

Package ‘IsoplotRgui’

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Title Web Interface to 'IsoplotR'

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Description Provides a graphical user interface to the 'IsoplotR' package for radiometric geochronology. The GUI runs in an internet browser and can either be used offline, or hosted on a server to provide online access to the 'IsoplotR' toolbox.

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Depends R (>= 3.0.0)

Imports IsoplotR (>= 3.8), grDevices (>= 3.6.2), httpuv (>= 1.5.4),
jsonlite (>= 1.6.1), later (>= 1.0)

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URL <https://www.ucl.ac.uk/~ucfbpve/isoplotr/>

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Encoding UTF-8

NeedsCompilation no

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R topics documented:

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| | |
|--------|---|
| daemon | <i>Start the IsoplotR GUI without exiting</i> |
|--------|---|

Description

Opens a web-browser with a Graphical User Interface (GUI) for the IsoplotR package. This function is intended to be used from Rscript so that Rscript does not terminate and the server stays up.

Usage

```
daemon(port = NULL, host = "127.0.0.1", timeout = 30)
```

Arguments

| | |
|---------|--|
| port | Internet port of the virtual server. If not defined, a random free port will be chosen and the browser will be opened to show the GUI. |
| host | IP address of the virtual server |
| timeout | How long (in elapsed time) an operation may take before returning with a time-out error. Default: 30 seconds. |

Value

This function does not return.

Examples

```
# this function runs indefinitely unless interrupted by the user.  
daemon(3839)
```

| | |
|------------|---|
| encodePlot | <i>Renders a plot as a base64-encoded image</i> |
|------------|---|

Description

Renders a plot as a base64-encoded image

Usage

```
encodePlot(device, mimeType, width, height, plotFn)
```

Arguments

| | |
|----------|--|
| device | Graphics device function, such as [grDevices::png] or [grDevices::pdf] |
| mimeType | Mime type for the data produced by ‘device’ |
| width | Width of the plot in units applicable to ‘device’ |
| height | Height of the plot in units applicable to ‘device’ |
| plotFn | Function to call to perform the plot |

See Also

- [encodePlotAsPng()]
- [encodePlotAsPdf()]

`encodePlotAsPdf` *Renders a plot as a base64-encoded PDF*

Description

The result can be set as the ‘href’ attribute of an ‘a’ element in HTML to allow the PDF to be downloaded (also set a ‘download’ attribute to a reasonable filename).

Usage

`encodePlotAsPdf(width, height, plotFn)`

Arguments

| | |
|--------|--------------------------------------|
| width | Width of the plot in inches |
| height | Height of the plot in inches |
| plotFn | Function to call to perform the plot |

`encodePlotAsPng` *Renders a plot as a base64-encoded PNG*

Description

The result can be set as the ‘src’ attribute of an ‘img’ element in HTML.

Usage

`encodePlotAsPng(width, height, plotFn)`

Arguments

| | |
|--------|--------------------------------------|
| width | Width of the plot in pixels |
| height | Height of the plot in pixels |
| plotFn | Function to call to perform the plot |

See Also

[rrpcServer()]

IsoplotR

Start the IsoplotR GUI

Description

Opens a web-browser with a Graphical User Interface (GUI) for the IsoplotR package. An online version of the same interface is provided at <https://www.ucl.ac.uk/~ucfbpve/isoplotr/>

Usage

```
IsoplotR(host = "0.0.0.0", port = NULL, timeout = Inf)
```

Arguments

| | |
|---------|--|
| host | IP address of the virtual server, default is 0.0.0.0 |
| port | Internet port of the virtual server. If not defined, a random free port will be chosen and the browser will be opened to show the GUI. |
| timeout | How long (in wall-clock time) an operation may take before returning with a timeout error. Default: no limit. |

Value

server object

Examples

```
IsoplotR()
```

stopIsoplotR *Stop an IsoplotR GUI*

Description

Stop an IsoplotR GUI

Usage

```
stopIsoplotR(server = NULL)
```

Arguments

server The server (returned by `IsoplotRgui::IsoplotR()`) to stop. If not supplied all servers will be stopped.

Examples

```
s <- IsoplotR()
stopIsoplotR(s)
```

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