



AKTEMP Water Temperature Database User Guide
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Alaska Center for
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UNIVERSITY *of* ALASKA ANCHORAGE

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1. Account



First, request an account (<https://aktemp.uaa.alaska.edu/#/auth/request>). Select a Data Provider within an Organization (e.g. Water Resources Branch within USFWS or Alaska Center for Conservation Science within UAA) or, if your provider is unlisted, you can request that it be added to AKTEMP with your account. After submitting an account request, your request will be approved by the AKTEMP team within 24-48 hours. Once approved, you will receive an email from uaa_aktemp@alaska.edu with a temporary password that will expire in 30 days. Use the temporary password to log in to AKTEMP and set a permanent password, which will complete your account registration. As a data provider, you are now able to add stations, upload and manage temperature data, and use the QAQC interface to review your data. Public users can query the database and download daily data for all publicly available data hosted on AKTEMP. Data providers can determine whether data from a station should be made public or private; private data are only visible to authorized users within a data provider.

2. Manage Data




2.1. Stations

Stations are the field locations where data are collected. Basic station metadata (who, what, where, etc.) must be added to AKTEMP prior to uploading temperature data. Stations are linked to temperature data by their “code” (e.g. a station located at river mile 22 on the Little Susitna River may have the code “Isr22”). Codes must be unique to each data provider. An informative Excel template (“AKTEMP Station Template.xlsx”) is available for download from the [ACCS Data Catalog](#) and also from the web interface. The station template standardizes metadata formats by using value ranges (e.g. valid latitudes and longitudes for Alaska stations) and value domains (e.g. pick lists for valid waterbody types: stream or lake). The template also allows the data provider to specify whether the station data should be publicly accessible on the data explorer or private. Private stations and their data are only accessible to authorized users of the data provider. Stations may be private to adhere to data sharing agreements, to limit access to locations where sensitive equipment has been deployed, or for other reasons.

2.1.1. Add a single station

To upload a single station, go to Manage Data -> Stations -> + ADD  button. A popup will appear with several station metadata fields to populate. Some fields are optional, but the Station Code must be unique to your provider and will be linked to temperature data. Stations are publicly visible in the Data Explorer by default so if you would like to make a station private, be sure to check the private option when adding a new station. Click the submit  button when you are finished entering station metadata.

2.1.2. Add multiple stations

To upload multiple stations, go to Manage Data -> Stations -> Batch Import  button. You will be directed to a new page with a table to populate station metadata. A template with detailed instructions is available by clicking the Download Template  button. This Excel file includes readme instructions, a blank template, and several examples (Figure 1). Fill in the blank template with your station information and copy and paste your records or enter them directly into the online table (Figure 2). After pasting your stations into the station table, check that no cells are highlighted in red, indicating an error, and click the submit  button.

Comments	Code	Latitude	Longitude	Timezone	Description	Waterbody Name	Waterbody Type	Placement	Well-mixed	Active	Reference URL	Private
A minimal example with only the required fields provided	SITE 001	61.5	-152.382	US/Alaska								
Station in the main channel of a free-flowing stream, with data obtained from USGS NWIS.	Trout Creek	61.5	-152.382	US/Alaska	Trout Creek downstream of Rt 1 bridge	Trout Creek	STREAM	MAIN	TRUE	FALSE	https://nwis.waterdata.usgs.gov/...	FALSE
Station in the side channel of a free-flowing stream, marked as private so it does not appear in the public data explorer	SITE 002	62.23	-151.231	US/Alaska	Mining Canal near Fairbanks		STREAM	SIDE				TRUE
An active station in the well-mixed, limnetic zone of a lake	ECHO	63.98	-153.421	US/Alaska	Echo Lake near center	Echo Lake	LAKE	LIMNETIC	TRUE	TRUE		FALSE

Figure 1. Excel template for filling in station metadata.

Manage Data
Provider: ACCS

STATIONS
FILES
QA/QC
EXPORT

Batch Import Stations ← BACK TO STATIONS

Fill out the table below to create one or more new stations. Rows and/or columns can be copy-and-pasted directly from Excel into this table.

Need help getting started? Download the Excel template and follow the instructions on the README sheet.

[↓ DOWNLOAD TEMPLATE](#)

✓	Code*	Latitude*	Longitude*	Timezone*	Description	Waterbody Name	Waterbody Type	Placement	Well-mixed	Active	Reference URL	Private
1	SITE 001	61.5	-152.382	US/Alaska								
2	Trout Creek	61.5	-152.382	US/Alaska	Trout Creek downstream of Rt 1 bridge	Trout Creek	STREAM	MAIN	TRUE	FALSE	https://nwis.waterdata.usgs.gov/...	FALSE
3	SITE 002	62.23	-151.231	US/Alaska	Mining Canal near Fairbanks		STREAM	SIDE				TRUE
4	ECHO	63.98	-153.421	US/Alaska	Echo Lake near center	Echo Lake	LAKE	LIMNETIC	TRUE	TRUE		FALSE

Status: Ready
* = Required. Ctrl+C/Ctrl+V to copy/paste. Right-click to add/remove rows or undo/redo.

SUBMIT
CLEAR
CANCEL

Figure 2. AKTEMP web interface for batch importing stations.


2.2. Data Files

Each data file can contain discrete or continuous measurements collected at one or more sites or depths. Depths can be numeric or categorical and may be used for depth arrays, paired bottom/surface stream loggers, or other multi-depth scenarios. Time series data are continuous water temperatures collected over time at a single location and depth. Vertical profiles are discrete measurements collected at a single location and time, but over different depths. Vertical profiles are commonly collected in lakes. A single station may also have multiple continuous timeseries from different depths collected as a depth array. A numeric depth should be entered for each timeseries in the array.


Both single and multiple files can be linked to a single station code or contain data for multiple stations. When a single data file containing temperature measurements from multiple stations is uploaded, specify the name of the field that stores the station code in the "Station Column" field of the online table. This code must match an existing station in AKTEMP or the upload will fail. See instructions below for uploading a single file or multiple files with water temperature data. If your data have already undergone a QA/QC process and have QC flags (e.g., burial, out of water, frozen, etc.) stored in an associated field, identify the QC field when uploading the dataset and any measurements that have been


flagged will be stored in AKTEMP and the dataset will be marked as “Reviewed” after upload. If your data have not been QAQC’d visit Section 2.3 to learn more about the online tool.

2.2.1. Upload a single file

To upload a single file, go to Manage Data -> Files -> Upload File  button. The Upload Data File interface will walk you through eight steps to verify the fields and formatting of your temperature file prior to uploading data to AKTEMP. In the first two steps, you will be prompted to select a CSV file that is associated with either time series or vertical profile data. A single file can be associated with one or multiple stations. If there are measurements from multiple stations in the data file, there must be a field that contains the station codes exactly as they appear in the database (see Section 2.1 if you have not yet uploaded station metadata). Specify the field(s) that store date and time values. The form will attempt to automatically detect the format, but all final timestamps should be verified. There are multiple options to check time zone and timestamp so please read the instructions carefully and verify the final timestamp before continuing. Choose the name of the field with temperature measurements and specify the unit of measurement. If known, enter a numeric depth and specify the unit of measurement or choose a depth category. If the file contains measurements from multiple depths, enter the name of the field that stores depths and choose the unit of measurement. Examples of data collected at different depths include depth arrays attached to anchors or buoys in lakes or deep rivers. Continuous water temperatures collected from the hyporheic zone can be specified using the depth category option. A final set of optional questions relate to data collection standards and include water bath checks, sensor accuracy, and QAQC review. If the data have not been reviewed, there are tools for reviewing data and adding QAQC flags to erroneous measurements (see Section 2.3).

2.2.2. Upload multiple files

The batch upload  button allows for uploading multiple files at once. Select multiple data files in your file explorer window by using the shift or control keys and then click Open (Figure 3). The files table will auto populate with the names of the files you selected for upload. Once the files have been submitted, it is recommended that you download the files template and fill in the appropriate fields for each data file – such as the station code, date and temperature columns, data type etc. The template has detailed instructions on how to fill in all the columns as well as an example sheet for reference. You may also download all stations for your provider as a CSV file to confirm that the data files have a corresponding station in AKTEMP.

Copy and paste your information from the files template (Figure 4) into the Files Table on the AKTEMP webpage (Figure 5) and hit the submit  button. Wait on this page while the files upload. When the files have finished uploading you can navigate away while they process. The processing time varies depending on the number and size of the files submitted but each file should take no longer than 15 minutes to complete. If a file fails to process, try a second time, and if it does not succeed, contact uaa_aktemp@alaska.edu for further assistance.

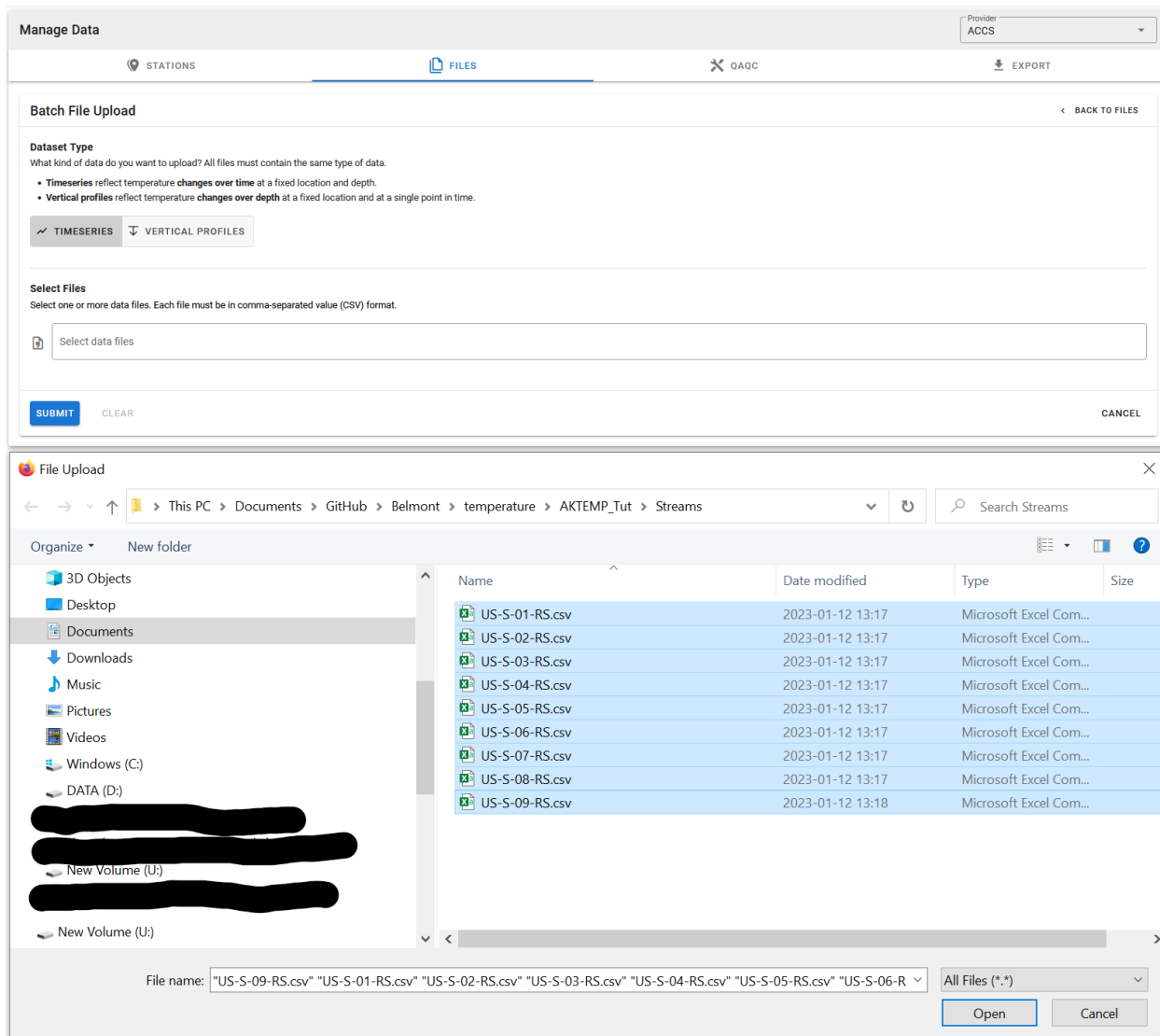


Figure 3. AKTEMP web interface for batch uploading files and file upload pop-up window.

Example Description	Filename	Skip Lines	File Type	Station Code	Station Column	Datetime/Date Column	Time Column	Timezone Mode	UTC Offset	Timezone Column	Temperature Column	Temperature Units	Missing Values	Flag Column	Depth Category	Numeric Depth	Depth Units	Depth Column	Sensor Accuracy	SOP Bath	Reviewed
File containing continuous measurements (data logger) collected at approximately mid-depth at a single station (Coho Creek). Timestamps in a column named 'datetime', all of which are in AKST (UTC -9). Temperatures in a column named 'temp_c' with units of degC. Missing values indicated by '-9999'. Data logger has high accuracy (< 0.25 C) and pre/post bath check was performed. File has not been reviewed.	Coho Creek Logger.csv	0	CONTINUOUS	Coho Creek		datetime		UTCOffset	-9		temp_c	C	-9999		MID-DEPTH				1	TRUE	FALSE
File containing continuous measurements (data logger) collected at a single station (Coho Creek). First two lines in file contains metadata that should be skipped (column names are on third line). Timestamps in a column named 'datetime' with timezone information included in timestamp. Depths also recorded and provided in column named 'depth_m' in units of meters. Temperatures in a column named 'temp_c' with units of degC. Missing values indicated by '-9999' or 'NA'. Data logger has unknown accuracy (< 0.25 C) and pre/post bath check was not performed. File has not been reviewed.	Coho Creek Logger with Depth.csv	2	CONTINUOUS	Coho Creek		datetime		TIMESTAMP			temp_c	C	-9999,NA			m	depth_m		FALSE	FALSE	
File containing continuous measurements (data logger) collected at 1 m depth over multiple stations, which are indicated by the 'station_code' column. Timestamps in column named 'datetime', all of which are in AKDT (UTC -8). Temperatures in a column named 'temp_c' units of degC. Missing values indicated by '-9999'. Data loggers had high accuracy (< 0.25 C) and pre/post bath check was performed on each data logger. File has been reviewed, and flags indicated in column named 'flag'.	Multiple Stations.csv	0	CONTINUOUS		station_code	datetime		UTCOffset	-8		temp_c	C	-9999	flag		1	m		1	TRUE	TRUE
File contains discrete measurements (grab samples via probe) at a single station (Fish Hook Creek). Timestamps in column 'datetime' and UTC offset provided in column named 'utc_offset' (should contain offset in hours, e.g. -8 or -9). Depth of each measurement provided in column named 'depth_ft' in units of 'ft'. Temperatures in column 'temp_f' in units of degF. No accuracy or qaqc information available.	Fish Hook Creek Discrete.csv	0	DISCRETE	Fish Hook Creek		datetime		COLUMN	utc_offset		temp_f	F					ft	depth_ft			
File contains vertical profiles (measurements at multiple depths) at a single station (Great Pond). Dates and times provided in separate columns ('date' and 'time') with timestamps all in AKDT (UTC-8). Temperature measurements in column named 'temperature' with units of degC. File has been reviewed, but no flags provided indicating all data are valid (no outliers or erroneous values)	Great Pond Profiles.csv	0	PROFILES	Great Pond		date	time	UTCOffset	-8		temperature	C									TRUE

Figure 4. Excel template for entering file(s) information to upload multiple files.

Manage Data Provider: ACCS

STATIONS FILES QAQC EXPORT

Batch File Upload

[BACK TO FILES](#)

Dataset Type
 What kind of data do you want to upload? All files must contain the same type of data.
 • **Timeseries** reflect temperature **changes over time** at a fixed location and depth.
 • **Vertical profiles** reflect temperature **changes over depth** at a fixed location and at a single point in time.

TIMESERIES **VERTICAL PROFILES**

Select Files
 Select one or more data files. Each file must be in comma-separated value (CSV) format.

9 files

Files Table
 Need help getting started? Download the Excel template and follow the instructions on the README sheet. You can also download a list of existing stations for the selected Provider for reference.

[DOWNLOAD TEMPLATE](#) [DOWNLOAD STATIONS](#)

After you have filled out the table in the template, copy and paste the cells from Excel into the table below (excluding the header row).

Note: If the **date/time format** is blank, AKTEMP will attempt to guess the correct format for you.

✓	Filename	Skip Lines	Interval*	Station Code†	Station Column†	Date/time Column†	Time Column	Date/time Format	Timezone*	Timezone Column†	Temperature Column†	Temperature Units*	Missing Values	Flag Column	Depth Category	Numeric Depth
1	US-S-01-RS.csv	0	CONTINUOUS		SiteID	DT			LOCAL		Temperature	C			BOTTOM	
2	US-S-02-RS.csv	0	CONTINUOUS		SiteID	DT			LOCAL		Temperature	C			BOTTOM	
3	US-S-03-RS.csv	0	CONTINUOUS		SiteID	DT			LOCAL		Temperature	C			BOTTOM	
4	US-S-04-RS.csv	0	CONTINUOUS		SiteID	DT			LOCAL		Temperature	C			BOTTOM	
5	US-S-05-RS.csv	0	CONTINUOUS		SiteID	DT			LOCAL		Temperature	C			BOTTOM	

Status: Ready
 * = Always Required, † = Conditionally Required. Ctrl+C/Ctrl+V to copy/paste. Right-click to undo/redo.

SELECTED FILE

Row: 1
 Filename: US-S-01-RS.csv
 Status: READY

Raw File Contents (first 100 lines)

Names	SiteID,DT,Temperature
1	US-S-01-RS,2020-07-10T00:00:00Z,5.642
2	US-S-01-RS,2020-07-10T00:30:00Z,5.334
3	US-S-01-RS,2020-07-10T01:00:00Z,5.05
4	US-S-01-RS,2020-07-10T01:30:00Z,4.818
5	US-S-01-RS,2020-07-10T02:00:00Z,4.636
6	US-S-01-RS,2020-07-10T02:30:00Z,4.48
7	US-S-01-RS,2020-07-10T03:00:00Z,4.324
8	US-S-01-RS,2020-07-10T03:30:00Z,4.246
9	US-S-01-RS,2020-07-10T04:00:00Z,4.168
10	US-S-01-RS,2020-07-10T04:30:00Z,4.115
11	US-S-01-RS,2020-07-10T05:00:00Z,4.063
12	US-S-01-RS,2020-07-10T05:30:00Z,4.063
13	US-S-01-RS,2020-07-10T06:00:00Z,4.011
14	US-S-01-RS,2020-07-10T06:30:00Z,3.985
15	US-S-01-RS,2020-07-10T07:00:00Z,3.985
16	US-S-01-RS,2020-07-10T07:30:00Z,3.985

[SUBMIT](#) [CLEAR](#) [CANCEL](#)

Figure 5. AKTEMP web interface for batch uploading multiple files.

2.3. QAQC

The QAQC tool for flagging data in ATKEMP can be found under Manage Data -> QAQC. Select the timeseries from the list and the interactive tool will load. First, click and drag on the temperature plot to zoom to the time period of erroneous data, then click the + New Flag [+ NEW FLAG](#) button to start flagging. Click and drag on the plot to highlight the time period to be flagged. If needed, you can further refine the time period by manually adjusting the start and end times. To finalize the flag, select a flag type and click the save button in the NEW FLAG table. Repeat the process to flag more data or click the Done [DONE](#) button to finish flagging data. The series will now be marked as reviewed in the QAQC list.

2.4. Export

Exporting a copy of all your provider data can be requested by navigating to Manage Data -> Export. Select your data provider from the dropdown and enter the email address where you would like

the zipped file to be sent. Click the submit **SUBMIT** button and your request will be submitted for processing. If you do not receive a link to your data export within an hour, check your spam folder and contact uaa_aktemp@alaska.edu for further assistance.

3. Data Explorer

3.1. Stations table

The stations table (Figure 6) will automatically appear once you enter the Data Explorer. Clicking a station record in the Stations Table will load a popup for that station with site information and plots of time series and profile data. The stations table has various filters for querying temperature stations in the database. In addition to the listed filters at the top of the table, options for spatial filters and more filters are available by selecting buttons at the bottom of the table. Spatial filters can be used to select stations within different sized hydrologic units (HUCs 4, 6 or 8). More filters allow for selecting only fully mixed or active stations or filtering by waterbody type or placement. Once you have filtered the stations table, you can expand the rows per page to "All" and use the checkbox on the top left to select all filtered stations or use individual checkboxes to select stations for download. Selected sites can be added to the cart for download by clicking the Add to Cart button at the bottom of the stations table. Click the View Cart button to access additional options prior to downloading data, including an email where the data will be sent.

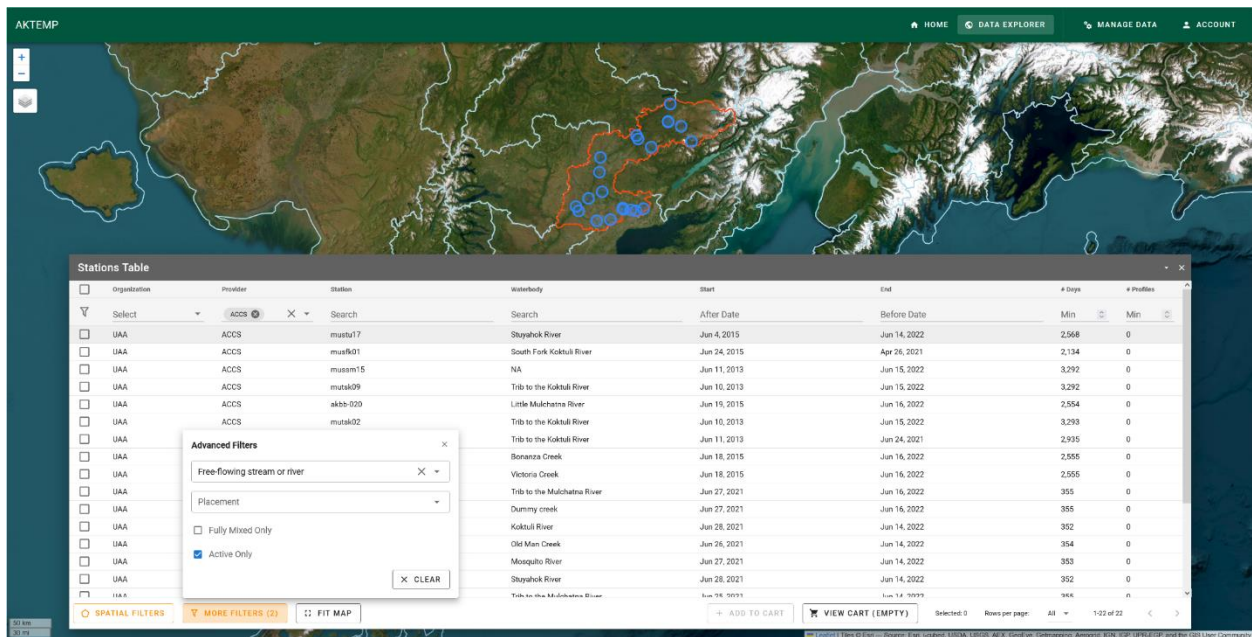


Figure 6. AKTEMP Data Explorer stations table that has been filtered using spatial and advanced filters.

3.2. Downloading data

Clicking on a station in the Data Explorer launches a popup with options to download daily summaries of timeseries data or profile measurements. Stations added to the cart from the Stations Table will be downloaded as daily mean, minimums, and maximums for continuous measurements. Daily summaries are aggregated for each site so measurements from multiple depths will be averaged to create daily summary statistics.

Data providers can also download temperature data as individual time series when viewing station data in the Manage Data -> Stations section. Select a station of interest and highlight an individual time series (Figure 7). You now have the options to download either the daily summary, raw timeseries, or flagged data.

Finally, data providers can navigate to Manage Data -> Export to request an export of all their provider data as one zipped folder. This folder will contain a sub-folder for each station with all the station metadata, timeseries and profile data stored in AKTEMP.

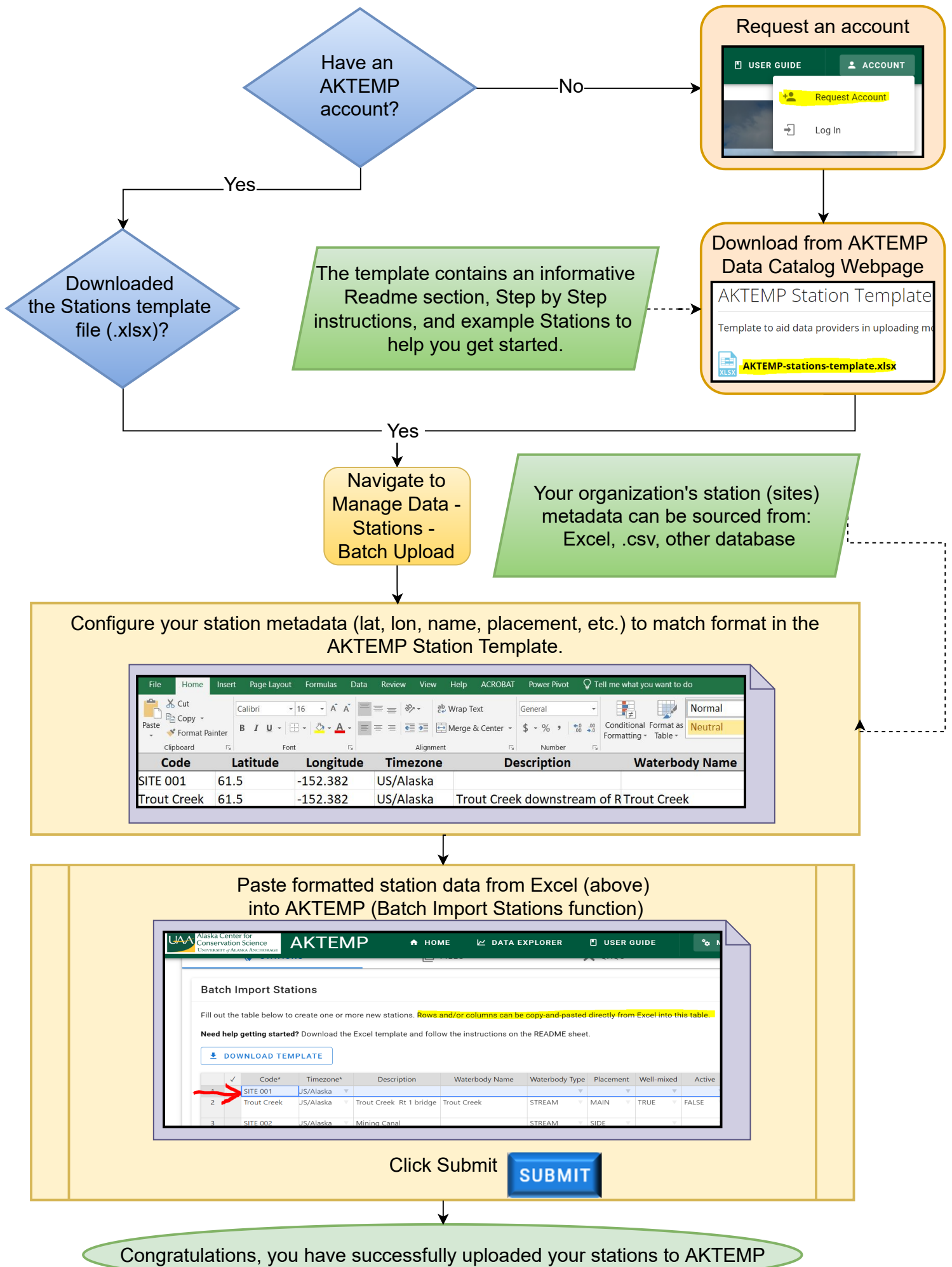
The screenshot displays the 'Manage Data' web interface for station 'akbb-020'. The interface is divided into several sections:

- Station Details (Left Panel):**
 - Station ID: 77
 - Provider: UAA_ACCS
 - Station Code: akbb-020
 - Coordinates: 60.49560, -154.38700
 - Timezone: US/Alaska
 - Description: Little Mulchatna River
 - Waterbody Name: Little Mulchatna River
 - Waterbody Type: STREAM
 - Placement: MAIN
 - Active:
 - Mixed:
 - Reference:
 - Private:
- Actions (Left Panel):**
 - DOWNLOAD METADATA
 - SHOW IN EXPLORER
 - EDIT STATION
 - DELETE STATION
- Timeseries Table (Center):**

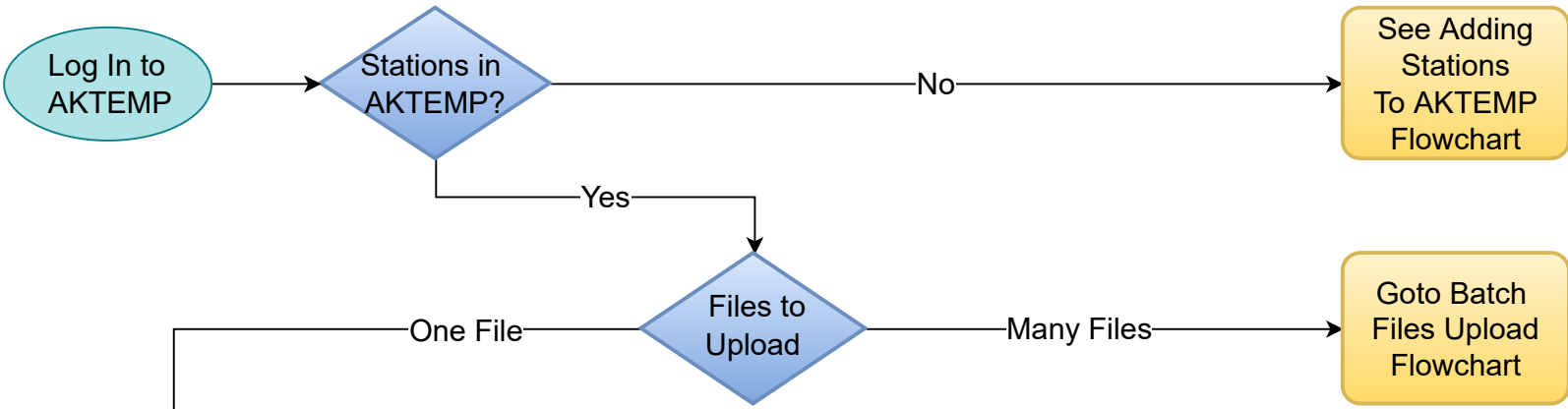
ID	Start	End	Depth (m)	Interval	Reviewed
56	Jun 19, 2015	Jun 16, 2022		CONTINUOUS	<input checked="" type="checkbox"/>
- Selected Timeseries (Right Panel):**
 - Series ID: 56
 - Provider: UAA_ACCS
 - Station: akbb-020
 - File: BristolBay_AKTEMP.csv
 - Start: Jun 19, 2015, 3:30 PM AKDT
 - End: Jun 16, 2022, 9:30 AM AKDT
 - Interval: CONTINUOUS
 - Frequency: 15 min
 - Depth Cat: BOTTOM
 - Depth (m):
 - Accuracy: Level 1: ± 0.25 degC (best, e.g., Hobo Pro v2, Tidbit)
 - SOP Bath:
 - Reviewed:
- Daily Mean and Range (Right Panel):**
 - Zoom: 1m, 3m, 6m, 1y, All
 - Temperature (degC) vs. Time (2016-2022)
 - Buttons: RAW, DAILY, FLAGS, EDIT, QAQC, DELETE SERIES

Figure 7. AKTEMP Stations web interface with options for downloading water temperature data.

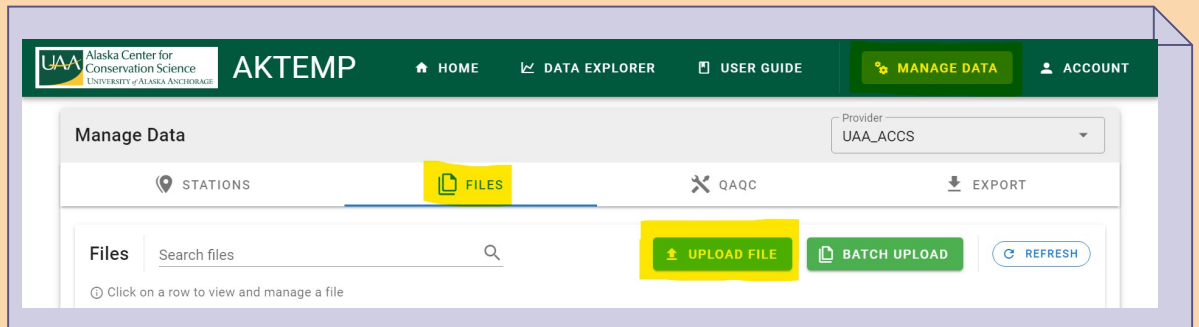
Add Stations (site locations) to AKTEMP



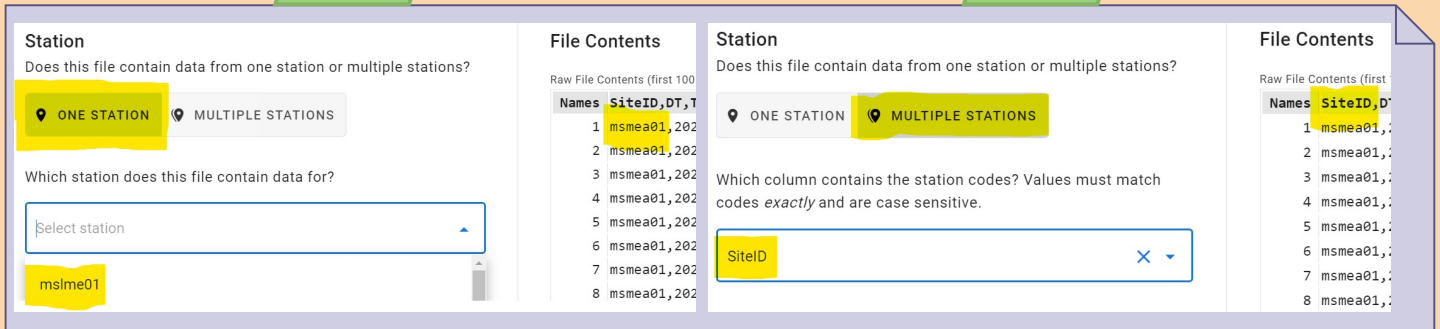
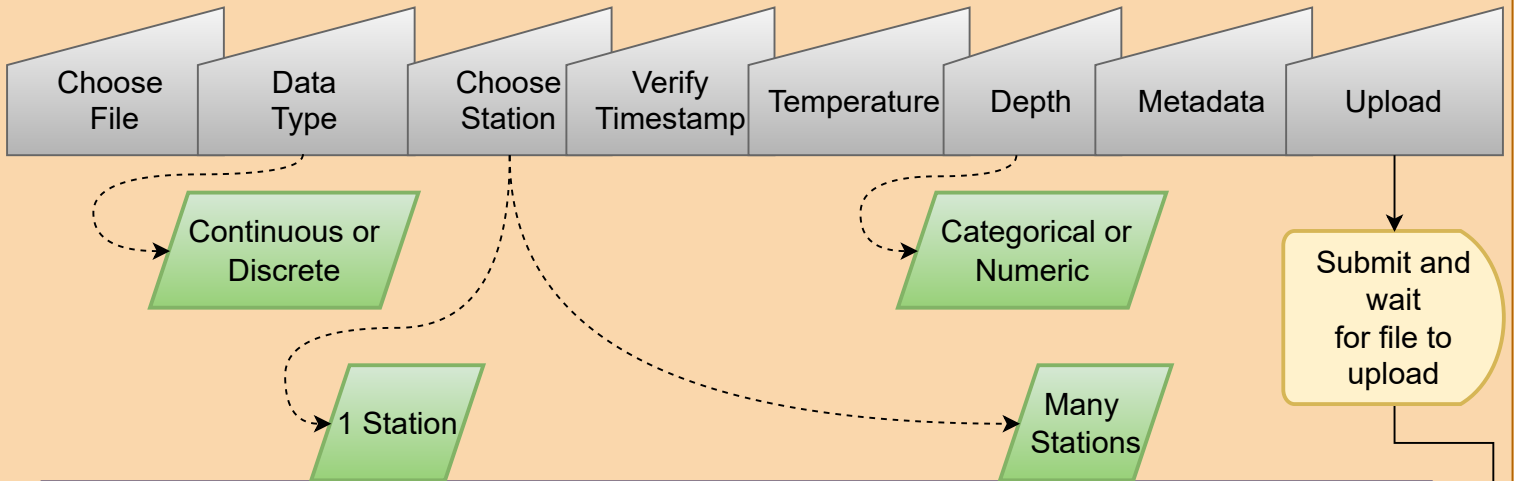
Single Data File Upload To AKTEMP



Navigate to Manage Data - Select Files - "[Upload File](#)"



Follow the 8 step process to upload your file



Upload complete, file queued for processing and addition to the database

Batch Files Upload To AKTEMP

Log In to AKTEMP

Navigate to Manage Data - Select Files - "[Batch Upload](#)"

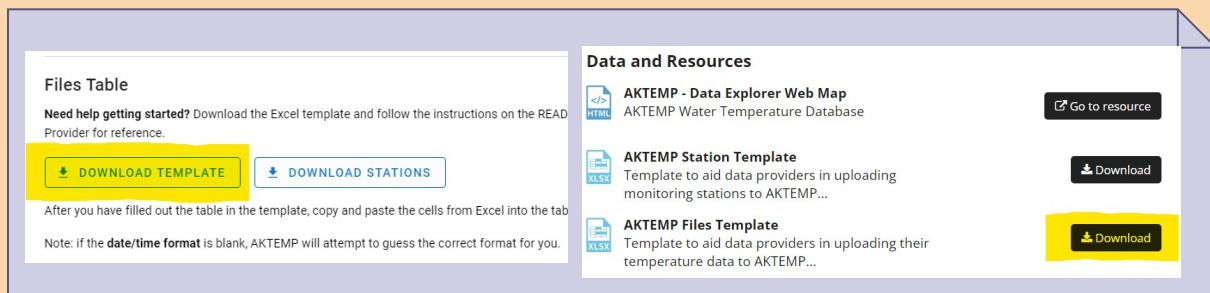
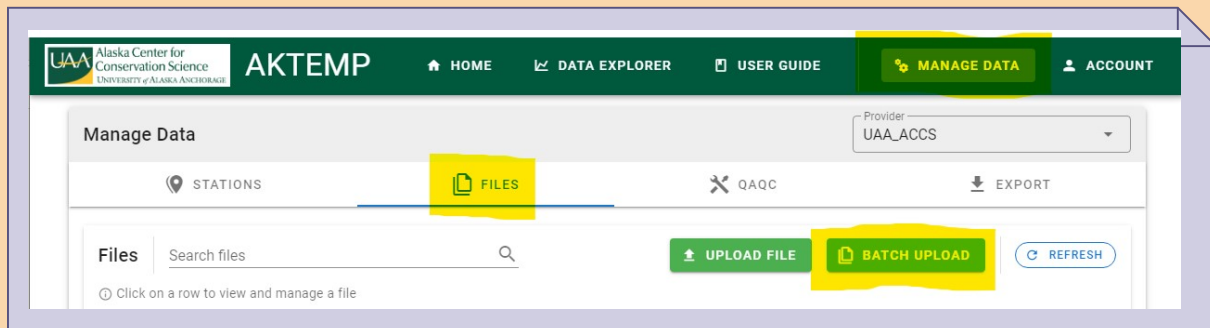
Choose files to upload in popup window and click "Submit"

Download File Template from [Data Catalog](#) or Files Table

Fill out the template and copy/paste into the Files Table online

Submit and wait for all files to upload

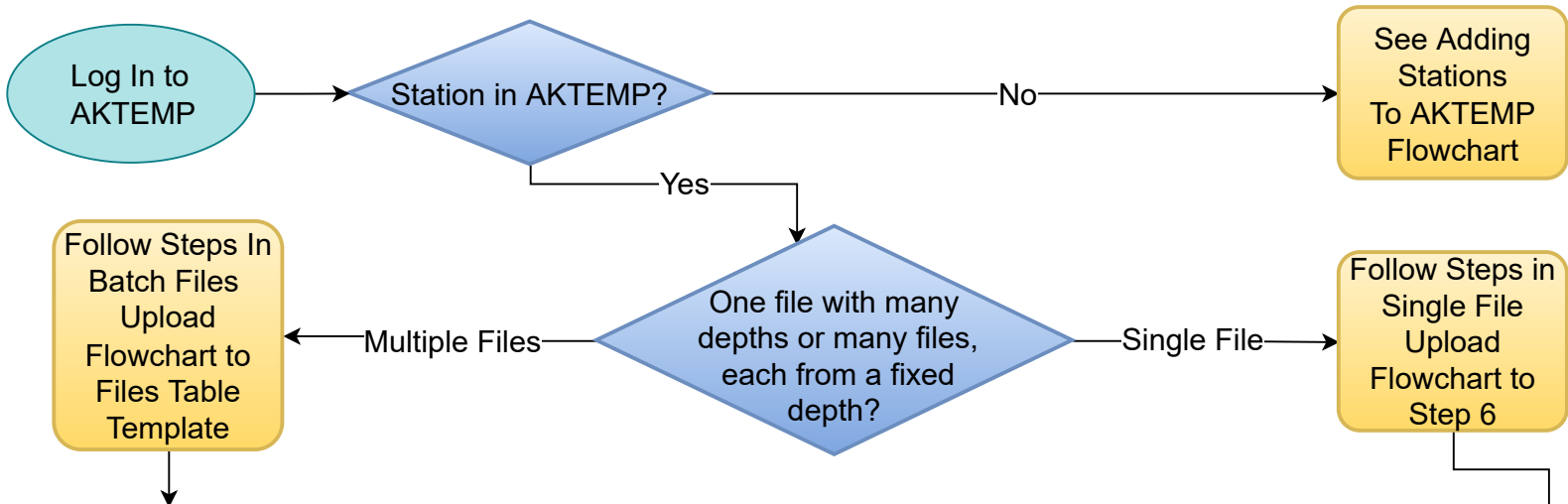
Uploads complete, files queued for processing and addition to the database



Batch uploads can include many combinations of data types and formats. Consult the example template and ensure your files are formatted to match their respective schema type in AKTEMP and that all the necessary fields and/or values have been set appropriately.

Example Description	Filename	Skip Lines	Interval	Station Code	Station Column	Date/time Column	Time Column	Date/time Format	Timezone Column	Temperature Column	Temperature Units	Missing Values	Flag Column	Depth Category	Numeric Depth	Depth Column	Depth Units	Sensor Accuracy	SOP Bath	Reviewed
File containing continuous measurements (data logger) collected at approximately mid-depth at a single station (Coho Creek). Timestamps in a column named 'datetime' in ISO 8601 format and in UTC. Temperatures in a column named 'temp_c' with units of degC. Missing values indicated by '-9999'. Data logger has high accuracy (< 0.25 C) and pre/post bath check was performed. File has not been reviewed.	Coho Creek Logger.csv	0	CONTINUOUS	Coho Creek		datetime		ISO	UTC	temp_c	C	-9999		MID-DEPTH				1	TRUE	FALSE
File containing continuous measurements (data logger) collected at a single station (Coho Creek). First two lines in file contains metadata that should be skipped (column names are on third line). Timestamps in a column named 'datetime' in local timezone. Multiple loggers at different depths indicated by value in column named 'depth_m' with units of meters. Temperatures in a column named 'temp_c' with units of degC. Missing values indicated by '-9999' or 'NA'. Data logger has unknown accuracy (< 0.25 C) and pre/post bath check was not performed. File has not been reviewed.	Coho Creek Logger with Depth.csv	2	CONTINUOUS	Coho Creek		datetime		M/d/yy H:mm	LOCAL	temp_c	C	-9999, NA			depth_m	m			FALSE	FALSE
File containing continuous measurements (data logger) collected at 1 m depth over multiple stations, which are indicated by the 'station_code' column. Dates in column 'date' and times in column 'time' with format 'M/d/yy H:mm', all of which are in AKDT (UTC-8). Temperatures in a column named 'temp_c' units of degC. Missing values indicated by '-9999'. Data loggers had high accuracy (< 0.25 C) and pre/post bath check was performed on each data logger. File has been reviewed, and flags indicated in column named 'flag'.	Multiple Stations.csv	0	CONTINUOUS		station_code	date	time	M/d/yy H:mm	UTC-8	temp_c	C	-9999	flag		1		m	1	TRUE	TRUE
File contains discrete measurements (grab samples via probe) at a single station (Fish Hook Creek). Timestamps in column 'datetime' and in local timezone. Temperatures in column 'temp_f' in units of degF. No accuracy or qaqc information available.	Fish Hook Creek Discrete.csv	0	DISCRETE	Fish Hook Creek		datetime		d-MMM-yy H:mm	LOCAL	temp_f	F									
File contains vertical profiles at a single station (Great Pond). Dates and times provided in separate columns ('date' and 'time') with format 'yyyy-MM-dd HH:mm' in local timezone of station. Temperature measurements in column named 'temperature' with units of degC. Depths in column 'depth' with units 'm'. File has been reviewed, but no flags provided indicating all data are valid (no outliers or erroneous values).	Great Pond Profiles.csv	0	DISCRETE	Great Pond		date	time	yyyy-MM-dd HH:mm	LOCAL	temperature	C					depth	m		TRUE	TRUE
File contains vertical profiles at multiple stations in column 'station'. Only dates provided in column 'date' with format 'M/d/yy' and in local timezone. Temperature measurements in column named 'temp_f' with units of degF. Depths in column 'depth_ft' in units of 'ft'. File has not been reviewed.	Multiple Stations.csv	0	DISCRETE		station	date		M/d/yy	LOCAL	temp_f	F					depth_ft	ft		TRUE	TRUE

Uploading Continuous Measurements From A Depth Array Station



Example of 3 files recording continuous temperature measurements for a single station but each file represents measurements taken at a fixed depth. Depths can be stored in a separate column or entered manually for each file.

Files Table

Need help getting started? Download the Excel template and follow the instructions on the README sheet. You can also download a list of existing stations for the selected Provider for reference.

[DOWNLOAD TEMPLATE](#) [DOWNLOAD STATIONS](#)

After you have filled out the table in the template, copy and paste the cells from Excel into the table below (excluding the header row).

Note: if the **date/time format** is blank, AKTEMP will attempt to guess the correct format for you.

	✓	Filename	Skip Lines	Interval*	Station Code†	Station Column†	Date/time Column*	Tir Da	Timezone*	Tir Temperature Column*	Tempe Mi	Fla De	Numeric Depth	Depth Column*	Depth Units†
1		AKTEMP_depth_tut_10m.csv	38	CONTINUOUS		depth_tut	dt		LOCAL	temp	C				m
2		AKTEMP_depth_tut_20m.csv	38	CONTINUOUS		SiteID	dt		LOCAL	temp	C		20		m
3		AKTEMP_depth_tut_30m.csv	38	CONTINUOUS		depth_tut	dt		LOCAL	temp	C		30		m

Single file with continuous data from multiple loggers at different depths indicated by value in column named 'depth' with units of meters.

Upload Data File

File
 Type
 Station
 Timestamps
 Temperatures
 Depth
 Metadata

Depth

If the file contains multiple timeseries at one or more stations, then either:

- Specify the **depth category** and/or **numeric depth**, which will be applied to all timeseries within the file, or
- Specify a **column** containing the depth of each timeseries.

Category

Where in the water column were the measurements taken? (Optional)

Numeric

What was the approximate depth (e.g. 5 meters) at which the measurements were collected? (Optional)

If depth varies, use depth at start of the timeseries.

Depth Column

If file contains multiple timeseries at different depths, which column contains the depth of each timeseries? (Optional)

! Time-varying Depths Not Supported

For each station in this file, rows will be grouped by depth into separate timeseries, one for **each unique depth** found in this column.

For example, if the file contains three separate timeseries of measurements collected at 0, 5, and 10 m depths, then the depth column should contain '0' for all measurements at 0 m, '5' for all at 5 m, and '10' for all at 10 m.

A depth column is typically used when the file contains multiple stations with a different depth for each station, or when the file contains paired surface/bottom timeseries or a lake array using multiple loggers deployed at different depths but at the same location.

Units

What are the depth units? (Required if either numeric depth or depth column is set)

All depths will be converted to meters.

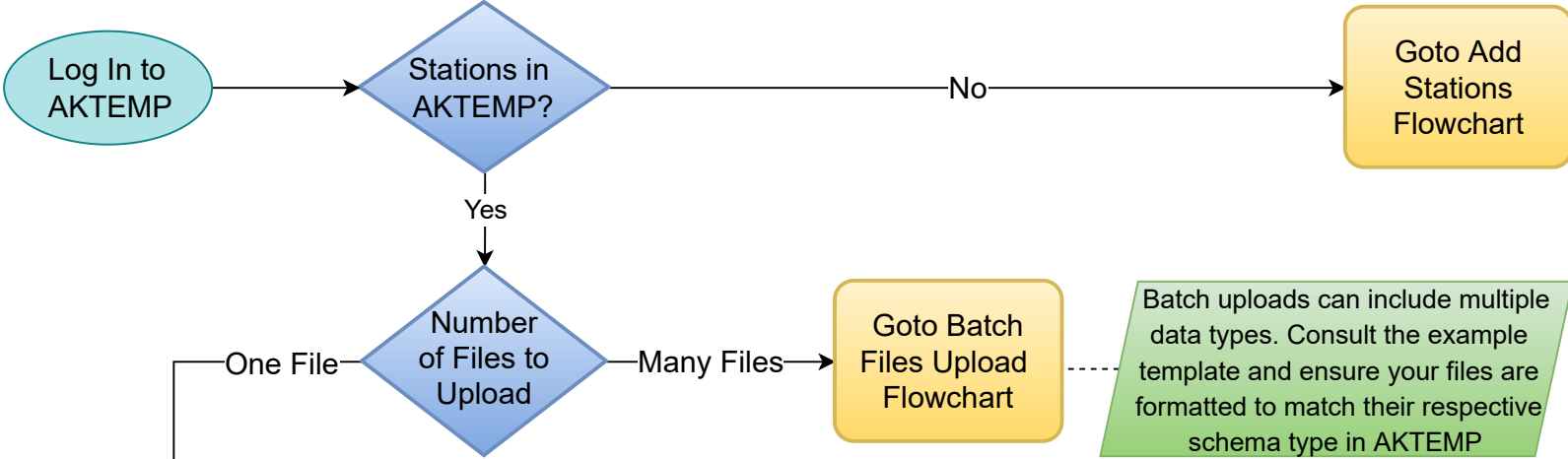
[< PREVIOUS](#)
 [CONTINUE >](#)
 CANCEL

Complete Table/Remaining Steps

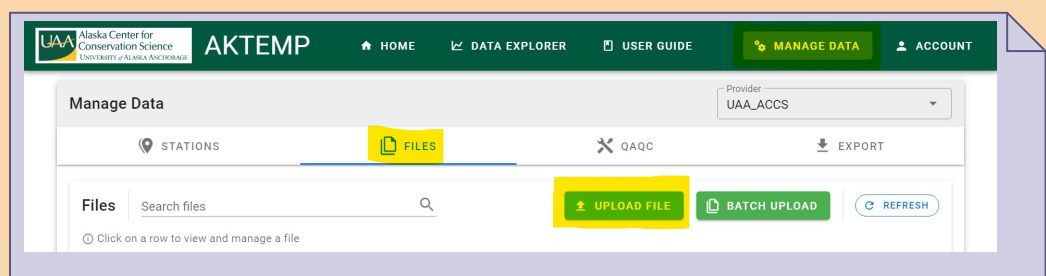
Submit and wait for all file/s to upload

Upload/s complete, file/s queued for processing and addition to the database

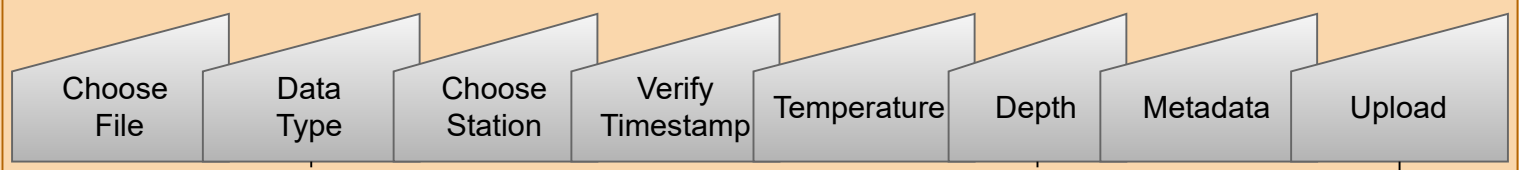
Uploading Vertical Profile Measurements



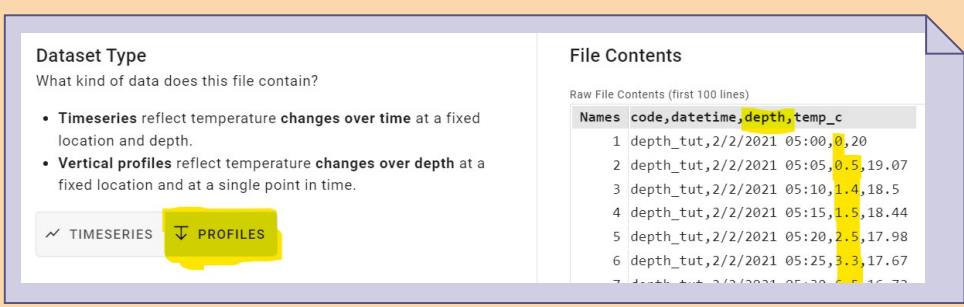
Navigate to Manage Data - Select Files - "[Upload File](#)"



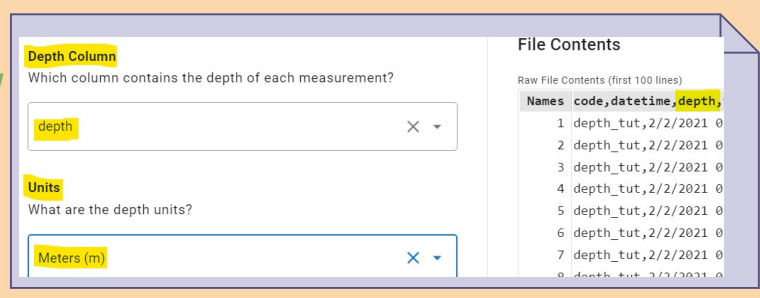
Follow the 8 step process to upload your file



Select Profile



Set Depth Column and Unit of Measurement



Submit and wait for file to upload

Upload complete, file queued for processing and addition to the database