# User Manual - EddySummaries Application (EN)

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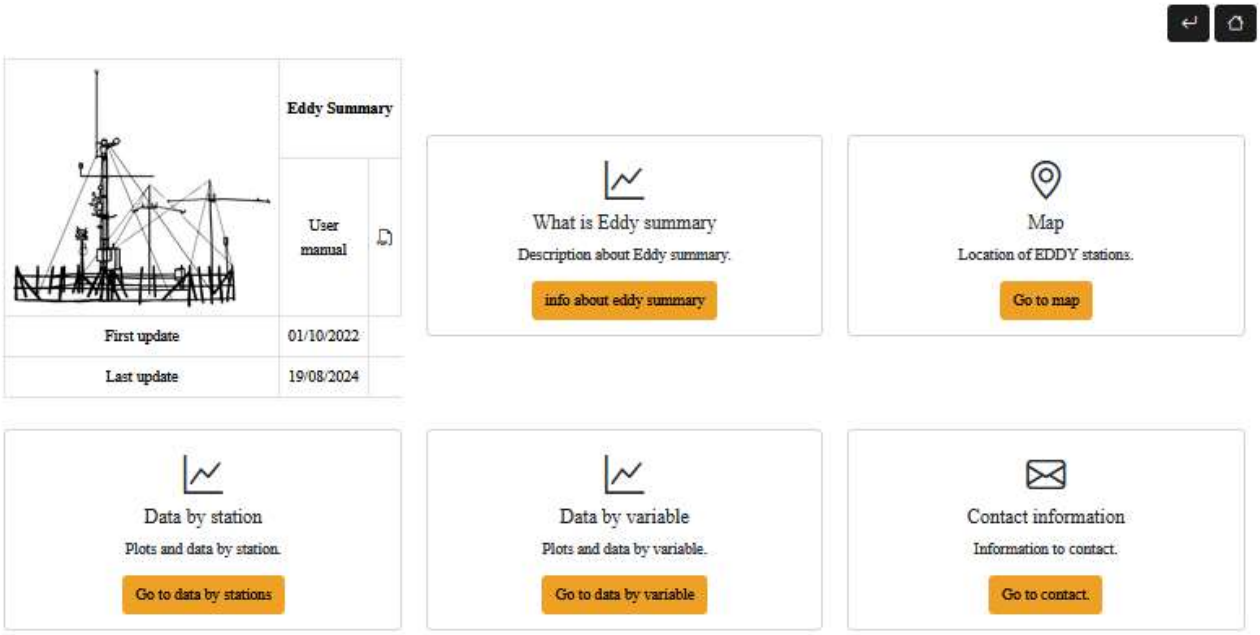
## Main Menu:

It looks like this:



The main menu is divided into different sections:

- Representative icon, data update dates, and access to the user manual.
- Description of what “Eddy summaries” are.
- Map. Location of the Eddy Stations.
- Access and query of data by Stations.
- Access and query of data by Variables.
- Contact Information.

Note: The main menu will be accessible from any functionality of the application with the respective functions (Back and Main Menu).

## Description of what an Eddy Station is and what summaries are:

If we click on "What is Eddy summary?", we will access a description of what the Eddy Covariance System towers are and what variables are measured..

### Description: Eddy Covariance Systems

Eddy covariance systems are a scientific tool used to measure the exchange of gases and energy between the Earth's surface and the atmosphere.

To understand it simply: the atmosphere is made up of a series of layers of air. These layers are constantly moving, creating air eddies of different sizes. Eddy covariance systems measure the speed and direction of these eddies, as well as the concentration of gases in the air.

By combining this information, the flux of gases between the surface and the atmosphere can be calculated:

- **Sensible heat (H)**: is the energy that causes a change in temperature in a substance without changing its molecular state. It affects the temperature of the atmosphere.
- **Latent heat (LE)**: is the energy required for a substance to change state. It affects the water cycle because it is directly related to evapotranspiration.
- **Water flux (H2O flux)**: vertical flux of water.
- **CO2 flux**: vertical flux of CO2. It represents the net ecosystem exchange (NEE).
- **CH4 flux**: vertical flux of methane.

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## Map. Location of the Eddy Stations:

If we click on "Map," we will access an interactive map showing the location of the Eddy Stations

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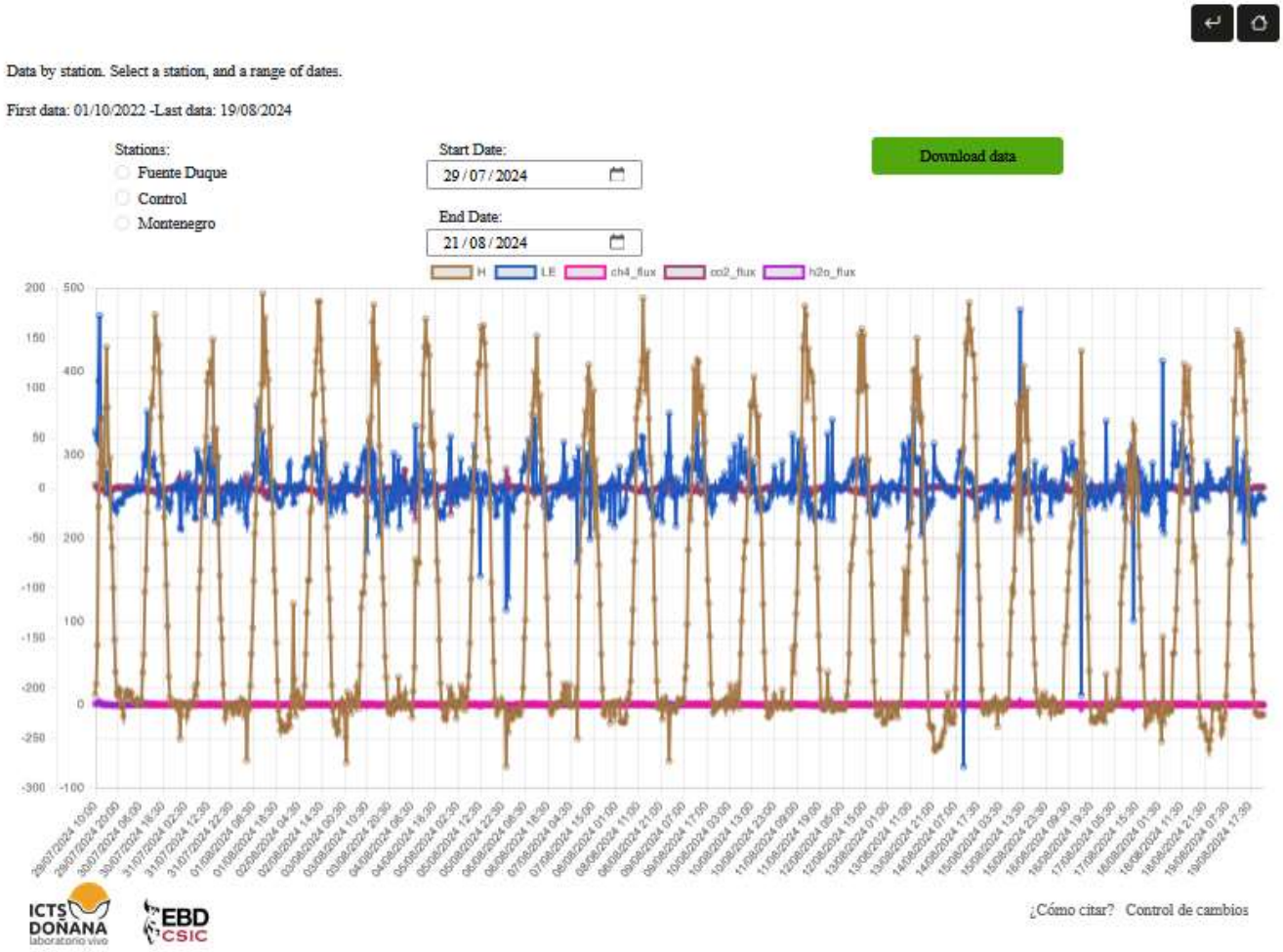
## Access and query of data by Station:

If we click on "By Station":

We will be able to consult and visualize a graph as well as download the data after selecting an Eddy Station:

An Eddy Station and Start/End Dates.

After entering the filter parameters, we need to click "Generate graph," and the data will be displayed in the form of a graph. After this, we can also download the selected data with the applied filter by clicking "Download data."




We will obtain a graph where each line represents a variable.

Note that the data is represented on two scales.

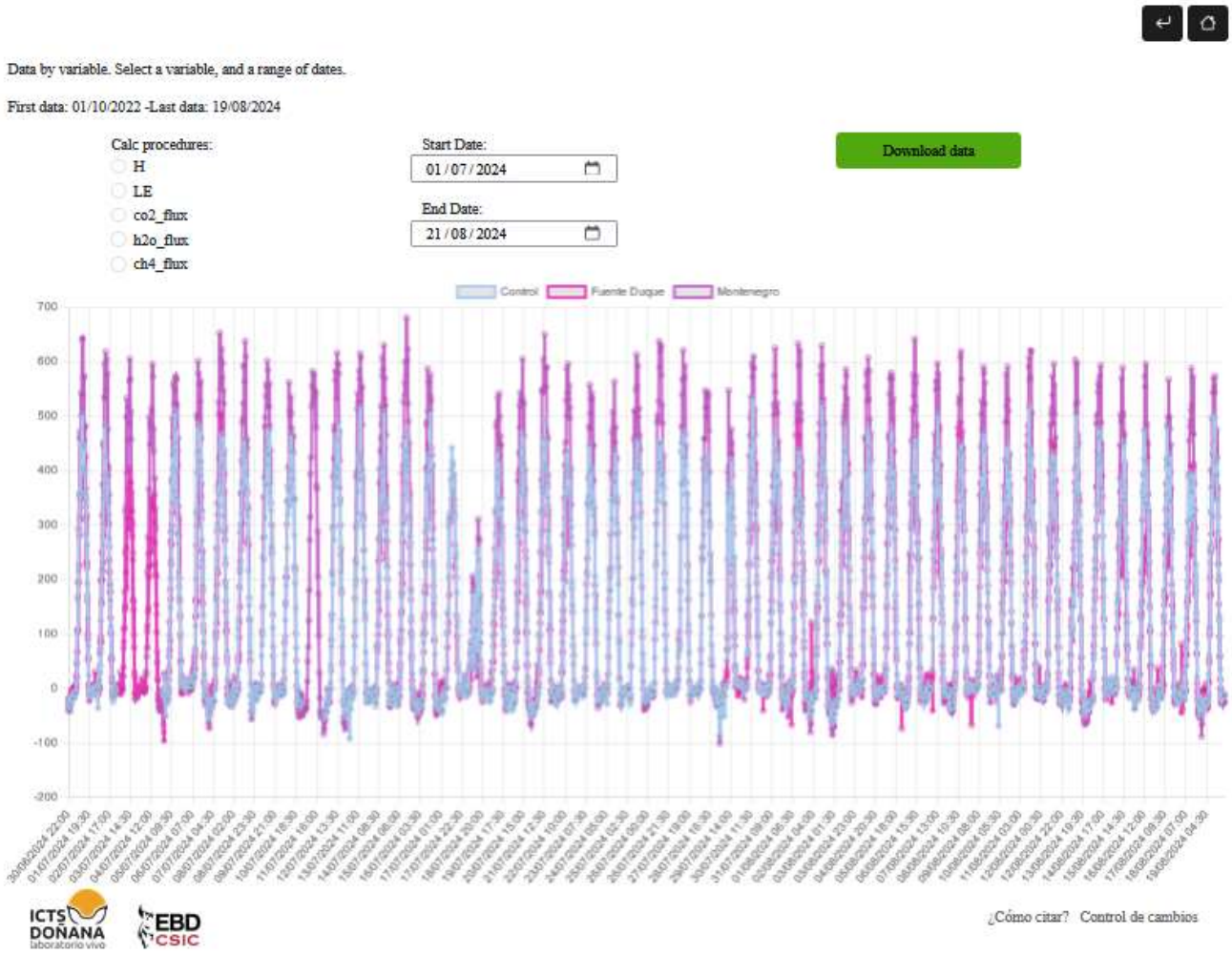
## Access and query of data by Variables:

If we click on "By Variable":

We will be able to consult and visualize a graph as well as download the data after selecting a variable:

Variable and Start/End Dates.

After entering the filter parameters, we need to click "Generate graph," and the data will be displayed in the form of a graph. After this, we can also download the selected data with the applied filter by clicking "Download data."




A graph with the selected variable and a line for each Eddy Station will be displayed.

## Contact Information:

Contact information is displayed in case of questions/queries or suggestions, which can be sent via email to this address.

Note: It is better to send an email with a copy to both addresses and the subject "App_Eddy".

## Contact information

In case of any questions, please send an email to the following addresses:

- edm_soporte@ebd.csic.es
- manueleduardo.escobar@ebd.csic.es