



A New Software Suite Offering Corrected Online Fluxes, Post-processing for Raw Data and Network Management for CSI Integrated EC Systems

Xinhua Zhou (1), Benjamin Conrad (1), Ed Swiatek (1), Ryan Campbell (1), Tyler Mecham (1), Jon Trauntvein (1), Brent Seeley (1), Xiaojie Zhen (3), and Ning Zheng (2)

(1) Campbell Scientific, Inc, Logan, UT, USA, (2) Campbell Scientific (Beijing) Co., Ltd, Beijing, China , (3) Beijing Techno Solutions, Ltd., Beijing, China

Eddy covariance is a popular technique used by researchers to measure and calculate CO₂/H₂O and other trace gas fluxes in the boundary layers of the atmosphere. Typical workflows of large networks involve setting up and maintaining instrumentation, collecting high frequency data, post-processing data, and finally publishing data. Historically, some of the greatest challenges to large networks was handling the large raw data sets during post-processing and finding appropriate techniques to manage large data gaps. Campbell Scientific, Inc. has recently developed the EasyFlux series of software to help mitigate these challenges. The series includes free to download datalogger programs with online functionalities of community-accepted corrections, commonly used data grading, and footprint analysis. The variable names and file formats are conformed to recent AmeriFlux format. The series of programs specifically support Campbell Scientific integrated eddy-covariance instrumentation systems of gas analyzers, sonic anemometers, and CR dataloggers. There is also PC software specifically configured for Campbell Scientific eddy-covariance systems for those who would like to re-process data. Finally, EasyFlux-Web will provide PI's and network administrators with the ability to quickly view and communicate with all stations in their network, identify data flags and download the fully corrected flux data (requires remote communications).