Integration of Statistical Analysis

Thomas Metz
Senior Scientist (IRRI)
Crop Research Informatics Laboratory

Rationale

- The future version of ICIS will support conventional breeding as well as marker-assisted breeding (MAB).
- The breeding decisions making needs to be supported by statistical analysis and data visualization.
- The statistical analysis and visualization should be integrated into the breeding information workflow implemented in ICIS.
- Existing software should be used as much as possible for statistical analysis and visualization.

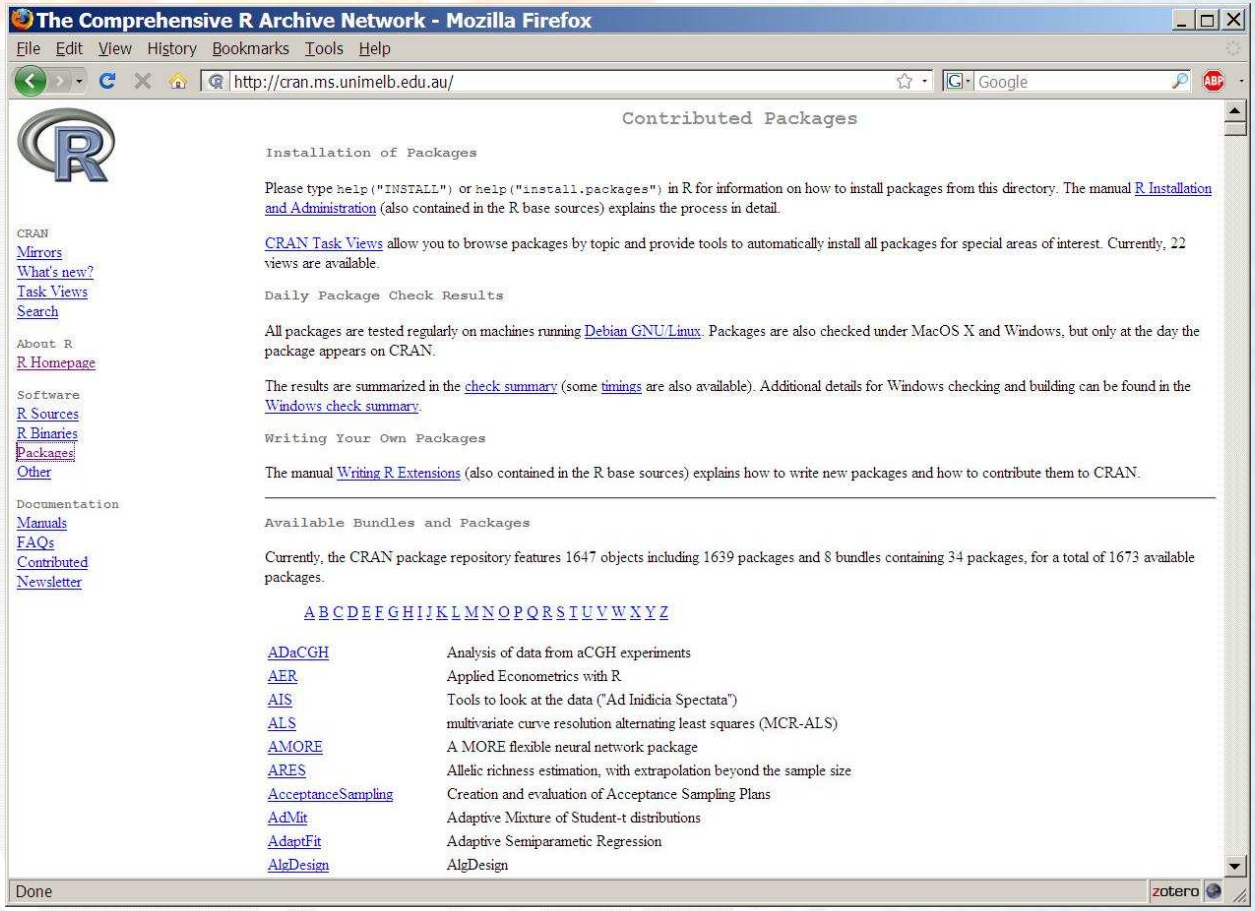
IRRI

R: Software environment for statistical computing and graphics

- Open Source software. Can be used, integrated, and distributed with very few restrictions.
- Runs on different platforms: Windows, Unix/Linux, MacOS X.
- Is highly extensible. OO programming language. Package development, testing, and distribution support.
- Advanced statistics and graphics.
- Base (core) package and 1600+ contributed packages.

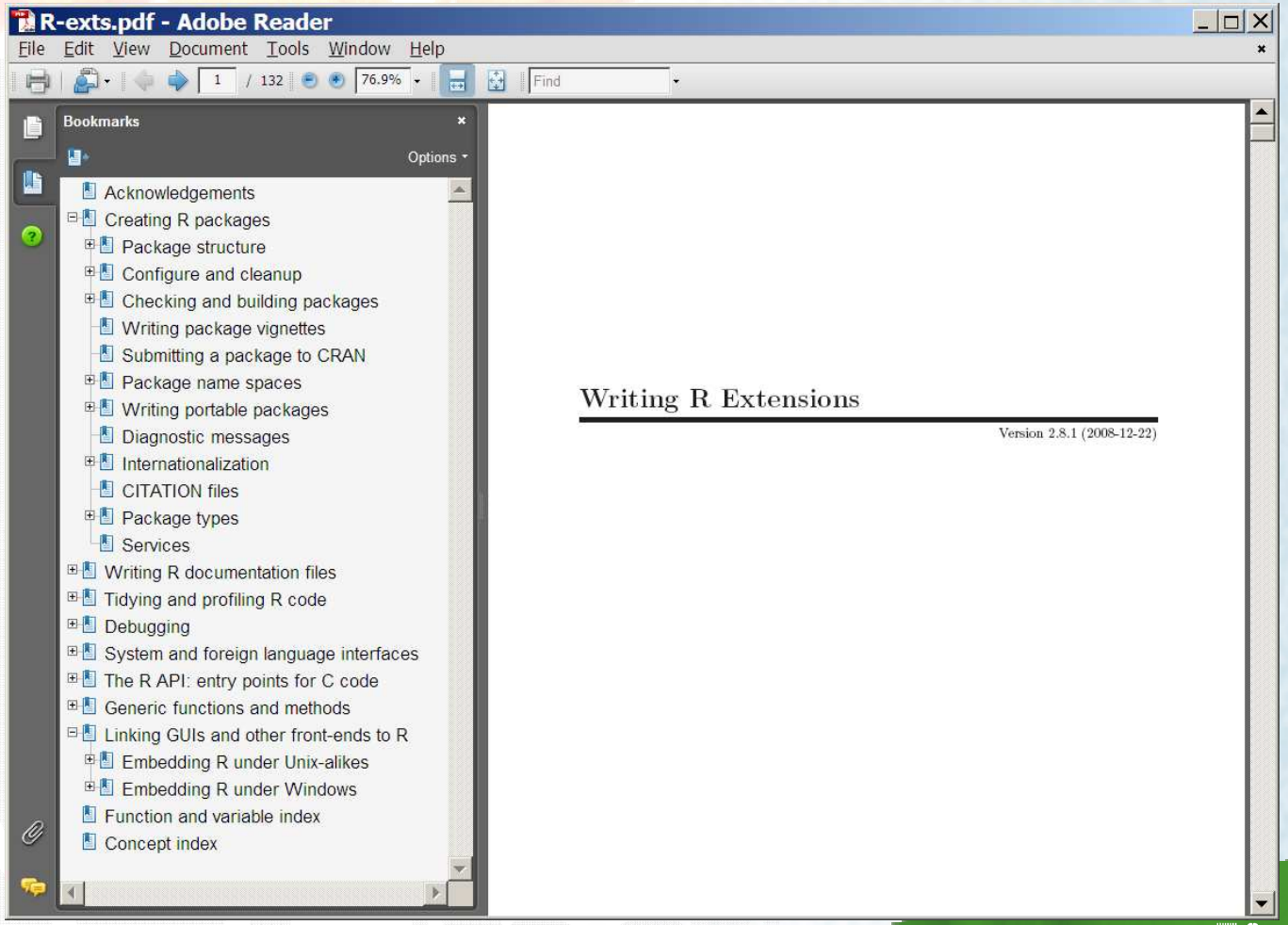
CIMMYT MR

R packages


The Comprehensive R Archive Network - Mozilla Firefox
File Edit View History Bookmarks Tools Help
http://cran.ms.unimelb.edu.au/
Google
Contributed Packages
Installation of Packages
Please type help("INSTALL") or help("install.packages") in R for information on how to install packages from this directory. The manual R Installation and Administration (also contained in the R base sources) explains the process in detail.
CRAN Task Views allow you to browse packages by topic and provide tools to automatically install all packages for special areas of interest. Currently, 22 views are available.
Daily Package Check Results
All packages are tested regularly on machines running Debian GNU/Linux. Packages are also checked under MacOS X and Windows, but only at the day the package appears on CRAN.
The results are summarized in the check summary (some timings are also available). Additional details for Windows checking and building can be found in the Windows check summary.
Writing Your Own Packages
The manual Writing R Extensions (also contained in the R base sources) explains how to write new packages and how to contribute them to CRAN.
Available Bundles and Packages
Currently, the CRAN package repository features 1647 objects including 1639 packages and 8 bundles containing 34 packages, for a total of 1673 available packages.
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
ADaCGH Analysis of data from aCGH experiments
AER Applied Econometrics with R
AIS Tools to look at the data ("Ad Inidicia Spectata")
ALS multivariate curve resolution alternating least squares (MCR-ALS)
AMORE A MORE flexible neural network package
ARES Allelic richness estimation, with extrapolation beyond the sample size
AcceptanceSampling Creation and evaluation of Acceptance Sampling Plans
AdMit Adaptive Mixture of Student-t distributions
AdaptFit Adaptive Semiparametric Regression
AlgDesign AlgDesign
CRAN
Mirrors
What's new?
Task Views
Search
About R
R Homepage
Software
R Sources
R Binaries
Packages
Other
Documentation
Manuals
FAQs
Contributed
Newsletter
Done
zotero

IRRI

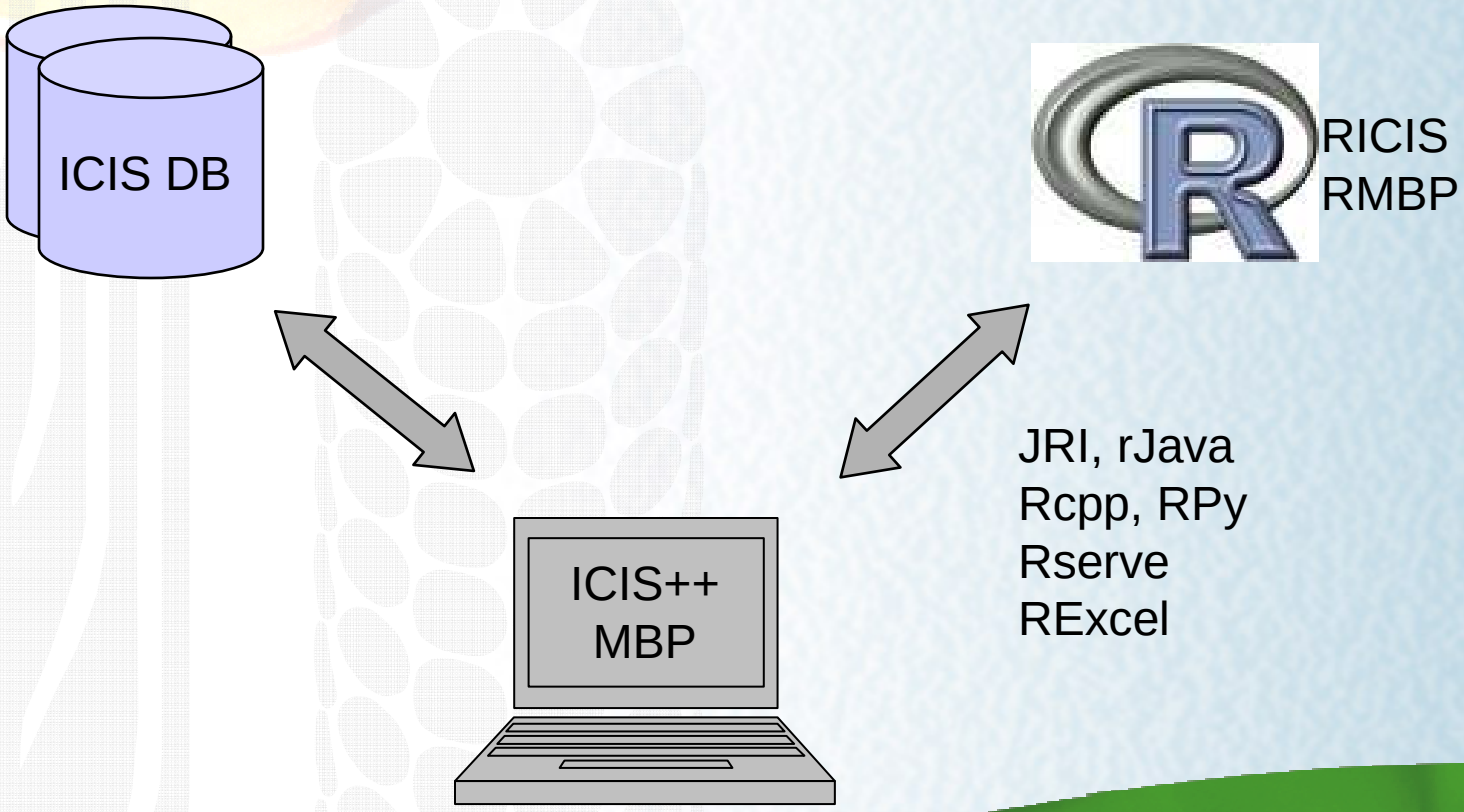
R package development



CIMMYT MR

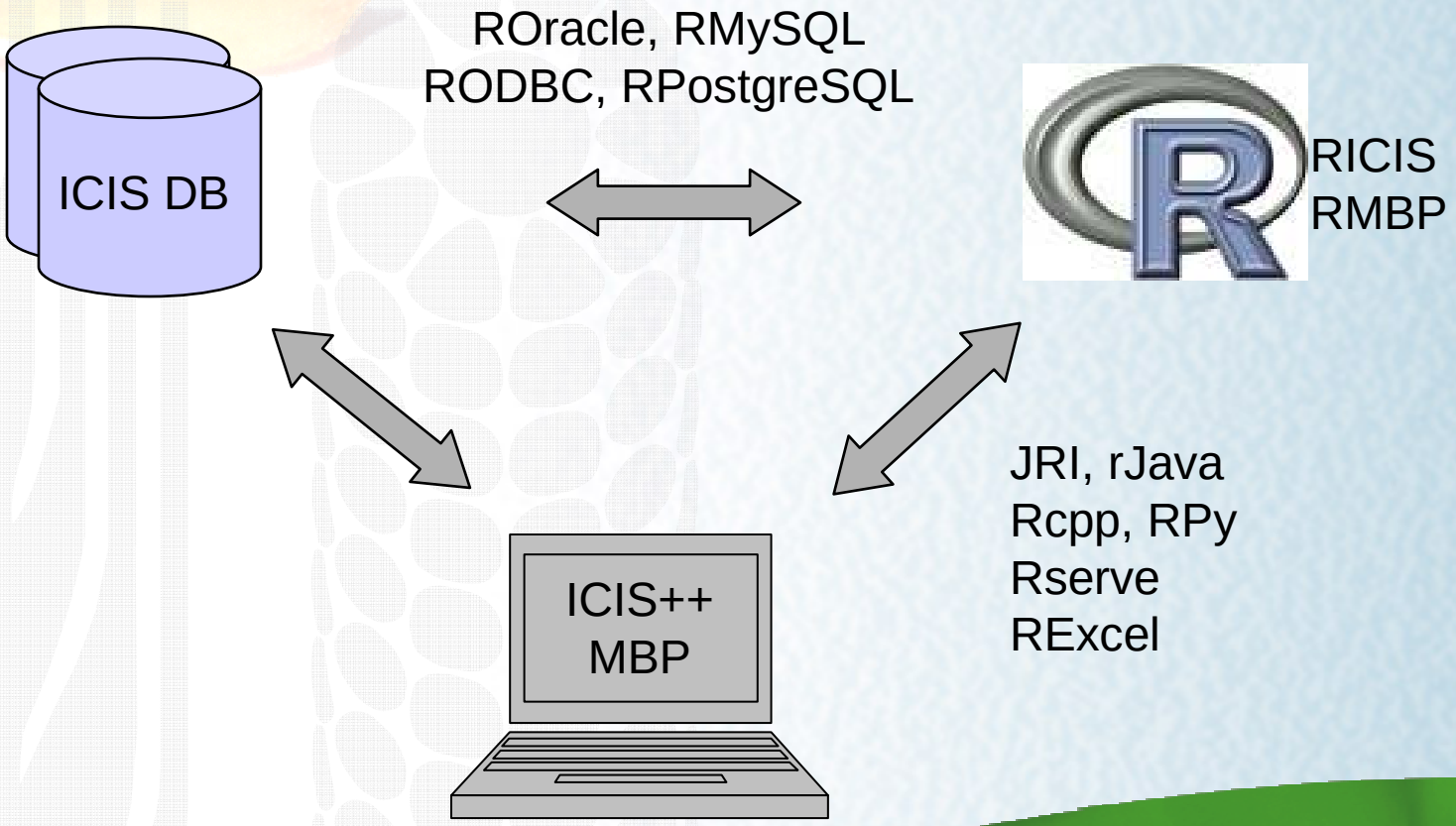
IRRI

Embedding R

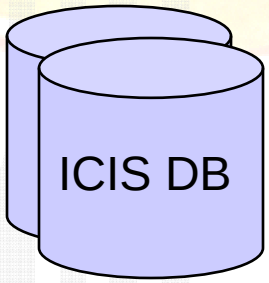


CIMMYT

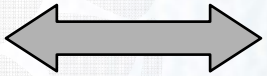
Embedding R


ICIS DB
ROracle, RMySQL
RODBC, RPostgreSQL
RICIS
RMBP
ICIS++
MBP
JRI, rJava
Rcpp, RPy
Rserve
RExcel

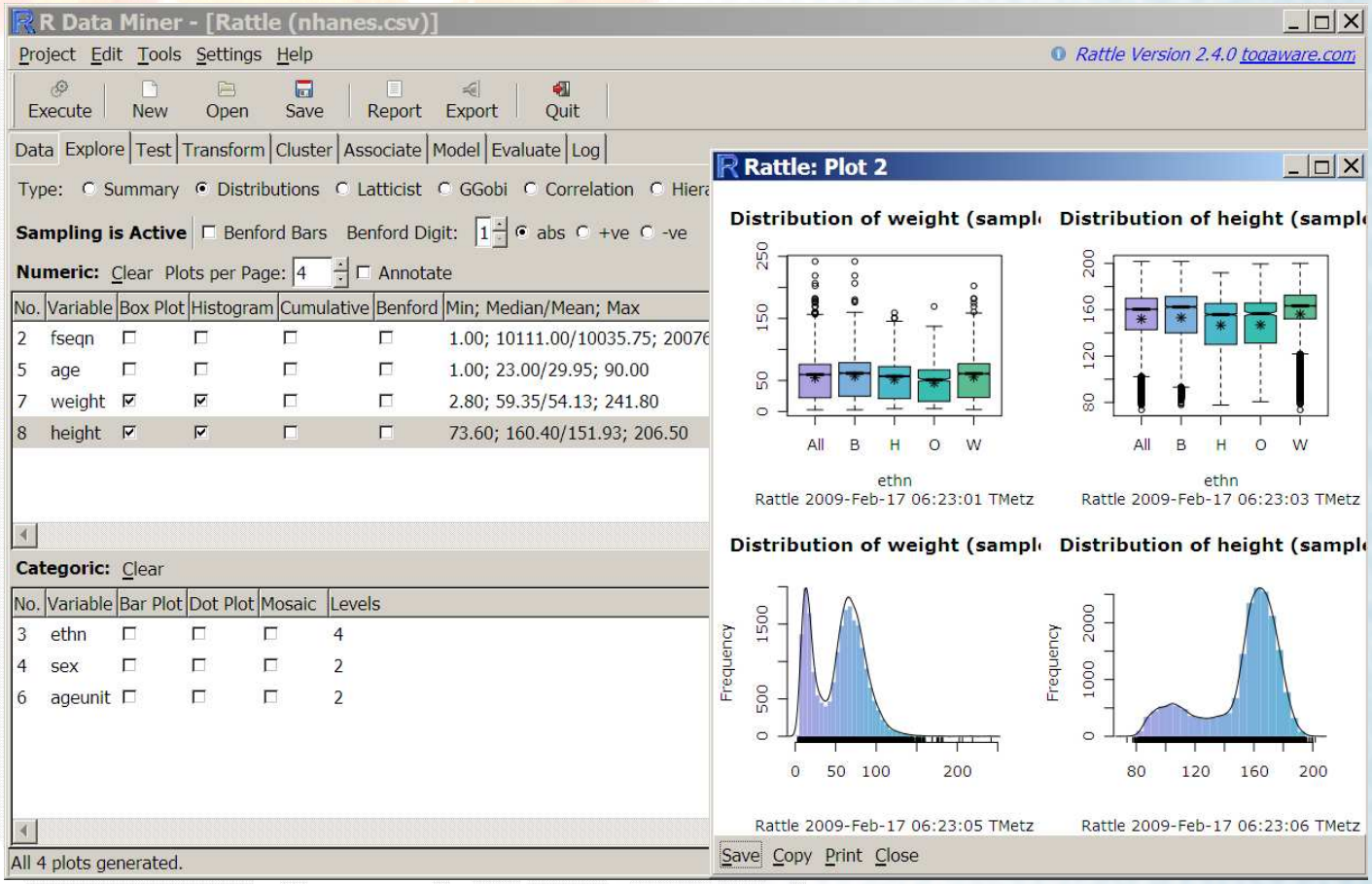
R GUI application



ROracle, RMySQL
RODBC, RPostgreSQL



RGTK

RICIS
RMBP

R GUI application - Rattle