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WHEN MEASUREMENTS MATTER

EasyFlux PC
Eddy-Covariance Post-Processing PC Software

EASYFLUX PC

Fully Corrected Fluxes

Computer program that computes fully corrected fluxes of CO_2, latent heat, and sensible heat

Overview

EasyFlux™ PC is a free computer program that processes high frequency time series data, collected using a Campbell Scientific eddy-covariance flux system, into fluxes following community accepted practices. Fully corrected fluxes of CO_2, latent heat (H_2O), sensible heat, and momentum are available in generic, AmeriFlux, and GHG-Europe ASCII formats.

Benefits and Features

❱ Intuitive and easy to use; begin processing data in under a minute

❱ Uses community tested and reviewed, open source software

❱ Supports native Campbell Scientific TOB1 file format collected from an open-path eddy-covariance system (IRGASON or EC150 with CSAT3)

❱ Available at no charge

Detailed Description

Provides fully corrected outputs of CO_2 flux, latent heat flux, and sensible heat flux at a user-defined interval (e.g., 30 minutes). Also provides many other variables of atmospheric properties, instrument diagnostics, and intermediate corrections.

Default processing:

❱ Despike and filter data using sonic anemometer and gas analyzer diagnostic codes, signal strengths, and measurements output range threshold.

❱ Apply coordinate rotation with an option to use the double rotation method (Tanner and Thurtell, 1969) or planar fit method (Wilczak et al., 2001).

❱ Lag CO_2 and H_2O measurement against sonic wind measurement for maximization of CO_2 and H_2O flux (Horst and Lenschow, 2009; Foken et al., 2012).

❱ Apply low frequency correction following Moncrieff et al., 2004.

❱ Apply high frequency corrections following Moncrieff et al., 1997; Massman, 2000, 20001; or Horst, 1997.

❱ Correct sonic temperature for the effect of humidity following van Dijk et al., 2004.

❱ Apply correction for air density fluctuation using Webb et al., 1980.

❱ QA/QC data quality checks following Foken, 2003.

For comprehensive details, visit: **www.campbellsci.com.au/easyflux-pc**