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WHEN MEASUREMENTS MATTER

EasyFlux Web
Eddy-Covariance Browser-Based Software
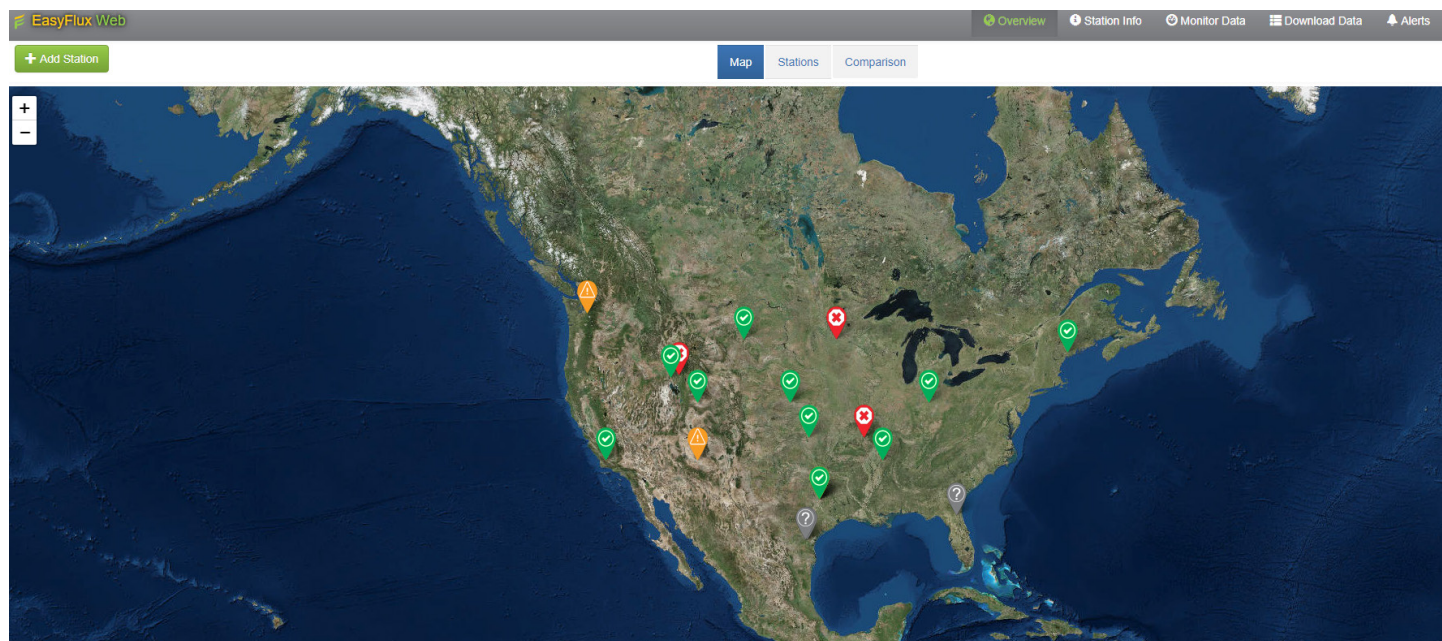
EASY**FLUX** Web

Overview

EasyFlux™ Web is a web-based multi-user software system used for monitoring Internet-connected Campbell Scientific eddy-covariance stations. EasyFlux Web builds on our EasyFlux™ DL series for the IRGASON or EC150/CSAT3A and CPEC200/CPEC300 series to provide real-time display of fully corrected 30-minute fluxes, energy-balance sensors, and overall health of the network. EasyFlux Web gives you the ability to track your eddy-covariance systems in one easy-to-use interface.

EasyFlux Web functions with the EasyFlux DL program running on a Campbell Scientific CR6 or CR3000 datalogger. When a station is added, EasyFlux Web automatically pulls station information available from the program running in the datalogger (ecosystem, latitude, and longitude). After adding your stations, you can graphically monitor data including QA/QC values, download data, compare data between stations, and set up alerts to notify you by email of data values outside of user-entered thresholds.

An administrator can set up user accounts and control the rights of each user. The following installation options are offered for EasyFlux Web.

1. **EasyFlux™ Web Self-Hosted**: You install the software directly on your server, which also installs SQL Server Express. EasyFlux Web is then accessed by typing the IP address of the server into a web browser.

2. **EasyFlux™ Web CSI-Hosted:** Campbell Scientific installs the software and automatically updates the software for you in a Microsoft Azure-based environment and provides a link to access the software.

Benefits and Features

❭ Custom alerts with email notification

❭ Monitor flux instruments and energy balance sensors, letting you plan site visits more effectively

❭ Quickly reference metadata for each station

❭ Remotely download data

❭ Map view of all stations in network with quick view of critical data and alerts available on a computer, tablet, or smartphone device

❭ Flexible product offering with ability to purchase a local copy or a subscription to a cloud-based plan

❭ Administrator choices on read/write abilities of users

❭ Fully compatible with EasyFlux DL series for CR6 dataloggers

Station Setup

EasyFlux Web allows for users to add all of their stations within a network that has remote communication access. Adding your station's IP address to the program immediately adds your station to the interface. You can uniquely modify each station with site images, ecosystem type, and location information. Once added, your site will display on the interactive map, making your data one click away.

Adding a station is quick and easy. Just select *Manage LoggerNet Dataloggers*, fill in your datalogger's information, and then customize your station using the *New Station* interface. Once you hit save, you're all done!
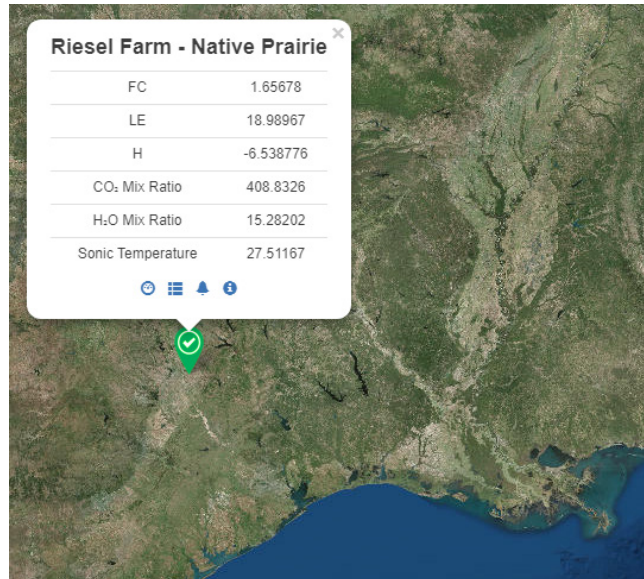
Once your site has been added, it will appear on the interactive *Overview Map* where you can see snapshots of data at your site for easy monitoring. For example, Texas Water Observatory at Riesel Farm – Native Prairie Site: http://two.tamu.edu/sites/primary/rfpr.aspx

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Station Info

The *Station Info* section is a great tool for checking the status of important station data variables, metadata, and datalogger information.

Station notes can be logged here after site visits to provide important information that you may need to be aware of for future reference.

The *Station Info* tab for your sites

Monitor Data

EasyFlux Web gives you the capability to monitor your fully corrected fluxes and other sensor data. The **Monitor Data** section allows you to add and customize which station variables are visible to you. This tool helps track your data over time to give you a better understanding of the important environmental processes that occur at your site.
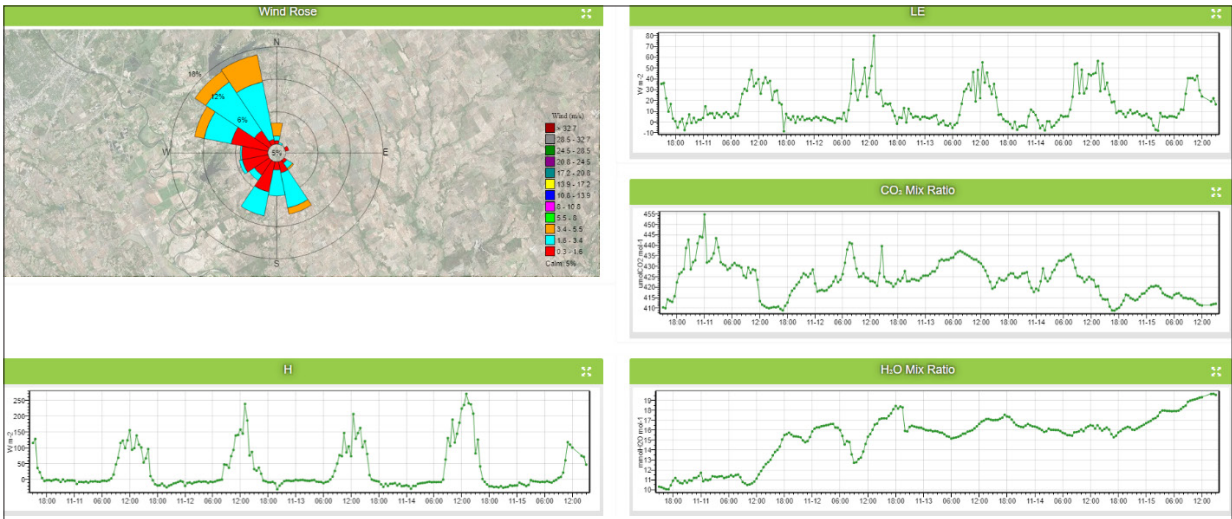
Monitor Data section can be easily customized for your application.

Download Data

You can instantly download data in EasyFlux Web. Just specify what data tables to collect, what data format you would prefer, and how much data you need.

Alerts

EasyFlux Web helps notify you of potential problems with your eddy-covariance station. Customizable alerts help to inform you when system conditions have triggered a data flag. You can set thresholds to your station variables that will alert you when your data has fallen within these values. You can subscribe to those alerts for which you want to be notified by email.

Title	Status	Value	Threshold	Message	Subscribed	Actions
No Data	❌			No data received for over one hour	☑	⚙
Skipped Scans	✅	0	value > 0		☐	⚙
Watchdog Errors	✅	0	value > 0		☐	⚙
Card Storage Running Low	❌	0.8756945	value < 7	There are less than seven days of card storage on the datalogger.	☑	⚙
FC OK	⚠	NAN	value = NAN	Invalid value for FC	☐	⚙
LE OK	⚠	NAN	value = NAN	Invalid value for LE	☐	⚙
H OK	⚠	NAN	value = NAN	Invalid value for H	☐	⚙
TAU OK	⚠	NAN	value = NAN	Invalid value for TAU	☑	⚙
USTAR OK	✅	0.2280097	value = NAN		☐	⚙

Alerts send you messages when your data has been flagged.

Compatibility

Required Campbell Systems

› Campbell Scientific CR6 datalogger running either the EasyFlux-CR6OP or EasyFlux-CR6CP program for closed-path eddy-covariance systems.

› Campbell Scientific CR3000 datalogger running the EasyFlux DL program for open-path, eddy-covariance systems.

Required Computer Software

› Windows 8.1 or newer and Windows Server 2012 R2 or newer 64-bit only.

› 10 GB of hard-disk space

› 4 GB RAM

› 2.0 GHz or faster processor

› x64 processors only