Package: mrtutorial (via r-universe)

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Type Package

Title Tutorial Package For Madrat Package Library

Version 0.2.11

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Description Example package of mr- world libraries, in conjunction with MAgPIE MADRat tutorial. For more information please see: https://github.com/magpiemodel/tutorials/tree/master/madrat .

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Depends R (>= 2.10.0), madrat (>= 2.11.3), magclass (>= 3.17)

Imports WDI, countrycode, dplyr, lucode2, magpiesets, rlang, tidyr

Suggests covr

Encoding UTF-8

LazyData true

Roxygen list(markdown = TRUE)

RoxygenNote 7.2.3

Repository https://pik-piam.r-universe.dev

RemoteUrl https://github.com/pik-piam/mrtutorial

RemoteRef HEAD

RemoteSha e2c55ab24bf93bb2f5a3ab66bb5a409efc62ad72

Contents

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mrtutorial-package   *mrtutorial: Tutorial Package For Madrat Package Library*

Description

Example package of mr- world libraries, in conjunction with MAgPIE MADRat tutorial. For more information please see: https://github.com/magpiemodel/tutorials/tree/master/madrat .

Author(s)

Maintainer: David Meng-Chuen Chen <david.chen@pik-potsdam.de>

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calcAgGDP   *calcAgGDP*

Description

calculates Ag GDP as % of total GDP

Usage

```
calcAgGDP()
```

Value

List of magpie object with results on country level, weight, unit and description.

Author(s)

David Chen

Examples

```
## Not run:
calcOutput("AgGDP")

## End(Not run)
```

---

calcValidPopulation *calcValidPopulation*

Description

Returns historical development of population

Usage

```
calcValidPopulation(datasource = "WDI")
```

Arguments

datasource   Various daasource to load population data from can be specified here. So far available: WDI (default)

Author(s)

Florian Humpenoeder, Jan Philipp Dietrich, Kristine Karsens

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convertTutorialWDI *Convert WDI*

Description

Convert WDI converts data from readWDI() to ISO country level. Adds Taiwan as difference from global total.

Usage

```
convertTutorialWDI(x, subtype)
```

Arguments

x   MAgPIE object containing WDI data region resolution
subtype   Name of the worldbank indicator, e.g. "SP.POP.TOTL"

Value

MAgPIE object of the WDI data disaggregated to country level

Author(s)

Jan Phillip Dietrich, Benjamin Bodirsky, Xiaoxi Wang, David Chen

Examples

```
## Not run: a <- convertWDI(x)
```

---

downloadTutorialWDI   *Dowload WDI*

Description

Download WDI (World development indicators) data .rda file.

Usage

```
downloadTutorialWDI()
```

Author(s)

David Chen

See Also

[downloadSource WDI](#)

Examples

```
## Not run:  a <- downloadSource(type="TutorialWDI")
```

---

fullTUTORIAL   *fullMAgPIE*

Description

Function that produces the complete regional data set required for running the MAgPIE model.

Usage

```
fullTUTORIAL(rev = numeric_version("1"), dev = "", extra = "Example Argument")
```

Arguments

rev	data revision which should be used as input (numeric_version).
dev	dev flag for testing
extra	extra text to insert

Author(s)

David M Chen

See Also

[readSource](#), [getCalculations](#), [calcOutput](#)

Examples

```
## Not run:
retrieveData("tutorial", rev = numeric_version("12"),
                mainfolder = "pathtowhereallfilesarestored")

## End(Not run)
```

```
fullTUTORIALVALIDATION
```
fullTUTORIALVALIDATION

Description

Function that produces the complete validation data set used for evaluation of MAgPIE outputs

Usage

```
fullTUTORIALVALIDATION(rev = 0.1)
```

Arguments

rev   data revision which should be used as input (positive numeric).

Author(s)

Jan Philipp Dietrich, Kristine Karstens

See Also

[readSource](#), [getCalculations](#), [calcOutput](#)

Examples

```
## Not run:
retrieveData("VALIDATION")

## End(Not run)
```

---

fullVALIDATION   *fullValidation*

Description

Function that produces the complete validation data set used for evaluation of MAgPIE outputs

Usage

```
fullVALIDATION(rev = 0.1)
```

Arguments

rev   data revision which should be used as input (positive numeric).

Author(s)

Jan Philipp Dietrich, Kristine Karstens

See Also

[readSource](), [getCalculations](), [calcOutput]()

Examples

```
## Not run:
retrieveData("VALIDATION")

## End(Not run)
```

---

readTutorialWDI   *Read WDI*

Description

Read-in WDI (World development indicators) data .rda file as magclass object.

Usage

```
readTutorialWDI(subtype = "SP.POP.TOTL")
```

Arguments

subtype   Type of WDI data that should be read. Please use the worldbank indicator abbreviation. Available types are e.g.:

- `SP.POP.TOTL`: Population, total
- `NY.GDP.MKTP.PP.CD`: GDP, PPP (current international Dollar)
- `SL.AGR.EMPL.ZS`: Employment in agriculture as % of total employment
- `NV.AGR.TOTL.CD`: Agricultural GDP (current international Dollar)

Value

magpie object of the WDI data

Author(s)

David Chen

See Also

readSource downloadTutorialWDI

Examples

```
## Not run:  a <- readSource(type="WDI",subtype="SP.POP.TOTL")
```

---

spatialHeader   *Tool: spatialHeader*

Description

Given a regionmapping (mapping between ISO countries and regions) the function calculates a 0.5 degree spatial header for 0.5 degree magclass objects

Usage

```
spatialHeader(mapping)
```

Arguments

mapping   Either a path to a mapping or an already read-in mapping as data.frame.

Value

A vector with 59199 elements

Author(s)

Jan Philipp Dietrich

See Also

[regionscode](#)

Examples

```
## Not run:
spatialHeader("regionmappingMAgPIE.csv")

## End(Not run)
```

Index