

Introduction to the project for Statistical Computing and Graphics

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R is a **language** and environment for statistical computing and graphics.



It is a GNU  OS project: open source free software, a mass collaboration project

R is based and similar to the S language and environment → *developed at Bell Laboratories (formerly AT&T) by John Chambers and colleagues.*

(the same group that developed C and UNIX®)





What can I do with R

data handling and storage facility,

a suite of operators for **calculations** on arrays, in particular matrices,

data analysis,

graphical facilities for data analysis and display either on-screen or on hardcopy, and

programming language

Mapping and spatial analysis





Advantages

FREE - no restrictions on access or use.

Scientifically robust

It allows statistical analysis, modelling and mapping of high **sophistication**: you are not limited to one method of accomplishing a given computation or graphical presentation





Advantages

It can work on objects of unlimited **size and complexity** (cluster processing)

Exchange data (csv, Gdal) and work environment (shell / GRASS)

It is **supported** by comprehensive online technical documentation and user-contributed community

Repetitive functions "**scripts**"

Published and available **source codes**





Desadvanta

Command line

Learn the **S language**

Approach a new way of thinking about data, as objects each with its type, which in turn supports a set of methods.

R works on **Random Access Memory**

RAM is a type of physical memory that can be read from and written to.





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R holds Functions and modules structured in packages

Several packages exists dealing with spatial data

You will discover ho to use the during the training sections !



Questions ?

Hands on



www.spatial-ecology.net > Hands on tools > R

<http://www.spatial-ecology.net/doku.php?id=wiki:r>

