

# EURACE Data Visualisation and Analysis Tool with R

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EURACE is an agent-based software platform for European economic policy design with heterogeneous interacting agents. The project is funded by 6<sup>th</sup> framework programme of the European Commission and runs until September 2009. The EURACE framework takes a bottom up approach to economic modelling and simulation. The bottom up approach requires frequent experimenting on economic policies which require analyses and visualisation of interaction patterns of millions of agents and tracking of emerging economic variables. This work presents the developed tool which aims to serve analyses and visualisations. In particular, we will demonstrate how R analysis and visualization modules are integrated and adopted as the key constituent of the developing workspace(VisGUI) given in Figure 1.

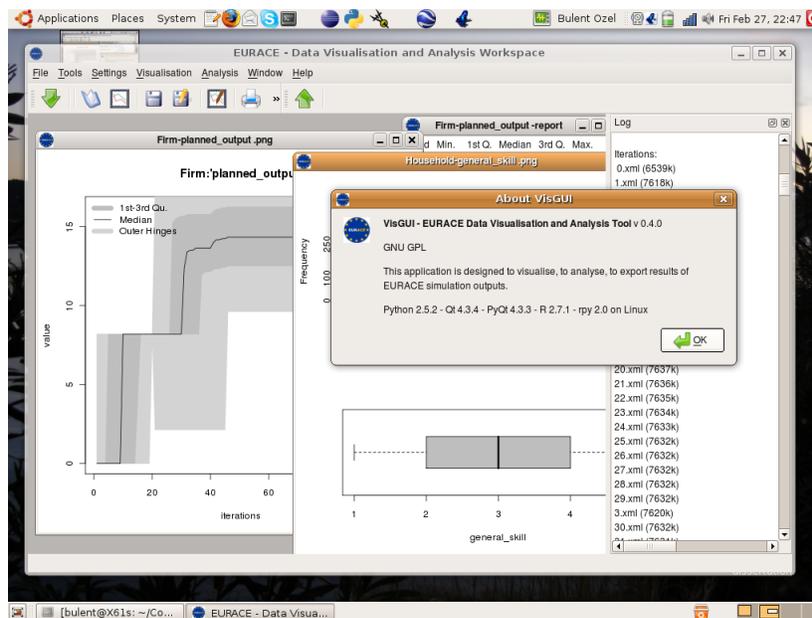


Figure 1: VisGUI Screenshot

VisGUI is an advanced GUI workspace, where policy makers can import, visualize, analyze, edit and export simulation results and reports. It is a platform independent application. It is being implemented using Python2.5 and Qt4. All distributional statistics, and time series analysis and inference analysis are being performed via RPy2. RPy has provided an efficient and practical Python interface to the R Programming Language. In addition, the application allows the user both to enter and execute R scripts in order to generate custom plots or edit existing plots and do perform more specific time series analysis; and to plug in separately developed analysis and visualization modules.

## References

EURACE Consortium (2008). The EURACE Project Website, <http://www.eurace.org/>.

UEKAE Team (2009). EURACE Project TÜBİTAK/UEKAE Unit Website, <http://eurace.cs.bilgi.edu.tr/>.