Single point selection

The following call to `loadECOMS` will load a time series of surface (2m) instantaneous temperature (`var = "tas"`, as defined in the [wiki vocabulary])at 12:00 for the coordinate -3.7E 40.4N, (`lonLim = -3.7`, `latLim = 40.4`) corresponding to the city of Madrid (Spain), corresponding to the summer (JJA, `season = 6:8`) of 2001 (`years = 2001`) as forecasted the previous March (`leadMonth = 2`) by the CFSv2 hindcast (`dataset = "CFSv2_seasonal_16"`). We will select the first 10 members (`members = 1:10`):

```
> ex.point <- loadECOMS(dataset = "CFSv2_seasonal_16", var = "tas", members = 1:10, lonLim = -3.7, latLim = 40.4, season =
[2014-06-17 12:08:27] Defining homogeneization parameters for variable "tas"
[2014-06-17 12:08:27] Defining geo-location parameters
[2014-06-17 12:08:27] Defining initialization time parameters
[2014-06-17 12:08:31] Retrieving data subset ...
[2014-06-17 12:09:11] Done
> print(object.size(ex.point))
32088 bytes
```

The returned object contains all the necessary information for data representation (geo-location, time ...). In the next lines we plot the loaded time series for each member. The element `Data` contains the data itself. In this case, it is a 2D array with the dimensions `time` (92 days for June, July and August) and `member` (10 members selected), as indicated by the `dimensions` attribute:

```
> str(ex.point$Data)
num [1:92, 1:10] 19.7 24.4 24.4 24.5 26.6 ...
- attr(*, "dimensions")= chr [1:2] "time" "member"
```

In the following example we plot the time series with the multi-member mean and its dispersion (interquartilic range 25-75):

```
> quartiles <- apply(ex.point$Data, MARGIN = 1, FUN = quantile, probs = c(.25,.75))
> ens.mean <- rowMeans(ex.point$Data)
> dates <- ex.point$Dates$start
> plot(dates, ens.mean, ylim = range(ex.point$Data), ty = 'n', ylab = "tas - 12UTC", xlab = "time")
> polygon(x = c(dates, rev(dates)), y = c(quartiles[1, ], rev(quartiles[2, ])), border = "transparent", col = rgb(0,0,1,.4
> lines(dates, ens.mean)
```