**Pseudo-Code for the visualization program**

**INPUT:** {DATA}

Load the {DATA} from CBE data as “\*.csv” files (excel format in Matlab).

Store the loaded data into 24Hour folder.

**FUNCTION LOADING\_STORING which will be responsible for reading, loading and storing data**

**INPUT:** 2 integers representing the document number which needs to be read and the colorblind number by which the map needs to be presented.

**OUTPUT:** Full plotted map

Check where user stores the 24Hour folder.

Check if all the files are in the correct folder and which starts with “24HR\_CBE\_\*.csv”.

Get a list of all files in the folder with the desired file name pattern.

Store the list as a variable *theFiles.*

Read every single “\*.csv” file.

Store the data read from “\*.csv” into a matrix.

Increase the Rows and Columns of matrix to fit the dimensions 400:700.

Check what is the colorblind integer value to see in what option map should be plotted.

Modify the map to remove the grids, x and y axes and show the current time which is shown.

Plot the map as a map of Europe with the data read and the color set.

Create a new guide element which will be used as a GUI.

Inside that GUI create new objects like axes, pushbuttons, slider, pop up menu and a static text.

Then create new callback methods for them.

**FUNCTION NEXT\_CALLBACK which will be responsible for the next push button**

**INPUT:** will be decided by the guide.

**OUTPUT:** A call to the function loading\_storing with two parameters passed in.

Create a global variable which will be as a counter for Next button.

Create a global variable which will act as a number and be responsible for the color of the map.

Increase the document number by 1 with every click of Next button.

Call function **LOADING\_STORING** with two parameters set as global variables previously.

**FUNCTION PREVIOUS\_CALLBACK which will be responsible for the previous push button**

**INPUT:** will be decided by the guide.

**OUTPUT:** A call to the function **LOADING\_STORING** with two parameters passed in.

Create a global variable which will be as a counter for Previous button.

Create a global variable which will act as a number and be responsible for the color of the map.

Decrease the document number by 1 with every click of Previous button.

Call function **LOADING\_STORING** with two parameters set as global variables previously.

**FUNCTION COLORBLIND\_CALLBACK which will be responsible for the color of the map to be displayed.**

**INPUT:** will be decided by the guide.

**OUTPUT:** A call to the function **LOADING\_STORING** with two parameters passed in.

Create a global variable which will be as a counter for **NEXT\_CALLBACK** and **PREVIOUS\_ CALLBACK.**

Create a global variable which will act as a number and be responsible for the color of the map.

Using switch method change the global variable value created previously in each case and call the function **LOADING STORING** with two parameters set as global variables previously.

**FUNCTION SLIDER\_CALLBACK which will be responsible for the slider created**

**INPUT:** will be decided by the guide.

**OUTPUT:** A call to the function **LOADING\_STORING** with two parameters passed in.

Set the slider value to be a rounded one, to prevent getting the floating points.

Assing and set the slider value to be as a global variable which is responsible for document number.

Set the slider number to appear in the static text object.

Modify the map title to be shown as a value of document number – 1.

Call the function **LOADING\_STORING** with two parameters set as global variables previously.