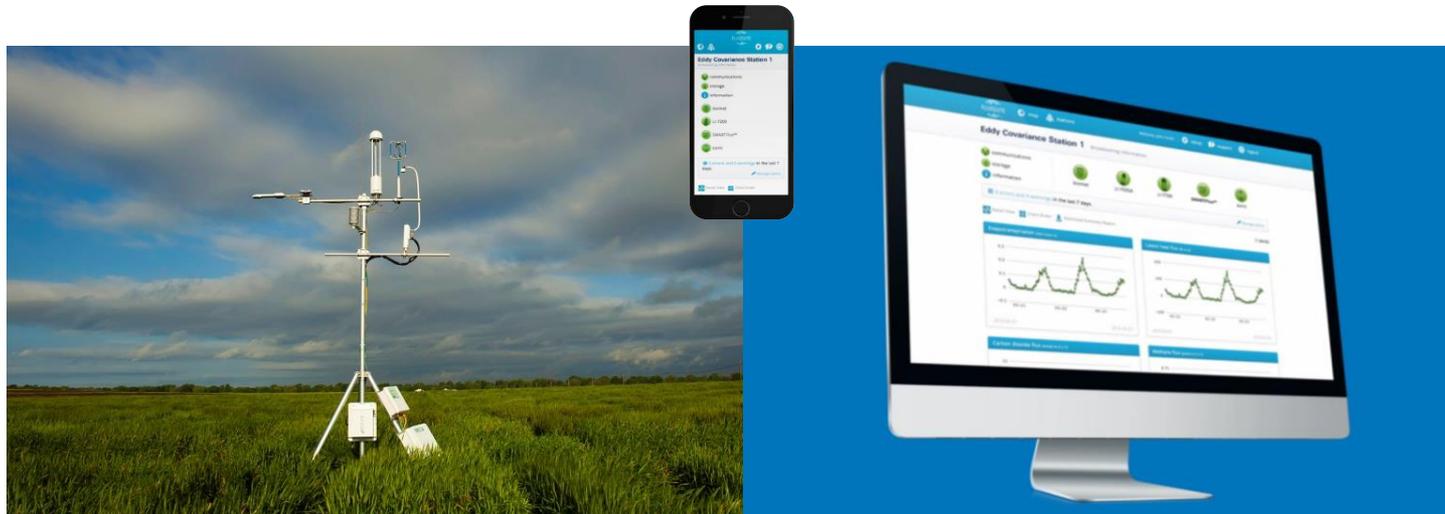


# FluxSuite Training



# FluxSuite

- FluxSuite – system to remotely manage a station or network of many stations:
  - Utilize output from SmartFlux
  - View real-time flux data, receive alerts and assign users
  - Manage network of multiple stations with minimum number of people
  - Create actual and virtual networks of flux stations



# Logging In

Login



Please log in to access this page.

**Email Address**

**Password**

**Login**

**Remember Me**

[Forgot your password?](#)

# Map View

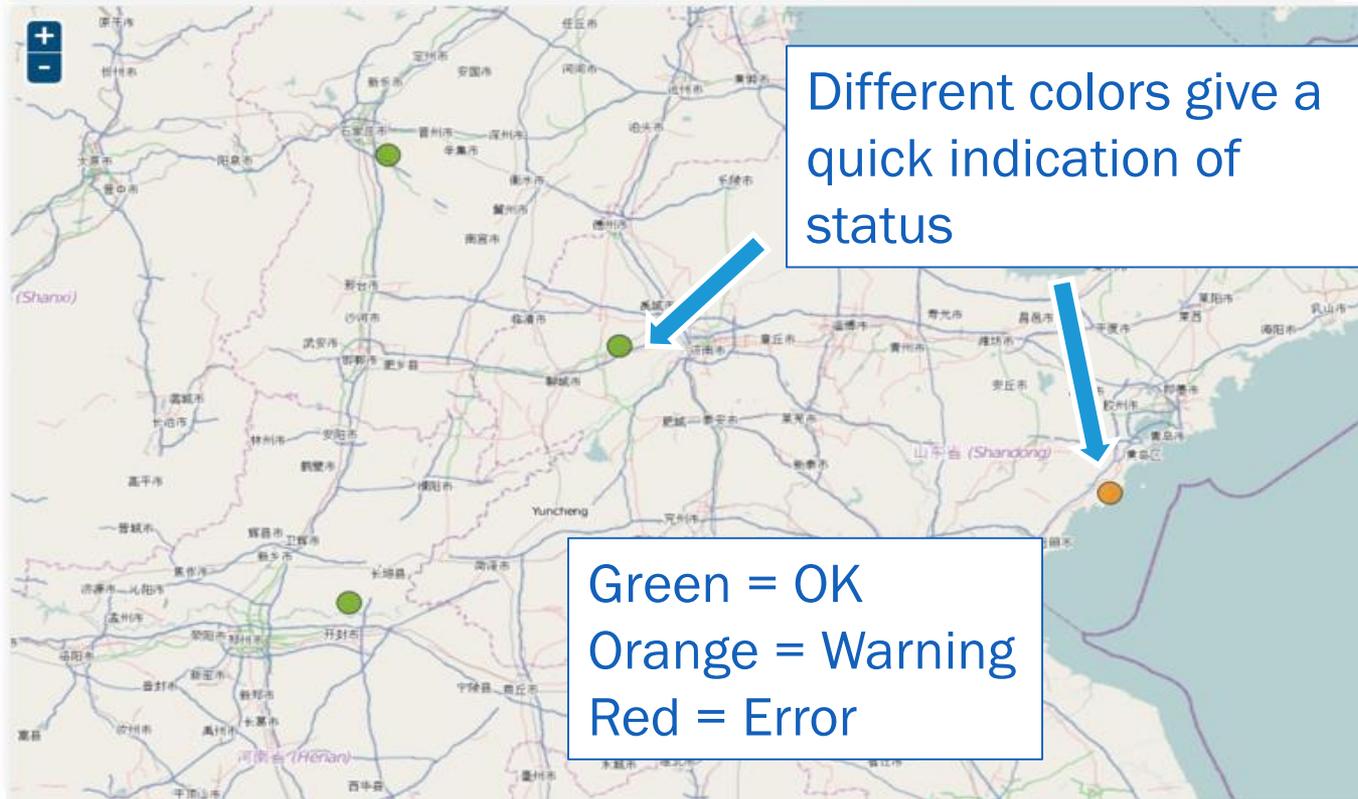
FLUXSUITE  Map  Stations Welcome,  Setup  Support  Logout



This example shows Chinese Ecosystem Research Network (CERN) sites

# Map View

FLUXSUITE  Map  Stations Welcome,  Setup  Support  Logout



# Site Menu



List all stations

Current user

User profile  
Create users

Help

# All Stations

## Stations List All Registered Stations

Show  entries  add entry Search:

Station Name	Group	Status	Abbreviation	Location	Ecosystem	Action
Diesel 13	FS-00001		HAL 9000	Any town, USA	grass	 
Jason_Weather_Station	FS-00001					 
Mobile_EC_2	FS-00001		MEC	JCK Desk	Cube Farm	 
Weather Station	FS-00001		Anonymous	Area 50	Dessert	 

Showing 1 to 4 of 4 entries

This station has an error

View dashboard

Station information

# All Stations – Status Indicators

Show 10 entries  add entry

Search:

Station Name	Group	Status	Abbreviation	Location	Ecosystem	Action
diesel-12	FS-00001					 
diesel-3	FS-00001					 
douglas_weather	FS-00001					 
Mobile EC 1	FS-00001					 
sf2_np2	FS-00001					 

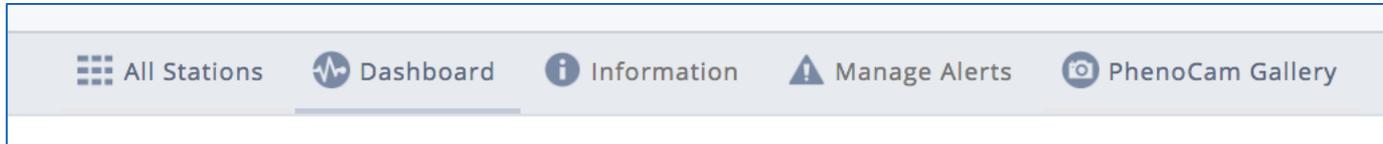
Showing 1 to 5 of 5 entries

Warning

Error

OK

# Station Menus



- All Stations: Return to all station list
- Information: Edit/View site information
- Manage Alerts: Setup Alerts for data outputs
- PhenoCam Gallery: View phenocam picture gallery



- Detail View: Plot a long time series for a specific variable
- Chart Order: Customize dashboard layout
- Download Summary Report: Download a report of processed data between two dates
- QA/QC: Show/Hide EddyPro QA/QC information

# Station Dashboard

All Stations **Dashboard** Information Manage Alerts PhenoCam Gallery

FLUXSUITE Map Stations Logout

## Pelalawan

Broadening Information

All Stations Station Dashboard Station Information Manage Alerts

Communications Storage biomet LI-7200 LI-7700 SMARTFlux™ sonic

2 errors and 6 warnings in the last 7 days.

Detail View Chart Order Download Summary Report QA/QC

### Sensible heat flux (w m-2)

### Latent heat flux (w m-2)

### Carbon dioxide flux (μmol m-2 s-1)

### Evapotranspiration (mm hour-1)

Status Indicators for each Component

# Station Dashboard

All Stations **Dashboard** Information Manage Alerts PhenoCam Gallery

FLUXSUITE Map Stations Welcome, [Settings]

## PeaBody Tower at DBNF Broadcasting Information

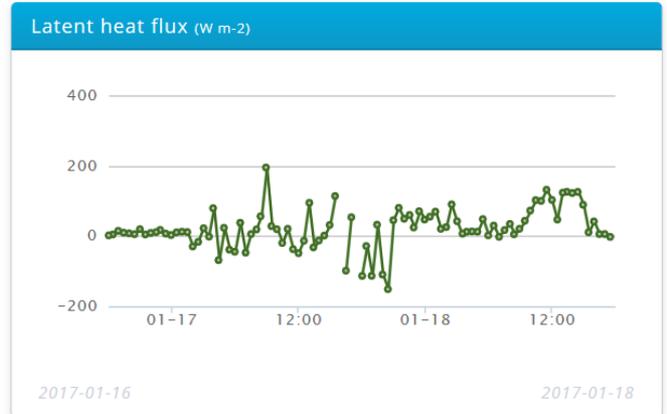
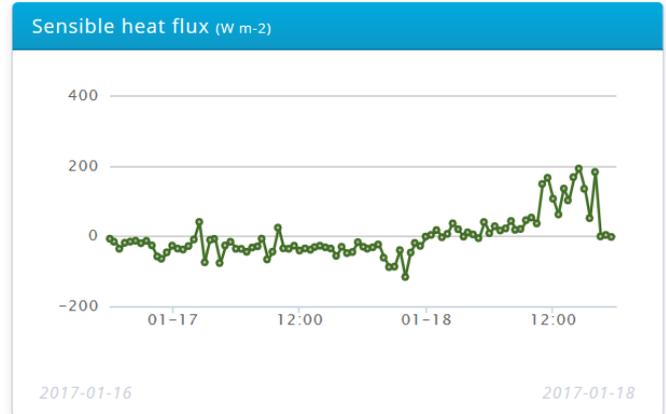
All Stations Station Dashboard **Station Information** Manage Alerts

Communications Storage biomet **LI-7200** SMARTFlux™ sonic

Component with warning is indicated here. Click for details.

2 errors and 2956 warnings in the last 7 days.

Detail View Chart Order Download Summary Report Qa/Qc



# Alert View

## Station Alerts PeaBody Tower at DBNF

Description of the problem is listed here.

Alert Type

All

Start Date

2017-01-11

End Date

2017-01-18

\* Occurrence are listed as they appear between the selected dates

Show 10 entries

Sort by:

Description	Alert Type	Status	* First Occurrence	* Last Occurrence	Current Alert	Action
Average Signal Strength	LI-7200	 2954 alerts logged.	2017-01-11 00:00	2017-01-18 18:00	Average Signal Strength 60.03 < 70.00	

# Station Dashboard

All Stations **Dashboard** Information Manage Alerts PhenoCam Gallery

FLUXSUITE Map Stations

## Pelalawan

Broadcasting Information

All Stations Station Dashboard Station Information Manage Alerts

Communications Storage biomet LI-7200 LI-7700 SMARTFlux™ sonic

2 errors and 6 warnings in the last 7 s.

Detail View Chart Order Download Summary Report QA/QC

Graphs of fully-processed, final fluxes

### Sensible heat flux (w m-2)

2017-01-16 2017-01-18

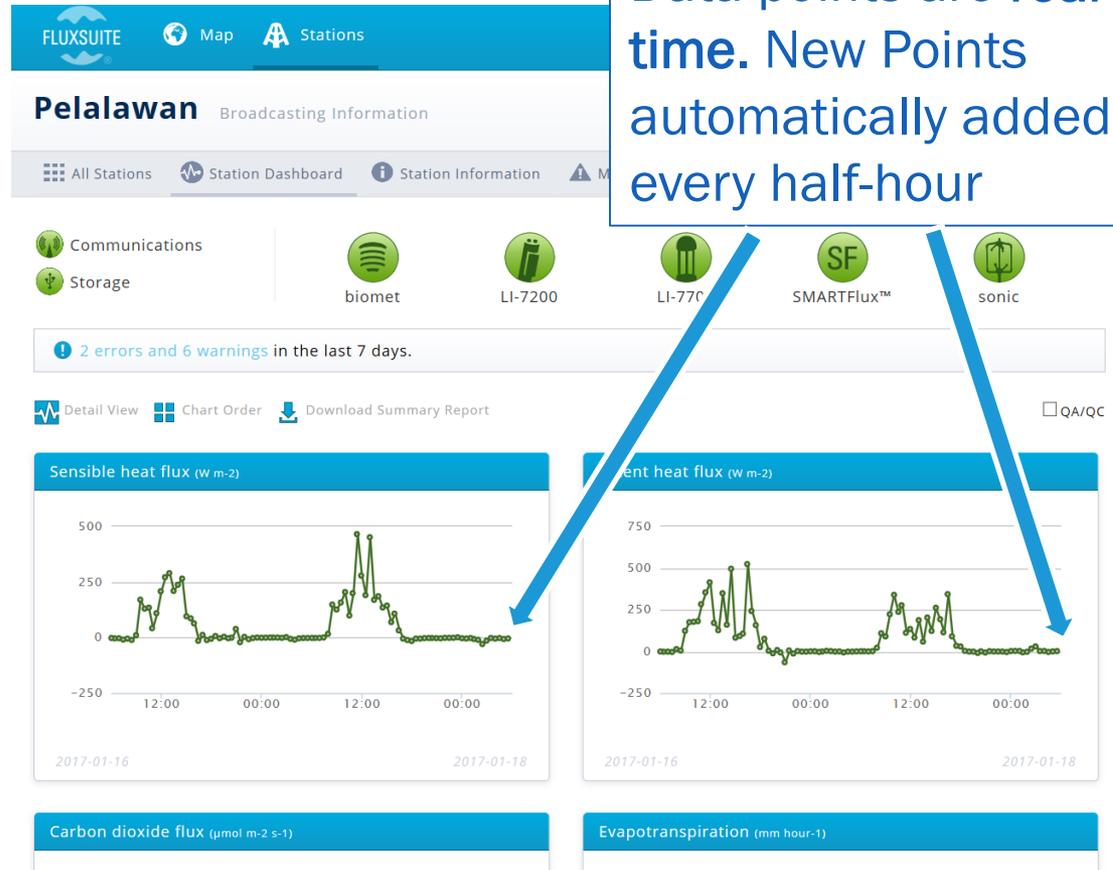
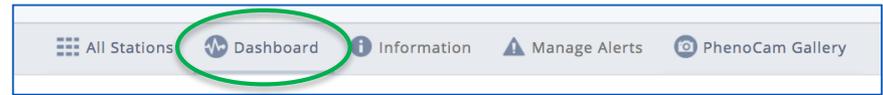
### Latent heat flux (w m-2)

2017-01-16 2017-01-18

### Carbon dioxide flux ( $\mu\text{mol m}^{-2} \text{s}^{-1}$ )

### Evapotranspiration (mm hour-1)

# Station Dashboard



Data points are real-time. New Points automatically added every half-hour

Each graph displays the last two days of data (6 graphs total)

# Station Dashboard

## AmeriFlux-CA LI-7200 Broadcasting Information

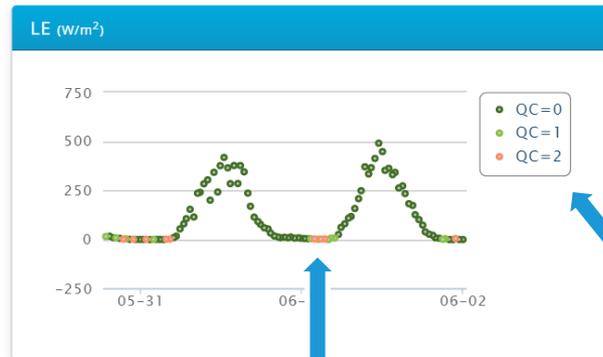
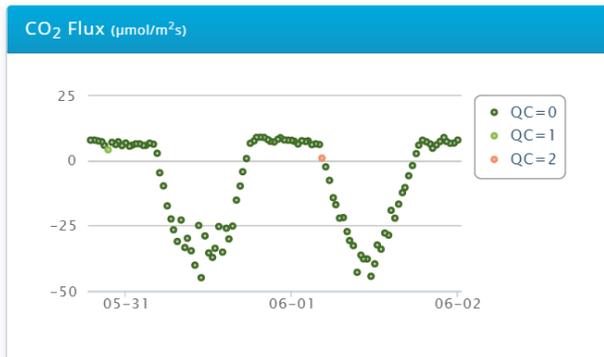
- communications
- storage
- SF SMARTFlux™
- LI-7500A
- sonic
- biomet
- information

0 errors and 0 warnings in the last 7 days.

Manage alerts

Detail View Download Summary Report

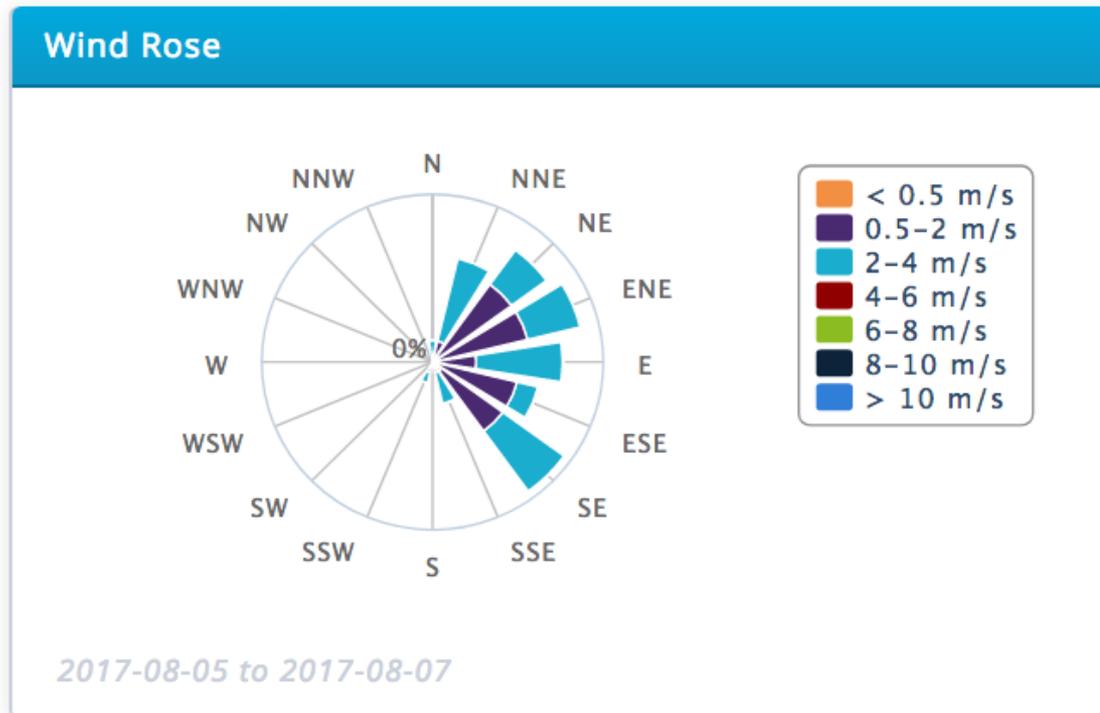
QA/QC



Real-time QA/QC on computed fluxes

# Station Dashboard

- Wind Rose



# Station Information



View and edit station information for each site

Add multiple images

Generate API Key  
This key gets entered into the GHG software

Instrument information

**Name:** diesel-12  
**Abbreviation:**  
**Institute:**  
**Location:**  
**Latitude/Longitude:** 40.856°, -96.655°  
**Ecosystem:**  
**Elevation:** 356.4 m

Generate Station Key Deactivate Station

Instruments					Posted At: 2017-08-06 21:03:36 (Etc/GMT+6)
Company	Model	Serial Number	Software Version	Details	
LI-COR	LI-7550	AIU-0208	8.7.5	<a href="#">i</a>	
LI-COR	LI-7500A	75H-2602	8.7.5	<a href="#">i</a>	
gill	wmpro	Y152303	2329-700-01	<a href="#">i</a>	
LI-COR	SMARTFlux2	diesel-12	2.1.3	<a href="#">i</a>	
Campbell	CC5MPX	----	----	<a href="#">i</a>	

Edit

Station Notebook

Show 10 entries + add entry

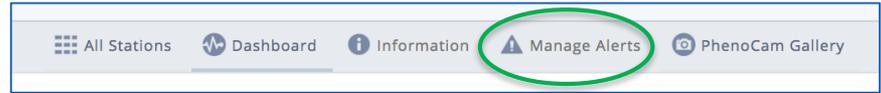
Search:

Note	Author	Timestamp
No data available in table		

Showing 0 to 0 of 0 entries

Log changes in the station notebook

# Manage Alerts



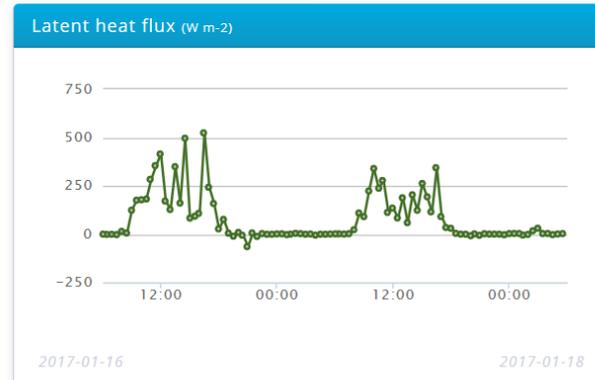
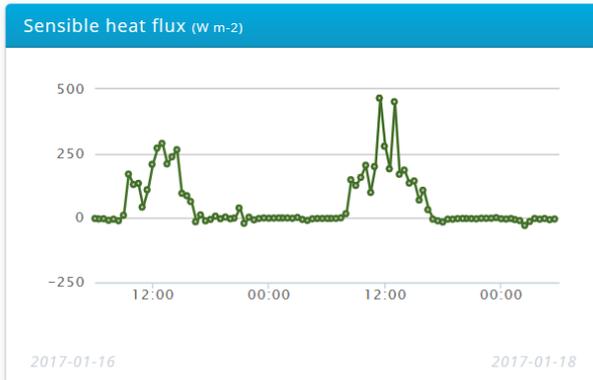
## Pelalawan Broadcasting Information



2 errors and 6 warnings in the last 7 days.



Manage alerts for the Station.



# Manage Alerts

SMARTFlux™ Alerts

Show  entries Search:

Description	EddyPro Variable	Enabled	Min Threshold	Max Threshold	Units	Action
Ambient air pressure	air_pressure	<input type="checkbox"/> Enabled	<input type="text" value="50"/>	<input type="text" value="110"/>	kPa	<div style="text-align: center;"><input type="button" value="Save"/> <input type="button" value="Cancel"/></div>
Ambient air relative humidity	RH	<input type="checkbox"/>	<input type="text" value="0"/>	<input type="text" value="100"/>	%	
Ambient air temperature_1_1_1	Ta_1_1_1	<input type="checkbox"/>	<input type="text" value="-40"/>	<input type="text" value="50"/>	C	

# Manage Alerts

FLUXSUITE
map
stations
Welcome, George Burba
setup
support
logout

## AmeriFlux-CA LI-7200 Thresholds for Sending Alerts

[Dashboard](#)
Stations

**Gas Analyzer Alerts**

Show  entries Search:

Description ▲	Enabled	Threshold	Action
Average Signal Strength	✔	70	
Chopper Temp	✔		
Detector Temp	✔		
PLL	✔		
USB Free Space	✔	500 MB	

Showing 1 to 5 of 5 entries ◀ ▶

**SMARTFlux™ Alerts**

Show  entries Search:

Description ▲	Alert Variable	Enabled	Min Threshold	Max Threshold	Units	Action
Ambient air density	air_density	<input type="radio"/>	-Infinity	Infinity	kg m <sup>-3</sup>	
Ambient air pressure	air_pressure	✔	50	110	kPa	
Ambient air relative humidity	RH	✔	2	103	%	
Ambient air temperature_1_1_1	TA_1_1_1	<input type="radio"/>	-40	50	C	

# PhenoCam Gallery

Use left and right arrows to scroll through recent images



FLUXSUITE Map Stations Welcome, Superuser Setup Support Logout

diesel-12 PhenoCam Image Gallery

All Stations Dashboard Information Manage Alerts PhenoCam Gallery

2017-07-27

Download a set of images



 Download Multiple Images

# PhenoCam Gallery



 Download Multiple Images

Station Pictures		
Show	10	entries
		Search: <input type="text"/>
Date (yyyy-mm-dd)	Image Name	Actions
2017-03-30	2017_03_30_11_00_17_AIU-0208.jpg	 
2017-06-02	2017_06_02_11_00_15_AIU-0208.jpg	 
2017-06-02	2017_06_02_11_00_15_AIU-0208.jpg	 
2017-07-27	2017_07_27_11_00_19_AIU-0208.jpg	 
2017-07-28	2017_07_28_11_00_28_AIU-0208.jpg	 
2017-07-29	2017_07_29_11_00_23_AIU-0208.jpg	 
2017-07-30	2017_07_30_11_00_19_AIU-0208.jpg	 
2017-07-31	2017_07_31_11_00_21_AIU-0208.jpg	 
2017-08-01	2017_08_01_11_00_24_AIU-0208.jpg	 
2017-08-02	2017_08_02_11_00_21_AIU-0208.jpg	 

Showing 1 to 10 of 14 entries ◀ ▶

# Detailed View

All Stations **Dashboard** Information Manage Alerts PhenoCam Gallery

FLUXSUITE map stations Welcome, George Burba setup support logout

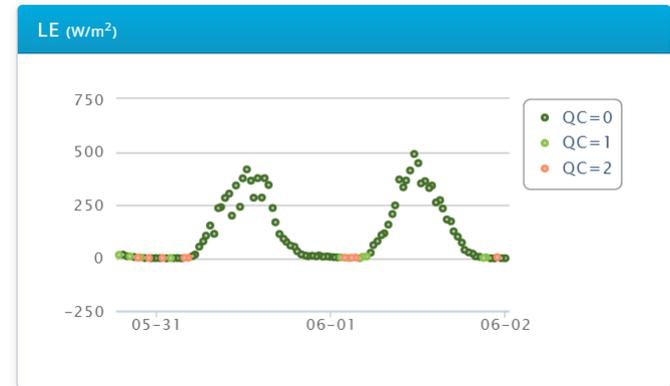
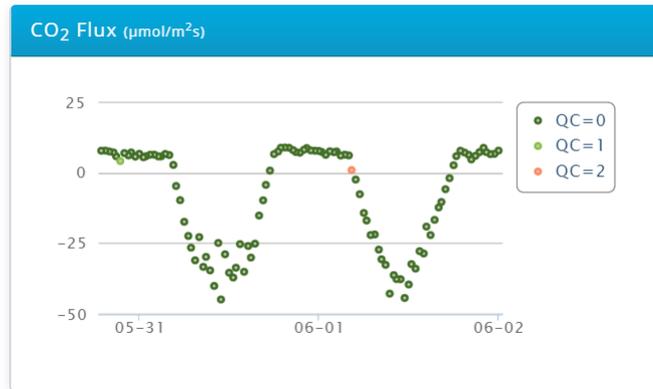
## AmeriFlux-CA LI-7200 Broadcasting Information

communications storage SF SMARTFlux™ LI-7500A sonic biomet information

0 errors and 0 warnings in the last 7 days. [Manage alerts](#)

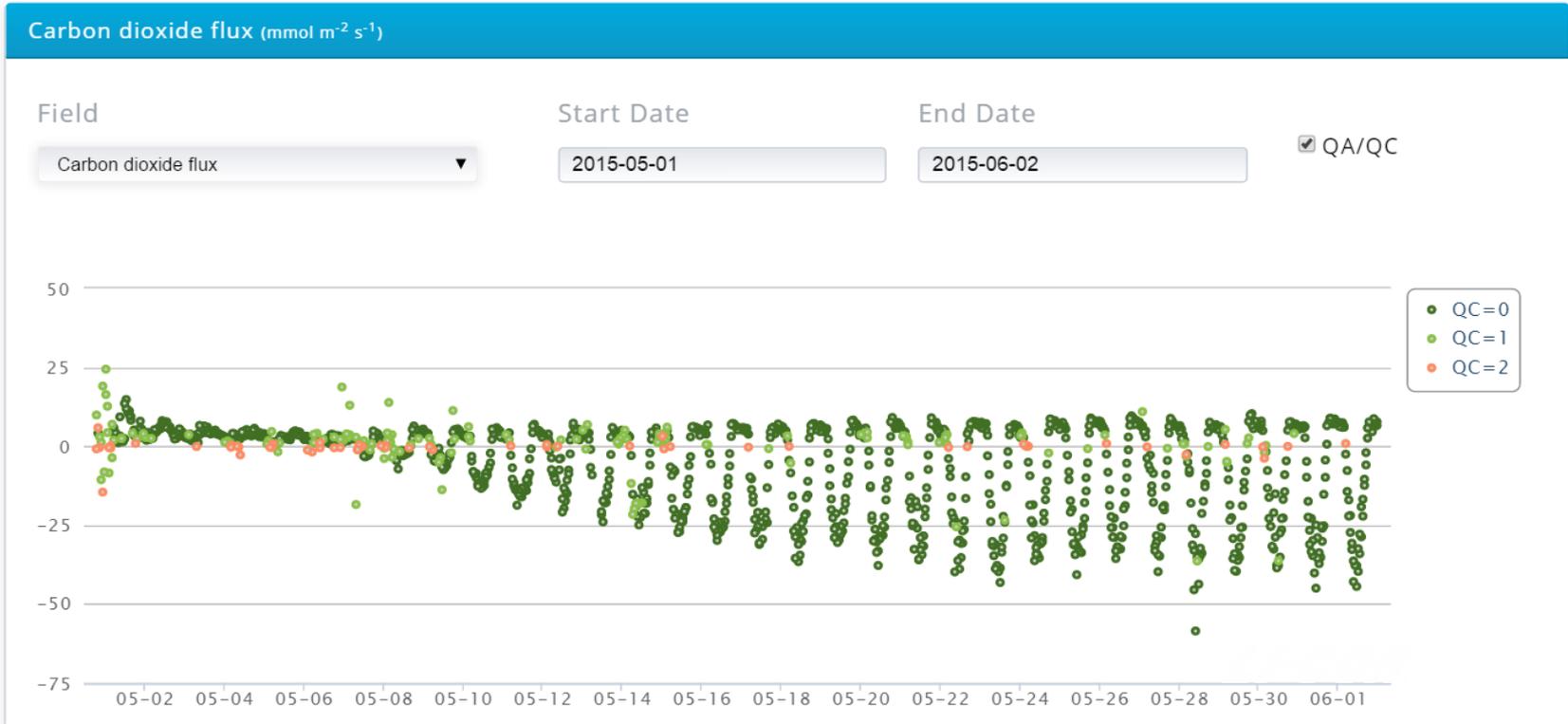
[Detail View](#) [Download Summary Report](#)  QA/QC

Another way to look at graphs



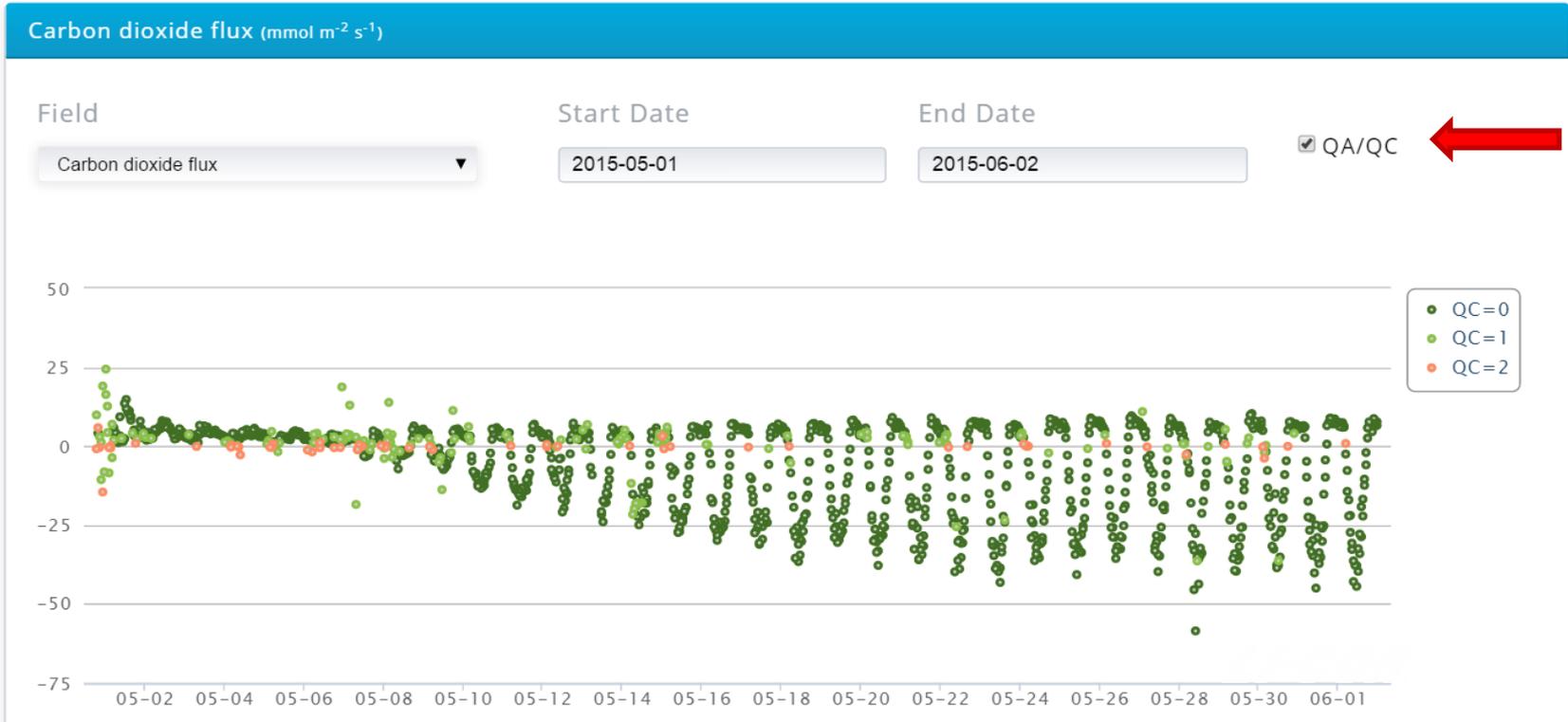
# Detailed View

## AmeriFlux-CA LI-7200 Detail View



# Detailed View

## AmeriFlux-CA LI-7200 Detail View



# Chart Order



Configurable  
dashboard

A screenshot of a dashboard configuration interface. At the top is a navigation bar with icons and labels for 'All Stations', 'Dashboard', 'Information', 'Manage Alerts', and 'PhenoCam Gallery'. Below this are five chart configuration boxes. 'Chart 1' has a dropdown menu with 'co2\_flux'. 'Chart 2' has a dropdown menu with 'LE'. 'Chart 3' has a dropdown menu with 'H'. 'Chart 4' has a dropdown menu with 'specific\_humidity'. 'Chart 5' has a dropdown menu with 'air\_pressure'. To the right of these is a 'Wind Rose' section with a dropdown menu showing '-- Fixed --'. At the bottom right are two buttons: a green 'Update' button and a red 'Cancel' button.

Configure the charts on the  
dashboard

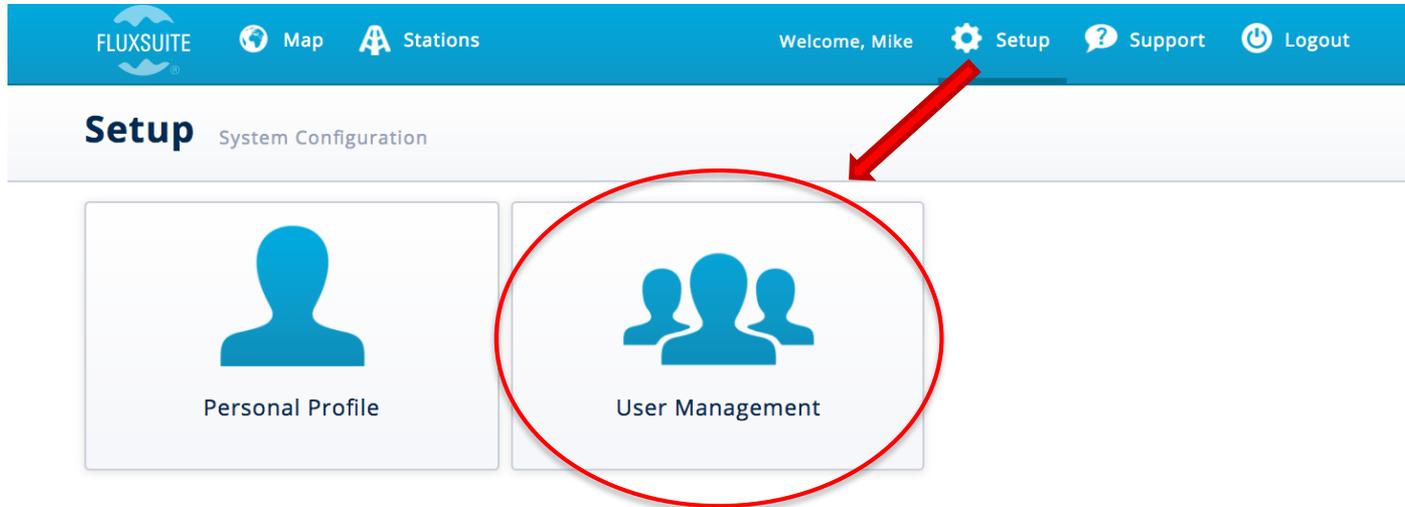
# Summary Reports



- For a specific date range, all 30 minute EddyPro summary results can be downloaded in one table

A screenshot of a software interface for downloading summary reports. It features a navigation bar at the top with 'Detail View' (selected), 'Chart Order', and 'QA/QC'. Below the navigation bar is a form with two date input fields: 'Start Date' with the value '2017-08-05' and 'End Date' with the value '2017-08-07'. To the right of the date fields are two buttons: 'Download' (highlighted in blue) and 'Cancel' (grey).

# User Management



Click Setup and then choose to modify your profile or manage another user's profile

# User Management

Add a new user

**Users** All Registered Users

Setup Options Personal Profile **Users**

Show 10 entries [+ add entry](#) Search:

Name	Email	Active	Roles	Created	Last Login	Action
Adam	adam.mcquistan@licor.com	✓	Station Admin, User Admin	2017-05-23 13:41	2017-07-28 20:39	<a href="#">i</a>
DaveJ	dave.johnson@licor.com	✓	Station Admin	2017-05-30 16:27	2017-05-30 16:28	<a href="#">i</a>
Eric	eric.price@licor.com	✓	Station Admin	2017-05-25 20:37	2017-06-02 15:26	<a href="#">i</a>
Frank	frank.griessbaum@licor.com	✓	Station Admin	2017-06-02 12:11	2017-06-07 08:06	<a href="#">i</a>
Fritz	fritz.grothe@licor.com	✓	Station Admin	2017-05-23 13:43	2017-05-25 19:34	<a href="#">i</a>
James	james.kathilankal@licor.com	✓	Station Admin	2017-05-24 20:47	2017-06-02 18:24	<a href="#">i</a>
Jiahong	jiahong.li@licor.com	✓	Station Admin	2017-05-23 16:50	2017-05-30 21:15	<a href="#">i</a>
Liukang Xu	liukang.xu@licor.com	✓	Station Admin	2017-05-30 16:28	2017-05-30 18:10	<a href="#">i</a>
Mike	michael.velgersdyk@licor.com	✓	Station Admin, User Admin	2017-08-07 02:02	2017-08-07 03:48	<a href="#">i</a>
Mike	mike.vanek@licor.com	✓	Station Admin	2017-05-23 13:43	2017-05-24 15:58	<a href="#">i</a>

Showing 1 to 10 of 11 entries

# User Management - Add a User

- Click the “add entry” button and enter a name and email address for the new account
- The email address will be the login name of the new account so it needs to be valid
- Click Save and then the account can be modified to add permissions and stations

Show  entries + add entry Search:

Name ▲	Email	Active	Roles	Created	Last Login	Action
<input type="text"/>	<input type="text"/>	<span style="color: green;">✔</span>				<div style="text-align: right;"><input type="button" value="Save"/> <input type="button" value="Cancel"/></div>
			Station			

# User Management

## Users All Registered Users

 Setup Options  Personal Profile  Users

Show  entries  add entry

Search:

Name	Email	Active	Roles	Created	Last Login	Action
Adam	adam.mcquistan@licor.com		Station Admin, User Admin	2017-05-23 13:41	2017-07-28 20:39	
DaveJ	dave.johnson@licor.com		Station Admin	2017-05-30 16:27	2017-05-30 16:28	
Eric	eric.price@licor.com		Station Admin	2017-05-25 20:37	2017-06-02 15:26	
Frank	frank.griessbaum@licor.com		Station Admin	2017-06-02 12:11	2017-06-07 08:06	
Fritz	fritz.grothe@licor.com		Station Admin	2017-05-23 13:43	2017-05-25 19:34	
James	james.kathilankal@licor.com		Station Admin	2017-05-24 20:47	2017-06-02 18:24	
Jiahong	jiahong.li@licor.com		Station Admin	2017-05-23 16:50	2017-05-30 21:15	
Liukang Xu	liukang.xu@licor.com		Station Admin	2017-05-30 16:28	2017-05-30 18:10	
Mike	michael.velgersdyk@licor.com		Station Admin, User Admin	2017-08-07 02:02	2017-08-07 03:48	
Mike	mike.vanek@licor.com		Station Admin	2017-05-23 13:43	2017-05-24 15:58	

Showing 1 to 10 of 11 entries

Edit existing user



# User Management

- Defining users, access and rights

The screenshot displays the FLUXSUITE user management interface. The top navigation bar includes the FLUXSUITE logo, a search icon, and a user profile icon. The main header shows 'Welcome, Michael' and navigation icons for 'Map', 'Stations', 'Setup', 'Support', and 'Logout'.

The 'Users' section shows a list of registered users. A dashed blue box highlights the user 'Dr. Bilbo Baggins' in the list, with a dashed blue line connecting it to the detailed user profile view on the right.

Name	Email	Active	Roles	Created	Last Login	Action
Alicia	alicia.minzel@licor.com	✓	Station Admin, Super User, User Admin			
Dave	dave.johnson@licor.com	✓	Station Admin, Super User, User Admin			
Douglas	douglas.allen@licor.com	✓	Station Admin, Super User, User Admin			
Dr. Bilbo Baggins	BBaggins@middleearth.org	✓				
Kristen	kristen.skolaut@licor.com	✓	Station Admin, Super User, User Admin			
Michael	michael.velgersdyk@licor.com	✓	Station Admin, User Admin			
Paula	paula.leibbrandt@licor.com	✓	Station Admin, User Admin			

The detailed user profile for 'Dr. Bilbo Baggins' includes the following information:

- Name:** Dr. Bilbo Baggins
- Email:** Bilba.Labingl@middleearth.org
- Position:** Hobbit
- Cell:**
- Department:** Retired
- Phone:**
- Institution:**
- Address:** Bilbo Colles, Titan
- License Number:** FS-00002

Below the profile, there are buttons for 'Reset Password' and 'Deactivate User'. A 'Roles' section shows radio buttons for 'Station Admin' and 'User Admin', with 'Station Admin' selected.

The 'Assigned Stations' section shows a list of stations with columns for 'Station Name', 'Edit Station Info', 'Download Data', 'Manage Users', 'Manage Alerts', 'Subscribe to Alerts', and 'Action'.

Station Name	Edit Station Info	Download Data	Manage Users	Manage Alerts	Subscribe to Alerts	Action
LEERS-72H-0181	<input type="radio"/>	✓	<input type="radio"/>	<input type="radio"/>	✓	✗
LEERS-75H-2035	<input type="radio"/>	✓	<input type="radio"/>	✓	✓	✗

# Edit User

**Ted** User Profile

Setup Options Personal Profile **Users**

	<b>Name:</b> Ted	<b>Email:</b> ted@ecotek.cn
	<b>Position:</b>	<b>Cell:</b>
	<b>Department:</b>	<b>Phone:</b>
	<b>Institution:</b>	<b>Address:</b>
	<b>License Number:</b> FS-00001	

Edit personal information

**Roles**

Station Admin

User Admin

Change roles for the new user  
-Allow them to add stations and users to the system

**Reset Password** **Deactivate User**

Send password reset email to the user or deactivate the account

## Assigned Stations

Show  entries [+ add entry](#) Search:

Station Name	Edit Station Info	Download Data	Manage Users	Manage Alerts	Subscribe to Alerts	Action
No data available in table						

Showing 0 to 0 of 0 entries

Allow the user to 'see' a station

# Assign Stations

## Assigned Stations

Show  entries + add entry Search:

Station Name ▲	Edit Station Info ◄	Download Data ◄	Manage Users ◄	Manage Alerts ◄	Subscribe to Alerts ◄	Action ◄
<input type="text" value="Diesel 13"/>	<input type="checkbox"/> Edit Station Info	<input type="checkbox"/> Download Data	<input type="checkbox"/> Manage Users	<input type="checkbox"/> Manage Alerts	<input checked="" type="checkbox"/> Subscribe to Alerts	<input type="button" value="Save"/> <input type="button" value="Cancel"/>

Showing 1 to 1 of 1 entries

Station selection

Permissions

Click "add entry" to assign a station to a user  
Choose the station from the list  
Select permissions for this user on the station  
Click Save

# User Information

Profile information for each user

Edit

The screenshot shows a user profile for 'Mike'. At the top, there is a navigation bar with 'Setup Options', 'Personal Profile', 'Users', and 'Groups'. Below this is a profile card for 'Mike' with a silhouette icon. The profile details are as follows:

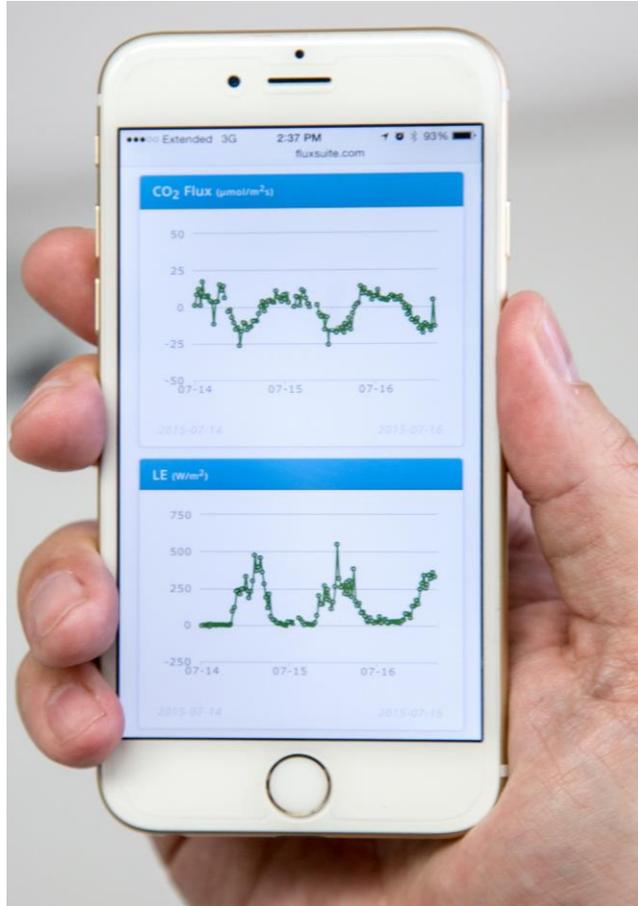
<b>Name:</b> Mike	<b>Email:</b> michael.velgersdyk@licor.com
<b>Position:</b> Software Engineer	<b>Cell:</b> 555-1212
<b>Department:</b> Engineering	<b>Phone:</b>
<b>Institution:</b> LI-COR	<b>Address:</b> Lanzhou, China
<b>License Number:</b> FS-00001	

Below the profile details is a blue button labeled 'Reset Password'. Annotations include a blue arrow pointing from the text 'Profile information for each user' to the profile card, another blue arrow pointing from the text 'Edit' to the top right corner of the profile card, and a third blue arrow pointing from the text 'Reset Password' to the 'Reset Password' button.

Reset Password

# Mobile Access

Station snapshot



Flux details



Quality-controlled fluxes



**LI-COR®**

**LI-COR®**

Thank You  
Questions?

