GDXRRW: Interfacing GAMS and R

Michael C. Ferris* Steven Dirkse[†]

November 27, 2012

GDXRRW is a suite of utilities to import/export data between GAMS and R (both of which the user is assumed to have already) and to call GAMS models from R and get results back in R. The software gives R users the ability to use all the optimization capabilities of GAMS, and allows visualization and other operations on GAMS data directly within R.

The GDXRRW tool is unique among the GDX interface utilities in that it is an R extension made available as an R package. As such, it is run as part of an R session or script, not as part of a GAMS run, and it follows the usual R package conventions. Mention installation, documentation, examples, tests, and data.

- 1. **Installation**: The R software is designed to be easily extended. Thousands of extension *packages* are available online and can be installed easily using a simple, standard procedure. The GDXRRW package is one of these. The latest version is available online at some Wiki URL in both source and binary form, along with a FAQ list, some hints and tips on common problems and solutions, and other helpful content. For convenience, the source and binary packages are also available as part of the GAMS distribution. Or not.
- 2. **Documentation**: The GDXRRW documentation is installed as part of the GDXRRW package and is available from within R in the usual way. See the GDXRRW Wiki for details.
- 3. Examples, tests, and data: Like many R packages, GDXRRW comes with examples and data that help a user get started using the package. The R help system and the GDXRRW Wiki provide pointers to these. The Wiki also provides hints on finding and running the thousands of lines of tests that come with the GDXRRW package.

^{*}Computer Sciences Department, University of Wisconsin - Madison, 1210 West Dayton Street, Madison, Wisconsin 53706 (ferris@cs.wisc.edu)

[†]GAMS Development Corp., 1217 Potomac Street, NW, Washington, DC 20007 (sdirkse@gams.com)