



BADM [Biological, Ancillary, Disturbance, & Metadata]

Overview with emphasis on flux-met metadata

2023 Data Tech Workshop
May 11th, 2023
Berkeley/online

Agenda

BADM Basics

Where to find BADM

How to Submit BADM

BADM for flux-met data

Resources

Agenda

BADM Basics

Where to find BADM

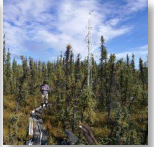
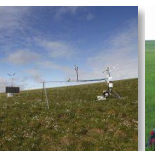
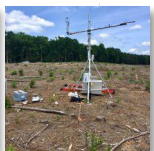
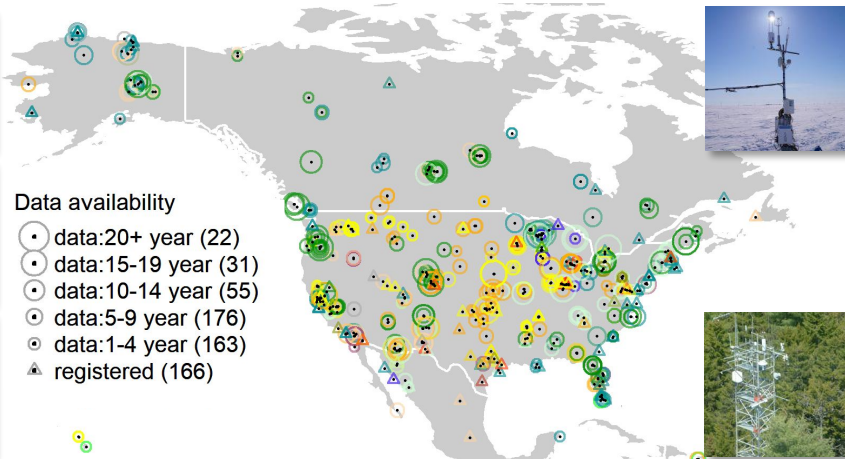
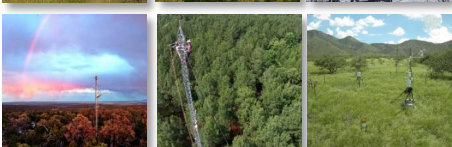
How to Submit BADM

BADM for flux-met data

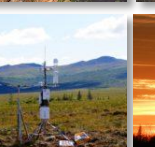
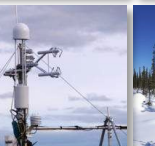
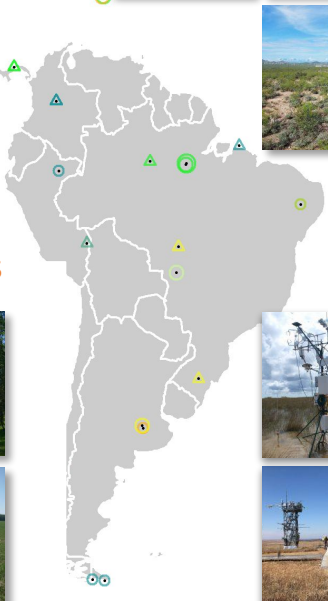
Resources



Image credit: Rachel Holograss



613 sites
 447 w/ data
 3,157 site-years
 5,492 data users
 31,644 downloads

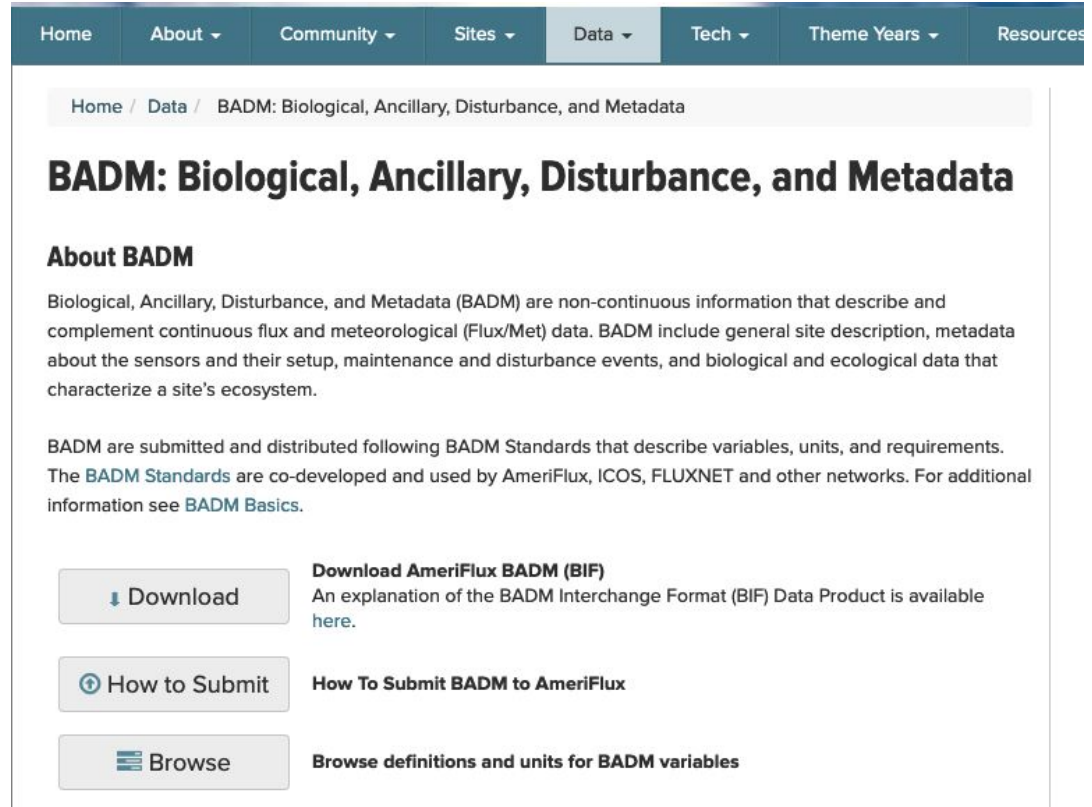


BADM provides context

Standardized format for AmeriFlux, Fluxnet, ICOS, etc.

Contextual data for sites

- Interpret Flux/Met data
- Ecosystem characteristics
- Disturbances
- Intermittent measurements



The screenshot shows the AmeriFlux website's navigation menu with options: Home, About, Community, Sites, Data, Tech, Theme Years, and Resources. The breadcrumb trail is Home / Data / BADM: Biological, Ancillary, Disturbance, and Metadata. The main heading is **BADM: Biological, Ancillary, Disturbance, and Metadata**. Below it is the section **About BADM** with a paragraph explaining that BADM are non-continuous information that describe and complement continuous flux and meteorological (Flux/Met) data. It includes general site description, metadata about sensors and their setup, maintenance and disturbance events, and biological and ecological data that characterize a site's ecosystem. A second paragraph states that BADM are submitted and distributed following BADM Standards that describe variables, units, and requirements. The BADM Standards are co-developed and used by AmeriFlux, ICOS, FLUXNET and other networks. For additional information see [BADM Basics](#). At the bottom, there are three buttons: 'Download' with a downward arrow icon, 'How to Submit' with a circular arrow icon, and 'Browse' with a list icon. To the right of each button is a short description: 'Download AmeriFlux BADM (BIF)' with a link to an explanation of the BIF Data Product; 'How To Submit BADM to AmeriFlux'; and 'Browse definitions and units for BADM variables'.

Home / Data / BADM: Biological, Ancillary, Disturbance, and Metadata

BADM: Biological, Ancillary, Disturbance, and Metadata

About BADM

Biological, Ancillary, Disturbance, and Metadata (BADM) are non-continuous information that describe and complement continuous flux and meteorological (Flux/Met) data. BADM include general site description, metadata about the sensors and their setup, maintenance and disturbance events, and biological and ecological data that characterize a site's ecosystem.

BADM are submitted and distributed following BADM Standards that describe variables, units, and requirements. The [BADM Standards](#) are co-developed and used by AmeriFlux, ICOS, FLUXNET and other networks. For additional information see [BADM Basics](#).


[Download](#) **Download AmeriFlux BADM (BIF)**
An explanation of the BADM Interchange Format (BIF) Data Product is available [here](#).

[How to Submit](#) **How To Submit BADM to AmeriFlux**

[Browse](#) **Browse definitions and units for BADM variables**

<https://ameriflux.lbl.gov/data/badm/>

Examples of BADM: Site General Info


AMERIFLUX

Home
About ▾
Community ▾
Sites ▾
Data ▾
Tech ▾
Theme Years ▾
Resources ▾
🔍
👤 ▾

Home / Sites / Siteinfo / BR-Npw

Quick Sites: Recents ▾ Favorites ▾

BR-Npw: Northern Pantanal Wetland

Overview	Windroses	DOI	Data Use Log	Image Gallery	MODIS	Publications	BADM
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Tower_team:

PI: George Vourlitis georgev@csusm.edu - California State University, San Marcos

PI: Higo Dalmagro higo@dalmagro@gmail.com - Universidade de Cuiabá

PI: José de S. Nogueira nogueira@ufmt.br - Universidade Federal de Mato Grosso

PI: Mark Johnson mark.johnson@ubc.ca - University of British Columbia

PI: Paulo Arruda paulo.zanella@gmail.com - Universidade Federal de Mato Grosso

Lat, Long: -16.4980, -56.4120

Elevation(m): 120

Network Affiliations: AmeriFlux

Vegetation IGBP: WSA (Woody Savannas: Lands with herbaceous and other understory systems, and with forest canopy cover between 30-60%. The forest cover height exceeds 2 meters.)

Climate Koeppen: Aw (Tropical savanna)

Mean Annual Temp (°C): 24.9

Mean Annual Precip. (mm): 1486

Flux Species Measured: CO₂, CH₄, H, H₂O

Years Data Collected: 2013 - 2017


Years Data Available: 2013 - 2017 [DOIs to use for Citation of Data](#)

Description: The site is located in the northern Pantanal in central South America. The site is subject to seasonal flooding with distinct wet seasons (November to ... [See More](#))

URL: —

Research Topics: Carbon fluxes, wetland processes

Acknowledgment: Brazilian National Institute for Science and Technology in Wetlands (INCT-INAU), Federal University of Mato Grosso (UFMT - PGFA and PGAT), University of Cuiabá (UNIC) and SESC-Pantanal.



Map data ©2021 Terms of Use

Site Photo [More Site Images](#)




Image Credit: Higo Dalmagro
Copyright preference: As long as credit is given

Site Publication [More Site Publications](#)

2 Examples of BADM: DOI

AmeriFlux BR-Npw Northern Pantanal Wetland

Dataset Creator(s)

Name George Vourlitis
Email georgev@csusm.edu
Affiliation California State University, San Marcos

Name Higo Dalmagro
Email higojdalmagro@gmail.com
Affiliation Universidade de Cuiabá

Name José de S. Nogueira
Email nogueira@ufmt.br
Affiliation Universidade Federal de Mato Grosso

Name Mark Johnson
Email mark.johnson@ubc.ca
Affiliation University of British Columbia

Name Paulo Arruda
Email paulo.zanella@gmail.com
Affiliation Universidade Federal de Mato Grosso

Dataset Description

This is the AmeriFlux version of the carbon flux data for the site BR-Npw Northern Pantanal Wetland. Site Description - The site is located in the northern Pantanal in central South America. The site is subject to seasonal flooding with distinct wet seasons (November to April) and dry seasons (May to October).

Dataset Information

Originating Research Organization(s) California State University, San Marcos
Universidade de Cuiabá
Universidade Federal de Mato Grosso
University of British Columbia

Country Brazil

Sponsor Organization(s) CNPq
INCT-INAJI



USEFUL LINKS

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[Tech Blog](#)
[Data Blog](#)
[Safety](#)
[Research Highlights](#)
[Publications](#)
[AmeriFlux Flyers](#)

3 Examples of BADM: Many more...



Root Depth
Soil Characterization



US-HB4: Minim Creek Brackish Impoundment

Sensor calibration/installation
Sensor location



BADM organization: Types, Groups & Variables

Browse BADM Standards

<https://ameriflux.lbl.gov/data/badm/badm-standards/>

BADM Standards define the variables, units, and requirements for BADM. BADM are organized into a hierarchy: types, groups, subgroups (optional), and variables. See [BADM Basics](#) for more details.

Browse BADM Variables by Group

Click a BADM group below (organized by types) to view details for the group. A customizable CSV file can be generated on the group page for BADM submission to AmeriFlux. BADM Standards in MS Excel files can be downloaded [here](#). Some BADM types (e.g., Biomass, CNKP, Fluxes) are scheduled for update. Contact ameriflux-support@lbl.gov, if you are looking for BADM groups not included on this page.

Site General Info

- [COUNTRY](#) (Geographic Country)
- [URL_AMERIFLUX](#) (AmeriFlux URL)
- [HEADER](#) (Site ID, Site Name, Submission details)
- [TEAM_MEMBER](#) (Team Membership)
- [TEAM_CONTACT](#)
- [SHIPPING_ADDRESS](#)
- [NETWORK](#) (Network Affiliations)
- [FLUX_MEASUREMENTS](#)
- [STATE](#) (Geographic State)
- [SITE_DESC](#) (Site Description)
- [RESEARCH_TOPIC](#)
- [SITE_FUNDING](#)
- [LOCATION](#) (Geographic Location)
- [IGBP](#) (International Geosphere-Biosphere Programme)
- [LAND_OWNERSHIP](#)
- [URL](#) (Site Website)
- [REFERENCE_PAPER](#) (References)
- [ACKNOWLEDGEMENT](#)
- [UTC_OFFSET](#)

Instrument

- [INST](#) (Instrument Information)
- [INSTPAIR](#) (Instrument Pairing Information)

BADM Type → Disturbance and Management

- [DM_AGRICULTURE](#) (Crop Management)
- [DM_ENCROACH](#) (Encroachment)
- [DM_EXT_WEATHER](#) (Extreme Weather)
- [DM_FERT_M](#) (Mineral Fertilization)
- [DM_FERT_O](#) (Organic Fertilization)
- [DM_FIRE](#) (Fire)
- [DM_FORESTRY](#) (Forestry Management)
- [DM_GRAZE](#) (Grazing)
- [DM_INS_PATH](#) (Insect, Pathogen, Disease)
- [DM_PESTICIDE](#) (Pesticide Application)
- [DM_PLANTING](#) (Planting)
- [DM_TILL](#) (Tillage)
- [DM_WATER](#) (Water Management)
- [DM_GENERAL](#) (General Disturbance)

BADM Groups

BADM organization: Types, Groups & Variables

https://ameriflux.lbl.gov/data/badm/badm-standards/DM_AGRICULTURE

Home / Data / BADM / BADM Standards / DM_AGRICULTURE

Quick Sites: Recents Favorites

BADM Group: DM_AGRICULTURE

BADM Type: Disturbance and Management

Description: Crop Management

Group Entries per Site: Multiple

Last updated: Mar 02, 2021

Overview

Definitions & Units

Examples

Customize CSV

BADM variables: Definitions, Units, Requirements

See Overview tab or [BADM Basics](#) for explanation of Required and Optional variables.

Multiple entries of this BADM group can be reported per site. However, combinations of © variables must be unique. Read more: [?](#)

Show All LIST Options

Hide All LIST Options

* Required Variable
Optional Variable
© Combinations
? Examples

Variable	Units	Description
Requirements		
* DM_AGRICULTURE <i>Required</i>	LIST(DM_AGRICULTURE) Show	Crop management such as harvest or crop residue management
DM_SURF <i>Optional</i>	%	Percentage of the footprint area affected by the event
DM_SURF_MEAS_UNC <i>Optional</i>	%	Percentage of the footprint area affected by the event measurement uncertainty
* DM_DATE © <i>Required-a</i>	YYYYMMDDHHMM	Date of site disturbance ? Please report the date at the precision known. Allowed reporting precision are YYYY, YYYYMMDD, and YYYYMMDDHHMM.
* DM_DATE_START © <i>Required-a</i>	YYYYMMDDHHMM	Start date of site disturbance ? Please report the start date at the precision known. Allowed reporting precision are YYYY, YYYYMMDD, and YYYYMMDDHHMM.
* DM_DATE_END <i>Required</i>	YYYYMMDDHHMM	End date of site disturbance ? Please report the end date at the precision known. Allowed reporting precision are YYYY, YYYYMMDD, and YYYYMMDDHHMM.

BADM Variables

BADM organization: Types, Groups & Variables

https://ameriflux.lbl.gov/data/badm/badm-standards/DM_AGRICULTURE

Home / Data / BADM / BADM Standards / DM_AGRICULTURE

Quick Sites: Recents Favorites

BADM Group: DM_AGRICULTURE

BADM Type: Disturbance and Management

Description: Crop Management

Group Entries per Site: Multiple

Last updated: Mar 02, 2024

Overview

Definitions & Units

Examples ↕

Customize CSV

BADM variables: Definitions, Units, Requirements

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Show All LIST Options

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Optional Variable
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↕ Examples

Variable	Units	Description
Requirements		
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BADM Variables

Where to find **BADM**: with downloaded data

https://ameriflux.lbl.gov/data/download-data/

Home / Data / Download

Quick Sites:

Recents

Favorites

Download Data

1. Select A Data Product

✓ AmeriFlux BASE

2. Refine Your Selection

✓ CC-BY-4.0 | Multi-site BADM

3. Select Sites

✓ 1 selected

4. Agree to Policy

✓ Agreed

5. Download Data

✓ Files ready

The download links below will require re-generation if you navigate away from the Download Data page or Step 5.

Download Info

[README](#) [Requested_Files](#) [Citations_for_Site_Data](#) [Team_Contacts_for_Site_Data](#) [AmeriFlux_CC-BY-4.0_Data_License](#)

Multi-site Metadata (BADM)

Download height/depth and instrument model information at [Measurement Height](#).



[AA-Fix_BIF](#) (BADM for sites with AmeriFlux BASE) [AA-Net_BIF](#) (BADM for all sites)



Site Data

Click on a link below to download that site's file. Consider using a 3rd party browser tool like [DownThemAll!](#) (FireFox, Chrome) to download all the files at once. 

[US-ARM_BASE-BADM](#)



◀ Previous

Where to find **BADM: BIF xlsx files** (from Download Data)

<https://ameriflux.lbl.gov/data/aboutdata/badm-data-product/>

AMF_<SITE_ID>_BIF_YYYYMMDD.xlsx

AMF	This represents the publishing network, in this case, AmeriFlux.
<SITE_ID>	<p>For site-specific information, the Site ID will be that of a specific site. We use a site ID of AA-xxx to identify files containing data from multiple sets. The two site IDs in use are:</p> <p>AA-Fix: Data in this file is aggregated across all sites with flux data. AA-Net: Data in this file is aggregated across all sites in the network.</p>
BIF	Indicates that the information is listed in BIF (short for BADM Interchange Format) format that enables the BADM data to be read programmatically. The BIF format consists of 5 columns: site ID, group ID, variable group name, variable name, and data value. A variable group is a set of variables that are reported together (e.g. a variable value, the date it was collected, and the method used to collect it). Sites may report multiple instances of the same variable group associated with different measurements collected over time, plant species, soil depths, collection methods, etc. The group ID uniquely identifies the data belonging to the same instance of a reported variable group. The variable names and data value provide the details of the reported data within a variable group.
YYYYMMDD	Indicates the date on which the BADM information was made available. If the BADM is part of a zip file, any changes to the BADM file do not increment the version of the zip file.

Where to find **BADM: BIF** xlsx files (from Download Data)

AMF_AA-Net_BIF_CCBY4_20230331.xlsx

	A	B	C	D	E
1	SITE_ID	GROUP_ID	VARIABLE_GROUP	VARIABLE	DATAVALUE
2	AR-TF1	27001056	GRP_COUNTRY	COUNTRY	Argentina
3	AR-TF1	87122	GRP_DOI	DOI	10.17190/AMF/1543389
	AR-TF1	87122	GRP_DOI	DOI_CITATION	Lars Kutzbach (2021), AmeriFlux BASE AR-TF1 Rio Moat bog, Ver. 2-5, AmeriFlux AMP, (Dataset). https://doi.org/10.17190/AMF/1543389
4					
5	AR-TF1	87122	GRP_DOI	DOI_DATAPRODUCT	AmeriFlux
6	AR-TF1	86902	GRP_DOI_CONTRIBUTOR	DOI_CONTRIBUTOR_DATAPRODUCT	AmeriFlux
7	AR-TF1	86902	GRP_DOI_CONTRIBUTOR	DOI_CONTRIBUTOR_NAME	Lars Kutzbach
8	AR-TF1	86902	GRP_DOI_CONTRIBUTOR	DOI_CONTRIBUTOR_ROLE	Author
9	AR-TF1	86902	GRP_DOI_CONTRIBUTOR	DOI_CONTRIBUTOR_EMAIL	lars.kutzbach@uni-hamburg.de
10	AR-TF1	86902	GRP_DOI_CONTRIBUTOR	DOI_CONTRIBUTOR_INSTITUTION	Universität Hamburg
11	AR-TF1	86919	GRP_DOI_ORGANIZATION	DOI_ORGANIZATION	Universität Hamburg
12	AR-TF1	86919	GRP_DOI_ORGANIZATION	DOI_ORGANIZATION_ROLE	Originator
13	AR-TF1	86918	GRP_DOI_ORGANIZATION	DOI_ORGANIZATION	DFG
14	AR-TF1	86918	GRP_DOI_ORGANIZATION	DOI_ORGANIZATION_ROLE	Sponsor
15	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_METHOD	Eddy Covariance
16	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_VARIABLE	CO2
17	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_START	201601311800
18	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_END	201805171700
19	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_OPERATIONS	Continuous operation
20	AR-TF1	86263	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_METHOD	Eddy Covariance
21	AR-TF1	86263	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_VARIABLE	H
22	AR-TF1	86263	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_START	201601311800
23	AR-TF1	86263	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_END	201805171700
24	AR-TF1	86263	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_OPERATIONS	Continuous operation
25	AR-TF1	86255	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_METHOD	Eddy Covariance
26	AR-TF1	86255	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_VARIABLE	H2O
27	AR-TF1	86255	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_START	201601311800
28	AR-TF1	86255	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_END	201805171700
29	AR-TF1	86255	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_OPERATIONS	Continuous operation
30	AR-TF1	23001056	GRP_HEADER	SITE_NAME	Rio Moat bog

Where to find **BADM: BIF xlsx files** (from Download Data)



Use **GROUP_ID** to find related variables

	A	B	C	D	E
1	SITE_ID	GROUP_ID	VARIABLE_GROUP	VARIABLE	DATAVALUE
2	AR-TF1	27001056	GRP_COUNTRY	COUNTRY	Argentina
3	AR-TF1	87122	GRP_DOI	DOI	10.17190/AMF/1543389
	AR-TF1	87122	GRP_DOI	DOI_CITATION	Lars Kutzbach (2021), AmeriFlux BASE AR-TF1 Rio Moat bog, Ver. 2-5, AmeriFlux AMP, (Dataset). https://doi.org/10.17190/AMF/1543389
4					
5	AR-TF1	87122	GRP_DOI	DOI_DATAPRODUCT	AmeriFlux
6	AR-TF1	86902	GRP_DOI_CONTRIBUTOR	DOI_CONTRIBUTOR_DATAPRODUCT	AmeriFlux
7	AR-TF1	86902	GRP_DOI_CONTRIBUTOR	DOI_CONTRIBUTOR_NAME	Lars Kutzbach
8	AR-TF1	86902	GRP_DOI_CONTRIBUTOR	DOI_CONTRIBUTOR_ROLE	Author
9	AR-TF1	86902	GRP_DOI_CONTRIBUTOR	DOI_CONTRIBUTOR_EMAIL	lars.kutzbach@uni-hamburg.de
10	AR-TF1	86902	GRP_DOI_CONTRIBUTOR	DOI_CONTRIBUTOR_INSTITUTION	Universität Hamburg
11	AR-TF1	86919	GRP_DOI_ORGANIZATION	DOI_ORGANIZATION	Universität Hamburg
12	AR-TF1	86919	GRP_DOI_ORGANIZATION	DOI_ORGANIZATION_ROLE	Originator
13	AR-TF1	86918	GRP_DOI_ORGANIZATION	DOI_ORGANIZATION	DFG
14	AR-TF1	86918	GRP_DOI_ORGANIZATION	DOI_ORGANIZATION_ROLE	Sponsor
15	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_METHOD	Eddy Covariance
16	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_VARIABLE	CO2
17	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_START	201601311800
18	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_END	201805171700
19	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_OPERATIONS	Continuous operation
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22	AR-TF1	86263	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_START	201601311800
23	AR-TF1	86263	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_END	201805171700
24	AR-TF1	86263	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_OPERATIONS	Continuous operation
25	AR-TF1	86255	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_METHOD	Eddy Covariance
26	AR-TF1	86255	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_VARIABLE	H2O
27	AR-TF1	86255	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_START	201601311800
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29	AR-TF1	86255	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_OPERATIONS	Continuous operation
30	AR-TF1	23001056	GRP_HEADER	SITE_NAME	Rio Moat bog

Where to find **BADM: BIF** **xlsx** files (from Download Data)

Browse BADM Standards <https://ameriflux.lbl.gov/data/badm/badm-standards/>

	A	B	C	D	E
1	SITE_ID	GROUP_ID	VARIABLE_GROUP	VARIABLE	DATAVALUE
2	AR-TF1	27001056	GRP_COUNTRY	COUNTRY	Argentina
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	AR-TF1	87122	GRP_DOI	DOI_CITATION	Lars Kutzbach (2021), AmeriFlux BASE AR-TF1 Rio Moat bog, Ver. 2-5, AmeriFlux AMP, (Dataset). https://doi.org/10.17190/AMF/1543389
4					
5	AR-TF1	87122	GRP_DOI	DOI_DATAPRODUCT	AmeriFlux
6	AR-TF1	86902	GRP_DOI_CONTRIBUTOR	DOI_CONTRIBUTOR_DATAPRODUCT	AmeriFlux
7	AR-TF1	86902	GRP_DOI_CONTRIBUTOR	DOI_CONTRIBUTOR_NAME	Lars Kutzbach
8	AR-TF1	86902	GRP_DOI_CONTRIBUTOR	DOI_CONTRIBUTOR_ROLE	Author
9	AR-TF1	86902	GRP_DOI_CONTRIBUTOR	DOI_CONTRIBUTOR_EMAIL	lars.kutzbach@uni-hamburg.de
10	AR-TF1	86902	GRP_DOI_CONTRIBUTOR	DOI_CONTRIBUTOR_INSTITUTION	Universität Hamburg
11	AR-TF1	86919	GRP_DOI_ORGANIZATION	DOI_ORGANIZATION	Universität Hamburg
12	AR-TF1	86919	GRP_DOI_ORGANIZATION	DOI_ORGANIZATION_ROLE	Originator
13	AR-TF1	86918	GRP_DOI_ORGANIZATION	DOI_ORGANIZATION	DFG
14	AR-TF1	86918	GRP_DOI_ORGANIZATION	DOI_ORGANIZATION_ROLE	Sponsor
15	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_METHOD	Eddy Covariance
16	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_VARIABLE	CO2
17	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_START	201601311800
18	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_END	201805171700
19	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_OPERATIONS	Continuous operation
20	AR-TF1	86263	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_METHOD	Eddy Covariance
21	AR-TF1	86263	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_VARIABLE	H
22	AR-TF1	86263	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_START	201601311800
23	AR-TF1	86263	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_END	201805171700
24	AR-TF1	86263	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_OPERATIONS	Continuous operation
25	AR-TF1	86255	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_METHOD	Eddy Covariance
26	AR-TF1	86255	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_VARIABLE	H2O
27	AR-TF1	86255	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_START	201601311800
28	AR-TF1	86255	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_END	201805171700
29	AR-TF1	86255	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_OPERATIONS	Continuous operation
30	AR-TF1	23001056	GRP_HEADER	SITE_NAME	Rio Moat bog

Where to find **BADM: BIF** **xlsx** files (from Download Data)

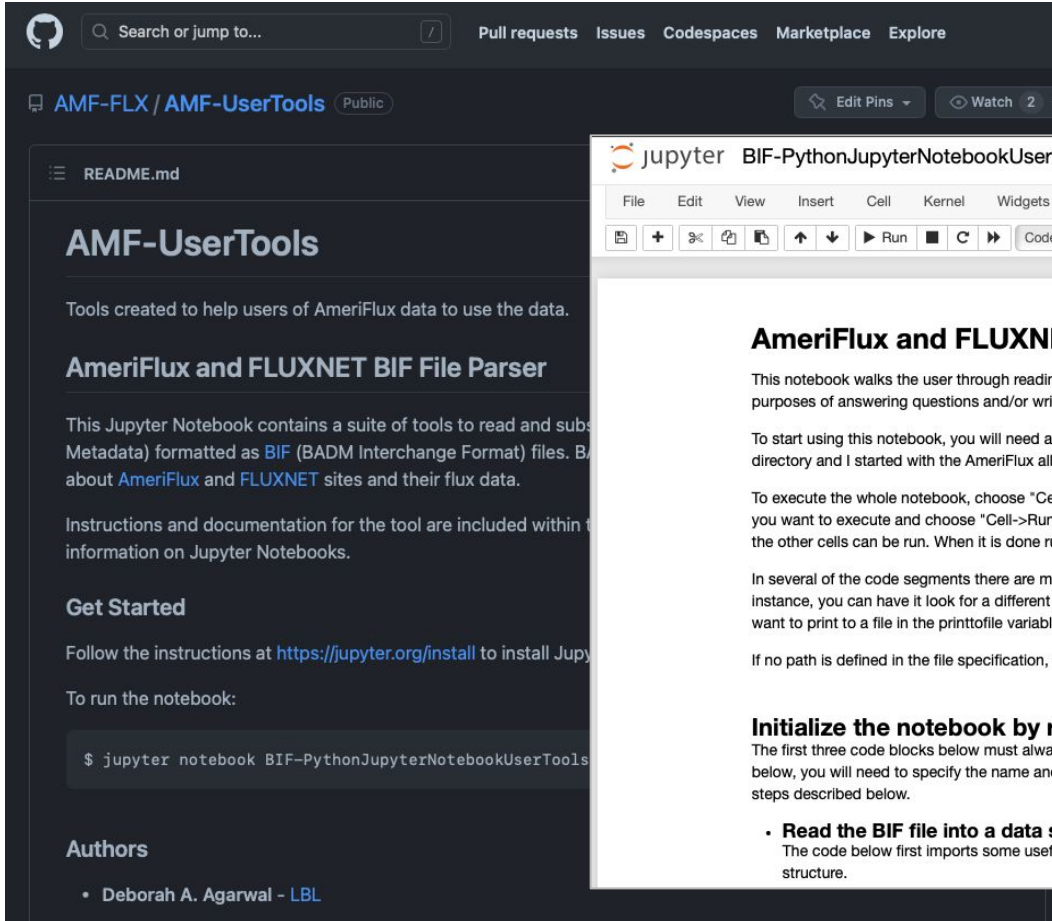
↓ SITE_ID

↓ DATA

	A	B	C	D	E
1	SITE_ID	GROUP_ID	VARIABLE_GROUP	VARIABLE	DATAVALUE
2	AR-TF1	27001056	GRP_COUNTRY	COUNTRY	Argentina
3	AR-TF1	87122	GRP_DOI	DOI	10.17190/AMF/1543389
4	AR-TF1	87122	GRP_DOI	DOI_CITATION	Lars Kutzbach (2021), AmeriFlux BASE AR-TF1 Rio Moat bog, Ver. 2-5, AmeriFlux AMP, (Dataset). https://doi.org/10.17190/AMF/1543389
5	AR-TF1	87122	GRP_DOI	DOI_DATAPRODUCT	AmeriFlux
6	AR-TF1	86902	GRP_DOI_CONTRIBUTOR	DOI_CONTRIBUTOR_DATAPRODUCT	AmeriFlux
7	AR-TF1	86902	GRP_DOI_CONTRIBUTOR	DOI_CONTRIBUTOR_NAME	Lars Kutzbach
8	AR-TF1	86902	GRP_DOI_CONTRIBUTOR	DOI_CONTRIBUTOR_ROLE	Author
9	AR-TF1	86902	GRP_DOI_CONTRIBUTOR	DOI_CONTRIBUTOR_EMAIL	lars.kutzbach@uni-hamburg.de
10	AR-TF1	86902	GRP_DOI_CONTRIBUTOR	DOI_CONTRIBUTOR_INSTITUTION	Universität Hamburg
11	AR-TF1	86919	GRP_DOI_ORGANIZATION	DOI_ORGANIZATION	Universität Hamburg
12	AR-TF1	86919	GRP_DOI_ORGANIZATION	DOI_ORGANIZATION_ROLE	Originator
13	AR-TF1	86918	GRP_DOI_ORGANIZATION	DOI_ORGANIZATION	DFG
14	AR-TF1	86918	GRP_DOI_ORGANIZATION	DOI_ORGANIZATION_ROLE	Sponsor
15	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_METHOD	Eddy Covariance
16	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_VARIABLE	CO2
17	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_START	201601311800
18	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_END	201805171700
19	AR-TF1	86258	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_OPERATIONS	Continuous operation
20	AR-TF1	86263	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_METHOD	Eddy Covariance
21	AR-TF1	86263	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_VARIABLE	H
22	AR-TF1	86263	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_START	201601311800
23	AR-TF1	86263	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_END	201805171700
24	AR-TF1	86263	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_OPERATIONS	Continuous operation
25	AR-TF1	86255	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_METHOD	Eddy Covariance
26	AR-TF1	86255	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_VARIABLE	H2O
27	AR-TF1	86255	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_START	201601311800
28	AR-TF1	86255	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_DATE_END	201805171700
29	AR-TF1	86255	GRP_FLUX_MEASUREMENTS	FLUX_MEASUREMENTS_OPERATIONS	Continuous operation
30	AR-TF1	23001056	GRP_HEADER	SITE_NAME	Rio Moat bog

BIF xlsx file parser on GitHub

<https://github.com/AMF-FLX/AMF-UserTools>



GitHub repository page for **AMF-FLX / AMF-UserTools** (Public).

Navigation: Pull requests, Issues, Codespaces, Marketplace, Explore

Repository: **AMF-UserTools**

README.md

AMF-UserTools

Tools created to help users of AmeriFlux data to use the data.

AmeriFlux and FLUXNET BIF File Parser

This Jupyter Notebook contains a suite of tools to read and subset (Metadata) formatted as BIF (BADM Interchange Format) files. Browse about [AmeriFlux](#) and [FLUXNET](#) sites and their flux data.

Instructions and documentation for the tool are included within the information on Jupyter Notebooks.

Get Started


Follow the instructions at <https://jupyter.org/install> to install Jupyter.

To run the notebook:

```
$ jupyter notebook BIF-PythonJupyterNotebookUserTools
```

Authors

- Deborah A. Agarwal - [LBL](#)



Jupyter Notebook: **BIF-PythonJupyterNotebookUserTools** Last Checkpoint: 10/25/2018 (unsaved changes)

Python 3 (pykernel)

AmeriFlux and FLUXNET BIF File Parser

This notebook walks the user through reading in an AmeriFlux or FLUXNET BIF (BADM Interchange Format file) and manipulating the contents for the purposes of answering questions and/or writing out useful subsets of the data in a simple usable format.

To start using this notebook, you will need an Excel BIF file that you downloaded from either AmeriFlux or FLUXNET. In this example, the file is in my home directory and I started with the AmeriFlux all sites BIF. This code should be able to read any BIF.

To execute the whole notebook, choose "Cell->Run All" from the menu above. If you have updated a single segment of code in a notebook, select the cell you want to execute and choose "Cell->Run Cells". The first code cell in this notebook does all of the setup and must be run to completion before any of the other cells can be run. When it is done running, it will print 'DONE' below the code box.

In several of the code segments there are mechanisms that you can use to customize the code to do something different than it currently does. For instance, you can have it look for a different VARIABLE_GROUP or limit down the list of sites by specifying a sites filter. You can also specify whether you want to print to a file in the printtofile variable in the cells that can print to a file.

If no path is defined in the file specification, the file is assumed to be in the same directory as this notebook.

Initialize the notebook by reading in the BIF and parsing it into useful data structures

The first three code blocks below must always be executed before trying to do any of the other activities in this notebook. Before executing the first block below, you will need to specify the name and location of the BIF file. See the first line of code in the next box to specify. The code below completes three steps described below.

- Read the BIF file into a data structure**

The code below first imports some useful code libraries so that they will be handy for use later. It then opens the Excel BIF file and reads it into a data structure.

Where to find **BADM: Measurement Height**

Home / Data / Measurement Height

<https://ameriflux.lbl.gov/data/measurement-height/>

Measurement Height

Measurement Height contains height/depth and instrument model information for AmeriFlux BASE data products.* This information is updated approximately once a month, in conjunction with new BASE releases.

Measurement Height is a temporary data product being offered while the AmeriFlux BADM infrastructure is upgraded. The downloaded csv file contains information provided directly by site teams, or from historical records. Site teams can update their Measurement Height information using the [Variable Information](#) tool.

Download AmeriFlux BASE Measurement Height

Safari users: To download the file, control-click / right click the Download button, choose "Download As" or "Save Link As", and specify a destination.

Measurement Height contains the following information:

Item	Description
Site_ID	Site identifier.
Variable	Variable name of the data included in the BASE file.
Start_Date	Date when the information first applies. No value means the information begins at the site's full data record.
Height	Distance from the ground surface in meters. Positive values are heights, and negative values are depths.
Instrument_Model	Instrument model used to collect the data variable. These values are from the BADM Instrument list for instrument model types. See LIST(Vocabulary) tab in Instrument Template for explanations.
Instrument_Model2	A second instrument model used to collect the data variable. This information is available for flux variables that are calculated from a gas analyzer and sonic anemometer. These values are from the predefined BADM Instrument list for instrument models. See LIST (Vocabulary) tab in the BADM Instrument Template for explanations.
Comment	Additional information provided by the site team or parsed from historical information.
BASE_Version	The most recent AmeriFlux BASE data product* version number for which this information applies.

<https://ameriflux.lbl.gov/data/download-data/>

Multi-site Metadata (BADM)

Download height/depth and instrument model information at [Measurement Height](#).

BASE_MeasurementHeight_20230331

Site_ID	Variable	Start_Date	Height	Instrument_Model	Instrument_Model2	Comment	BASE_Version
AR-TF1	CO2		2.33	GA_CP-LI-COR LI-7200			2-5
AR-TF1	FC		2.33	SA-Gill Windmaster Pro	GA_CP-LI-COR LI-7200		2-5
AR-TF1	FC_SSITC_TEST		2.33	SA-Gill Windmaster Pro			2-5
AR-TF1	H		2.33	SA-Gill Windmaster Pro			2-5
AR-TF1	H_SSITC_TEST		2.33	SA-Gill Windmaster Pro			2-5
AR-TF1	LE		2.33	GA_CP-LI-COR LI-7200	SA-Gill Windmaster Pro		2-5
AR-TF1	LE_SSITC_TEST		2.33	SA-Gill Windmaster Pro			2-5
AR-TF1	PA		2.33	GA_CP-LI-COR LI-7200			2-5
AR-TF1	PPFD_IN		2	RAD-PAR Quantum			2-5
AR-TF1	RH		2	RH-Capac			2-5
AR-TF1	SW_IN		2	RAD-Pyrrad-SW+LW			2-5
AR-TF1	TA		2	RH-Capac			2-5
AR-TF1	USTAR		2.33	SA-Gill Windmaster Pro			2-5
AR-TF1	WD		2.33	SA-Gill Windmaster Pro			2-5
AR-TF1	WS		2.33	SA-Gill Windmaster Pro			2-5

Where to find BADM: Site Search and Data Availability

<https://ameriflux.lbl.gov/sites/site-search/>

Home / Sites / Site Search

Quick Sites: Recents Favorites

Search Sites and Data Availability

Search all site info Enter search terms Clear all search filters Load Site Set Load Filtered Search

Data Product All

Data Variables

And Or

- GPP
- RECO
- NEE
- FC
- FCH4

Data Characteristics

- Data Use Policy Any Policy
- Years Any in Range to
- Record Length >= yrs

Site Characteristics

- Vegetation (IGBP) Select 1 or more
- Affiliated Network Select 1 or more
- MAT ≤ °C
- MAP ≤ mm
- Lat ≤ °
- Long ≤ °

Filters Applied

And Or

Data Product: All

No Data Variables Selected

No Data Characteristics Selected

No Site Characteristics Selected

More Data Variables & Filters

More Site Characterization Filters

Clear all search filters

Download Data Export Results Save as Site Set Save Filtered Search

Search Results: 613 sites

Data Availability Site Characteristics

Site Selector

Customize Columns Map: None

Site ID	Name	Data Use Policy	AmeriFlux BASE Data	AmeriFlux FLUXNET Data	Lat	Long	Elev (m)	Veg	Clim	MAT (°C)	MAP (mm)	AmeriFlux BASE Start	AmeriFlux BASE End	
<input checked="" type="checkbox"/>	AR-CCa	Carlos Casares agriculture	Legacy	✓		-35.6210	-61.3181	83	CRO	Cfa	16.1	1060	2012	2020
<input checked="" type="checkbox"/>	AR-CCg	Carlos Casares grassland	Legacy	✓		-35.9244	-61.1855	84	GRA	Cfa	16.1	1060	2018	2020
<input checked="" type="checkbox"/>	AR-TF1	Rio Moat bog	CC-BY-4.0	✓	✓	-54.9733	-66.7335	40	WET				2016	2018
<input checked="" type="checkbox"/>	AR-TF2	Rio Pipo bog	CC-BY-4.0	✓		-54.8269	-68.4549	60	WET		5.5	530	2016	2018
<input checked="" type="checkbox"/>	BR-CMT	Capuaba farm Mato Grosso	Legacy			-13.2875	-56.0882	427	CRO	Aw	26.8	1566		
<input checked="" type="checkbox"/>	BR-CST	Caatinga Serra Talhada	CC-BY-4.0	✓	✓	-7.9682	-38.3842	468	DNF	Bsh	25.2	642	2014	2015
<input checked="" type="checkbox"/>	BR-Cui	Micrometeorological studies	Legacy			-0.6661	-47.2833	21	WET	Am	26.4	457.2		

Selected sites: 613 sites Show only selected

Where to find BADM: Site Search and Data Availability

Home / Sites / Site Search

Quick Sites: Recents Favorites

<https://ameriflux.lbl.gov/sites/site-search/>

Search Sites and Data Availability

Search all site info Enter search terms Clear all search

Data Product All Site Characteristics

Data Variables And Or
 GPP
 RECO
 NEE
 FC
 FCH4

Data Characteristics
 Data Use Policy Any Policy
 Years Any in Range to
 Record Length >= yrs

More Data Variables & Filters More Site Characteristics

Download Data Export Results Save as Site Set Save Filtered Search

Search Results: 613 sites

Data Availability Site Characteristics

Site Selector

Site ID	Name	Data Use Policy	AmeriFlux BASE Data	AmeriFlux FLUXNET Data
<input checked="" type="checkbox"/>	AR-CCa Carlos Casares agriculture	Legacy	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	AR-CCg Carlos Casares grassland	Legacy	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	AR-TF1 Rio Moat bog	CC-BY-4.0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	AR-TF2 Rio Pipo bog	CC-BY-4.0	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	BR-CMT Capuaba farm Mato Grosso	Legacy		
<input checked="" type="checkbox"/>	BR-CST Caatinga Serra Talhada	CC-BY-4.0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	BR-Cui Micrometeorological studies	Legacy		

AmeriFlux-site-search-results-202305041327.tsv (tab-delimited)

Site ID	Name	Principal Investigator	Data Use Policy	AmeriFlux BASE Data
AR-CCa	Carlos Casares agriculture	Gabriela Posse (posse.gabriela@gmail.com)	Legacy	Yes
AR-CCg	Carlos Casares grassland	Gabriela Posse (posse.gabriela@gmail.com)	Legacy	Yes
AR-TF1	Rio Moat bog	Veronica Pancotto (pancotto@cadic-conicet.gob.ar)	CC-BY-4.0	Yes
AR-TF2	Rio Pipo bog	Veronica Pancotto (pancotto@cadic-conicet.gob.ar)	CC-BY-4.0	Yes
BR-CMT	Capuaba farm Mato Grosso	Mark Johnson (mark.johnson@ubc.ca)	Legacy	No
BR-CST	Caatinga Serra Talhada	Antonio Antonino (acdantonino@gmail.com)	CC-BY-4.0	Yes
BR-Cui	Micrometeorological studies project in A	Isabel Vitorino (vitorino@ufpa.br)	Legacy	No
BR-Ma2	Manaus - ZF2 K34	Alessandro Araujo (alessandro.araujo@gmail.com)	Legacy	No
BR-Npw	Northern Pantanal Wetland	Paulo Arruda (paulo.zanella@gmail.com)	CC-BY-4.0	Yes
BR-PRS	Paraíso do Sul	Débora Roberti (debora@ufsm.br)	Legacy	No
BR-Sa1	Santarem-Km67-Primary Forest	Scott Saleska (saleska@email.arizona.edu)	CC-BY-4.0	Yes
BR-Sa3	Santarem-Km83-Logged Forest	Mike Goulden (mrgoulden@uci.edu)	Legacy	Yes
CA-ARB	Attawapiskat River Bog	Elyn Humphreys (elynhumphreys@cunet.carleton.ca)	CC-BY-4.0	Yes
CA-ARF	Attawapiskat River Fen	Elyn Humphreys (elynhumphreys@cunet.carleton.ca)	CC-BY-4.0	Yes
CA-BOU	Bouleau Peatland	Michelle Garneau (garneau.michelle@uqam.ca)	CC-BY-4.0	No
CA-Ca1	British Columbia - 1949 Douglas-fir stan	T. Andrew Black (andrew.black@ubc.ca)	CC-BY-4.0	Yes
CA-Ca2	British Columbia - Clearcut Douglas-fir s	T. Andrew Black (andrew.black@ubc.ca)	CC-BY-4.0	Yes

Selected sites: 613 sites Show only selected

Where to find **BADM**: Site Sets

Home / Sites / Site Sets

Site Sets List

[+ Add Set](#) [Edit List](#)

ID ^	Favorite	Name ^	Number of Sites
1	<input type="radio"/>	All_sites_nov4	556
2	<input type="radio"/>	AndySukyer_TimA_Nebraska	5
3	<input type="radio"/>	AnkurDesai_Wisconsin	7
4	<input type="radio"/>	BenRunkle_ArkansasRice	4
5	<input type="radio"/>	BillMunger_HarvardForest	2
6	<input type="radio"/>	Bohr	5
7	<input type="radio"/>	BrentEwers_Wyoming	3
8	<input type="radio"/>	ChrisGough_Michigan	2
9	<input type="radio"/>	DavidCook_RoserM_Illinois	3
10	<input type="radio"/>	DeanAnderson_KatherineMP_Rockies	3
11	<input type="radio"/>	dschulze-wood-harvest-set	9
12	<input type="radio"/>	FLUXNET	2
13	<input type="radio"/>	FLUXNET-Canada	44
14	<input type="radio"/>	FLUXNET-test	3
15	<input type="radio"/>	Howland	3
16	<input type="radio"/>	LBA	2
17	<input type="radio"/>	Litvak	8
18	<input type="radio"/>	mst_test	9
19	<input checked="" type="radio"/>	NEON	14
20	<input type="radio"/>	new set	3

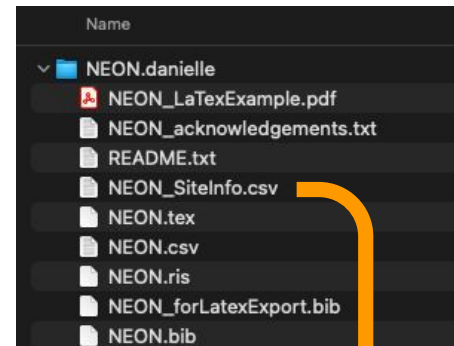
<https://ameriflux.lbl.gov/sites/site-sets/>

NEON [Edit Set](#)

- US-xBR NEON Bartlett Experimental Forest (BART)
- US-xCL NEON LBJ National Grassland (CLBJ)
- US-xCP NEON Central Plains Experimental Range (CPER)
- US-xHA NEON Harvard Forest (HARV)
- US-xJE NEON Jones Ecological Research Center (JERC)
- US-xKZ NEON Konza Prairie Biological Station (KONZ)

Notes

Download for Set: Set as ASCII
 Data
 Acknowledgments as ASCII
 DOIs as ASCII
 PI Email addresses as ASCII
 Site Info and Citations



NEON_SiteInfo

Site ID	IGBP	Latitude	Longitude	Climate	Period	Reference
US-xBR	DBF	44.0639	-71.2873	Dfb	2017-2022	-
US-xCL	GRA	33.4012	-97.5700	Cfa	2017-2022	-
US-xCP	GRA	40.8155	-104.7456	Bsk	2016-2022	-
US-xHA	DBF	42.5369	-72.1727	Dfb	2017-2022	-
US-xJE	ENF	31.1948	-84.4686	Cfa	2017-2022	-
US-xKZ	GRA	39.1008	-96.5631	Cfa	2017-2022	-
US-xNG	GRA	46.7697	-100.9154	Dfb	2017-2022	-
US-xNQ	OSH	40.1776	-112.4524	Dfb	2017-2022	-
US-xNW	ENF	40.0543	-105.5824	Dfc	2017-2022	-
US-xSB	ENF	29.6893	-81.9934	Cfa	2017-2022	-
US-xSE	DBF	38.8901	-76.5600	Cfa	2017-2022	-
US-xSR	OSH	31.9107	-110.8355	Bsk	2017-2022	-
US-xUN	MF	46.2339	-89.5373	Dfb	2017-2022	-
US-xWD	GRA	47.1282	-99.2414	Dfb	2017-2022	-

How to submit BADM to AmeriFlux

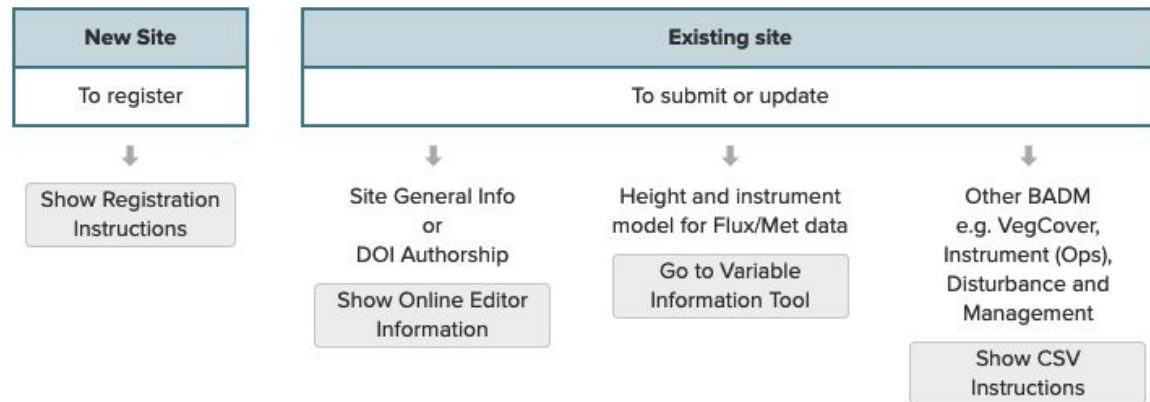
<https://ameriflux.lbl.gov/data/badm/badm-submission-instructions/>



Home / Data / BADM / BADM Submission Instructions

BADM Submission Instructions

Follow the instructions below to submit Biological, Ancillary, Disturbance and Metadata (BADM) to AmeriFlux. Learn more at [BADM Basics](#).



To see instructions, click a button above.

Submitting BADM: Excel templates for site registration

1	Variable	Description	Units
2	SITE_ID	Six character site identifier. MANDATORY if site is already registered	CC-Xxx
3	SITE_NAME	Site name	free text
4	SUBMISSION_CONTACT_NAME	Name of person who submitted this template	free text
5	SUBMISSION_CONTACT_EMAIL	E-mail address of the person who submitted this template	free text
6	SUBMISSION_DATE	Date this submission was last edited/modified.	YYYYMMDD
7	TEAM_MEMBER_NAME	Site tower team member name (First Last/Family).	free text
8	TEAM_MEMBER_ROLE	Site tower team member role	LIST(TEAM_ROLE)
9	TEAM_MEMBER_EMAIL	Site tower team member email	free text
10	TEAM_MEMBER_INSTITUTION	Site tower team member institution (required for PI only)	free text
11	TEAM_MEMBER_ADDRESS	Site tower team member address (not required)	free text
12	SHIPPING_ADDRESS	Site tower shipping address	free text
13	NETWORK	Network affiliation(s) of the site.	LIST(NETWORK)
14	FLUX_MEASUREMENTS_METHOD	Method used to measure the flux variables	LIST(FLUX_METHOD)
15	FLUX_MEASUREMENTS_VARIABLE	Flux variable measured	LIST(FLUX_VARIABLE)
16	FLUX_MEASUREMENTS_DATE_START	Date when data collection for the reported flux variable/method started.	YYYYMMDD
17	FLUX_MEASUREMENTS_DATE_END	Date when data collection for the reported flux variable/method ended	YYYYMMDD
18	FLUX_MEASUREMENTS_OPERATIONS	Operational status of flux measurements.	LIST(FLUX_OPERATIONS)
19	FLUX_MEASUREMENTS_COMMENT	Flux measurements comments	free text
20	STATE	State or province	LIST(STATE_PROVINCE)
21	SITE_DESC	Short description of the site characteristics and history	free text
22	RESEARCH_TOPIC	Site research topics	free text
23	SITE_FUNDING	Site funding agencies/institutions (one column only)	free text
24	LOCATION_LAT	Latitude of the site.	decimal deg ref WGS84
25	LOCATION_LONG	Longitude of the site	decimal deg ref WGS84
26	LOCATION_ELEV	Elevation of the site above sea level	m
27	LOCATION_DATE_START	Begin date of the location information	YYYYMMDD
28	LOCATION_COMMENT	Location information comments	free text
29	IGBP	Vegetation type based on the IGBP definition.	LIST(IGBP)

Site_General_Info LIST(VOCABULARY) Explanations



Home / Data / Upload Data

Upload Data: BADM

< Back

To submit AmeriFlux BADM file(s), please:

- Format your data following BADM submission guidelines
- Select options below and upload the file(s)

Select Site *

Selected Site: None

AR-TF1: Rio Moat bog

AR-TF2: Rio Pipo bog

BR-CMT: Capuaba farm Mato Grosso

BR-CST: Catiara Serra Talhada

I do not have a Site ID

Data File(s) to Upload * (200 MB size limit per file)

Add File(s) ?

<https://ameriflux.lbl.gov/data/upload-data/> > Choose BADM

Submitting BADM: Online editor for Site General Info + DOI

Home / Sites / Siteinfo / US-UTW

Quick Sites: Recents

Favorites




US-UTW: UFLUX Wellington

Overview	Windroses	Data Citation	Data Use Log	Image Gallery	MODIS	Publications	BADM
----------	-----------	---------------	--------------	---------------	-------	--------------	-------------

BADM for This Site

Access the Biological, Ancillary, Disturbance and Metadata (BADM) information and data for this site.

BADM contain information for many uses, such as characterizing a site's vegetation and soil, describing disturbance history, and defining instrumentation for flux processing. They complement the flux/met data.

- [Download BADM for this site*](#)
- [View Site General Info for this site \(Overview tab\)*](#)
- [Use Online Editor to update Site General Info or DOI Authorship](#) 
- [Update information about submitted data \(Variable Information tool\)](#)
- [More BADM resources](#)

*Online updates are shown on the Overview tab real time. However, downloaded BADM files will not reflect those updates until they have been reviewed for QA/QC.

<https://ameriflux.lbl.gov/sites/siteinfo/US-UTW#BADM>

Submitting BADM: Online editor for Site General Info + DOI

BADM Editor: DOI

US-UTW: UFLUX Wellington

* indicates required field
? get more information

DOI_ORGANIZATION

[Add New Entry](#)

DOI_ORGANIZATION
Utah Geological Survey

DOI_ORGANIZATION_ROLE
Originator

DOI_CONTRIBUTOR

[Add New Entry](#)

DOI_CONTRIBUTOR_NAME *	<input type="text" value="DOI_CONTRIBUTOR_NAME"/>
DOI_CONTRIBUTOR_ROLE *	<input type="text" value="Select DOI_CONTRIBUTOR_ROLE"/> (Description of options)
DOI_CONTRIBUTOR_ORDINAL ?	<input type="text" value="DOI_CONTRIBUTOR_ORDINAL"/> (Unit: integer number)
DOI_CONTRIBUTOR_ORCID ?	<input type="text" value="DOI_CONTRIBUTOR_ORCID"/> (Unit: ORCID)

Quick Sites: Recents Favorites

DIS	Publications	BADM
-----	--------------	-------------

history, and defining instrumentation for flux processing. They

dates until they have been reviewed for QA/QC.

/sites/siteinfo/US-UTW#BADM

Submitting BADM: CSV customized files

BADM Submission Instructions

Follow the instructions below to submit Biological, Ancillary, Disturbance and Metadata (BADM) to AmeriFlux. For more information, see more at BADM Basics.

New Site
To register

Show Registration Instructions

To see instructions, click a button

To submit BADM using a

BADM can be submitted in CSV or Excel format. For more information, see BADM group per file. BADM for a site can be submitted together in the same file.

1. Navigate to BADM group or Browse BADM Standards by Group

Browse BADM Standards

- Veg Cover**
- SPP (Species Cover)
 - LAI (Leaf Area Index)
 - HEIGHTC (Canopy Height)
 - SA (Stand Area)
 - DBH (Diameter at Breast Height)
 - BADMO_AREA

2. Customize the group. Customize CSV tab

Download Custom CSV File

3. Download your customized

Browse BADM Standards

BADM Standards define the variables, units, and requirements for more details.

Browse BADM Variables by Group

Click a BADM group below (organized by types) to view BADM Standards in MS Excel files can be downloaded here. For BADM groups not included on this page.

Site General Info

- COUNTRY (Geographic Country)
- URL_AMERIFLUX (AmeriFlux URL)
- HEADER (Site ID, Site Name, Submission details)
- TEAM_MEMBER (Team Membership)
- TEAM_CONTACT
- SHIPPING_ADDRESS
- NETWORK (Network Affiliations)
- FLUX_MEASUREMENTS
- STATE (Geographic State)
- SITE_DESC (Site Description)
- RESEARCH_TOPIC
- SITE_FUNDING
- LOCATION (Geographic Location)
- IGBP (International Geosphere-Biosphere Program)
- LAND_OWNERSHIP
- URL (Site Website)
- REFERENCE_PAPER (References)
- ACKNOWLEDGEMENT
- UTC_OFFSET
- CLIM_AVG (Average Climate)
- SITE_CHAR (Site Characteristics)
- DOM_DIST_MGMT (Dominant Disturbance and Management)
- TOWER_TYPE
- TOWER_POWER

Doi

- DOI (Digital Object Identifier)
- DOI_ORGANIZATION (DOI Organizations)
- DOI_CONTRIBUTOR (DOI Contributors)
- DOI_RELATED_DATA_DOI (Related DOI Information)

VegCover

- SPP (Species Cover)
- LAI (Leaf Area Index)
- HEIGHTC (Canopy Height)
- SA (Stand Area)

BADM Group: HEIGHTC

BADM Type: VegCover
Description: Canopy Height
Group Entries per Site: Multiple
Last updated: Mar 02, 2021

Overview Definitions & Units Examples Customize CSV

BADM variables: Definitions, Units, Requirements

See Overview tab or BADM Basics for explanation. Multiple entries of this BADM group can be reported per site.

Show All LIST Options Hide All LIST Options

Variable	Units
* HEIGHTC <i>1-Required</i>	m
HEIGHTC_SPP <i>1-Optional-a</i>	Scientific name
HEIGHTC_VEGETYPE <i>1-Optional-a</i>	LIST(VEGETYPE)
* HEIGHTC_STATISTIC <i>1-Required</i>	LIST(STATISTIC)
HEIGHTC_STATISTIC_METHOD <i>1-Optional</i>	LIST(STATISTIC) Show

BADM Examples

Choose a variable marked with a down arrow to show examples of how to submit. Combinations of circled variables must be unique. Read more: ?

- Canopy Height**
- * HEIGHTC** (down arrow)
 - HEIGHTC_SPP (down arrow)
 - HEIGHTC_VEGETYPE (down arrow)
 - * HEIGHTC_STATISTIC** (down arrow)
 - HEIGHTC_STATISTIC_METHOD (down arrow)
 - HEIGHTC_STATISTIC_NUMBER (down arrow)

- Understory Height**
- * HEIGHTC_U** (down arrow)
 - HEIGHTC_U_SPP (down arrow)
 - HEIGHTC_U_VEGETYPE (down arrow)
 - * HEIGHTC_U_STATISTIC** (down arrow)
 - HEIGHTC_U_STATISTIC_METHOD (down arrow)
 - HEIGHTC_U_STATISTIC_NUMBER (down arrow)

- Applies to All**
- HEIGHTC_APPROACH
 - ** HEIGHTC_DATE** (down arrow)
 - ** HEIGHTC_DATE_START** (down arrow)
 - ** HEIGHTC_DATE_END** (down arrow)
 - HEIGHTC_DATE_UNC (down arrow)
 - HEIGHTC_COMMENT

HEIGHTC

Canopy height is important. HEIGHTC should



BADM supports overstory and understory canopy height

Overview Definitions & Units Examples Customize CSV

Customize and Download CSV for BADM Submission

Select variables from one or more subgroups to form a complete group. At a minimum, the required variables must be included in every group. After selecting your desired variables, download the customized CSV file for submission details, see BADM Submission Instructions.

Multiple entries of this BADM group can be reported per site. However, combinations of circled variables must be unique. Read more: ?

Open/Close Open All Subgroups Close All Subgroups

Select Select All Only Select Required Clear All

Canopy Height

- Required
- * HEIGHTC (down arrow)
 - HEIGHTC_SPP (down arrow) OR HEIGHTC_VEGETYPE (down arrow) OR Both Neither
 - * HEIGHTC_STATISTIC (down arrow)
 - HEIGHTC_STATISTIC_METHOD (down arrow)
 - HEIGHTC_STATISTIC_NUMBER (down arrow)

Understory Height

Applies to All

- Required**
- * HEIGHTC_DATE (down arrow) OR ** HEIGHTC_DATE_START (down arrow) OR Both Neither
 - ** HEIGHTC_DATE_END (down arrow)
- Optional**
- HEIGHTC_APPROACH
 - HEIGHTC_DATE_UNC
 - HEIGHTC_COMMENT

Download Custom CSV File

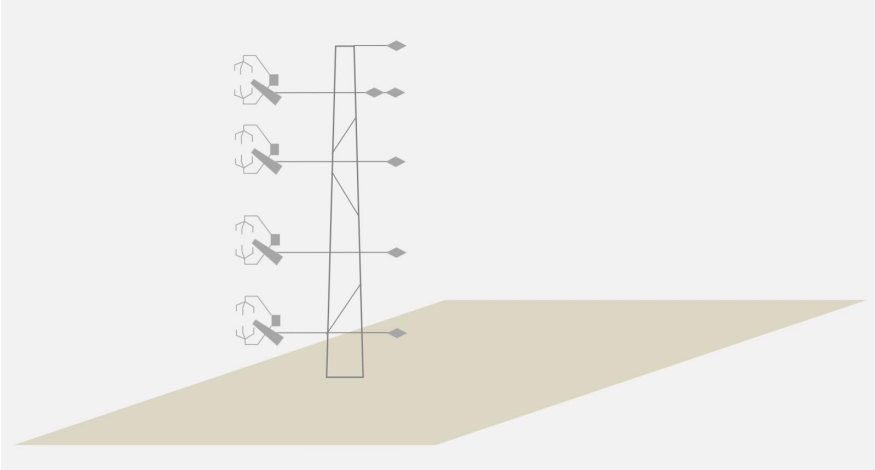
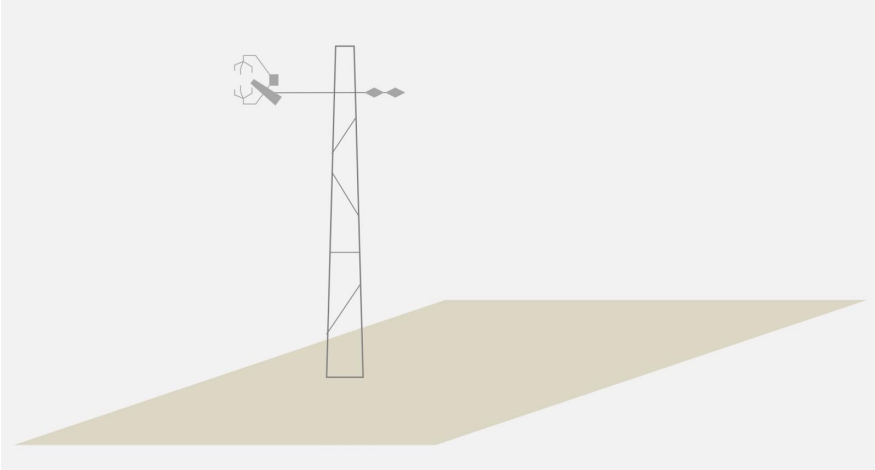
Submit completed CSV file at Upload Data using the BADM option (login required).

CSV Reporting File

	A	B	C	D	E	
1	SITE_ID	HEIGHTC	HEIGHTC_SPP	HEIGHTC_VEGETYPE	HEIGHTC_STATISTIC	HEIGHTC_COMMENT
2	Required	1-Required	1-Optional-a	1-Optional-a	1-Required	Optional
3	CC-Sss	m	Scientific name	LIST(VEGETYPE)	LIST(STATISTIC)	free text
4						
5						
6						

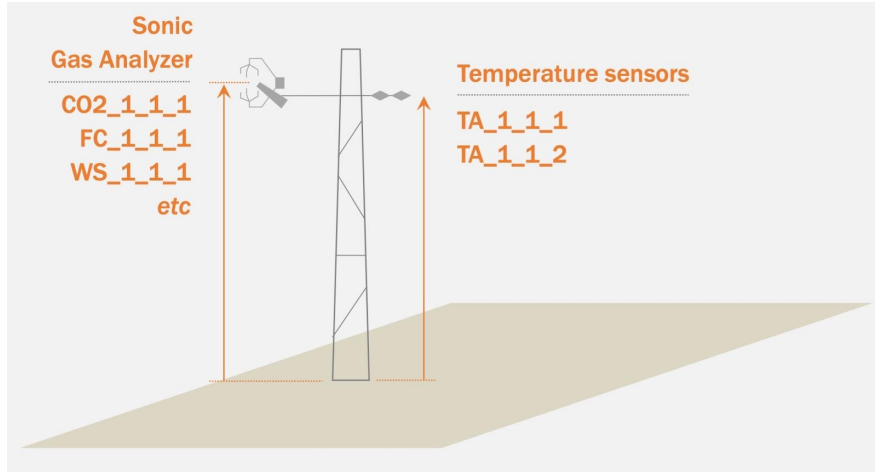
BADM for flux-met data

All sites are different!



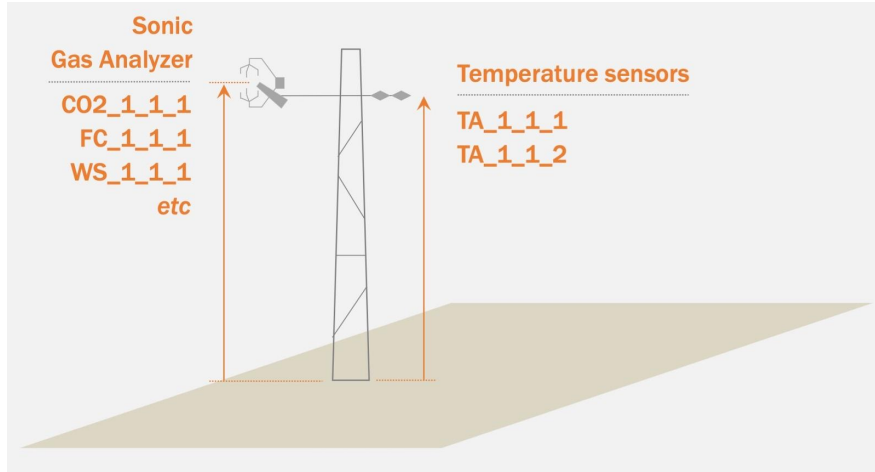
BADM for flux-met data

All sites are different! Metadata are critical for understanding Ameriflux BASE



BADM for flux-met data

All sites are different! Metadata are critical for understanding AmeriFlux BASE



Site General Information

Variable Information (aka Measurement Height)

Variable Aggregation

Variable Information: Height and Sensor Info

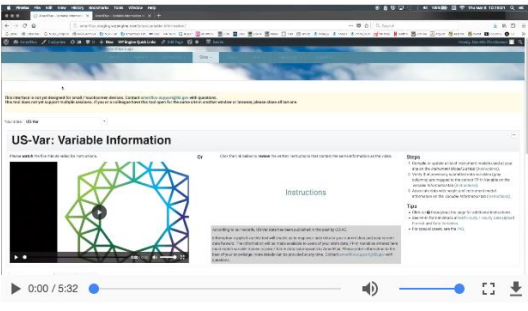
Online tool: <https://ameriflux.lbl.gov/sites/variable-information/>

AmeriFlux account and site team membership required.

Your sites: US-Ton

US-Ton: Variable Information

Please watch the five minute video for instructions. Or [Click the link below to review the written instructions that contain the same information as the video:](#)



US-Var: Variable Information

Instructions

0:00 / 5:32

Instructions

According to our records, US-Ton data have been published in the past by CDIAC.

Information supplied via this tool will enable us to map your past data to your current data and your current data forward. The information will be made available to users of your site's data. FP-In Variables entered here must match variable names in prior / future data submissions to AmeriFlux. Please enter information to the best of your knowledge; more details can be provided at any time. Contact ameriflux-support@lbl.gov with questions.

Steps

1. Compile or update a list of instrument models used at your site on the *Instrument Model List* tab (instructions).
2. Verify that previously submitted data variables (gray columns) are mapped to the correct FP-In Variable on the *Variable Information* tab (instructions).
3. Associate data with height and instrument model information on the *Variable Information* tab (instructions).

Tips

- Click on throughout the page for additional instructions.
- See FP-In format details at Half-Hourly / Hourly Data Upload Format and Data Variables.
- For special cases, see the FAQ.

Instrument Model List Variable Information

Save

+ New Variable

Show Historical Instruments

Customize Columns: 13 Columns Shown

Status

- Reviewed (Saved)
- Updated (NOT Saved)
- Not yet addressed (Saved)
- To be deleted

Gray columns are data in older formats and cannot be edited. Hover over column for details. View only useful columns with Customize Columns at right.

Site Team Variable	CDIAC Description	Early-version BASE Variable	Status	Reset	Delete	FP-In Variable	Reuse values from...	Height (meters)	Instrument Model	Start Date for Height / Instrument Model	Height / Instrument Model Change
FC_WPL_2D	FC_WPL_2D (umol m-2 s-1) CO2 flux with 2D rotation and WPL correction, quality are classified by "Fc_flag"	FC	<input type="checkbox"/>			FC_1.1_1		23.5	GA_OP-LI-COR LI-7500 SA-Gill Windmaster Pro	start of data	Add

Submitting Variable Information

Goal: One-to-one match between **Submitted Variable Names** and **FP-In column** on tool

Your sites: US-Ton

US-Ton: Variable Information

Please watch the five minute video for instructions. Or [Click the link below to review the written instructions that contain the same information as the video:](#)

Instructions

According to our records, US-Ton data have been published in the past by CDIAC.

Information supplied via this tool will enable us to map your past data to your current data and your current data forward. The information will be made available to users of your site's data. FP-In Variables entered here must match variable names prior / future data submissions to AmeriFlux. Please enter information to the best of your knowledge; more details can be provided at any time. Contact ameriflux-support@lbl.gov with questions.

Steps

1. Compile or update a list of instrument models used at your site on the *Instrument Model List* tab (instructions).
2. Verify that previously submitted data variables (gray columns) are mapped to the correct FP-In Variable on the *Variable Information* tab (instructions).
3. Associate data with height and instrument model information on the *Variable Information* tab (instructions).

Tips

- Click on throughout the page for additional instructions.
- See FP-In format details at [Half-Hourly / Hourly Data Upload Format and Data Variables](#).
- For special cases, see the [FAQ](#).

Save

+ New Variable

Show Historical Instruments

Customize Columns: 13 Columns Shown

Status

- Reviewed (Saved)
- Updated (NOT Saved)
- Not yet addressed (Saved)
- To be deleted (to undo)

Gray columns are data in older formats and cannot be edited. Hover over column for details. View only useful columns with *Customize Columns* at right.

Site Team Variable	CDIAC Description	Early-version BASE Variable	Status	Reset	Delete	FP-In Variable	Reuse values from...	Height (meters)	Instrument Model	Start Date for Height / Instrument Model	Height / Instrument Model Change
FC_WPL_2D	FC_WPL_2D (umol m-2 s-1) CO2 flux with 2D rotation and WPL correction, quality are classified by "Fc_flag"	FC	<input type="checkbox"/>			FC_1.1_1		23.5	GA_OP-LI-COR LI-7500 SA-Gill Windmaster Pro	start of data	<input type="button" value="Add"/>

Submitting Variable Information

Goal: One-to-one match between **Submitted Variable Names** and **FP-In column** on tool

Option 1. Use link in email to view online Format QA/QC report

AmeriFlux QAQC-3065 Format Results - ACTION REQUIRED CC-sss data uploaded on Sep 04, 2019 ▾ Inbox x ✕ 🖨 🔗

Dear Danielle Christianson,

Thank you for uploading data for CC-sss on Sep 04, 2019.

Format QA/QC results

CC-sss_HR_200001011000_200001012000_bad29.csv:

- **FAIL | Replacement file required.**
- Read details in this report: https://ameriflux.lbl.gov/qaqc-report/?site_id=CC-sss&report_id=63097 

CC-sss_HR_200001011000_200001012000_scinot.csv:

- **FAIL | Replacement file required.**
- Read details in this report: https://ameriflux.lbl.gov/qaqc-report/?site_id=CC-sss&report_id=63096 

Format QA/QC assesses the compliance of your data submission with AmeriFlux FP-In format (<https://ameriflux.lbl.gov/half-hourly-hourly-data-upload-format/>). If needed, you can re-upload your data at <https://ameriflux.lbl.gov/data/upload-data/> and/or reply to this email to discuss with us.

View the status of all your uploaded files at <https://ameriflux.lbl.gov/qaqc-reports-data-team/>.

If all files passed Format QA/QC and there are no pending issues for your site, Data QA/QC will be run. You can track communications on this Format QA/QC report at [QAQC-3065](#) using your AmeriFlux account ID and password to login.

Sincerely,
AMP Data Team

Submitting Variable Information

Goal: One-to-one match between **Submitted Variable Names** and **FP-In column** on tool

Option 1. Use link in email to view online Format QA/QC report

Howdy, Danielle Chris

AmeriFlux QAQC-3065 F

QA/QC Report: Format

Dear Danielle Christianson,

Thank you for uploading data for C

Format QA/QC results

CC-sss_HR_200001011000_2000

- **FAIL | Replacement file re**
- Read details in this report:

CC-sss_HR_200001011000_2000

- **FAIL | Replacement file re**
- Read details in this report:

Format QA/QC assesses the compli can re-upload your data at <https://ar>

View the status of all your uploaded

If all files passed Format QA/QC an [QAQC-3065](#) using your AmeriFlux;

Sincerely,
AMP Data Team

This report details results of the AmeriFlux QA/QC data processing pipeline. For more information, see [How to Read This Report](#), [QA/QC Results Definitions](#),

PASS Ready for Data QAQC
No further action needed by the site team.

Uploaded File Report US-PFa_HR_201801010000_201901010000.csv

Site ID: US-PFa
Site contact: [Ankur Desai](#)

Uploader: Ankur Desai
Upload date: 2018-Jul-16 11:44
Uploaded filename: US-PFa_HR_201801010000_201901010000-20180

Format QA/QC report summary:
All format QA/QC tests attempted. No issues were encountered. AMP will

Test	Results	Ad
All Format QA/QC tests passed.	✓ PASS	

Variable names found in the file:
TIMESTAMP_START, TIMESTAMP_END, CO2_1_1_1, CO2_1_2_1, CO2_1_3_1, CH4_1_1_1, CH4_1_2_1, CH4_1_3_1, FC_1_1_1, FC_1_2_1, FC_1_3_1, SCH4_1_1_1, H_1_1_1_1, H_1_2_1_1, H_1_3_1_1, LE_1_1_1_1, LE_1_2_1_1, SLE_1_2_1_1, SLE_1_3_1_1, WD_1_1_1_1, WD_1_2_1_1, WD_1_3_1_1, WD_F_1_1_1, USTAR_1_1_1, USTAR_1_2_1_1, USTAR_1_3_1_1, USTAR_F_1_3_1_1, PA_1_1_1, VPD_F_1_3_1_1, SWC_1_1_1_1, PPFD_IN_1_1_1_1, P, NEE, NEE_F, NEE_1_1_1

Processing code version: 0.4.19
Processing log file: http://ameriflux-data.lbl.gov/QAQCLogs/QAQC_repo

QA/QC Report: Format

This report details results of the AmeriFlux QA/QC data processing pipeline.

For more information, see [How to Read This Report](#), [QA/QC Results Definitions](#), [FAQ](#), and [Upload Format Instructions](#)

WARNING Review all warnings
If autocorrected file is OK, no action is needed by the site team. If corrections are needed, upload a replacement file.

Autocorrected File Report US-MOz_HH_200501010000_200601010000.csv Report ID: 26775

Site ID: US-MOz
Site contact: [Jeffrey Wood](#)
Uploader: AMP Data Team (original file uploaded by Format QAQC Pipeline)
Upload date: 2018-Aug-15 17:27
Uploaded filename: US-MOz_HH_200501010000_200601010000-2018081517272600.csv

Format QA/QC report summary:
All format QA/QC tests attempted. Issues were encountered. AMP attempted to automatically correct the issues. Please review the warnings below. If autocorrected file is OK, no action is needed by the site team. If corrections are needed, upload a replacement file.

Test	Results	Additional Information
AMP made these autocorrections.	⚠ WARNING	• Filename components fixed: ts-start (start time); ts-end (end time)
Any Variables suspected gap-fill?	⚠ WARNING	These variables are suspected to be gap-filled because they have no missing values: P_1_1_1
Any Variables with ALL Data Missing?	⚠ WARNING	These variables have all data missing: FC_1_1_1, LE_1_1_1, H_1_1_1. Previously uploaded data with the same time period will be overwritten.

Variable names found in the file:
TIMESTAMP_START, TIMESTAMP_END, P_1_1_1, PPFD_IN_1_1_1, PPFD_OUT_1_1_1, SW_IN_1_1_1, SW_OUT_1_1_1, LW_IN_1_1_1, LW_OUT_1_1_1, NETRAD_1_1_1, TA_1_1_1, RH_1_1_1, CO2_1_1_1, H2O_1_1_1, WS_1_1_1, WD_1_1_1, USTAR_1_1_1, TS_1_1_1, SWC_1_1_1, G_1_1_1, PA_1_1_1, FC_1_1_1, SC_1_1_1, LE_1_1_1, SLE_1_1_1, H_1_1_1, SH_1_1_1, NEE, NEE_F

Processing code version: 0.4.23

Submitting Variable Information

Goal: One-to-one match between **Submitted Variable Names** and **FP-In column** on tool

Option 2. Download your BASE data product & remove any **_PI** qualifiers in the variable names

<https://ameriflux.lbl.gov/data/download-data/>

Download Data

1. Select A Data Product
AmeriFlux BASE
2. Refine Your Selection
3. Select Sites
4. Agree to Policy
5. Download Data

Want to start by selecting sites? Go to [Site Search](#).

Select the data product that you want to download

Visit [AmeriFlux Data Processing Pipelines](#) for more information about AmeriFlux data products.

<input type="radio"/> AmeriFlux FLUXNET ⓘ	Features <ul style="list-style-type: none">• Continuous flux/met• Gap-filled• Partitioned• Uncertainty analysis• 5 temporal resolutions• BADM optional	Generated by <ul style="list-style-type: none">• AMP using ONEFlux processing codes• FP standard format• Subset of standard FP variables	Sites <ul style="list-style-type: none">• 21 sites• AmeriFlux sites only• See fluxnet.org for global datasets	AmeriFlux Data Use Policy ⓘ <ul style="list-style-type: none">• CC-BY-4.0: 21 sites
<input checked="" type="radio"/> AmeriFlux BASE ⓘ	Features <ul style="list-style-type: none">• Flux/met data• Half-hourly / hourly• BADM included	Generated by <ul style="list-style-type: none">• Site team in FP standard format• QA/QC'ed by AMP• All FP variables• All levels of aggregation	Sites <ul style="list-style-type: none">• 430 sites• AmeriFlux sites only	AmeriFlux Data Use Policy ⓘ <ul style="list-style-type: none">• CC-BY-4.0: 322 sites• Legacy: 430 sites (includes all sites with data available under CC-BY-4.0)
<input type="radio"/> BADM Only ⓘ	Features <ul style="list-style-type: none">• Biological data• Ancillary data• Disturbance data• Metadata	Generated by <ul style="list-style-type: none">• Site team in BADM standard format• QA/QC'ed by AMP	Sites <ul style="list-style-type: none">• 574 sites• AmeriFlux sites only	AmeriFlux Data Use Policy ⓘ <ul style="list-style-type: none">• CC-BY-4.0: 381 sites• Legacy: 574 sites (includes all sites with data available under CC-BY-4.0)

[Confirm and Go to Next Step ▶](#)

Submitting Variable Information

Goal: One-to-one match between **Submitted Variable Names** and **FP-In** column on tool

The tool has a couple flavors based on whether the site's data was published prior to 2016.

- Sites with “historical” data:
 - Have pre-populated info based on AMP's best guess and historical metadata
 - Can map current FP Variables to their older variable names

Your sites: **US-Ha2**

US-Ha2: Variable Information

Instrument Model List | Variable Information

Save ?

+ New Variable

Show Historical Instruments

Customize Columns: 13 Columns Shown

Status
 Reviewed (Saved)
 Updated (NOT Saved)
 Not yet addressed (Saved)
 To be deleted (↻ to undo)

Gray columns are data in older formats and cannot be edited. Hover over column ⓘ for details. View only useful columns with Customize Columns at right.

Site Team Variable	CDIAC Description	Early-version BASE Variable	Status	Reset	Delete	FP-In Variable	Reuse values from...	Height (meters)	Instrument Model	Start Date for Height / Instrument Model	Height / Instrument Model Change	Comment
<i>Not provided to CDIAC</i>	<i>Not applicable</i>	<i>Not included</i>	<input type="checkbox"/>	↻	×	ALB_2_1_1	📄	33	RAD-Pyrrad-SW+LW	20140827	Add	computed from ratio of in and out...
<i>Not provided to CDIAC</i>	<i>Not applicable</i>	<i>Not included</i>	<input type="checkbox"/>	↻	×	CO2_1_1_1	📄	28	GA_CP-LI-COR LI-7000	start of data	Add	initial position 29 m on scaffold
CO2	CO2 e-6mol/mol	CO2_1	<input type="checkbox"/>	↻	×	CO2_1_1_1	📄	29	GA_CP-LI-COR LI-7000	200611	Add	parallel installation on adjacent (R tower
<i>Not provided to CDIAC</i>	<i>Not applicable</i>	<i>Not included</i>	<input type="checkbox"/>	↻	×	CO2_2_1_1	📄	33.5	GA_CP-LI-COR LI-7000	20140604	Add	second sensor designated by posi

Submitting Variable Information

Goal: One-to-one match between **Submitted Variable Names** and **FP-In** column on tool

The tool has a couple flavors based on whether the site's data was published prior to 2016.

- Sites with “historical” data:
 - Have pre-populated info based on AMP's best guess and historical metadata
 - Can map current FP Variables to their older variable names
- Sites without historical data get a clean slate.

Your sites: **US-Ha2** | Your sites: **US-MH1**

US-MH1: Variable Information

Instrument Model List | Variable Information

Save

+ New Variable

Customize Columns: 10 Columns Shown

Status

- Reviewed (Saved)
- Updated (NOT Saved)
- Not yet addressed (Saved)
- To be deleted (↺ to undo)

Status	Reset	Delete	FP-In Variable	Reuse values from...	Height (meters)	Instrument Model	Start Date for Height / Instrument Model	Height / Instrument Model Change	Comment
<input type="checkbox"/>	↺	✕	CO2_1_1_1	📄	29	GA_CP-LI-COR LI-7000	200611	Add	parallel installation on adjacent (R tower
<input type="checkbox"/>	↺	✕	CO2_2_1_1	📄	33.5	GA_CP-LI-COR LI-7000	20140604	Add	second sensor designated by posi

No records found

Save

Submitting Variable Information

Goal: One-to-one match between **Submitted Variable Names** and **FP-In column** on tool

The tool has a couple flavors based on whether the site's data was published prior to 2016.

- Sites with “historical” data:
 - Have pre-populated info based on AMP's best guess and historical metadata
 - Can map current FP Variables to their older variable names
- Sites without historical data get a clean slate.

Find details in the webinar:

Ready your site for ONEFlux processing

<https://www.youtube.com/watch?v=kF1p8BQvxfA>

Variable Aggregation

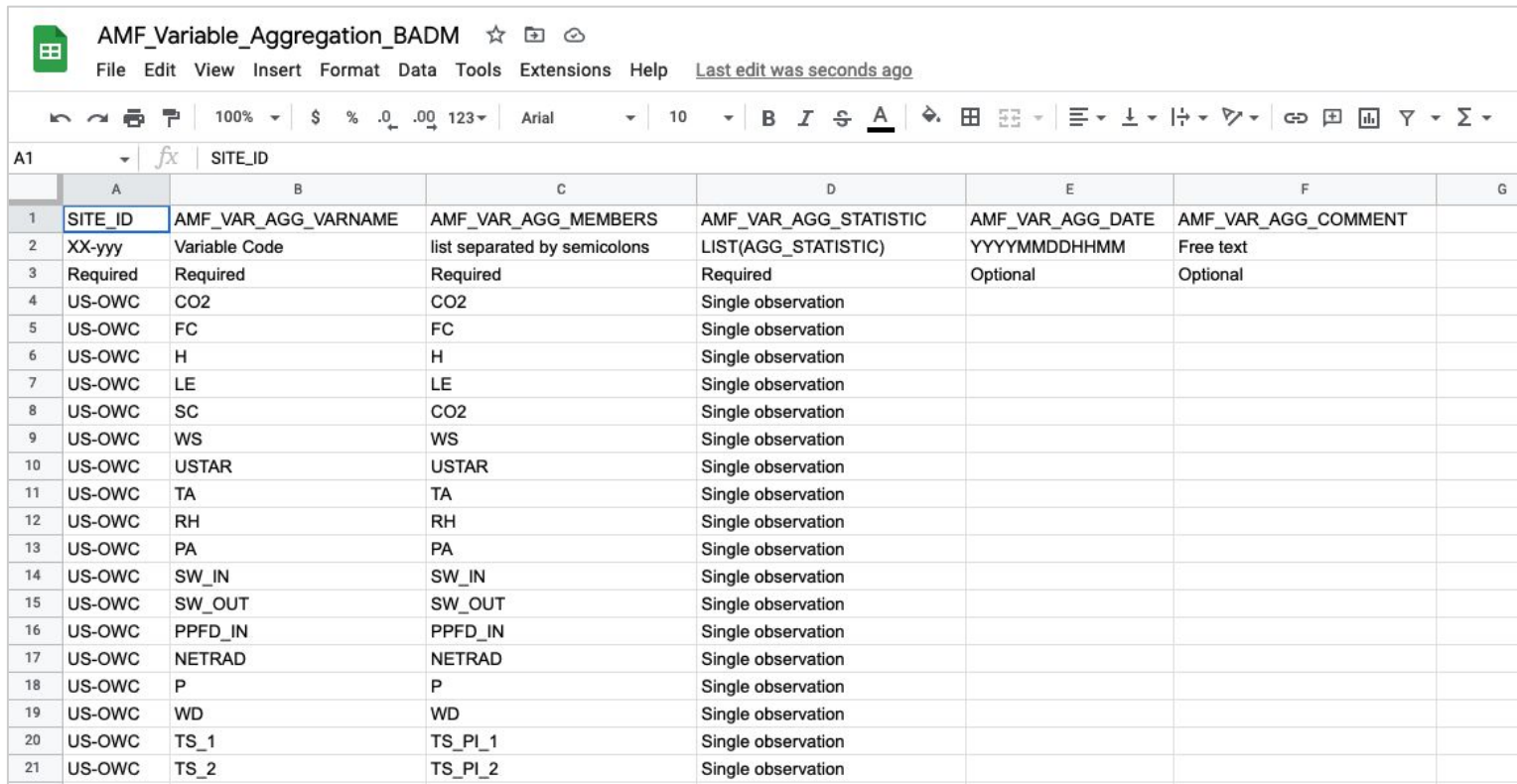
AMP needs to know which variables are representative and/or should be aggregated for ONEFlux.

Submitting Variable Aggregation BADM

1. AMP will contact you requesting submission via email

Submitting Variable Aggregation BADM

1. AMP will contact you requesting submission via email
2. AMP provides a pre-filled csv file (based on Variable Information and BADM database)



	A	B	C	D	E	F	G
1	SITE_ID	AMF_VAR_AGG_VARNAME	AMF_VAR_AGG_MEMBERS	AMF_VAR_AGG_STATISTIC	AMF_VAR_AGG_DATE	AMF_VAR_AGG_COMMENT	
2	XX-yyy	Variable Code	list separated by semicolons	LIST(AGG_STATISTIC)	YYYYMMDDHHMM	Free text	
3	Required	Required	Required	Required	Optional	Optional	
4	US-OWC	CO2	CO2	Single observation			
5	US-OWC	FC	FC	Single observation			
6	US-OWC	H	H	Single observation			
7	US-OWC	LE	LE	Single observation			
8	US-OWC	SC	CO2	Single observation			
9	US-OWC	WS	WS	Single observation			
10	US-OWC	USTAR	USTAR	Single observation			
11	US-OWC	TA	TA	Single observation			
12	US-OWC	RH	RH	Single observation			
13	US-OWC	PA	PA	Single observation			
14	US-OWC	SW_IN	SW_IN	Single observation			
15	US-OWC	SW_OUT	SW_OUT	Single observation			
16	US-OWC	PPFD_IN	PPFD_IN	Single observation			
17	US-OWC	NETRAD	NETRAD	Single observation			
18	US-OWC	P	P	Single observation			
19	US-OWC	WD	WD	Single observation			
20	US-OWC	TS_1	TS_PI_1	Single observation			
21	US-OWC	TS_2	TS_PI_2	Single observation			

Submitting Variable Aggregation BADM

1. AMP will contact you requesting submission via email
2. AMP provides a pre-filled csv file (based on Variable Information and BADM database)
3. AMP provides instructions in the email

[AmeriFlux] BADM-212 ACTION REQUESTED: Submit ONEFlux variable aggregation info for CC-sss

Danielle Christianson amp.data.qaqc@gmail.com via berkeley.edu to dsvehla

Thu, Sep 3, 1:21 PM

Dear Gilberto, You-Wei,

We are preparing to process US-ARM data using the [ONEFlux processing pipeline](#), the eddy covariance data processing codes package used create uniform gap-filled products, uncertainty estimates, and partitioned CO2 fluxes data products for AmeriFlux, other regional flux networks and for FLUXNET.

To process the site's data, we need more information on which variables submitted to AmeriFlux are representative for the site and/or how we should aggregate these variables for processing.

To process the site's data, we need more information on the variables that are representative for the site, and also information on aggregating these variables for processing.

The attached file with proposed variable aggregation information is generated from our database.

Please confirm and correct any errors by completing the following:

1. Review the attached proposed variable aggregation information (CSV file).
2. Correct any errors. See QuickView instructions and additional explanations below.
3. Upload the CSV file at the [Upload Data](#) page using the BADM tab (login required).

QuickView instructions:

Varname
Variable to be used in ONEFlux processing.

MEMBERS
MEMBERS variable(s) must match variables in the site's BASE data product.

AMF_..._VARIABLE	AMF_..._MEMBERS	AMF_..._STATISTIC	AMF_..._DATE	AMF_..._COMMENT
Variable Code	list separated by semicolons	LIST(AGG_STATISTIC)	YYYYMMDDHHMM	Free text
Required	Required	Required	Optional	Optional
CO2	CO2_1_1_1	Single observation		
FC	FC_1_1_1	Single observation		
SC	SC_NA	SC_NA		
TA	TA_1_1_1	Single observation		
TA	TA_1_1_1;TA_2_1_1	Mean	201504121200	
WS	WS_1_1_1	Single observation		

Indicate storage with VARNAME = SC
Options for MEMBERS to report storage:

- Enter SC variable calculated by site
- Enter highest (vertical) CO2 variable
- Storage is negligible. Enter SC_NA.

DATE

- No DATE = info starts at beginning of data record.
- Provide DATE when info changes within data record.

Submitting Variable Aggregation BADM

1. AMP will contact you requesting submission via email
2. AMP provides a pre-filled csv file (based on Variable Information and BADM database)
3. AMP provides instructions in the email
4. Site Teams review, update if needed, and upload the csv file

The screenshot displays the AmeriFlux website interface for uploading BADM data. The top navigation bar includes links for Home, About, Community, Sites, Data, Tech, Year of Methane, and Resources. The main content area is titled 'Upload Data: BADM' and provides instructions for submitting AmeriFlux BADM files. A 'Select Site' dropdown menu is open, showing a list of sites with their IDs and names. Below the dropdown, there is a checkbox for 'I do not have a Site ID' and a section for 'Data File(s) to Upload' with an 'Add File(s)' button. A right-hand sidebar contains a 'Quick Sites' section with a search bar and a list of links related to data, including 'Data Policy', 'About Data', 'Data Variables', 'BADM Data Product', 'Data Processing Levels', 'Data Availability', 'Data Change Log', 'How to Upload/Download Data', 'Uploading High Frequency Data', 'Half-Hourly / Hourly Data Upload Format', 'Upload Data', 'Download Data', 'Measurement Height', 'BADM', 'Download ONEFlux', and 'Data Download Log'.

<https://ameriflux.lbl.gov/data/upload-data/> > Choose BADM

Resources

BADM Webpage: <https://ameriflux.lbl.gov/data/badm/>

BADM Standards: <https://ameriflux.lbl.gov/data/badm/badm-standards/>

BIF format description: <https://ameriflux.lbl.gov/data/aboutdata/badm-data-product/>

BIF File parser: <https://github.com/AMF-FLX/AMF-UserTools>

Measurement Height: <https://ameriflux.lbl.gov/data/measurement-height/>

Variable Information Tool: <https://ameriflux.lbl.gov/sites/variable-information/>

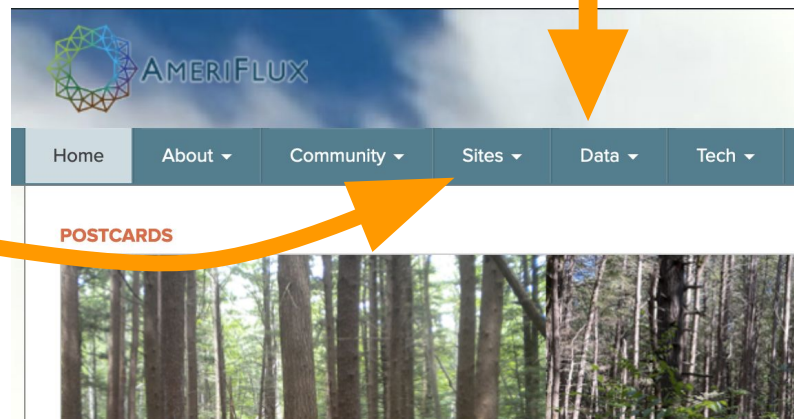
Variable Information webinar: <https://www.youtube.com/watch?v=kF1p8BQvxfA>

Download Data: <https://ameriflux.lbl.gov/data/download-data/>

Site Info Page: https://ameriflux.lbl.gov/sites/siteinfo/<site_id>

Site Search: <https://ameriflux.lbl.gov/sites/site-search/>

Site Sets: <https://ameriflux.lbl.gov/sites/site-sets/>





Questions?

Contact: ameriflux-support@lbl.gov



Extra slides

Review Variable Aggregation csv file

AMF_..._VARNAME	AMF_..._MEMBERS	AMF_..._STATISTIC	AMF_..._DATE	AMF_..._COMMENT
Variable Code	list separated by semicolons	LIST(AGG_STATISTIC)	YYYYMMDDHHMM	Free text
Required	Required	Required	Optional	Optional
C02	C02_1_1_1	Single observation		
FC	FC_1_1_1	Single observation		
SC	SC_NA	SC_NA		
TA	TA_1_1_1	Single observation		
TA	TA_1_1_1;TA_2_1_1	Mean	201504121200	
WS	WS_1_1_1	Single observation		
G_1	G_1_1_1;G_2_1_1;G_3_1_1;G_4_1_1	Mean		
SWC_1	SWC_1_1_1;SWC_2_1_1;SWC_2_1_2	Mean		AMP: No depth info; please double check

Review Variable Aggregation csv file

Varname
Variable to be used in ONEFlux processing.

MEMBERS
MEMBERS variable(s) must match variables in the site's BASE data product.

AMF_..._VARNAME	AMF_..._MEMBERS	AMF_..._STATISTIC	AMF_..._DATE	AMF_..._COMMENT
Variable Code	list separated by semicolons	LIST(AGG_STATISTIC)	YYYYMMDDHHMM	Free text
Required	Required	Required	Optional	Optional
C02	C02_1_1_1	Single observation		
FC	FC_1_1_1	Single observation		
SC	SC_NA	SC_NA		
TA	TA_1_1_1	Single observation		
TA	TA_1_1_1;TA_2_1_1	Mean	201504121200	
WS	WS_1_1_1	Single observation		
G_1	G_1_1_1;G_2_1_1;G_3_1_1;G_4_1_1	Mean		
SWC_1	SWC_1_1_1;SWC_2_1_1;SWC_2_1_2	Mean		AMP: No depth info; please double check

STATISTIC Options

- Single observation
- Mean
- SC_NA (use only with SC_NA in MEMBERS)

Review Variable Aggregation csv file

Varname
Variable to be used in ONEFlux processing.

MEMBERS
MEMBERS variable(s) must match variables in the site's BASE data product.

AMF_..._VARNAME	AMF_..._MEMBERS	AMF_..._STATISTIC	AMF_..._DATE	AMF_..._COMMENT
Variable Code	list separated by semicolons	LIST(AGG_STATISTIC)	YYYYMMDDHHMM	Free text
Required	Required	Required	Optional	Optional
C02	C02_1_1_1	Single observation		
FC	FC_1_1_1	Single observation		
SC	SC_NA	SC_NA		
TA	TA_1_1_1	Single observation		
TA	TA_1_1_1;TA_2_1_1	Mean	201504121200	
WS	WS_1_1_1	Single observation		
G_1	G_1_1_1;G_2_1_1;G_3_1_1;G_4_1_1	Mean		
SWC_1	SWC_1_1_1;SWC_2_1_1;SWC_2_1_2	Mean		AMP: No depth info; please double check

STATISTIC Options

- Single observation
- Mean
- SC_NA (use only with SC_NA in MEMBERS)

Review Variable Aggregation csv file

AMF_..._VARNAME	AMF_..._MEMBERS	AMF_..._STATISTIC	AMF_..._DATE	AMF_..._COMMENT
Variable Code	list separated by semicolons	LIST(AGG_STATISTIC)	YYYYMMDDHHMM	Free text
Required	Required	Required	Optional	Optional
C02	C02_1_1_1	Single observation		
FC	FC_1_1_1	Single observation		
SC	SC_NA	SC_NA		
TA	TA_1_1_1	Single observation		
TA	TA_1_1_1;TA_2_1_1	Mean	201504121200	
WS	WS_1_1_1	Single observation		
G_1	G_1_1_1;G_2_1_1;G_3_1_1;G_4_1_1	Mean		
SWC_1	SWC_1_1_1;SWC_2_1_1;SWC_2_1_2	Mean		AMP: No depth info; please double check

Varname
Variable to be used in ONEFlux processing.

MEMBERS
MEMBERS variable(s) must match variables in the site's BASE data product.

DATE

- No DATE = info starts at beginning of data record.
- Provide DATE when info changes within data record.

STATISTIC Options

- Single observation
- Mean
- SC_NA (use only with SC_NA in MEMBERS)

Review Variable Aggregation csv file

Varname

Variable to be used in ONEFlux processing.

MEMBERS

MEMBERS variable(s) must match variables in the site's BASE data product.

Indicate storage with VARNAME = SC

Options for MEMBERS to report storage:

- Enter SC variable calculated by site
- Enter highest (vertical) CO2 variable
- Storage is negligible. Enter SC_NA.

AMF_..._VARNAME	AMF_..._MEMBERS	AMF_..._STATISTIC	AMF_..._DATE	AMF_..._COMMENT
Variable Code	list separated by semicolons	LIST(AGG_STATISTIC)	YYYYMMDDHHMM	Free text
Required	Required	Required	Optional	Optional
C02	C02_1_1_1	Single observation		
FC	FC_1_1_1	Single observation		
SC	SC_NA	SC_NA		
TA	TA_1_1_1	Single observation		
TA	TA_1_1_1;TA_2_1_1	Mean	201504121200	
WS	WS_1_1_1	Single observation		
G_1	G_1_1_1;G_2_1_1;G_3_1_1;G_4_1_1	Mean		
SWC_1	SWC_1_1_1;SWC_2_1_1;SWC_2_1_2	Mean		AMP: No depth info; please double check

DATE

- No DATE = info starts at beginning of data record.
- Provide DATE when info changes within data record.

STATISTIC Options

- Single observation
- Mean
- SC_NA (use only with SC_NA in MEMBERS)

Reporting carbon storage (VARNAME = SC)

Storage is important

OR

Storage is negligible

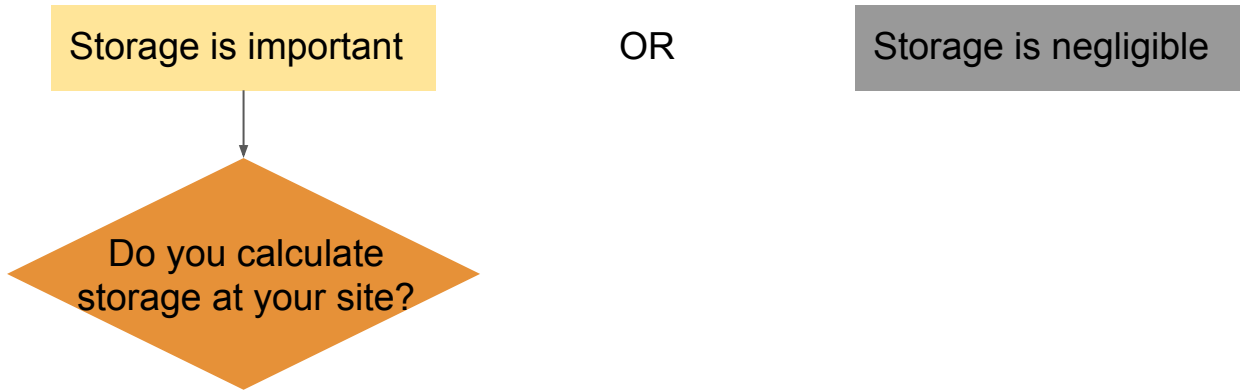
Reporting carbon storage (VARNAME = SC)

Storage is important

OR

Storage is negligible

Do you calculate
storage at your site?



```
graph TD; A[Storage is important] --> B{Do you calculate storage at your site?}; C[Storage is negligible] --- D[OR];
```

Reporting carbon storage (VARNAME = SC)

Storage is important

OR

Storage is negligible

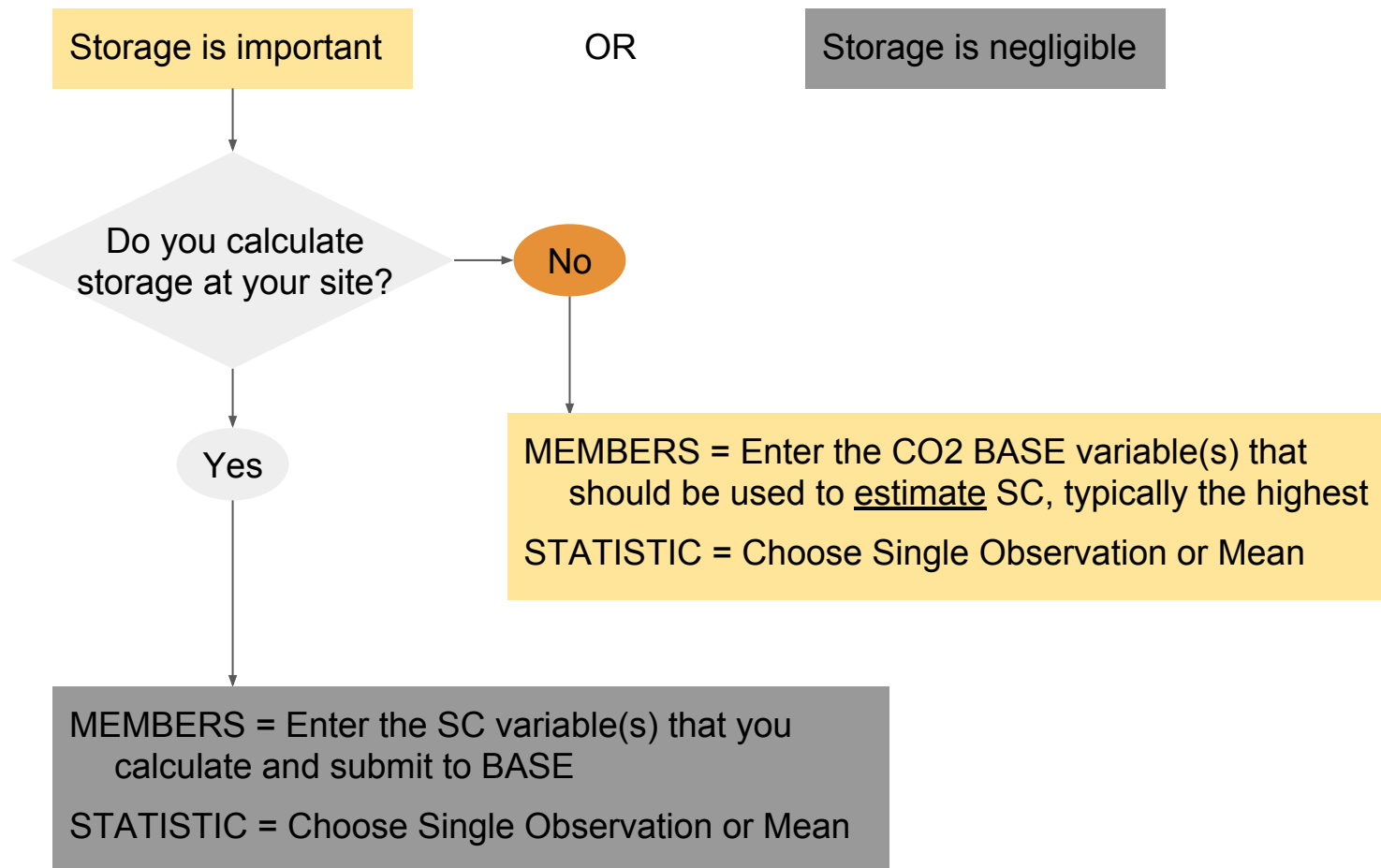
Do you calculate
storage at your site?

Yes

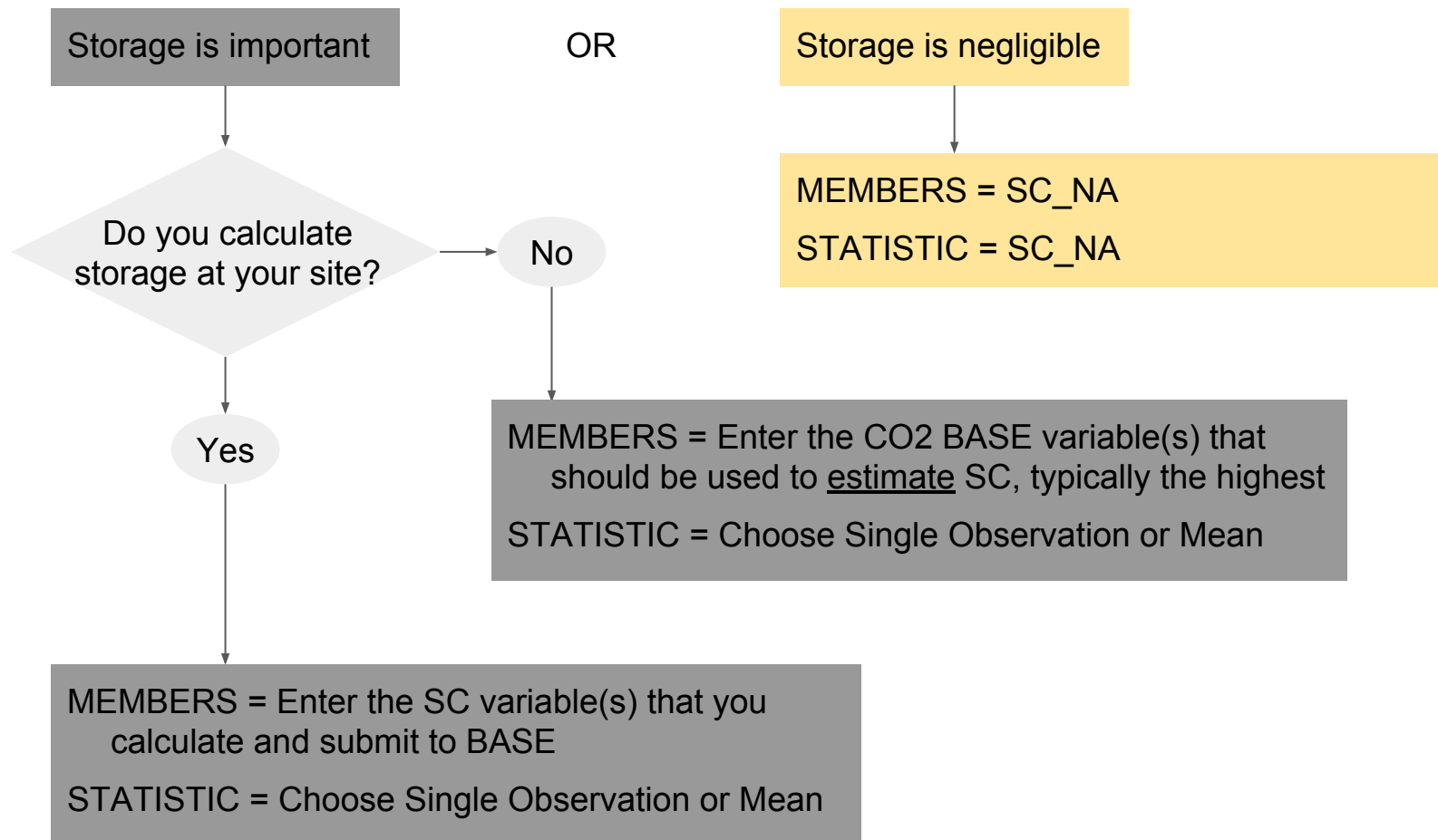
MEMBERS = Enter the SC variable(s) that you
calculate and submit to BASE

STATISTIC = Choose Single Observation or Mean

Reporting carbon storage (VARNAME = SC)



Reporting carbon storage (VARNAME = SC)



Reporting carbon storage (VARNAME = SC)

