Package 'ReGenesees.GUI'

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Type Package

Title GUI Facility for the ReGenesees Package

Version 2.3

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Description A Graphical User Interface for the ReGenesees package, based on tcltk.

License EUPL

URL https://github.com/DiegoZardetto/ReGenesees.GUI/

BugReports https://github.com/DiegoZardetto/ReGenesees.GUI/issues/

Depends R (>= 3.5.0), tcltk, tcltk2, RODBC, svMisc, ReGenesees

Imports utils

ByteCompile TRUE

R topics documented:

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`ReGenesees.GUI` *Tcl/Tk GUI of the ReGenesees System*

Description

Starts a graphical user interface that allows to access the functionalities of the **ReGenesees** package.

Usage

```
ReGenesees.GUI()
```

Details

The main window of the GUI consists of a menu bar, a scrollable text window called "Commands Window" and a lower scrollable text window called "Warnings Window". The menu bar consists, from left to right, of the following menu items: "File", "Data", "Functions", "Tools", "Options", "Help" and "Website" (see section 'Menu Tree').

Menus "Data", "Functions" and "Options" lead to dialog boxes that need further specifications, while the others ("File", "Tools", "Help" and "Website") trigger directly the corresponding command. All dialog boxes accessed from the "Data" and "Functions" menus are provided with a help button that links to appropriate help pages (whose source is mostly the **ReGenesees** package). For a quicker hint, all the entries of dialog boxes accessed from the "Functions" menu have been supplied with tooltips: just hover the mouse pointer over 'circled question mark' icons.

Output objects created by the GUI are stored into the user's workspace (i.e. the `.GlobalEnv`). Upon creation, each output object (or a corresponding summary description, if the object is large) gets also printed at the R console.

Whenever a GUI dialog causes a new object to be generated into the user's workspace (either by importing data or by executing a statistical method) the "Functions" menu-tree gets automatically updated. New functions will be enabled as new objects are built or destroyed by using the GUI, depending on the class of these objects. Note that, on the contrary, this will not happen if objects are created or removed by statements typed at the R command line. In such cases, users can update the "Functions" menu-tree by using its first entry *"Update Active Functions"*.

Whenever a command generated by a GUI dialog happens to (i) create/destroy an object, (ii) perform I/O operations, or (iii) change system/environment settings, the command itself is inserted and stored into the "Commands Window". For instance, this happens to every command triggered by dialogs from the "Functions" menu. Thus the "Commands Window" acts as a persistent log of the statistical analyses carried out during the current **ReGenesees** session. The content of the "Commands Window" can be saved via *File -> Save Commands*. Groups of statements displayed inside the "Commands Window" can also be copied by using the *Control-C* command or right-clicking the mouse.

All the commands inserted and stored into the "Commands Window" are *also* flushed to the R history file (see e.g. `?history`) just upon execution. Therefore, users can freely *alternate* commands typed directly to the R command-line interface *and* commands triggered by the **ReGenesees** GUI, and still get a comprehensive log of *all* the performed elaborations by simply saving the R history file (e.g., in `Rgui`, through *File -> Save History...*). Note that this feature is currently limited to Windows platforms.

Warning messages arising from whatever menu item are displayed in the "Warnings Window". Such messages are not persistently saved: each time a new set of warnings is generated, it deletes any information about previous messages.

Error messages, causing the current computation to be stopped, are always displayed by means of pop-up dialogs.

It is possible to end a GUI session by either using the *File -> Exit* menu or by closing the **ReGenesees** GUI main window directly.

Menu Tree

The scheme reported below represents the **ReGenesees** system menu-tree (with 'u.c.' meaning that the corresponding dialog window or item is still 'under construction').

```
| File
| ——————————————————————
                        | - Change Directory
                        | - Load Workspace
                        | - Save Workspace
                        | - Save Commands
                        | - Exit

| Data
| ——————————————————————
                        | - Import Datasets
                        | ——————————————————————
                                                | - From Text Files
                                                | - From Excel or Access Files
                        | - Export Datasets

| Functions
| ——————————————————————
                        | - Update Active Functions
                        | - Survey Design
                        | ——————————————————————
                                                | - Specify a Survey Design
                                                | - Collapse Strata to Eliminate Lonely PSUs
                                                | - Add New Variables to a Survey Design
                                                | - Merge New Data into a Survey Design
                        | - Calibration
                        | ——————————————————————
                                                | - Build a Template for Population Totals
                                                | - Describe a Population Totals Template
                                                | - Fill a Population Totals Template
                                                | - Calibrate a Survey Design
                                                | - Check for Calibration Convergence
                                                | - Trim Calibration Weights
                                                | - Calibration Models Options
                        | - Estimates and Errors
                        | ——————————————————————
                                                | - Totals or Means
                                                | - Ratios
                                                | - Shares
                                                | - Share Ratios
                                                | - Regression Coefficients
                                                | - Quantiles
                                                | - Complex Estimators
                                                | - Auxiliary Variables Totals
                                                | - Variance Estimation Options
```

| Tools
| ——————————————————

| - Browse Workspace
| - Show Datasets
| - Remove Objects

| Options
| ——————————————————

| - Environment Options

| Help
| ——————————————————

| - ReGenesees Reference Manual
| - ReGenesees Flyer
| - About the GUI

| Website
| ——————————————————

| - ReGenesees website on GITHUB

Note

The GUI needs a screen resolution of at least 1024x768: this may rule out some netbooks.
The GUI is known to work better under the SDI (single document interface) mode of Rgui.
The GUI has been extensively tested under Windows OS (XP and 7). Tests on Mac OS X revealed that every GUI functionality works fine, altough its overall look seems definitely worse than under Windows.

Author(s)

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Examples

```
# Start ReGenesees GUI
## Not run:
ReGenesees.GUI()

## End(Not run)
```

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