

Package ‘GroupSeq’

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Title Performing computations related to group sequential designs.

Version 1.3.1

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Description The computations are done via the alpha spending approach
i.e. interim analyses need not to be equally spaced, and their
number need not to be specified in advance.

Suggests tcltk

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groupseq	<i>Starts the program.</i>
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Description

This function is invoked when the package is loaded into R workspace. It starts the main menu using a graphical user interface (GUI). If, for any reason, the GUI does not work, user can choose an interactive mode by typing `groupseq(mode="c")` to work within the R console. However, the console mode has not been further developed since GroupSeq version 1.0.

The program itself refers to an earlier Fortran Implementation by Reboussin et al. and was completely recoded in R. Following the maxim of modular programming, it was decomposed in various

functions. Furthermore, some algorithms could be improved and the whole application was embedded in a GUI affording much more convenient and faster working. Last but not least, computation results can be saved into common tables of *.html file format to eventually process them further on.

Usage

```
groupseq(mode = chosenMode)
```

Arguments

mode	Default is mode="g" (recommended) to use the gui but user may choose mode="c" to use the R console, in case the gui does not work.
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Details

GroupSeq is appropriate for any trial which is based on normally distributed test statistics with independent increments, for survival studies, and certain longitudinal designs. Among other things it computes critical boundaries for various spending functions and for prespecified power and drift. Confidence intervals are also obtained.

The GUI is build within the Tcl/Tk interface of R. By only using the standard Tcl/Tk package, no additional Tcl/Tk packages have to be installed for the GUI to work. This ensures maximal compatibility and moreover the GUI should be available for every platform on which R runs. Customization within the GUI is left to the user who may create separate windows for each task which allows any arrangement and positioning in working space. Thus, the user may perform multiple tasks e.g. computing and comparing several designs at the same time.

Author(s)

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References

<http://www.biostat.wisc.edu/landemets/>

Examples

```
## call GUI mode (default)
# groupseq() or groupseq(mode="g")

## call console mode
# groupseq(mode="c")
```

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