools to help you get the most out of R.



Productive

RStudio brings together everything you need to be productive with R in a single, customizable environment. Its intuitive interface and **powerful coding tools** help you get work done faster.

Runs Everywhere

RStudio is available for **all major platforms** including Windows, Mac OS X, and Linux. It can even run alongside R on a server, enabling multiple users to access the RStudio IDE using a web browser.

Free & Open

Like R, RStudio is available under a **free software license** that guarantees the freedom to share and change the software, and to make sure it remains free software for all its users.



Download RStudio ^{Beta}

Work path

- `getwd()`, `setwd()`

Workspace

- `ls()`

Packages

- `install.packages()`

RStudio

