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

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## dfRTools

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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

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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

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- 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

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- **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

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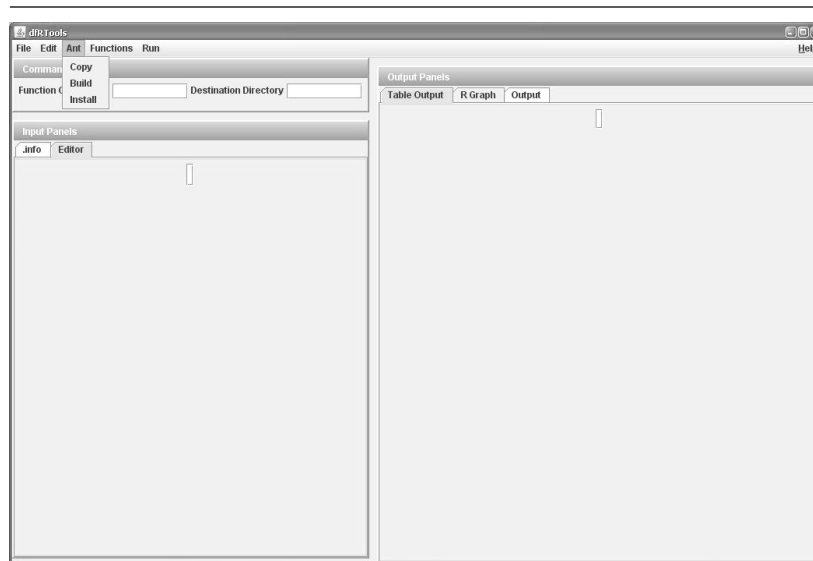
- **Ant**
  - “Glue” components.
  - Copy, build, install dfRTools.
- **Open Office Suite**
  - Eliminates the headache of managing files when embedding dfRTools in DataFax Reports.
  - Increases reusability of the package.
- **Graphical User Interface**
  - Developed in Groovy and Java Swing.
  - Helps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

## Using the Graphical User Interface

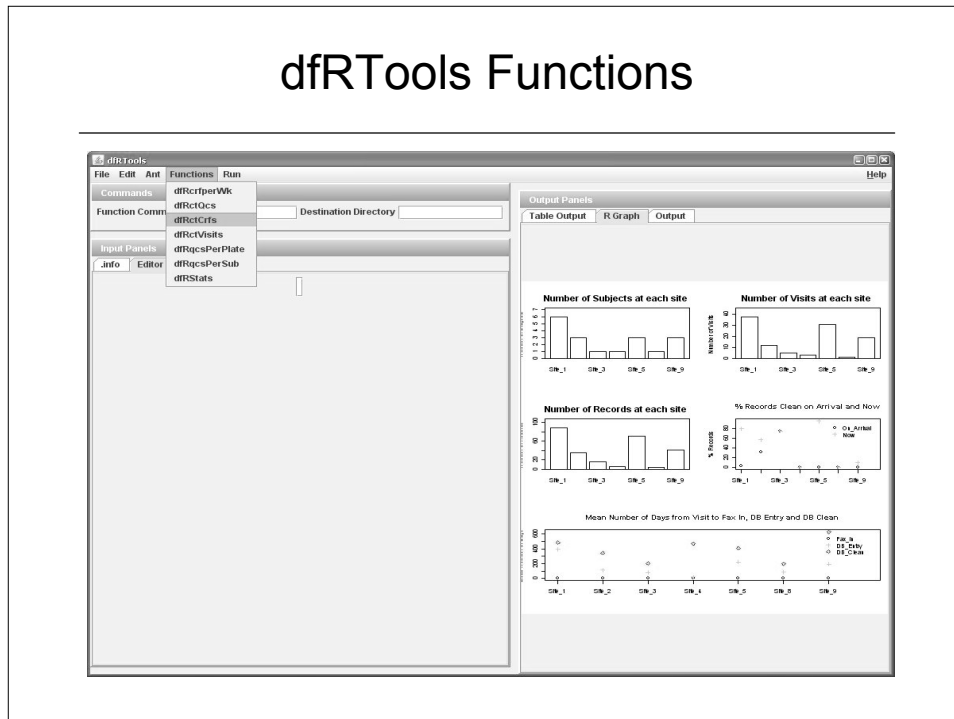
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- Installation
  - System should have R, Java, ANT, Groovy
- Execution
  - Executable groovy script or jar
- Operation
  - *Menu Driven*
    - Ant instructions
    - dfRTools functions
    - Report build
  - No documentation, yet

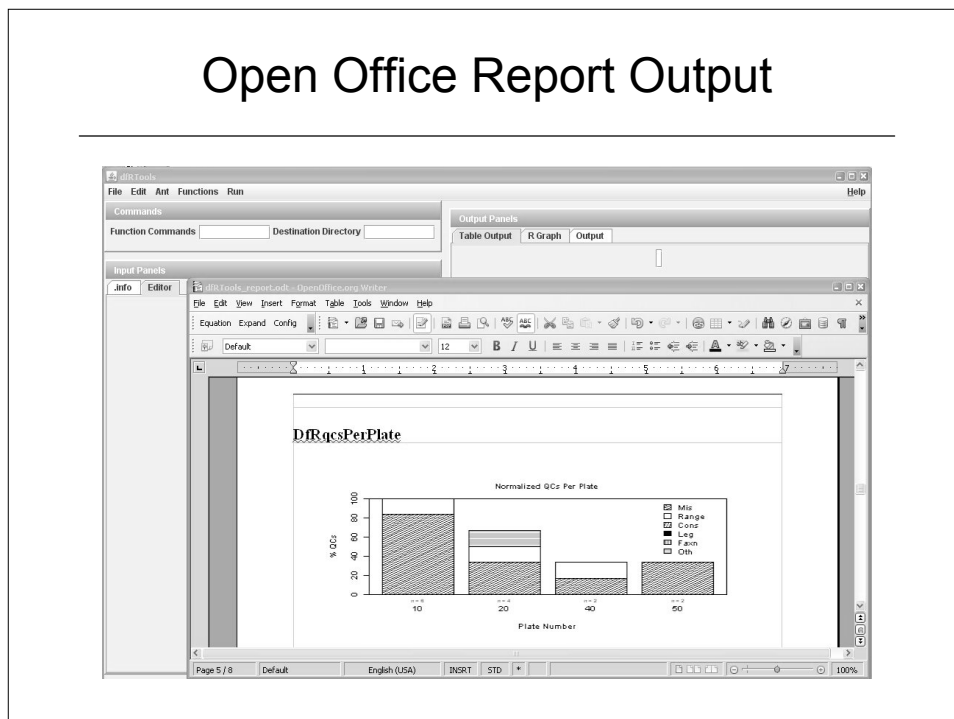
## ANT Options



## dfRTools Functions



## Open Office Report Output



## Summary and Remarks

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- **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.