Graphical User Interface for R-based DataFax Reporting Tools (dfRTTools)

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dfRTools

The DataFax R-based Reporting Tools (dfRTools) package is a set of modules developed using the R-Project statistical software environment for creating data management reports revealing patterns, trends or discrepancies, and providing study metrics in a comprehensible fashion.
GUI for dfRTools

The dfRTools package has gained some interest in the DataFax user community but the complexities of ANT, Open Office, and the R interface has raised some concern about the ease of implementation and use. This lead us to develop GUI to manage the details of the package.

Objectives

• Increase usability.
• Ease implementation.
• Eliminate the need to learn the details of the package’s internal structures and interaction.
• Minimize the knowledge required to use companion software.
History of dfRTools

• DataFax reports produced in a comprehensible way.
  – Create snapshots of data.
  – Monitor accrual rates and performance of the sites.
  – Detail information to manage visit scheduling.
• Eliminate data transfer between systems and applications.

dfRTools Contents

• Ant
  – “Glue” components.
  – Copy, build, install dfRTools.
• Open Office Suite
  – Eliminates the headache of managing files when embedding dfRTools in DataFax Reports.
  – Increases reusability of the package.
• Graphical User Interface
  – Developed in Groovy and Java Swing.
  – Helps to avoid the details of dfRTools.
  – Enhances accessibility and usability.
Using the Graphical User Interface

- **Installation**
  - System should have R, Java, ANT, Groovy

- **Execution**
  - Executable groovy script or jar

- **Operation**
  - *Menu Driven*
    - Ant instructions
    - dfRTools functions
    - Report build
  - No documentation, yet

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**ANT Options**

![ANT Options Image](image-url)
dfRTools Functions

Open Office Report Output
Summary and Remarks

- **dfRTools**
  - Avoids external data transfer between systems and applications.
  - Presents study management data in a graphical format.
  - Enriches DataFax reporting.

- **Graphical User Interface**
  - Manages the internal complexity of tools.
  - Eliminates the need to learn details of the package.
  - Increases accessibility.
  - Enhances usability.