GROCER

An Econometric Toolbox for Scilab

Éric Dubois

with Emmanuel Michaux

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Introduction

GROCER is an econometric toolbox for Scilab, a matrix oriented language like Gauss or Matlab. It is free, opensource and performs most usual econometric tasks that commercial software perform (single and multiple regression methods, diagnostic testing, VAR methods, unit roots and cointegration methods, Kalman filtering,…). It contains a timeseries object, which allows all usual operations. And it contains functions, aimed at selecting the best linear model from a large information set, that no other software today perform, except for PC-gets. It contains programs estimating Markov-switching models and programs performing bayesian model averaging. As such it could be appealing to econometricians who want a free software that allows them to program their own econometric tasks, without having to start from scratch.

The current version is the 1.2 one: it contains, almost surely we are afraid, still a few bugs that remain to be discovered and which we will correct in further versions.

GROCER has been built mostly during our weekends and holidays. This has been possible because more than half the functions that make GROCER were available freely on the World Wide Web in other software. We plan to continue adding new features to GROCER, because they correspond to our own needs, because they represent old or new methods that are or are becoming standards, or because you ask us to implement them! At the beginning GROCER was Eric Dubois's project, but this project is now shared with Emmanuel Michaux who has implemented several of the new features of the 1.1 and 1.2 versions. If you want to join us, you are welcome!

GROCER comes with its source and compiled Scilab functions and the present manual. We are fully aware that this manual, which is rather detailed, is far from perfect: any suggestions to improve it are welcome. It is, for the moment, divided into 21 chapters. The first chapter is not devoted to GROCER itself, but describes Scilab. The user who wants to have a broad look at GROCER scope and philosophy could go directly to chapter 2, but if she wants to use GROCER, should return to this first chapter. Chapters 3 to 21 describe GROCER functions: they can be read almost independently, but it is highly recommended nevertheless to read chapter 3 to 4 before the others.

Éric and Emmanuel.

Acknowledgments

GROCER could not have been made if Scilab did not exist. So, many thanks to the Scilab group, who has moreover always answered kindly and efficiently to my questions, how naive they could have been. Thanks to all the econometricians whose programs I have translated or adapted to build GROCER and above all thanks to James LeSage, whose econometric toolbox is the basis of so many GROCER programs. Many thanks to Benoît Bellone for his help at translating is library MSVAR. Thanks to Catherine Bac who was the first to test GROCER and to help improve it. Thanks to all the users of previous versions of Scilab for their support and in particular to Michel Pouchain for his enthusiastic support, to Pierre-Emmanuel Ferraton and Abdenor Brahami at the French Ministry of Finance who have

often be the first to test preliminary versions of the programs incorporated in Grocer.

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(*) Denotes parts that are new in this 1.1 version of the manual or have been updated from the 1.0 version.
(°) [...] (°°) Denotes parts that are new in the 1.2 version of the manual or have been updated from the 1.1 version.