

Wikiprint Book

Title: udg/ecom/RPackage/examples

Subject: TracMeteo - udg/ecom/RPackage/examples

Version: 76

Date: 07/07/2022 12:36:25 AM

Table of Contents

Placeholder for table of contents

0

In the next lines we describe an illustrative example of the `loadSystem4` function. We will retrieve System4 simulation data for the Iberian Peninsula, considering mean surface temperature for January and the first simulation member, for the three-year period 1981-1983. This simple example has been chosen because of the fast data access (note that this also depends on the connection speed). Using a standard broadband connection, running this example took approximately 6 seconds.

```
openDAP.query <- loadSystem4(dataset = "http://www.meteo.unican.es/tds5/dodsC/system4/System4_Seasonal_15Members.ncml",
                             var = "tas", members = 1,
                             lonLim = c(-10,5), latLim = c(35,45),
                             season = 1, years = 1981:1983, leadMonth = 1)
mean.field <- colMeans(openDAP.query$MemberData[[1]])
lat <- openDAP.query$Coordinates[ ,1]
lon <- openDAP.query$Coordinates[ ,2]
# Requires package "akima"
library(akima)
filled.contour(interp(lon, lat, mean.field), asp=1,
               plot.title = title(main = "Mean surface T January 1981-83",ylab = "latitude", xlab = "longitude"),
               key.title = title(main = "degK"),
               key.axes = axis(4, seq(273,289,1)))
```