Using ⓡ as enterprise-wide data analysis platform

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In this paper we consider the suitability of R to serve as a core tool for enterprise-wide data analysis platform that would be used by both expert and occasional users.

Different requirements for such a tool are examined, including:

- Scope of built-in data analysis functions
- Graphics (including interactive plots)
- Extendibility
- Development environment
- Deployment facilities
- Database and files system connectivity
- Integration with other software
- User interface
- Web deployment capabilities

Overall, R provides an excellent platform for delivering data analytical functions enterprise-wide, including some quite unique features: the broad spectrum of statistical methods that are included, highly flexible graphics, ease of extending existing code with algorithms developed in both R/S language and in other languages (Fortran or C), great database and file system connectivity and nice built-in facilities for package updates.

However, we have also identified some aspects where significant improvements could be done. These include standard, multi-platform IDE (Integrated Development Environment), at least some form of Graphical User Interface for standard data analysis procedures (for mid-level users - expert user can use command-line interface, low-level users need completely packaged applications) to be part of R core system, and some enhanced features for Web-based deployment.

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