Package: GWSDAT (via r-universe)

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Title GroundWater Spatiotemporal Data Analysis Tool (GWSDAT)

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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.

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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

Repository https://waynegitshell.r-universe.dev

RemoteUrl https://github.com/waynegitshell/gwsdat

RemoteRef HEAD

RemoteSha 04f781b4991f0fb77f267d259636d3e4c9619c3b

Contents

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

```
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)
```

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

```
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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