Package ‘GWSDAT’

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Title  GroundWater Spatiotemporal Data Analysis Tool (GWSDAT)

Version  3.2.0

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Description  Shiny application for the analysis of groundwater
               monitoring data, designed to work with simple time-series data for
               solute concentration and ground water elevation, but can also plot
               non-aqueous phase liquid (NAPL) thickness if required. Also provides
               the import of a site basemap in GIS shapefile format.

License  GPL-3

Depends  R (>= 3.5.0)

Imports  deldir, digest, geometry, Kendall, lattice, lubridate, MASS,
               Matrix, officer (>= 0.3.8), raster, readxl, rhandsontable, sf,
               shiny, shinycssloaders, shinydashboard, shinyjs, sm, sp,
               splancs, zoo

Suggests  DBI, RSQLite

Encoding  UTF-8

RoxygenNote  7.2.3

NeedsCompilation  no

Repository  CRAN

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createOptions  
Create a list with default start options.

Description  
createOptions creates a list with start options that can be modified and passed as argument to launchApp.

Usage  
createOptions(site_name = NULL)

Arguments  
site_name  
An arbitrary string containing the name of the monitoring site.

Value  
A list containing essential model parameters and start options.

Examples  
```r
opt <- createOptions("New Site 1")
opt$PSplineVars$nseg <- 10  # modify model parameter for p-splines.
opt$WellDataFilename <- 'path_to_concentration_file.csv'
opt$WellCoordsFilename <- 'path_to_well_coordinate_file.csv'
if(interactive()) {
launchApp(opt)
}
```

launchApp  
Launches the GWSDAT Shiny application.

Description  
The shiny application can run in multi or single data mode. If no parameter is specified with launchApp, the application starts in multi data mode, which includes a data manager and several data import facilities. If the parameter session_file was specified, the application launches in single data mode, which is limited to the analysis of the data specified by session_file.

Usage  
launchApp(GWSDAT_Options, session_file)
launchApp

**Arguments**

- **GWSDAT_Options**: A list of start options created with `createOptions`.
- **session_file**: Path to .rds file containing a GWSDAT analysis session.

**Value**

None

**Examples**

```r
if(interactive()) {
  launchApp(session_file = "path_to_GWSDAT_session.rds") # launch in single data mode.
  launchApp() # launch in multi data mode
}
```
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