

Heron Instruments Software Manual

Written for Software Version 1.0.44
Revision 0 (2021-09-21)

Contents

Contact Details	3
Introduction	3
Language Support	3
Data Protection	4
Compatibility	4
Installation and Updates	4
Installing on Windows.....	4
What you'll need to get started.....	5
Setting up your first mission	5
Downloading your data.....	22
Viewing and compensating your data	28
Exporting your data.....	40
Realtime Readings.....	42
Managing your data	43
Stopping and Clearing a Logger	54
Advanced Features	56
Changing your default settings	64

Contact Details

Heron Instruments Inc.
447 Moxley Rd. Dundas, Ontario, L9H 5E2, Canada
Phone: 1-800-331 2032
Email: info@heroninstruments.com
Web: heroninstruments.com

Introduction

This manual covers the basic operation and use of the Heron Instruments software used to interface with Heron Instruments manufactured products and services. This manual is not necessarily fully comprehensive of all features and capabilities. It may include features or capabilities no longer available. Heron Instruments is constantly working to improve its products and as such, feature sets and capabilities may change without notice. Features and capabilities may differ depending on region/language/settings/etc. Methods/systems/materials used or suggested may not comply with all regional regulations. It is the customers responsibility to use the software and the manual within the limits of their regional rules and regulations.

Language Support

The Heron Instruments software is developed in English. Translations are applied afterwards. We cannot guarantee the accuracy of translations and if in doubt, the English version should be consulted for clarification. Further clarification can be obtained by contacting Heron Instruments directly.

Languages currently available are:

- English
- French
- Spanish
- Portuguese
- Japanese
- Hindi
- Chinese
- Bengali
- Russian
- Indonesian

If you require a different language for your use of the software, please contact Heron Instruments to request its addition.

Data Protection

Data downloaded to the Heron Instruments software is stored in a local database. This database is managed by your operating system. If the software is uninstalled or removed, the database may also be deleted by your operating system. We strongly recommend backing up your computer regularly to protect your data. We also recommend backing up your database to protect against unforeseen incidents. Heron Instruments is not responsible for the loss of any data that may occur due to a function or a bug in the software. It is the responsibility of the user to manage their data and protect it in a way that is commensurate with the value of such data.

Compatibility

We cannot test and validate all computer configurations to ensure compatibility. We test on as wide a variety of setups as possible. To ensure you have the best chance of compatibility, we recommend always running the latest version of Windows. This software is designed to run on Windows 10 and Windows 11 (x86, x64, and ARM compatible). Your computer must have a USB type A port compatible with USB 2.0 or 3.0 protocols. The software will run on as little as 2gb of ram and 32gb of storage. We recommend a minimum of 8gb of ram and 256gb of storage for the best experience.

Installation and Updates

The software is available from the Microsoft Windows Store. It can be found at the following link: [ms-windows-store://pdp/?productid=9N2FSKW62P22](https://www.microsoft.com/store/apps/9N2FSKW62P22) or via web browser: <https://www.microsoft.com/store/apps/9N2FSKW62P22>. You can also search for the software in the store by using the search term "Heron Instruments". Updates are handled by Microsoft and should be performed automatically depending on your settings. We recommend leaving your settings to maintain automatic updates for the software.

Installing on Windows

From the overview page on the Microsoft Store, select Install. If you are signed into a Microsoft account, your installation will happen automatically. If you are not signed into a Microsoft account, you will be presented with an option to sign in or an option to skip. If you select to skip signing in, the software will still install automatically. There is no need to sign in or sign up for a Microsoft account.

Once installation is complete, the software will be available in your Windows Start Menu.

What you'll need to get started

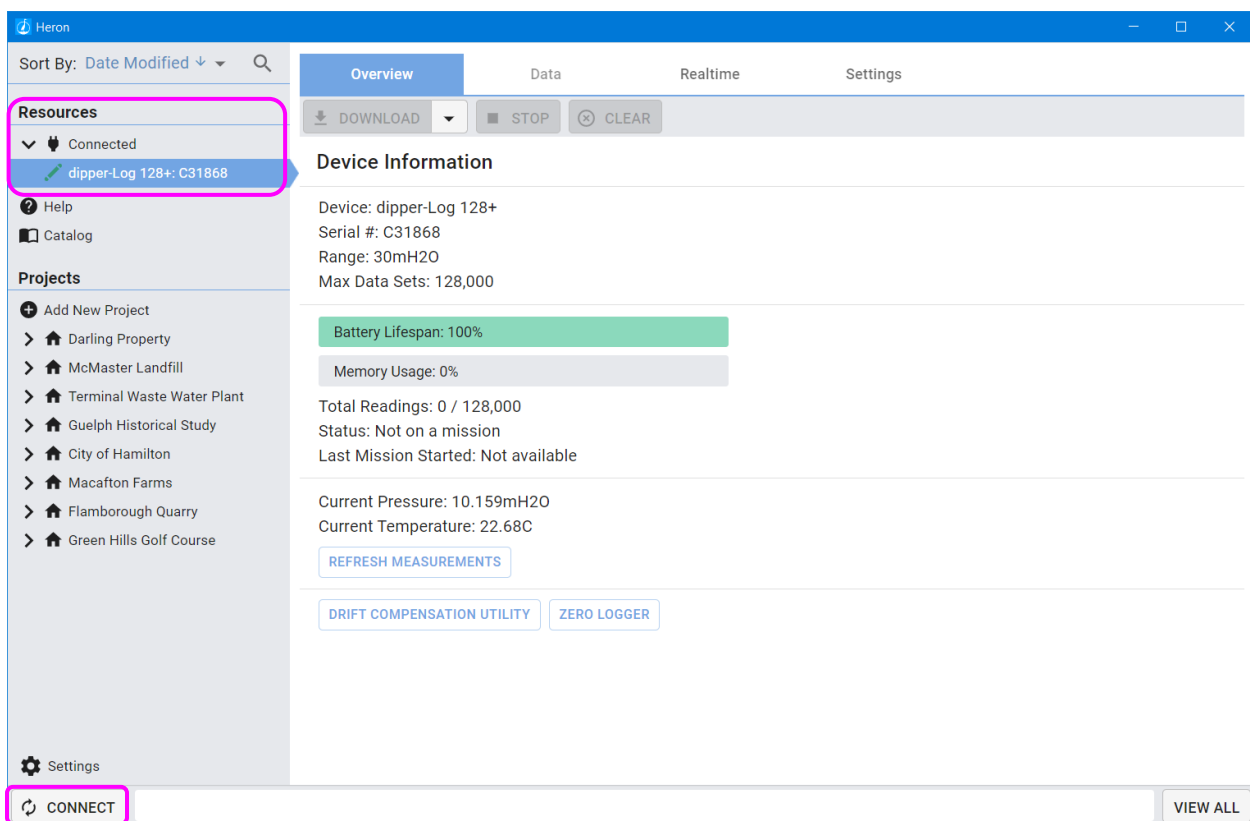
If you are connecting to a logger directly you will need the following items:

- Windows 10 or Windows 11 computer with the Heron Instruments software installed.
- A compatible dipper-Log data logger.
- A compatible pc-communication cable.

Setting up your first mission

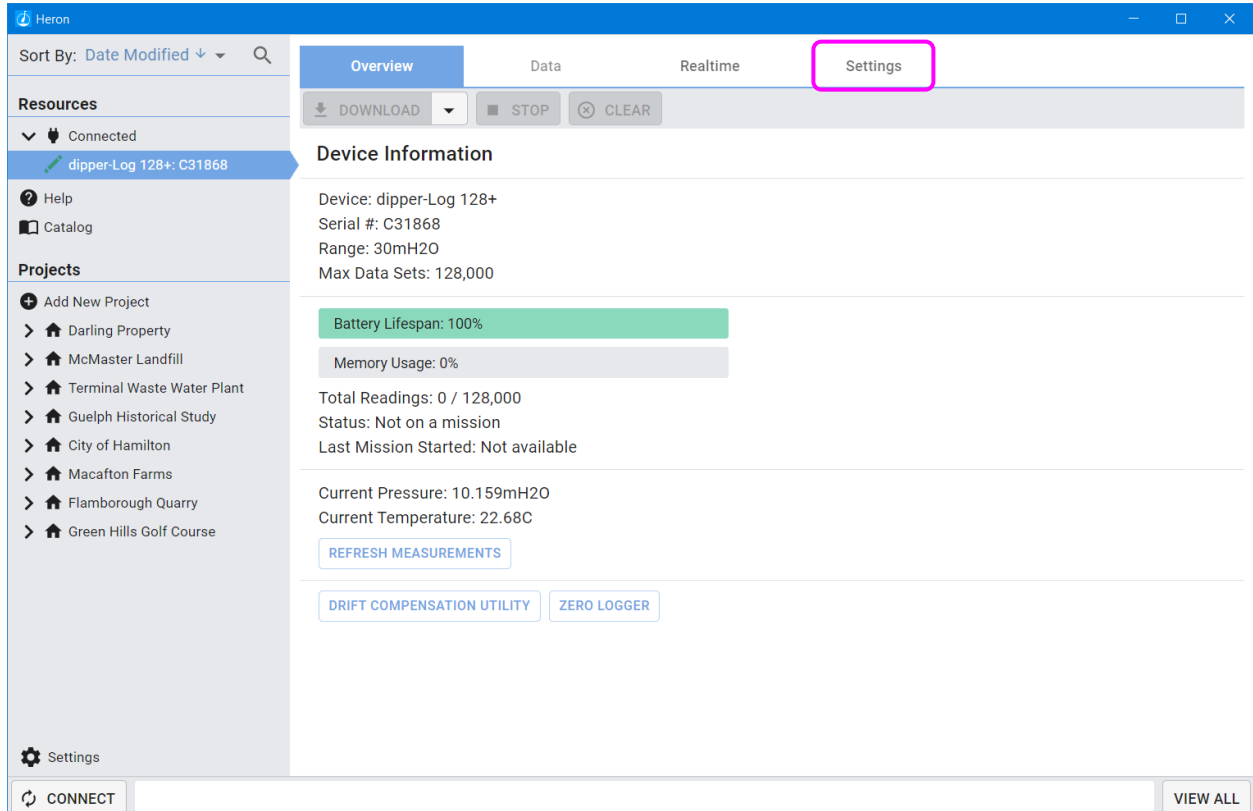
Connect your pc-communication cable to your computer. Connect your logger to your pc-communication cable. Open the software.

When the software opens it will display all of your connected loggers in the top left-hand side of the software in the “Connected” drop down of the “Resources” section. You can collapse or open the “Connected” items by clicking on the arrow. If your device isn’t showing up yet, click “CONNECT” in the bottom left-hand corner. This will scan all of your ports for any Heron Instruments’ devices.



You can select your device by clicking on it. If you only have one device connected at a time, the software will automatically select and display it for you. The software will now display an overview of your device and its current state.

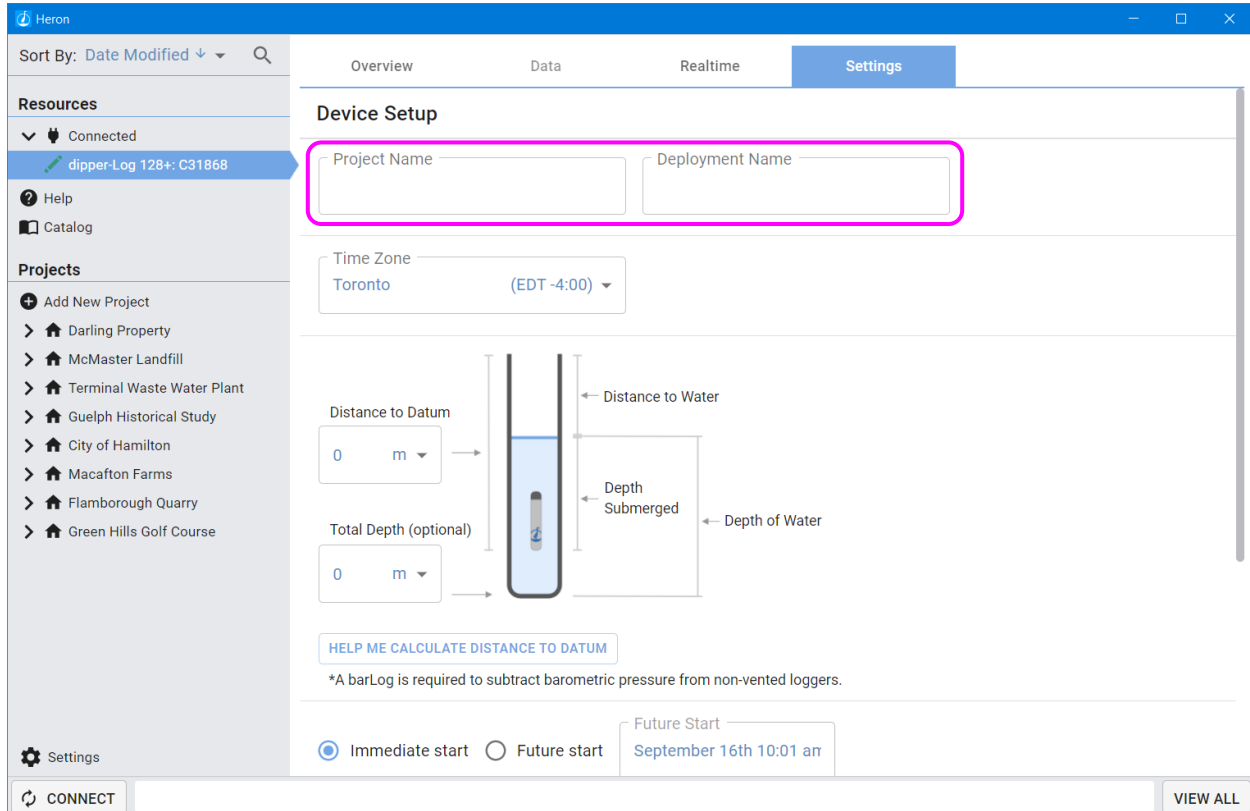
To set up your logger click on the “Settings” tab.



The screenshot displays the Heron Instruments software interface. The top navigation bar includes tabs for Overview, Data, Realtime, and Settings, with the Settings tab highlighted by a pink rectangle. The left sidebar contains sections for Resources (Connected devices, including 'dipper-Log 128+: C31868') and Projects (a list of locations like Darling Property, McMaster Landfill, etc.). The main content area shows 'Device Information' for the selected device, including details like Serial #, Range, and Max Data Sets. It also displays status indicators for Battery Lifespan (100%) and Memory Usage (0%), along with current readings for pressure and temperature. At the bottom, there are buttons for 'CONNECT', 'VIEW ALL', and 'SETTINGS'.

Here, you can enter your mission settings. Not all settings are available for all loggers. Depending on your dipper-Log, you may see more or less options available.

Your Project and Deployment name will be used to organize your data in the left-hand management panel under “Projects”.



HERON INSTRUMENTS INC.

Sort By: Date Modified

Resources

- Connected
- dipper-Log 128+: C31868
- Help
- Catalog

Projects

- Add New Project
- Darling Property
- McMaster Landfill
- Terminal Waste Water Plant
- Guelph Historical Study
- City of Hamilton
- Macafon Farms
- Flamborough Quarry
- Green Hills Golf Course

Device Setup

Project Name Deployment Name

Time Zone
Toronto (EDT -4:00)

Distance to Datum
0 m

Total Depth (optional)
0 m

Distance to Water

Depth Submerged

Depth of Water

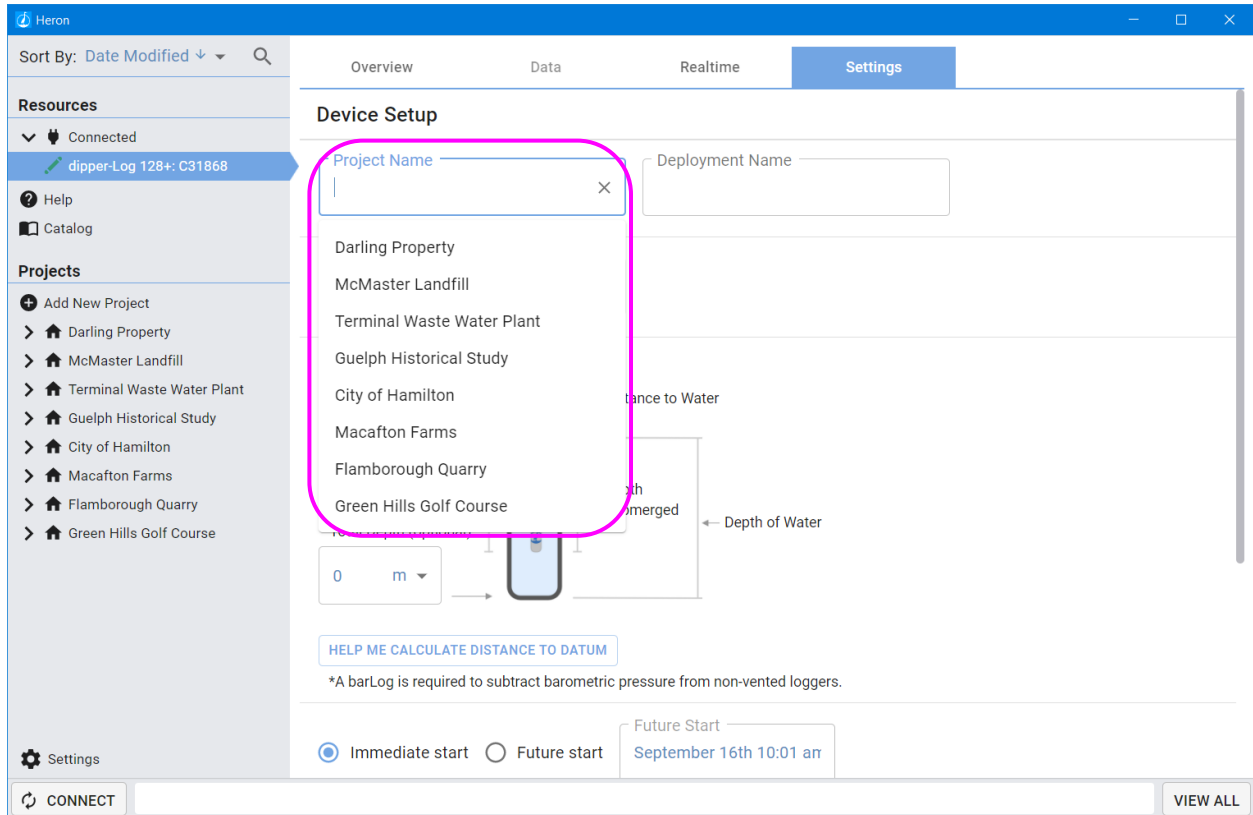
[HELP ME CALCULATE DISTANCE TO DATUM](#)

*A barLog is required to subtract barometric pressure from non-vented loggers.

Immediate start ☒ Future start ☐ Future Start
September 16th 10:01 am

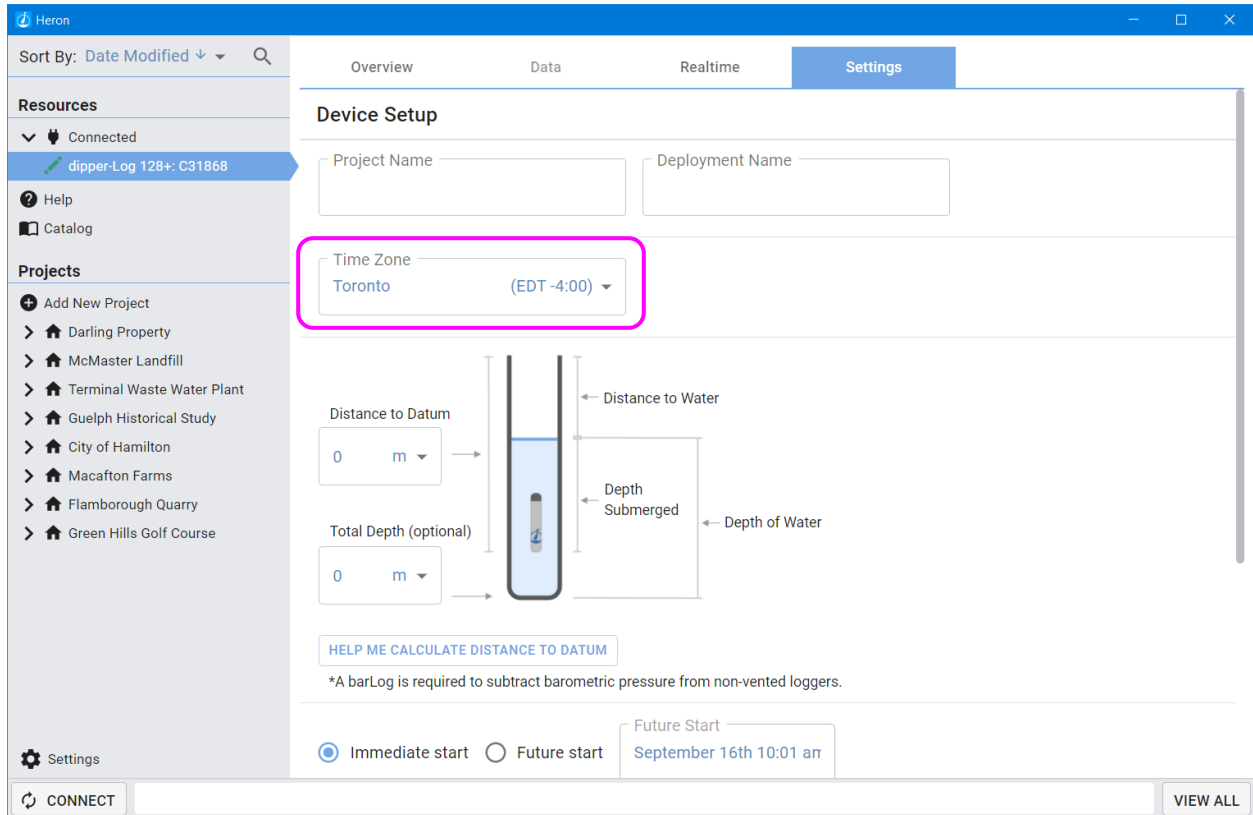
CONNECT **VIEW ALL**

If you are adding a device to an existing project, the project and deployment will be selectable in a drop down within the data field.



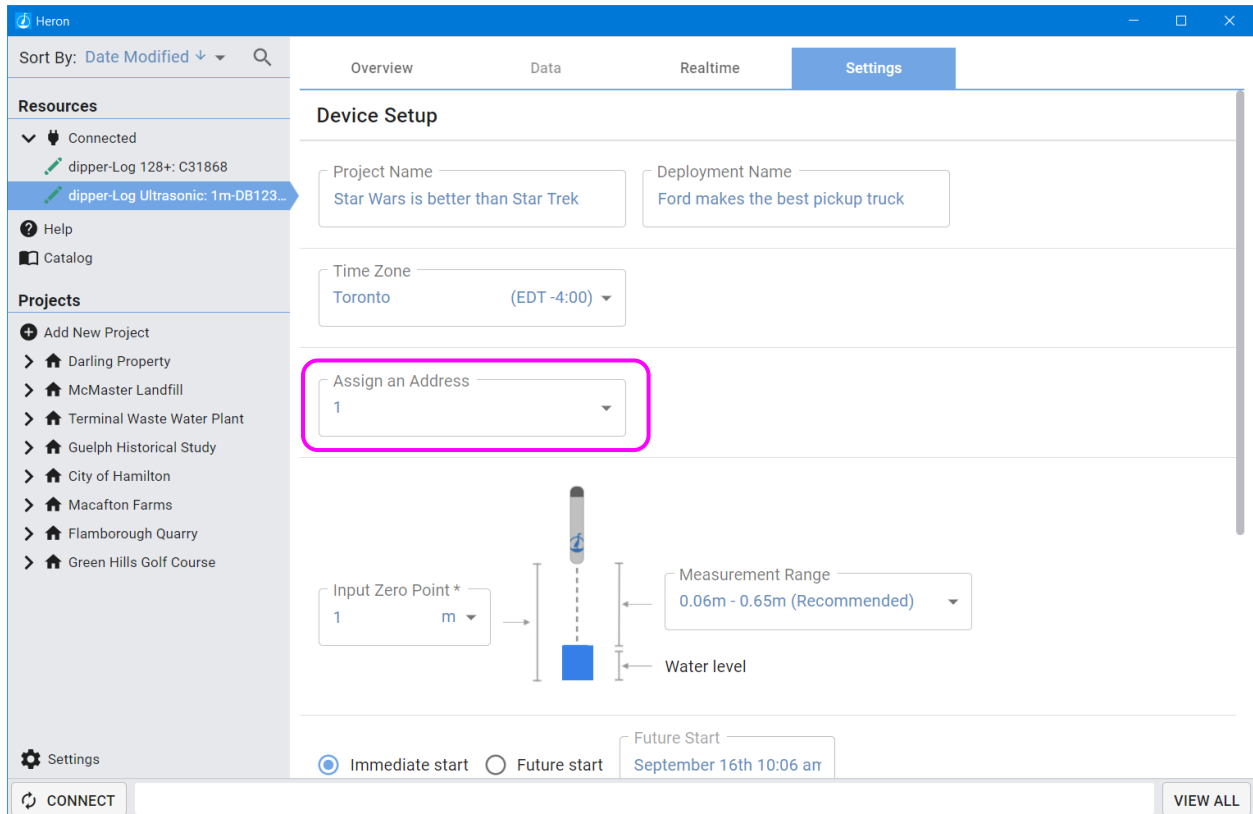
The screenshot shows the Heron Instruments web application interface. The left sidebar contains a 'Resources' section with 'Connected' devices (dipper-Log 128+: C31868) and a 'Projects' section with a list of projects: Darling Property, McMaster Landfill, Terminal Waste Water Plant, Guelph Historical Study, City of Hamilton, Macahton Farms, Flamborough Quarry, and Green Hills Golf Course. The main content area is titled 'Device Setup' and includes a 'Project Name' dropdown menu, a 'Deployment Name' input field, a 'Distance to Water' input field, a 'Depth of Water' input field, and a 'Future Start' date/time picker. The 'Project Name' dropdown menu is open, showing a list of projects. The dropdown is highlighted with a red rectangle. Below the dropdown is a 'HELP ME CALCULATE DISTANCE TO DATUM' button and a note: '*A barLog is required to subtract barometric pressure from non-vented loggers.' At the bottom, there are radio buttons for 'Immediate start' and 'Future start', and a 'VIEW ALL' button.

Time zone is selected based on your current location. Selecting allows you to choose different time zones based on your country or region.



The screenshot shows the Heron Instruments web interface. The left sidebar contains a search bar and a list of resources and projects. The main content area is titled 'Device Setup' and includes fields for Project Name, Deployment Name, and Time Zone. The Time Zone dropdown is highlighted with a red box, showing 'Toronto (EDT -4:00)'. Below this, there is a diagram of a logger in a water column with labels for 'Distance to Datum', 'Total Depth (optional)', 'Distance to Water', 'Depth Submerged', and 'Depth of Water'. A button 'HELP ME CALCULATE DISTANCE TO DATUM' is present. At the bottom, there are radio buttons for 'Immediate start' (selected) and 'Future start', and a 'Future Start' date/time field set to 'September 16th 10:01 am'. A 'CONNECT' button is at the bottom left, and a 'VIEW ALL' button is at the bottom right.

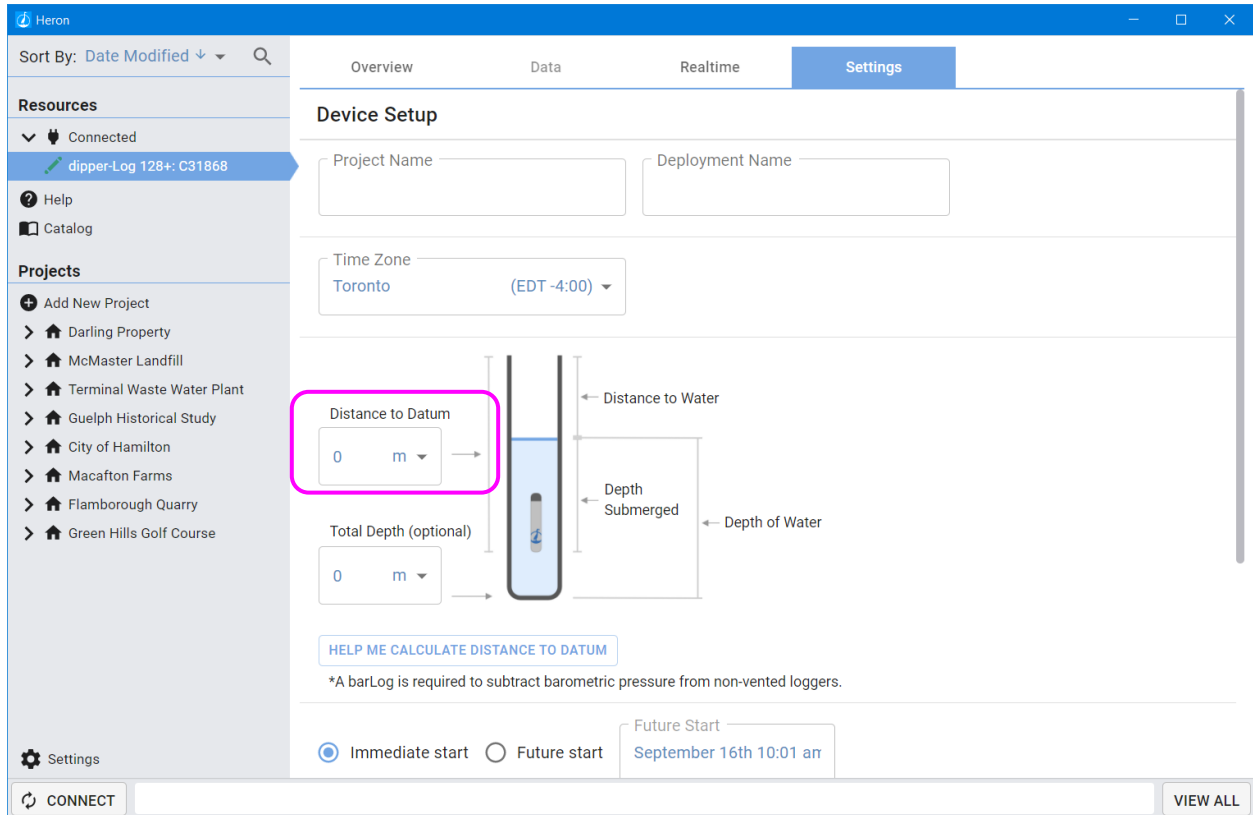
Assign an Address: When you have multiple loggers on a single cable, the addresses must be set to be different for each logger. This allows the software to communicate with all of them on the same cable. If the addresses for two loggers on the same cable are the same, it will cause interference issues.



The screenshot shows the Heron software interface with the following components:

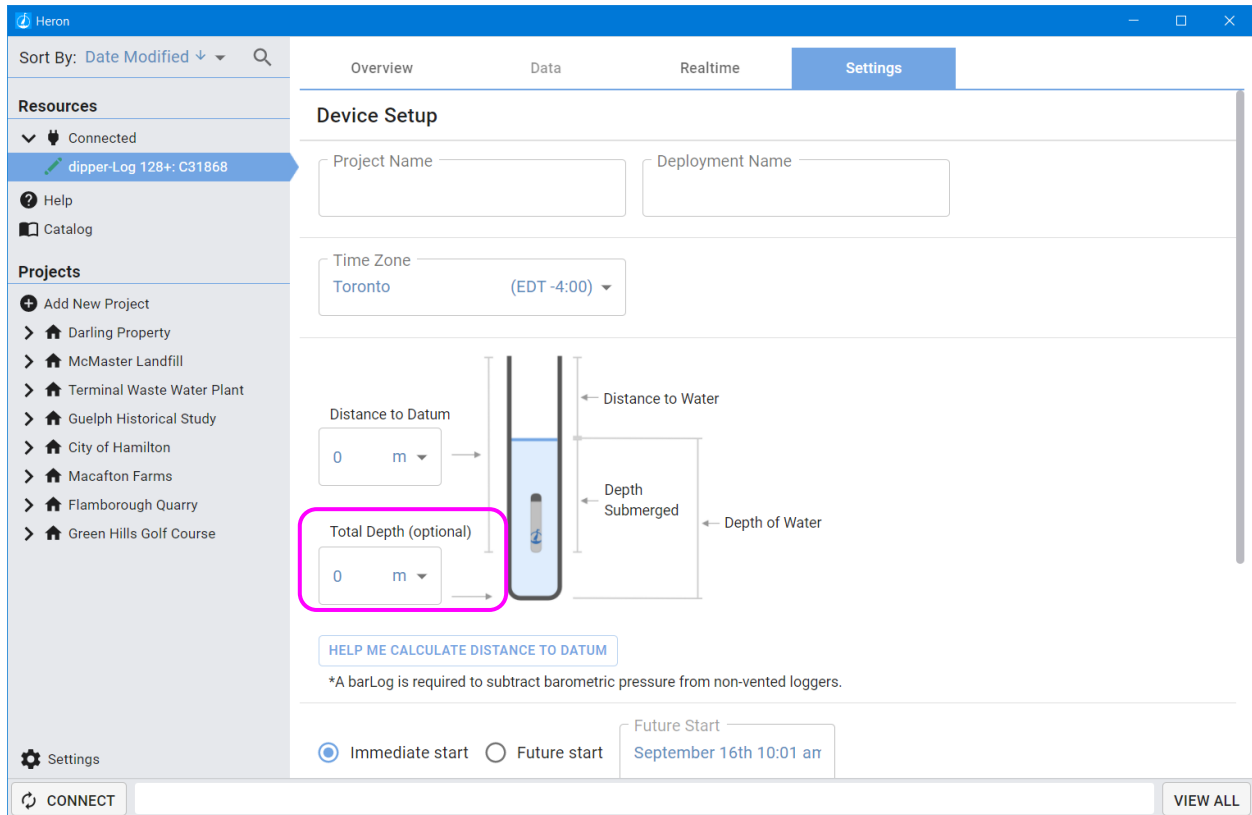
- Header:** Heron logo and window controls.
- Navigation Tabs:** Overview, Data, Realtime, **Settings**.
- Left Sidebar:**
 - Sort By:** Date Modified
 - Resources:**
 - Connected
 - dipper-Log 128+: C31868
 - dipper-Log Ultrasonic: 1m-DB123...**
 - Help
 - Catalog
 - Projects:**
 - Add New Project
 - Darling Property
 - McMaster Landfill
 - Terminal Waste Water Plant
 - Guelph Historical Study
 - City of Hamilton
 - Macrafton Farms
 - Flamborough Quarry
 - Green Hills Golf Course
 - Settings
- Main Content Area (Device Setup):**
 - Project Name:** Star Wars is better than Star Trek
 - Deployment Name:** Ford makes the best pickup truck
 - Time Zone:** Toronto (EDT -4:00)
 - Assign an Address:** 1 (highlighted with a pink box)
 - Input Zero Point *:** 1 m
 - Measurement Range:** 0.06m - 0.65m (Recommended)
 - Water level:** Indicated by a diagram of a sensor in a water body.
 - Future Start:** September 16th 10:06 am
 - Start Options:** ☒ Immediate start ☐ Future start
 - Buttons:** CONNECT, VIEW ALL

Distance to Datum is how far down the device is deployed from your datum point (the point at which your measurements are taken from). This field must be filled out.



The screenshot shows the Heron Instruments web application interface. The top navigation bar includes tabs for Overview, Data, Realtime, and Settings. The left sidebar contains a search bar and sections for Resources (Connected devices, including 'dipper-Log 128+: C31868') and Projects (a list of locations like Darling Property, McMaster Landfill, etc.). The main content area is titled 'Device Setup' and contains several input fields: Project Name, Deployment Name, Time Zone (set to Toronto, EDT -4:00), Distance to Datum (highlighted with a pink box and set to 0 m), and Total Depth (optional, set to 0 m). A diagram of a device in a well illustrates the measurement points: Distance to Water, Depth Submerged, and Depth of Water. A 'HELP ME CALCULATE DISTANCE TO DATUM' button is present, along with a note: '*A barLog is required to subtract barometric pressure from non-vented loggers.' At the bottom, there are radio buttons for 'Immediate start' (selected) and 'Future start', with a 'Future Start' date/time field set to 'September 16th 10:01 am'. A 'CONNECT' button is at the bottom left, and a 'VIEW ALL' button is at the bottom right.

Total Depth is optional but recommended. It is the total depth (from the datum point of measurement) to the bottom of the well or body of water being measured. Entering this in allows the software to calculate more information for you (saving you manual work). The easiest way to get your Total Depth is by using a dipper-T with the optional well depth indicator probe. It provides accurate reliable readings from the bottom of your water column. Other methods exist for getting Total Depth, but they are not awesome, like you are.



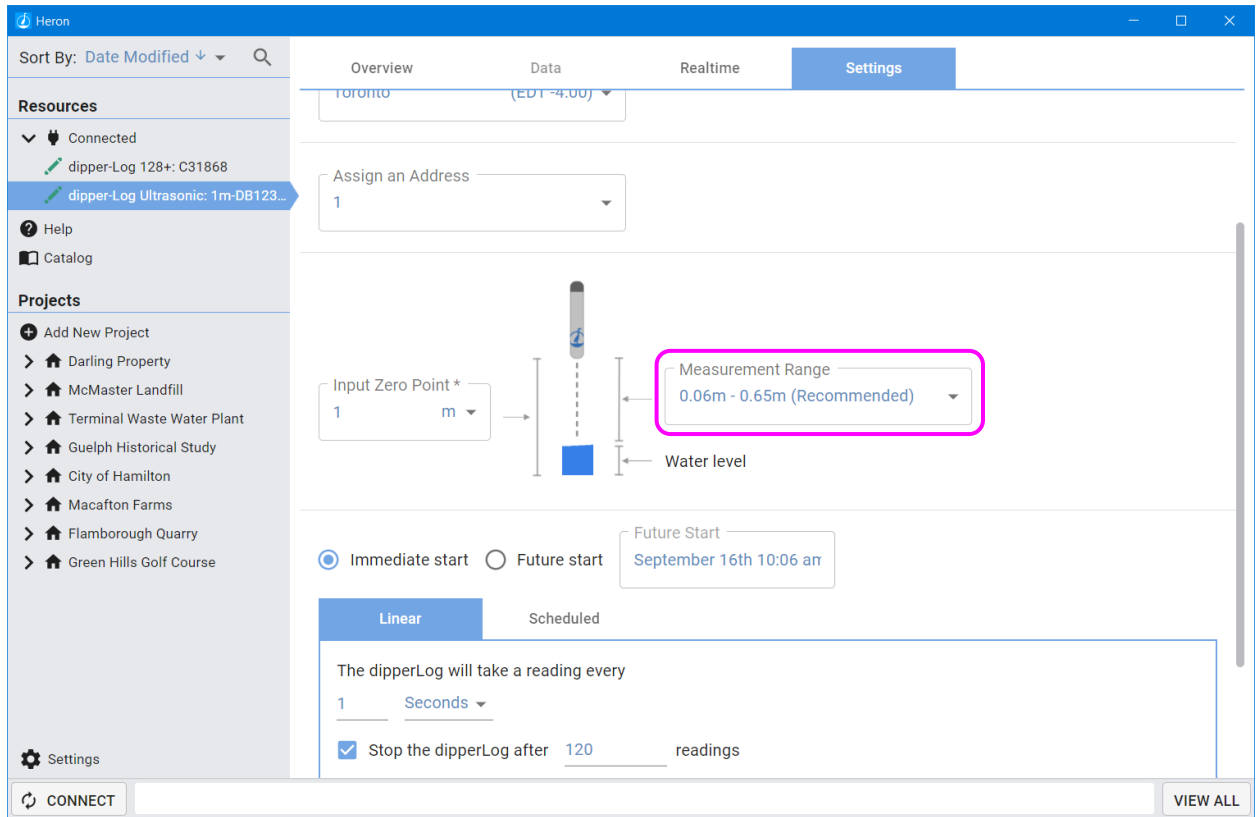
The screenshot shows the Heron software interface with the 'Settings' tab selected. The 'Device Setup' section contains the following fields and options:

- Project Name** and **Deployment Name** (text input fields)
- Time Zone** (dropdown menu showing 'Toronto (EDT -4:00)')
- Distance to Datum** (input field with '0 m')
- Total Depth (optional)** (input field with '0 m', highlighted with a pink box)
- Distance to Water** (input field)
- Depth Submerged** (input field)
- Depth of Water** (input field)
- HELP ME CALCULATE DISTANCE TO DATUM** (button)
- *A barLog is required to subtract barometric pressure from non-vented loggers.** (note)
- Immediate start** (selected radio button) and **Future start** (radio button)
- Future Start** (input field showing 'September 16th 10:01 am')

At the bottom of the interface, there is a **CONNECT** button and a **VIEW ALL** button.

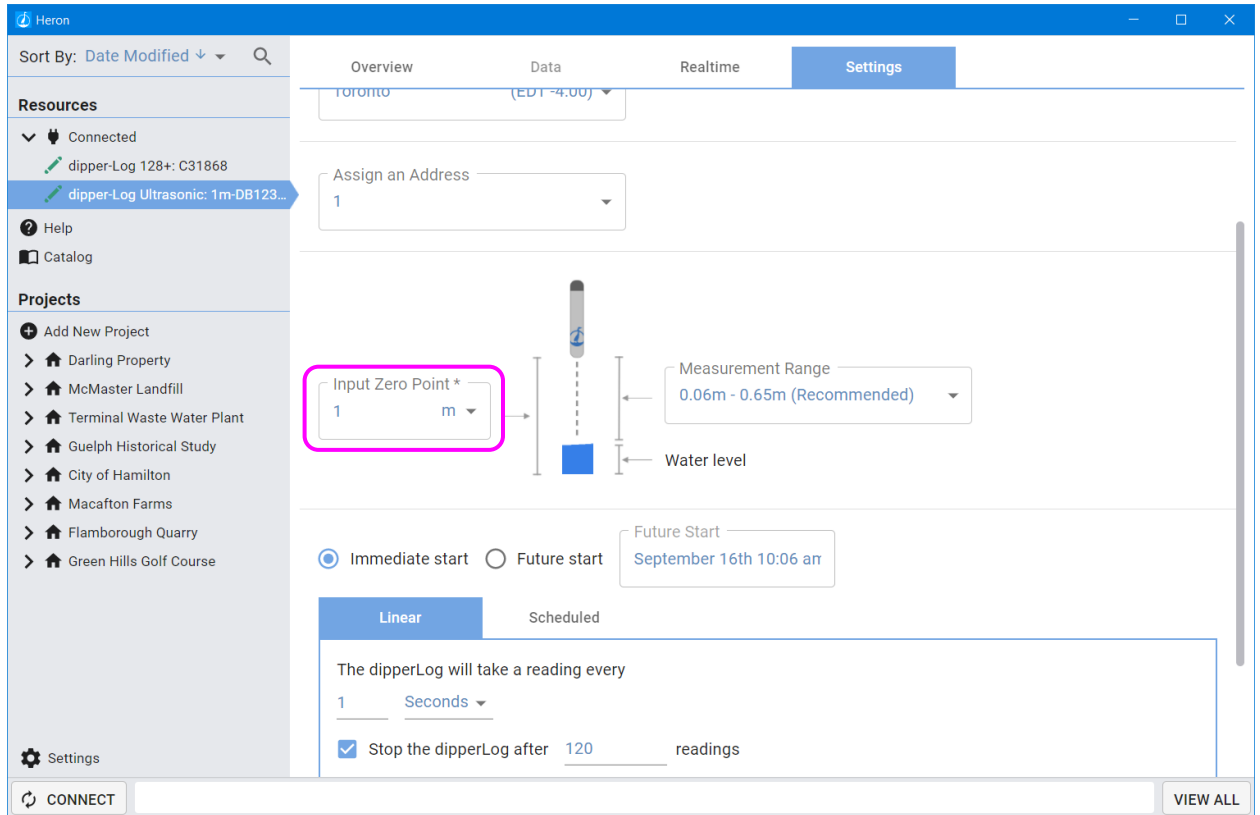
For Ultrasonic loggers-

- You can choose a measurement range. The greater increases reliability, but also reduces accuracy. You can choose different options based on your application.



The screenshot shows the Heron Instruments web interface. The left sidebar contains a 'Resources' section with 'Connected' devices (dipper-Log 128+: C31868 and dipper-Log Ultrasonic: 1m-DB123...) and a 'Projects' section with a list of locations. The main content area is titled 'Settings' and includes tabs for 'Overview', 'Data', 'Realtime', and 'Settings'. The 'Settings' tab is active, showing a configuration page for the 'dipper-Log Ultrasonic: 1m-DB123...' device. The page includes a 'Assign an Address' dropdown set to '1', a diagram of the ultrasonic logger with an 'Input Zero Point *' set to '1 m' and a 'Measurement Range' dropdown set to '0.06m - 0.65m (Recommended)'. Below the diagram, there are radio buttons for 'Immediate start' (selected) and 'Future start' (with a date/time picker set to 'September 16th 10:06 am'). At the bottom, there are tabs for 'Linear' and 'Scheduled', and a section for 'The dipperLog will take a reading every' set to '1 Seconds'. A checkbox 'Stop the dipperLog after 120 readings' is checked. At the bottom of the interface are 'CONNECT' and 'VIEW ALL' buttons.

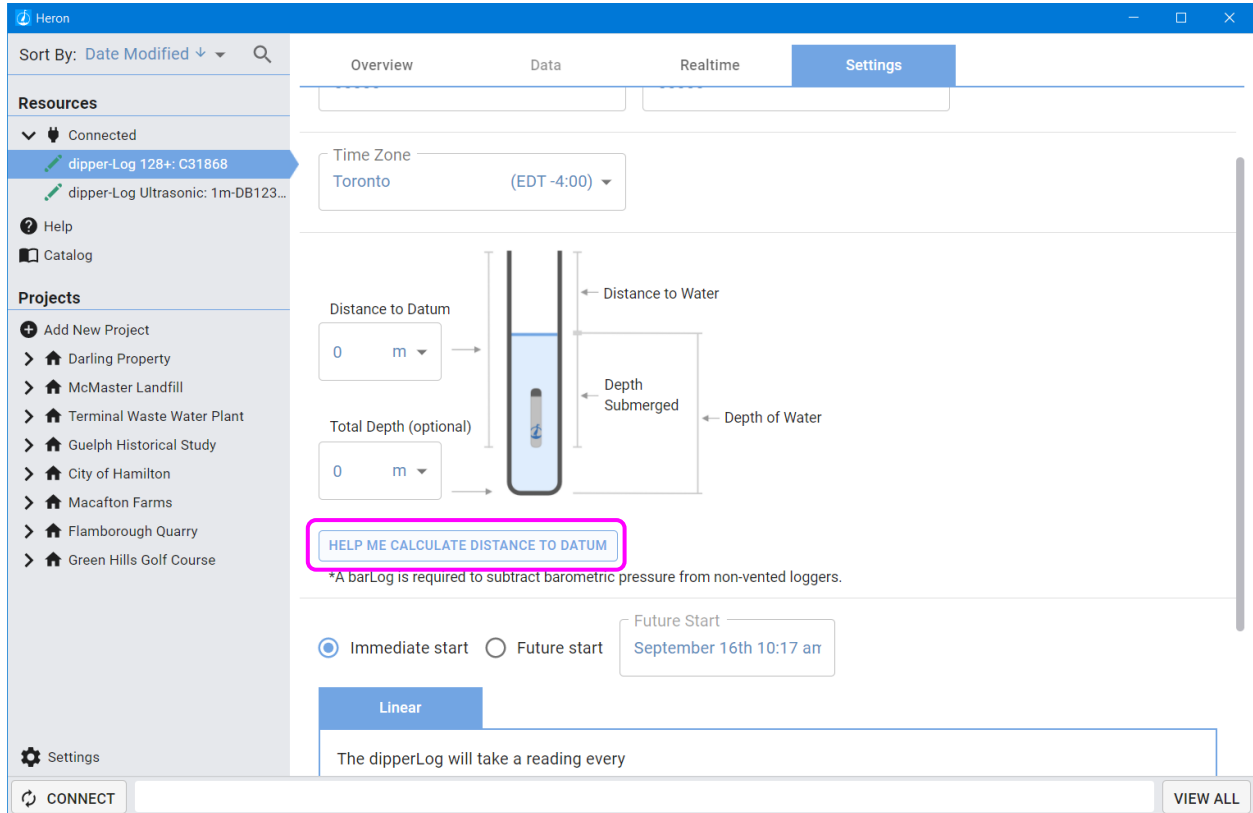
Input Zero Point is similar to Total Depth. You must however enter it for ultrasonic loggers. This allows the software to accurately calculate your Depth of Water.



The screenshot shows the Heron software interface with the following details:

- Header:** Heron logo and window controls.
- Navigation:** Overview, Data, Realtime, and Settings tabs. The Settings tab is active.
- Left Sidebar:**
 - Resources:** Connected devices list including 'dipper-Log 128+: C31868' and 'dipper-Log Ultrasonic: 1m-DB123...' (highlighted).
 - Help:** ? icon.
 - Catalog:** icon.
 - Projects:**
 - + Add New Project
 - > Darling Property
 - > McMaster Landfill
 - > Terminal Waste Water Plant
 - > Guelph Historical Study
 - > City of Hamilton
 - > Macahton Farms
 - > Flamborough Quarry
 - > Green Hills Golf Course
 - Settings:** gear icon.
- Main Content Area:**
 - Location:** Toronto (EDT -4:00)
 - Assign an Address:** 1
 - Diagram:** A vertical probe with a blue box at the bottom representing the water level. The 'Input Zero Point' field (containing '1') is highlighted with a pink box. The 'Measurement Range' is '0.06m - 0.65m (Recommended)'. The 'Water level' is indicated by a blue box.
 - Start Options:**
 - ☒ Immediate start
 - ☐ Future start (September 16th 10:06 am)
 - Reading Interval:**
 - Linear:** Selected tab.
 - Scheduled:** Unselected tab.
 - The dipperLog will take a reading every 1 Seconds.
 - ☒ Stop the dipperLog after 120 readings.
- Footer:** CONNECT button and VIEW ALL button.

Help me calculate distance to datum tool- this is a useful step by step guide for deployments on direct read cables. You will need a logger on direct read cable and a water level meter like a Heron Instruments dipper-T. Other water level meters will work. But let's be real; they're not as good as one from Heron Instruments.



HERON INSTRUMENTS INC.

Sort By: Date Modified

Resources

- Connected
- dipper-Log 128+: C31868
- dipper-Log Ultrasonic: 1m-DB123...

Help

Catalog

Projects

- Add New Project
- Darling Property
- McMaster Landfill
- Terminal Waste Water Plant
- Guelph Historical Study
- City of Hamilton
- Macafton Farms
- Flamborough Quarry
- Green Hills Golf Course

Settings

CONNECT

VIEW ALL

Overview Data Realtime **Settings**

Time Zone: Toronto (EDT -4:00)

Distance to Datum: 0 m

Total Depth (optional): 0 m

Distance to Water

Depth Submerged

Depth of Water

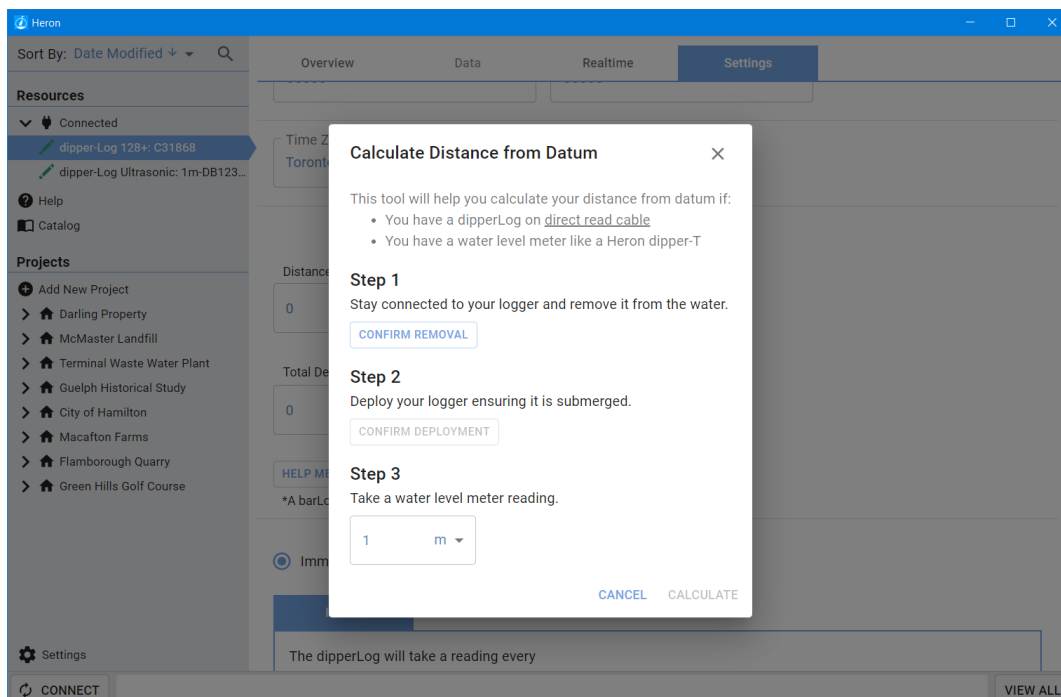
HELP ME CALCULATE DISTANCE TO DATUM

*A barLog is required to subtract barometric pressure from non-vented loggers.

Immediate start ☒ Future start ☐ Future Start: September 16th 10:17 am

Linear

The dipperLog will take a reading every



HERON INSTRUMENTS INC.

Sort By: Date Modified

Resources

- Connected
- dipper-Log 128+: C31868
- dipper-Log Ultrasonic: 1m-DB123...

Help

Catalog

Projects

- Add New Project
- Darling Property
- McMaster Landfill
- Terminal Waste Water Plant
- Guelph Historical Study
- City of Hamilton
- Macafton Farms
- Flamborough Quarry
- Green Hills Golf Course

Settings

CONNECT

VIEW ALL

Overview Data Realtime **Settings**

Time Zone: Toronto

Distance to Datum: 0 m

Total Depth (optional): 0 m

Calculate Distance from Datum

This tool will help you calculate your distance from datum if:

- You have a dipperLog on direct read cable
- You have a water level meter like a Heron dipper-T

Step 1

Stay connected to your logger and remove it from the water.

CONFIRM REMOVAL

Step 2

Deploy your logger ensuring it is submerged.

CONFIRM DEPLOYMENT

Step 3

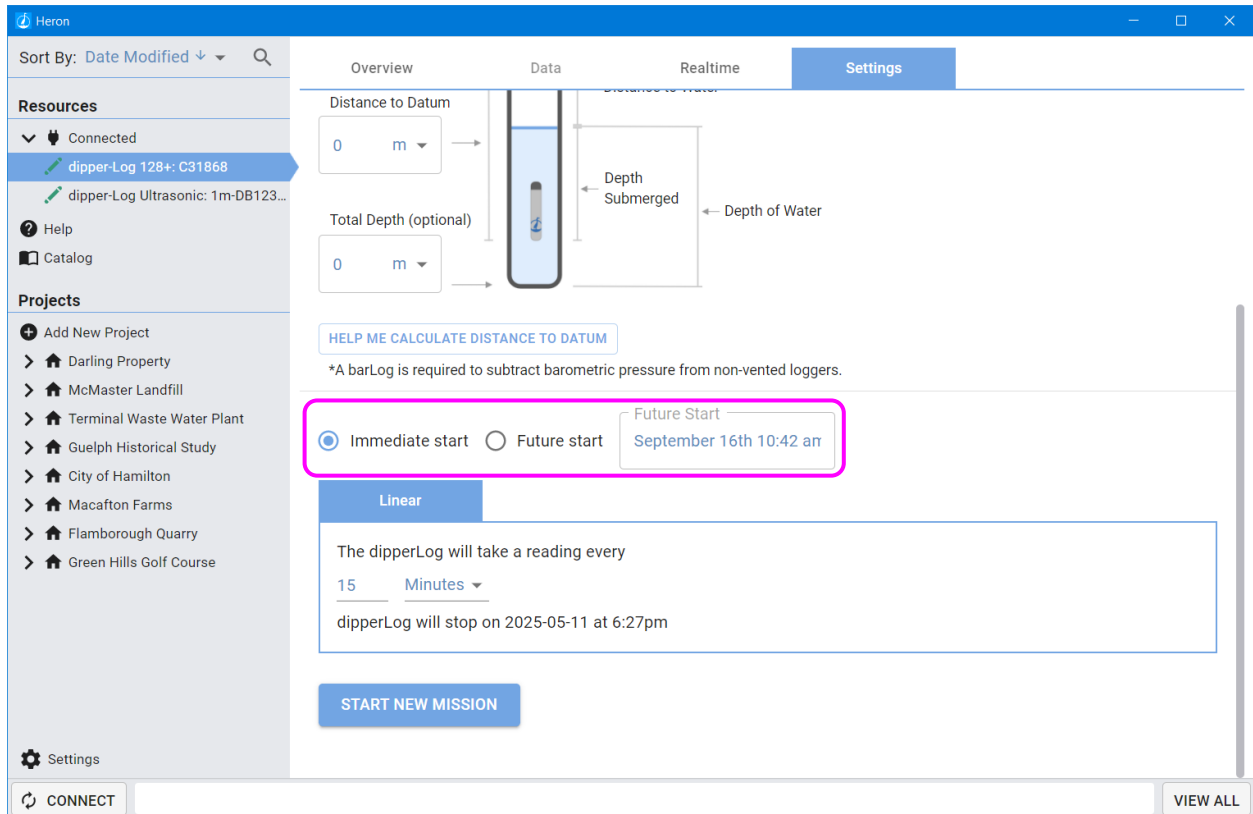
Take a water level meter reading.

1 m

CANCEL CALCULATE

The dipperLog will take a reading every

By default, the logger is set to start its mission immediately. You can change this to start at a future date by selecting “Future Start” and then clicking in the date field to edit it. Once you load your new settings your logger will now wait to start its mission until the time you selected.



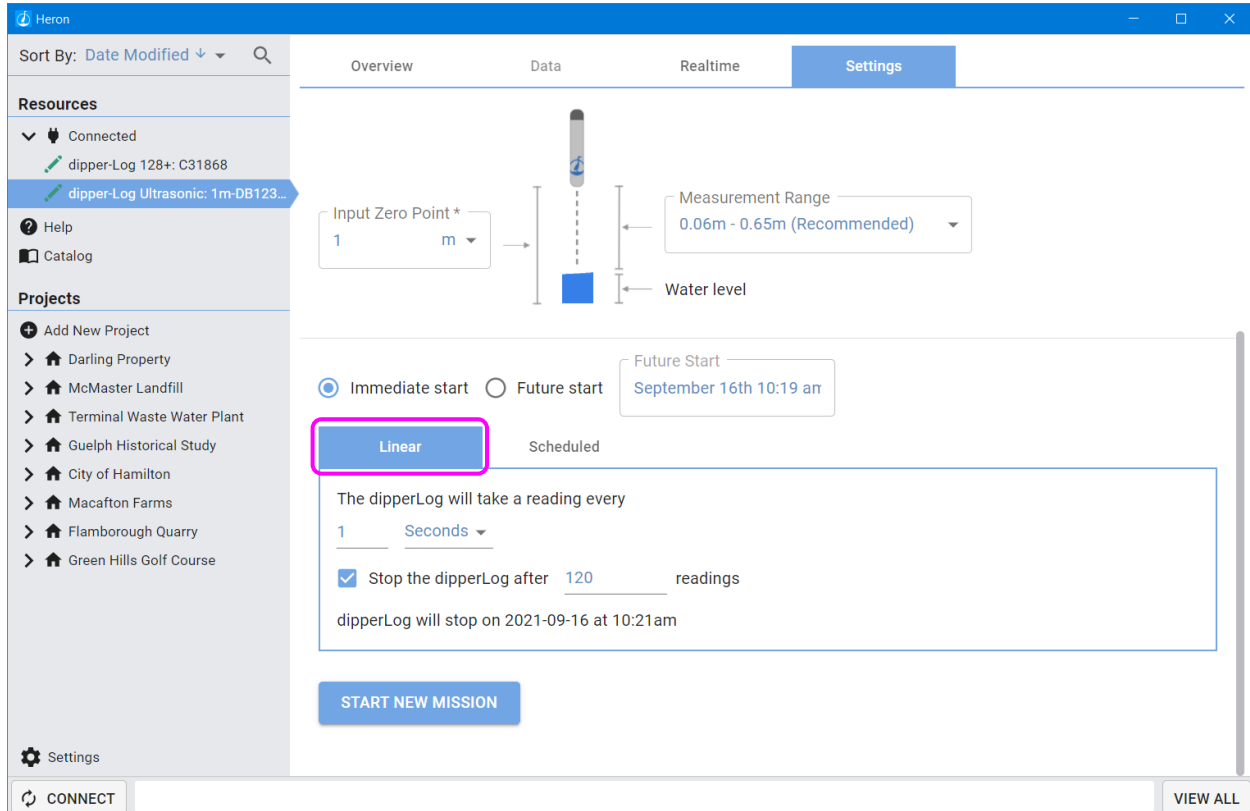
The screenshot shows the Heron software interface with the Settings tab selected. The left sidebar contains a list of resources and projects. The main area displays mission configuration options:

- Distance to Datum:** A dropdown menu set to 0 m.
- Total Depth (optional):** A dropdown menu set to 0 m.
- Start Options:** Radio buttons for "Immediate start" (selected) and "Future start".
- Future Start Date/Time:** A field showing "September 16th 10:42 am".
- Sampling Rate:** A dropdown menu set to 15 Minutes.
- Stop Time:** A field showing "dipperLog will stop on 2025-05-11 at 6:27pm".
- START NEW MISSION:** A blue button at the bottom.

A diagram in the top right corner illustrates the relationship between "Distance to Datum", "Depth Submerged", and "Depth of Water".

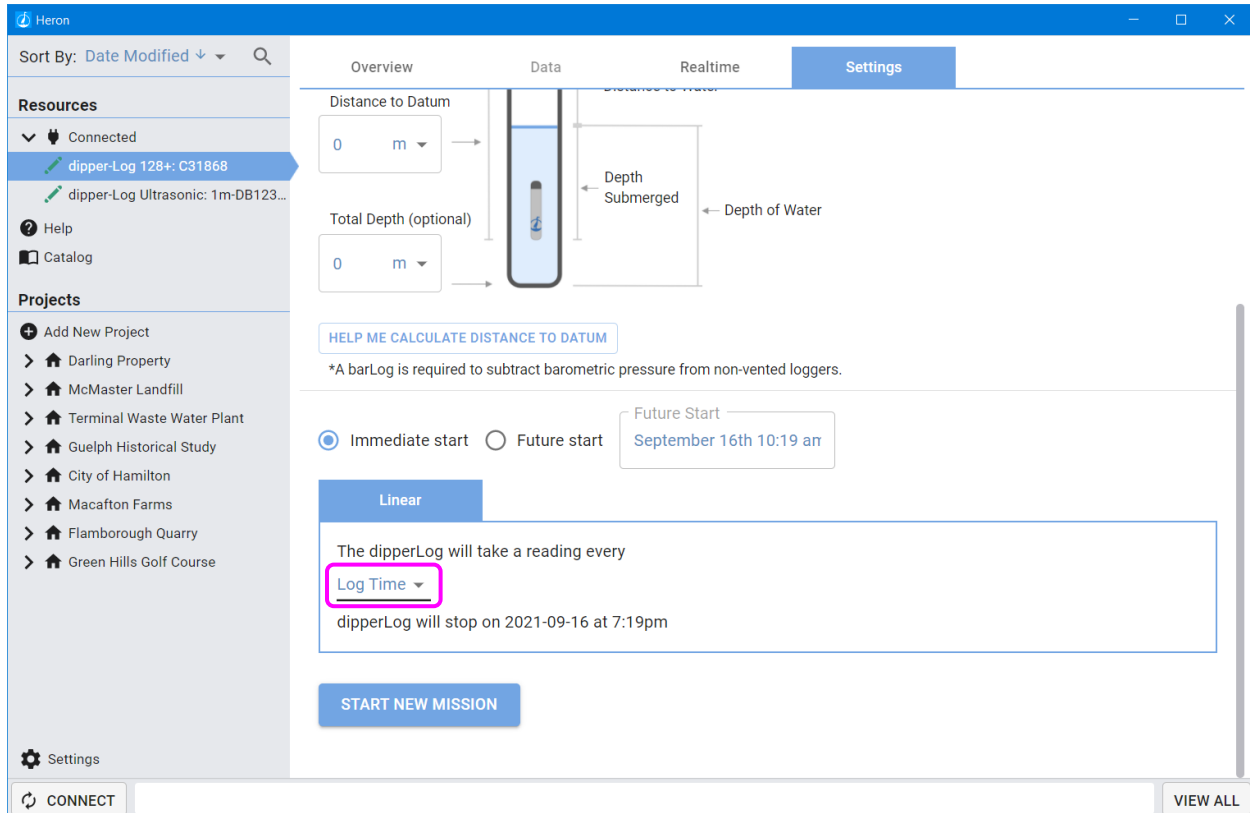
Reading intervals. Most loggers support Linear reading intervals only. Some loggers also support Scheduled intervals.

Linear allows you to set the interval of time between each reading being taken. Some loggers will allow you to select a maximum number of readings to be taken as well.



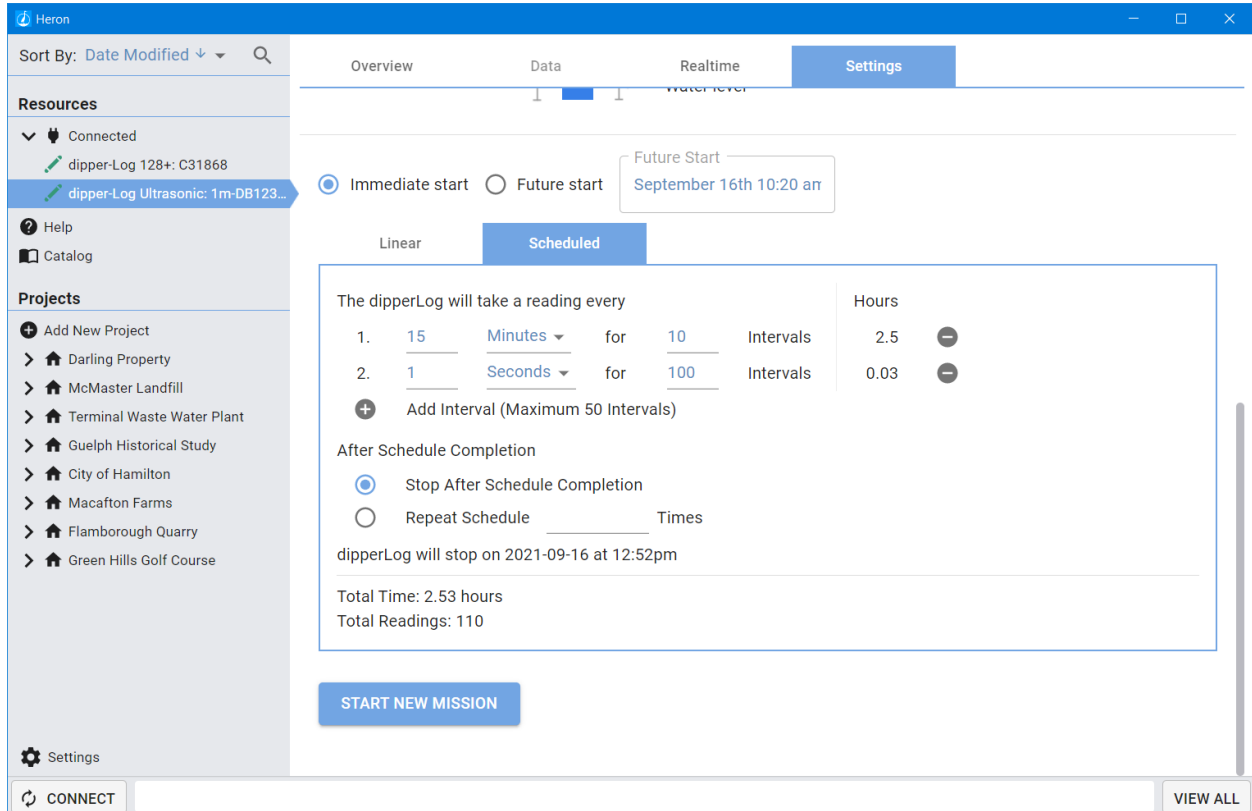
The screenshot shows the Heron software interface. On the left sidebar, under 'Resources', there are two connected devices: 'dipper-Log 128+: C31868' and 'dipper-Log Ultrasonic: 1m-DB123...'. The 'dipper-Log Ultrasonic: 1m-DB123...' device is selected. Below the sidebar, there are tabs for 'Overview', 'Data', 'Realtime', and 'Settings'. The 'Settings' tab is active. The main content area shows a diagram of a dipperLog device with a vertical scale. The 'Input Zero Point *' is set to '1 m'. The 'Measurement Range' is set to '0.06m - 0.65m (Recommended)'. Below the diagram, there are two radio buttons: 'Immediate start' (selected) and 'Future start'. The 'Future start' button has a date and time 'September 16th 10:19 am'. Below the radio buttons, there are two tabs: 'Linear' (selected) and 'Scheduled'. The 'Linear' tab is highlighted with a red box. Below the 'Linear' tab, there is a text box that says 'The dipperLog will take a reading every 1 Seconds'. Below this, there is a checkbox 'Stop the dipperLog after 120 readings' which is checked. Below the checkbox, it says 'dipperLog will stop on 2021-09-16 at 10:21am'. At the bottom of the main content area, there is a blue button labeled 'START NEW MISSION'. At the bottom of the sidebar, there is a 'Settings' icon. At the bottom of the interface, there is a 'CONNECT' button and a 'VIEW ALL' button.

Log type measures and records the first reading at 1 second, with 1 second added to each subsequent reading interval for 255 readings. This is supported by some but not all loggers.



The screenshot shows the Heron software interface with the 'Settings' tab selected. The left sidebar contains a 'Resources' section with 'Connected' devices, including 'dipper-Log 128+: C31868' and 'dipper-Log Ultrasonic: 1m-DB123...'. Below this is a 'Projects' section with a list of locations. The main content area is divided into 'Overview', 'Data', 'Realtime', and 'Settings' tabs. The 'Settings' tab is active, showing a diagram of a dipper-Log in a water column. The diagram labels 'Distance to Datum' (0 m), 'Total Depth (optional)' (0 m), 'Depth Submerged', and 'Depth of Water'. A 'HELP ME CALCULATE DISTANCE TO DATUM' button is present, along with a note: '*A barLog is required to subtract barometric pressure from non-vented loggers.' Below this, there are radio buttons for 'Immediate start' (selected) and 'Future start' (with a date/time picker set to 'September 16th 10:19 am'). A 'Linear' button is also visible. A text box states: 'The dipperLog will take a reading every Log Time' (where 'Log Time' is highlighted with a red box) and 'dipperLog will stop on 2021-09-16 at 7:19pm'. A 'START NEW MISSION' button is at the bottom. The bottom status bar shows a 'CONNECT' button and a 'VIEW ALL' button.

Scheduled allows you to create a logging schedule that the logger will follow. These can be as simple or as complex as you would like. Start by creating one interval and a maximum number of readings for that interval. Click the (+) button to add more intervals. Continue with up to 50 intervals. You can remove intervals by selecting the (-) button. At the completion of your intervals, you can decide to either repeat or to stop your mission.



The screenshot shows the Heron software interface with the 'Settings' tab selected. The sidebar on the left lists 'Resources' (dipper-Log 128+: C31868, dipper-Log Ultrasonic: 1m-DB123...) and 'Projects' (Darling Property, McMaster Landfill, Terminal Waste Water Plant, Guelph Historical Study, City of Hamilton, Macafton Farms, Flamborough Quarry, Green Hills Golf Course). The main panel shows mission settings. Under 'Future Start', the date is 'September 16th 10:20 am'. The 'Scheduled' tab is active, showing two intervals: 1. 15 Minutes for 10 Intervals (2.5 hours) and 2. 1 seconds for 100 Intervals (0.03 hours). A summary shows 'Total Time: 2.53 hours' and 'Total Readings: 110'. A 'START NEW MISSION' button is at the bottom.

Note: if the logger was already on a mission the settings will be filled out for you with the current mission settings. Starting a new mission will overwrite the old one. Make sure your data is downloaded before starting a new mission. **Starting a new mission will delete the data stored on the logger.** Data downloaded to the database on your computer will not be affected.

Note for Pressure Logger Deployments: Remember that only bar-Logs set up in the same project can be used to compensate the data of your dipper-Logs. bar-Logs can be in different deployments, however, must have the same project entered in settings. If you have more than one bar-Log in a project, you can choose which one to compensate your data with.

Once all settings are entered, you can click “START NEW MISSION”. This will load all of your settings into the logger. Your logger will now appear in your data management panel under the appropriate project and deployment. If you do not click “START NEW MISSION” the settings will be lost!

The screenshot displays the 'Settings' tab of the DipperLog application. The left sidebar contains sections for Resources (Connected devices), Projects (a list of locations), and Settings (gear icon). The main panel is titled 'Settings' and includes tabs for Overview, Data, Realtime, and Settings.

Distance to Datum: A dropdown menu shows '50 m'. An arrow points from this value to a diagram of a dipperLog sensor submerged in water. The diagram also labels 'Depth Submerged' and 'Depth of Water'.

Total Depth (optional): A dropdown menu shows '100 m'. An arrow points from this value to the same diagram.

A blue button labeled 'HELP ME CALCULATE DISTANCE TO DATUM' is present. Below it, a note states: '*A barLog is required to subtract barometric pressure from non-vented loggers.'

Future Start: A section with two radio buttons: 'Immediate start' (selected) and 'Future start'. To the right, a box shows the selected future start time: 'September 16th 10:22 am'.

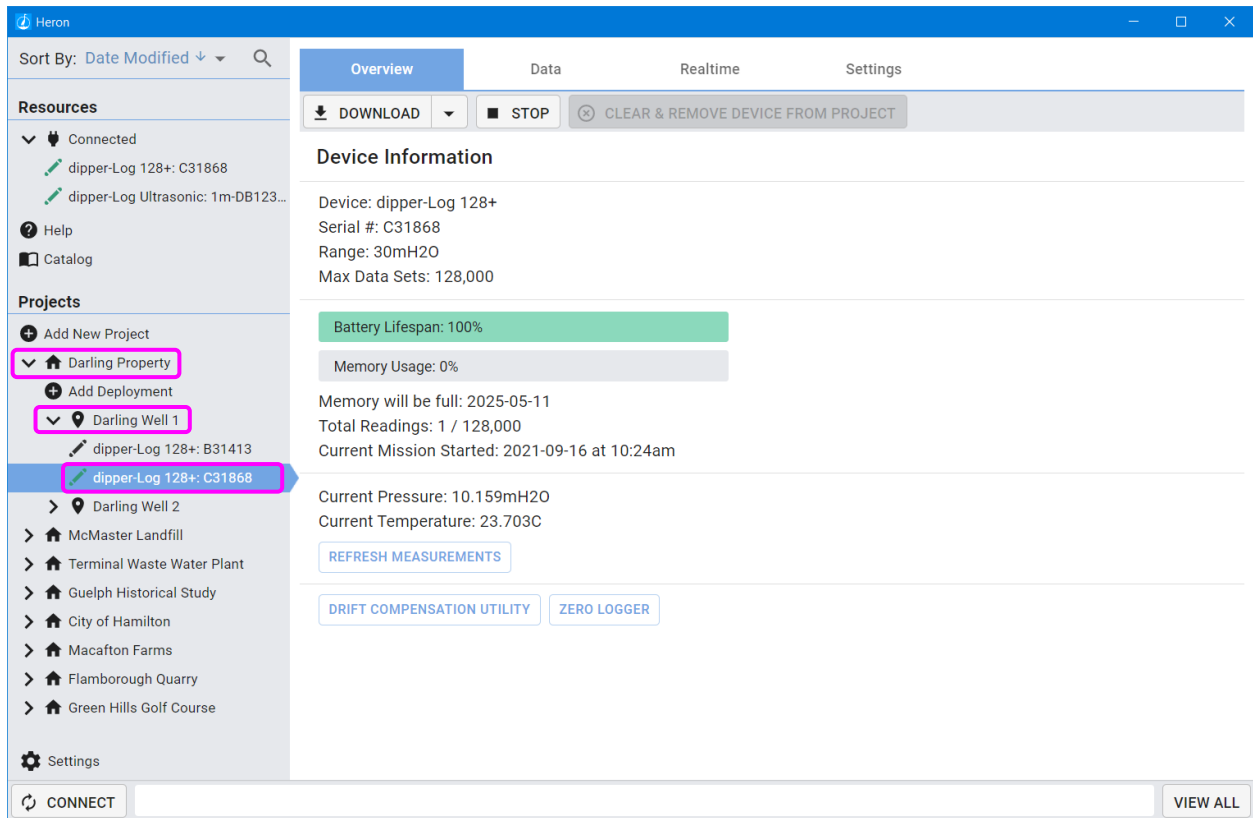
Linear: A blue header for the linear logging mode section.

Logging Interval: A text box stating 'The dipperLog will take a reading every' followed by a dropdown menu set to '15 Minutes'.

Stop Time: A text box stating 'dipperLog will stop on 2025-05-11 at 6:07pm'.

A large red rectangular box highlights the 'START NEW MISSION' button at the bottom of the settings panel.

At the very bottom of the window, there are two buttons: 'CONNECT' and 'VIEW ALL'.



Sort By: Date Modified

Resources

- Connected
 - dipper-Log 128+: C31868
 - dipper-Log Ultrasonic: 1m-DB123...
- Help
- Catalog

Projects

- Add New Project
- Darling Property
 - Add Deployment
 - Darling Well 1
 - dipper-Log 128+: B31413
 - dipper-Log 128+: C31868
 - Darling Well 2
- McMaster Landfill
- Terminal Waste Water Plant
- Guelph Historical Study
- City of Hamilton
- Macafton Farms
- Flamborough Quarry
- Green Hills Golf Course
- Settings

Overview | Data | Realtime | Settings

DOWNLOAD | STOP | CLEAR & REMOVE DEVICE FROM PROJECT

Device Information

Device: dipper-Log 128+
 Serial #: C31868
 Range: 30mH2O
 Max Data Sets: 128,000

Battery Lifespan: 100%
 Memory Usage: 0%

Memory will be full: 2025-05-11
 Total Readings: 1 / 128,000
 Current Mission Started: 2021-09-16 at 10:24am

Current Pressure: 10.159mH2O
 Current Temperature: 23.703C

REFRESH MEASUREMENTS

DRIFT COMPENSATION UTILITY | ZERO LOGGER

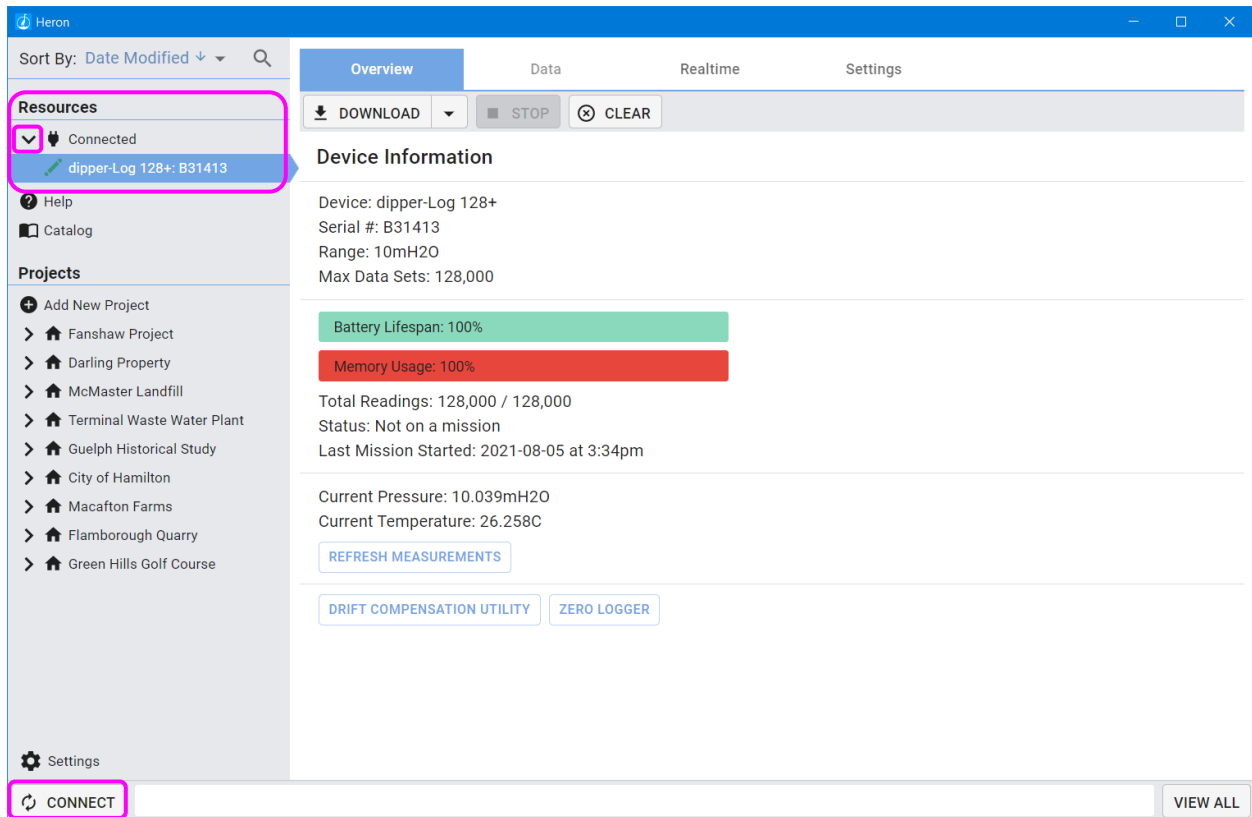
CONNECT | VIEW ALL

You can now disconnect your logger and deploy it.

Downloading your data

Connect your pc-communication cable to your computer. Connect your logger to your pc-communication cable. Open the software.

When the software opens it will display all of your connected loggers in the top left-hand side of the software in the “Connected” drop down of the “Resources” section. You can collapse or open the “Connected” items by clicking on the arrow. If your device isn’t showing up yet, click “CONNECT” in the bottom left-hand corner. This will scan all of your ports for any Heron Instruments’ devices.



The screenshot shows the Heron Instruments software interface. The 'Resources' section on the left has a 'Connected' dropdown menu. The 'dipper-Log 128+: B31413' device is listed under this dropdown. The 'Projects' section lists several projects, including 'Fanshaw Project', 'Darling Property', 'McMaster Landfill', 'Terminal Waste Water Plant', 'Guelph Historical Study', 'City of Hamilton', 'Macafton Farms', 'Flamborough Quarry', and 'Green Hills Golf Course'. The 'Settings' button is at the bottom left. The 'CONNECT' button is at the bottom left of the main window. The 'Device Information' section on the right shows details for the 'dipper-Log 128+' device, including its serial number, range, and data sets. It also displays battery and memory usage bars, total readings, status, and last mission start time. The 'Current Pressure' and 'Current Temperature' are also shown, along with buttons for 'REFRESH MEASUREMENTS', 'DRIFT COMPENSATION UTILITY', and 'ZERO LOGGER'.

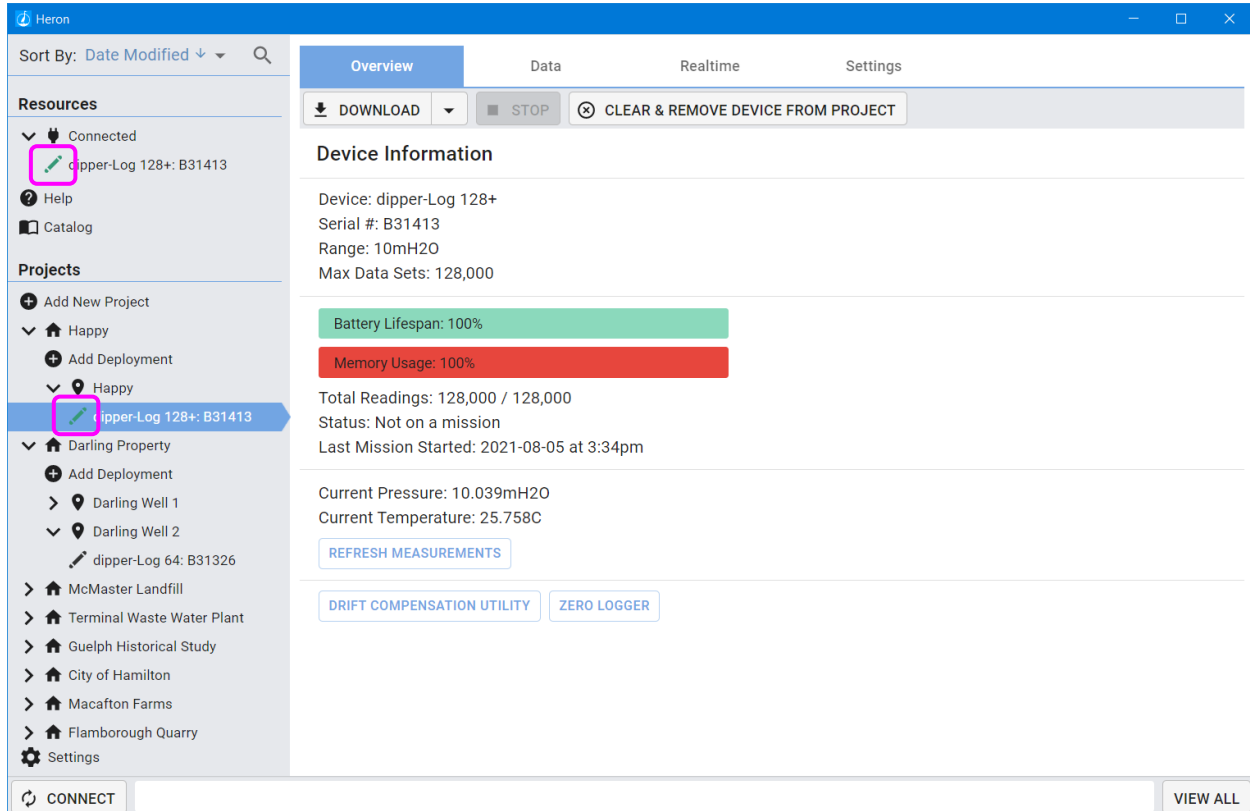
Device	Serial #	Range	Max Data Sets
dipper-Log 128+	B31413	10mH2O	128,000

Metric	Value
Battery Lifespan	100%
Memory Usage	100%

Metric	Value
Total Readings	128,000 / 128,000
Status	Not on a mission
Last Mission Started	2021-08-05 at 3:34pm

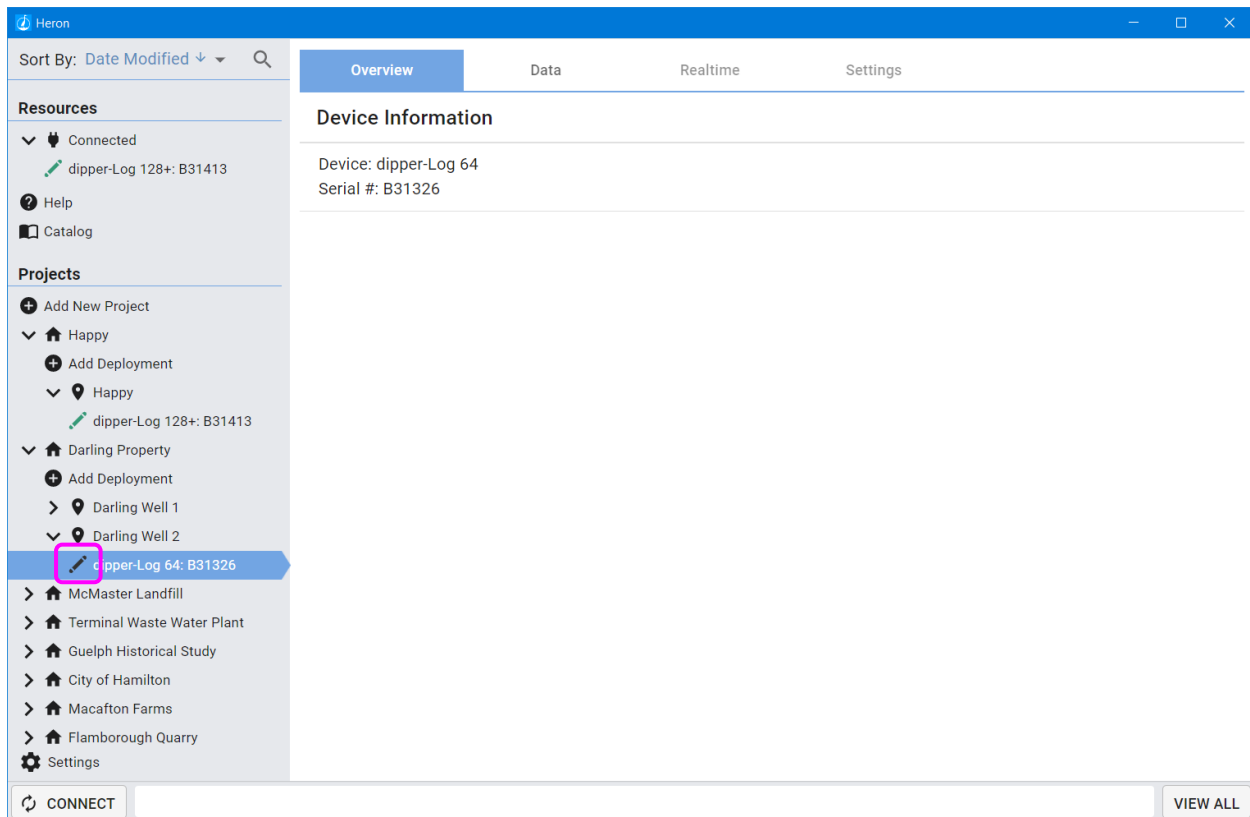
Metric	Value
Current Pressure	10.039mH2O
Current Temperature	26.258C

You can select your device by clicking on it. If you only have one device connected at a time, the software will automatically select and display it for you. The software will now display an overview of your device and its current state. The device will show up selected in your data management panel under “Projects” if it has already been downloaded. You can tell which devices are connected, by the green icon beside their name.



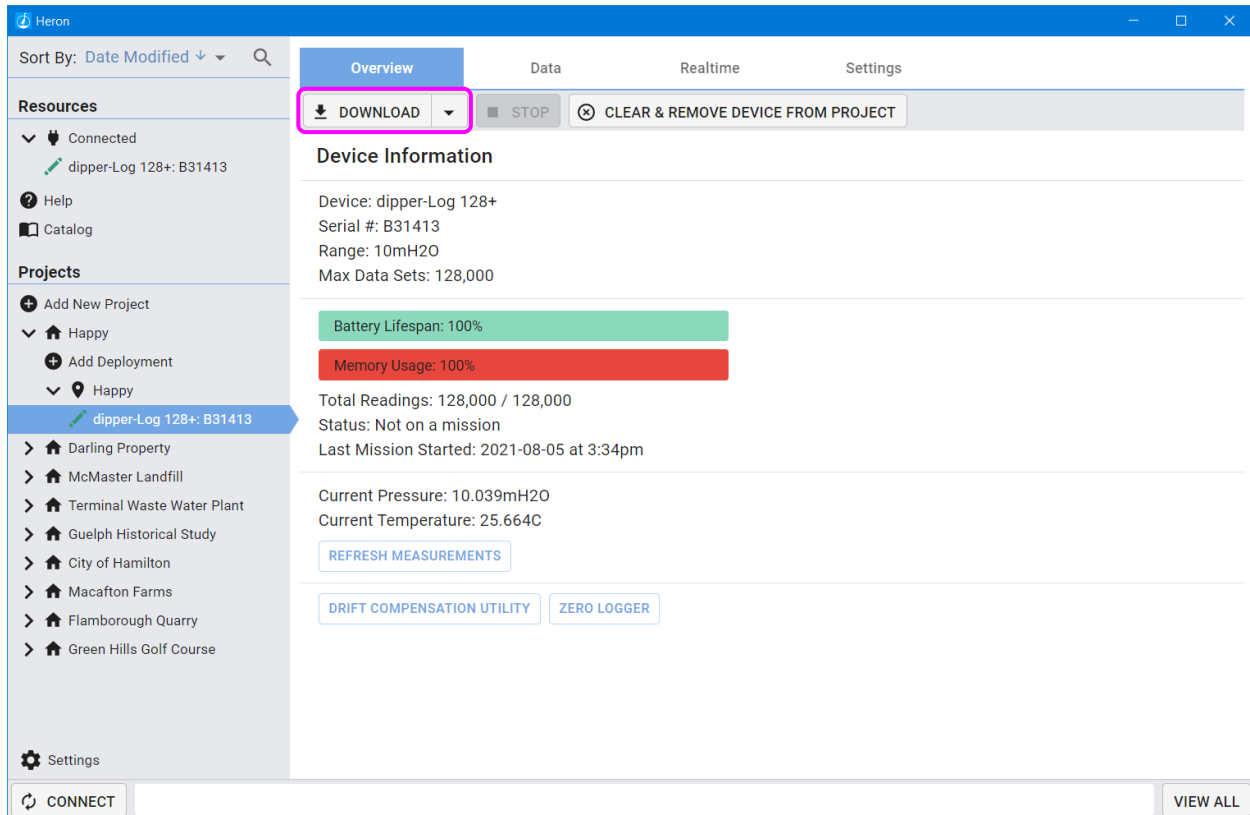
The screenshot shows the Heron software interface. On the left sidebar, under the 'Resources' section, the 'Connected' status is highlighted with a green icon. Below it, the 'Projects' section lists various locations, with 'dipper-Log 128+: B31413' selected and highlighted in blue. The main panel displays the 'Overview' tab for this device. At the top of the main panel, there are buttons for 'DOWNLOAD', 'STOP', and 'CLEAR & REMOVE DEVICE FROM PROJECT'. Below these, the 'Device Information' section shows details for 'dipper-Log 128+' with serial number 'B31413', range '10mH2O', and max data sets '128,000'. Two progress bars are shown: 'Battery Lifespan: 100%' (green) and 'Memory Usage: 100%' (red). Further down, it shows 'Total Readings: 128,000 / 128,000', 'Status: Not on a mission', and 'Last Mission Started: 2021-08-05 at 3:34pm'. At the bottom, there are buttons for 'REFRESH MEASUREMENTS', 'DRIFT COMPENSATION UTILITY', and 'ZERO LOGGER'. The bottom status bar includes a 'CONNECT' button and a 'VIEW ALL' button.

Disconnected devices will have a black icon beside their name.



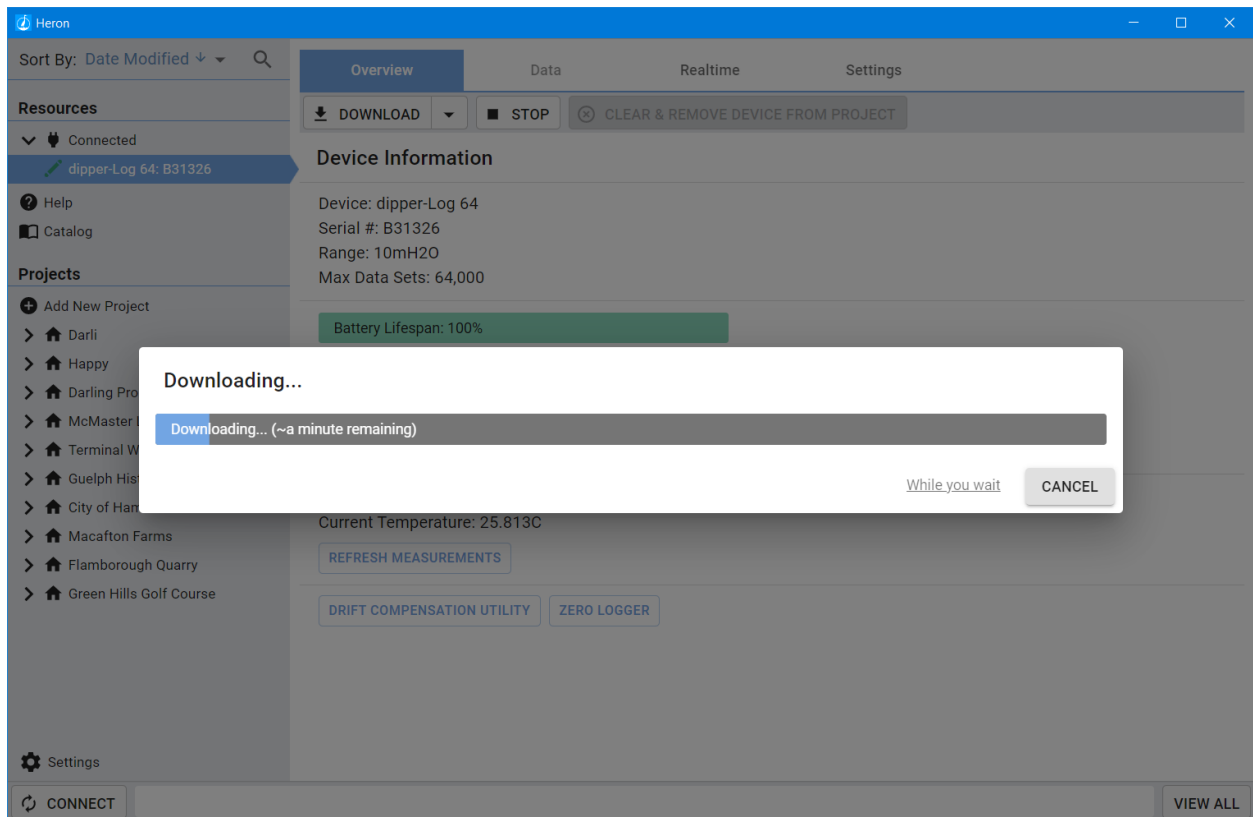
The screenshot displays the Heron software interface. On the left, a sidebar contains a search bar and two main sections: 'Resources' and 'Projects'. The 'Resources' section includes a 'Connected' status with a green icon and a device 'dipper-Log 128+: B31413'. The 'Projects' section lists several projects, including 'Happy', 'Darling Property', 'McMaster Landfill', 'Terminal Waste Water Plant', 'Guelph Historical Study', 'City of Hamilton', 'Macafton Farms', and 'Flamborough Quarry'. A red box highlights the 'dipper-Log 64: B31326' entry in the 'Projects' list, which has a black icon next to it. The main panel on the right shows the 'Device Information' for the selected device, displaying 'Device: dipper-Log 64' and 'Serial #: B31326'. At the bottom of the interface, there is a 'CONNECT' button and a 'VIEW ALL' button.

Once you have your device selected, click “DOWNLOAD” from the tool bar in the overview tab.

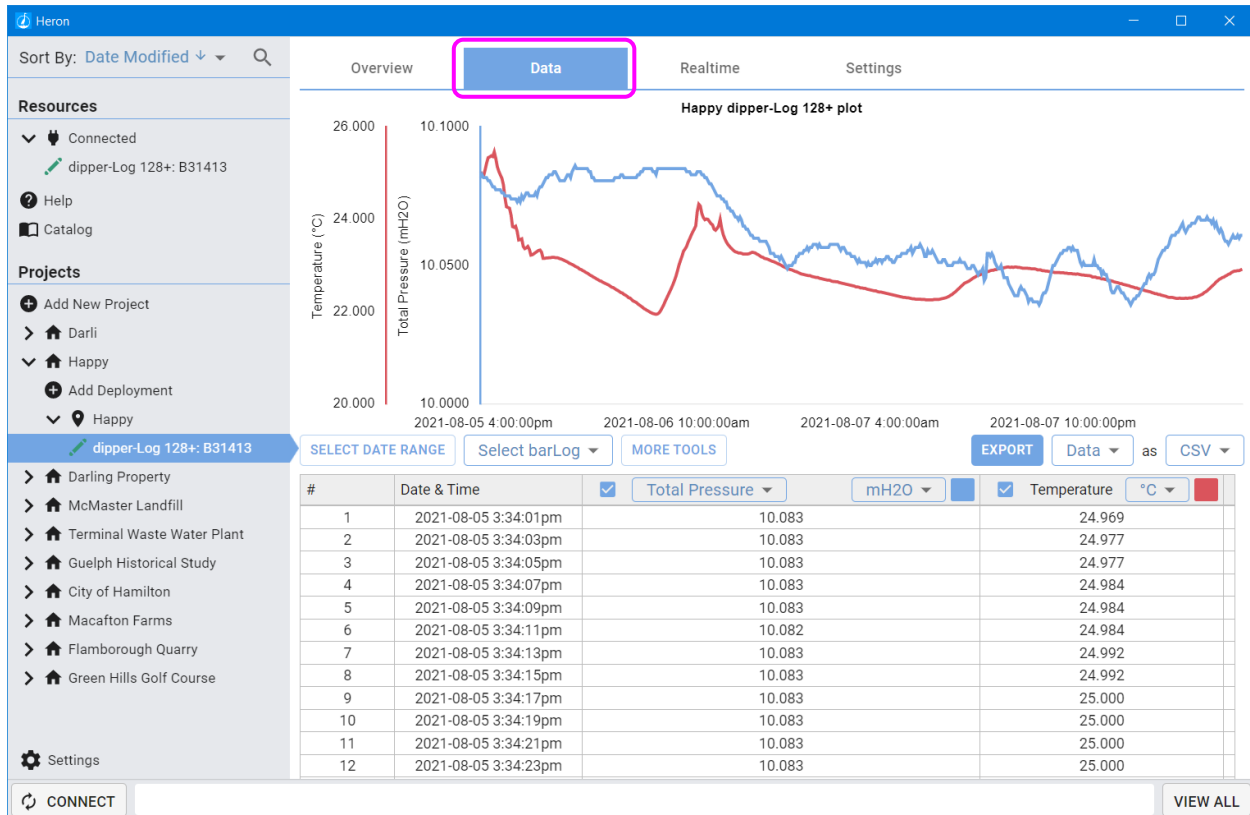


The screenshot displays the Heron software interface. On the left sidebar, under the 'Resources' section, the device 'dipper-Log 128+: B31413' is selected. The main panel shows the 'Overview' tab, which includes a toolbar with a 'DOWNLOAD' button (highlighted with a red box), a 'STOP' button, and a 'CLEAR & REMOVE DEVICE FROM PROJECT' button. Below the toolbar, the 'Device Information' section lists: Device: dipper-Log 128+, Serial #: B31413, Range: 10mH2O, and Max Data Sets: 128,000. Two progress bars are shown: 'Battery Lifespan: 100%' (green) and 'Memory Usage: 100%' (red). Further down, it states 'Total Readings: 128,000 / 128,000', 'Status: Not on a mission', and 'Last Mission Started: 2021-08-05 at 3:34pm'. The bottom section shows 'Current Pressure: 10.039mH2O' and 'Current Temperature: 25.664C', with buttons for 'REFRESH MEASUREMENTS', 'DRIFT COMPENSATION UTILITY', and 'ZERO LOGGER'. At the bottom of the interface, there is a 'CONNECT' button and a 'VIEW ALL' button.

Your data will now begin downloading.

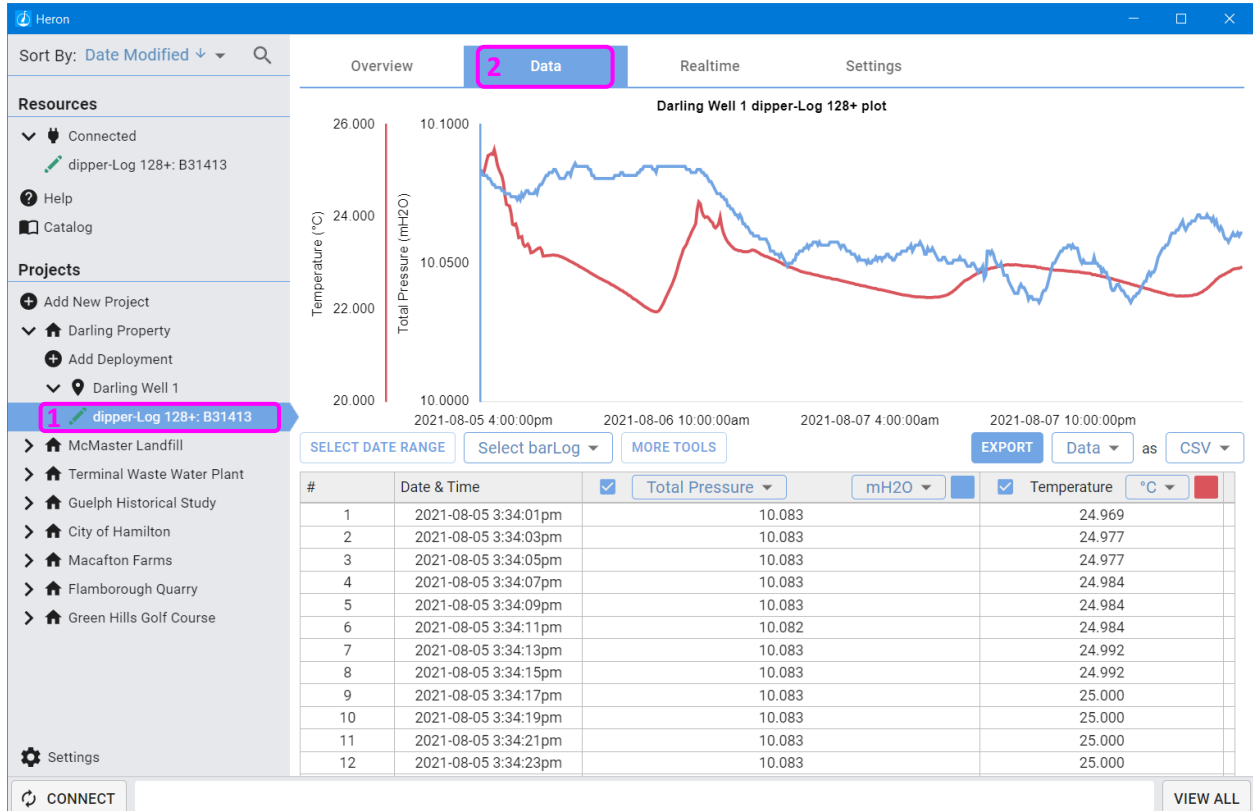


Once your data has been downloaded, you can view it in the Data Tab

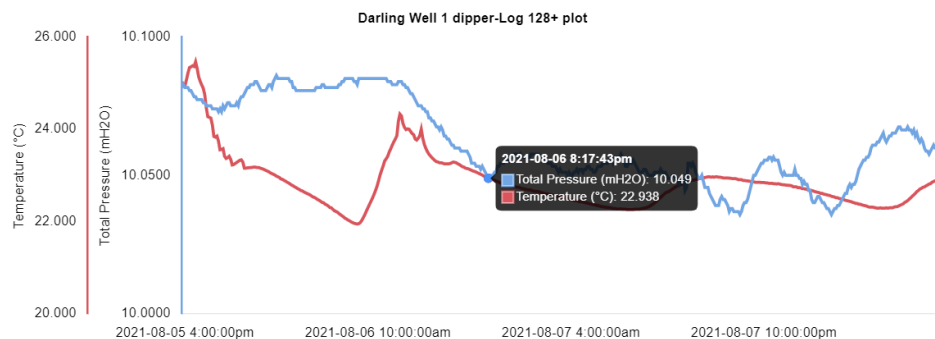


Viewing and compensating your data

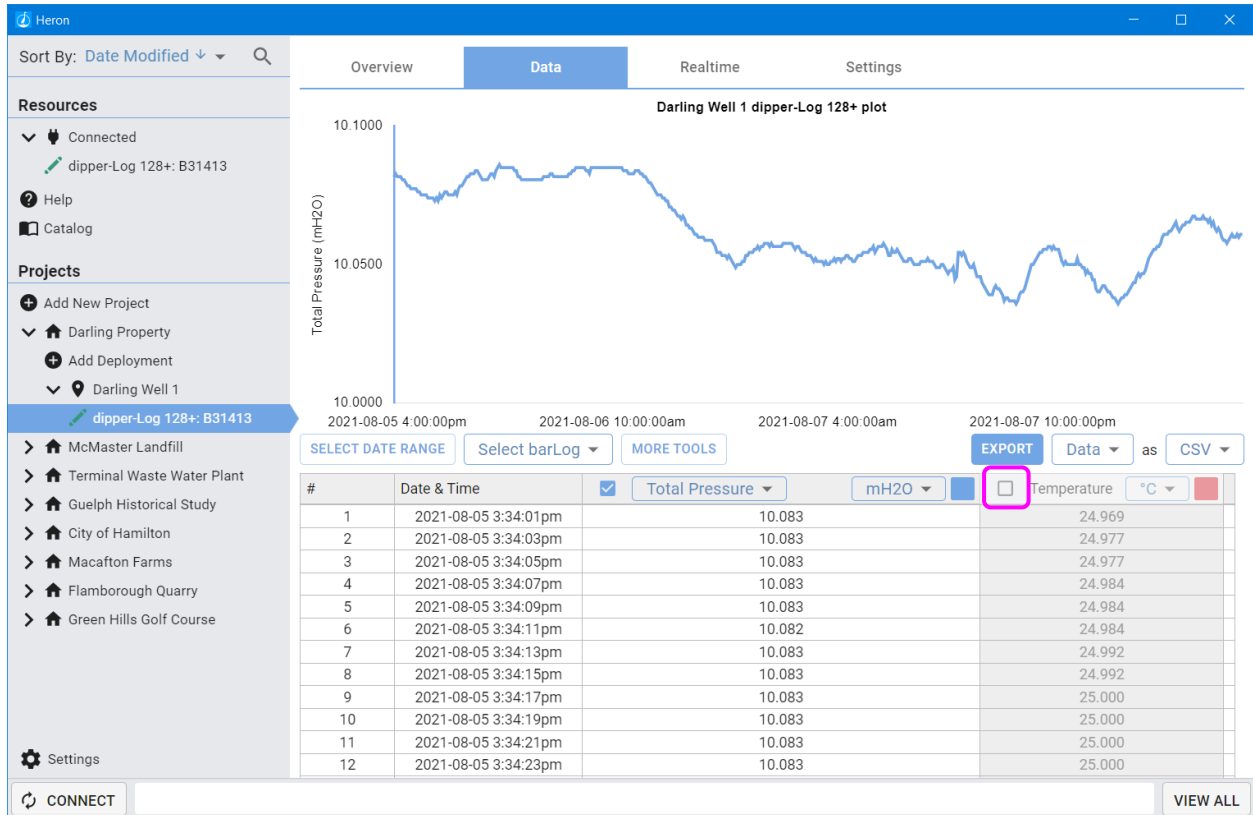
To view your downloaded data, you must navigate to where it is located, in the data management panel. Select the device that collected the data and then select the data tab. You will now be presented with a view of all of the data collected by this logger in the given deployment.



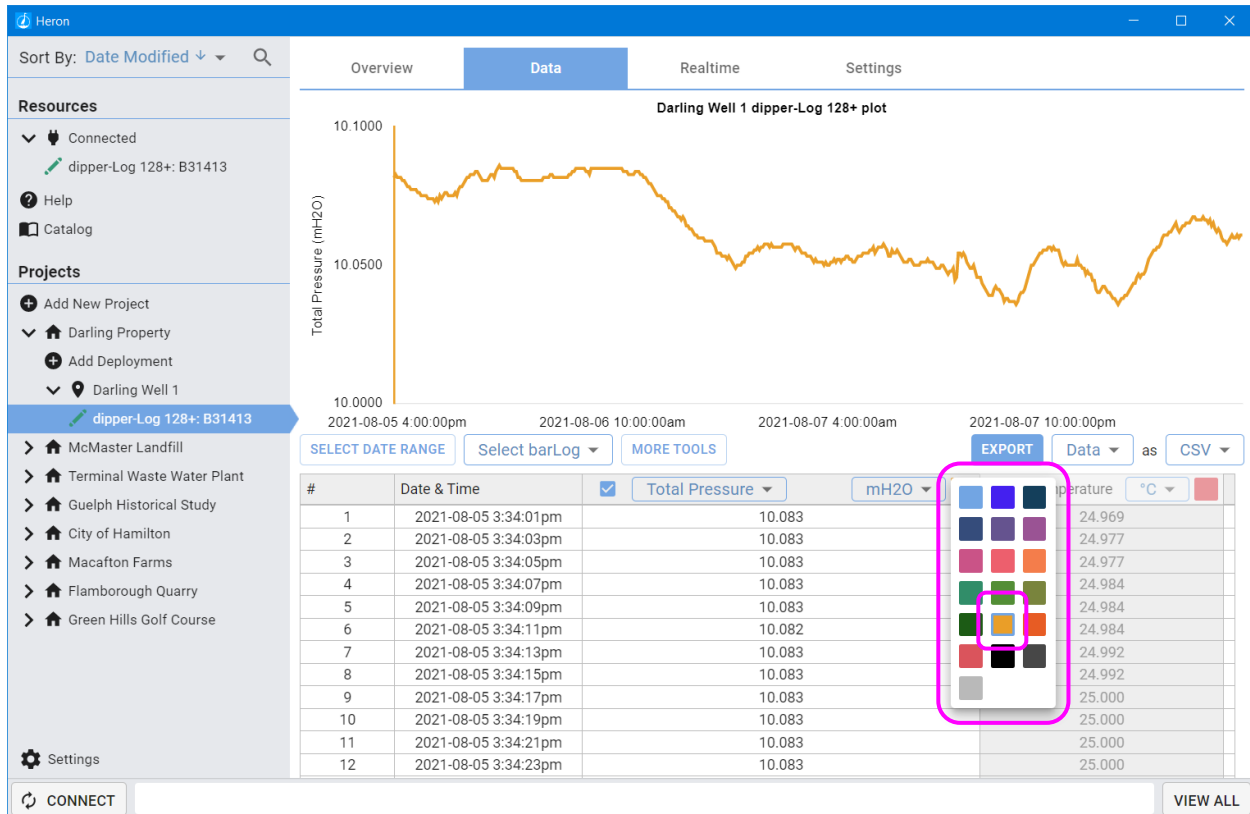
By default, all parameters will be visible on the graph. You can view more detail by hovering your mouse over the graph (or clicking and dragging across the graph on touch screen devices). The parameter and units are visible in the axis titles and the detail bubble.



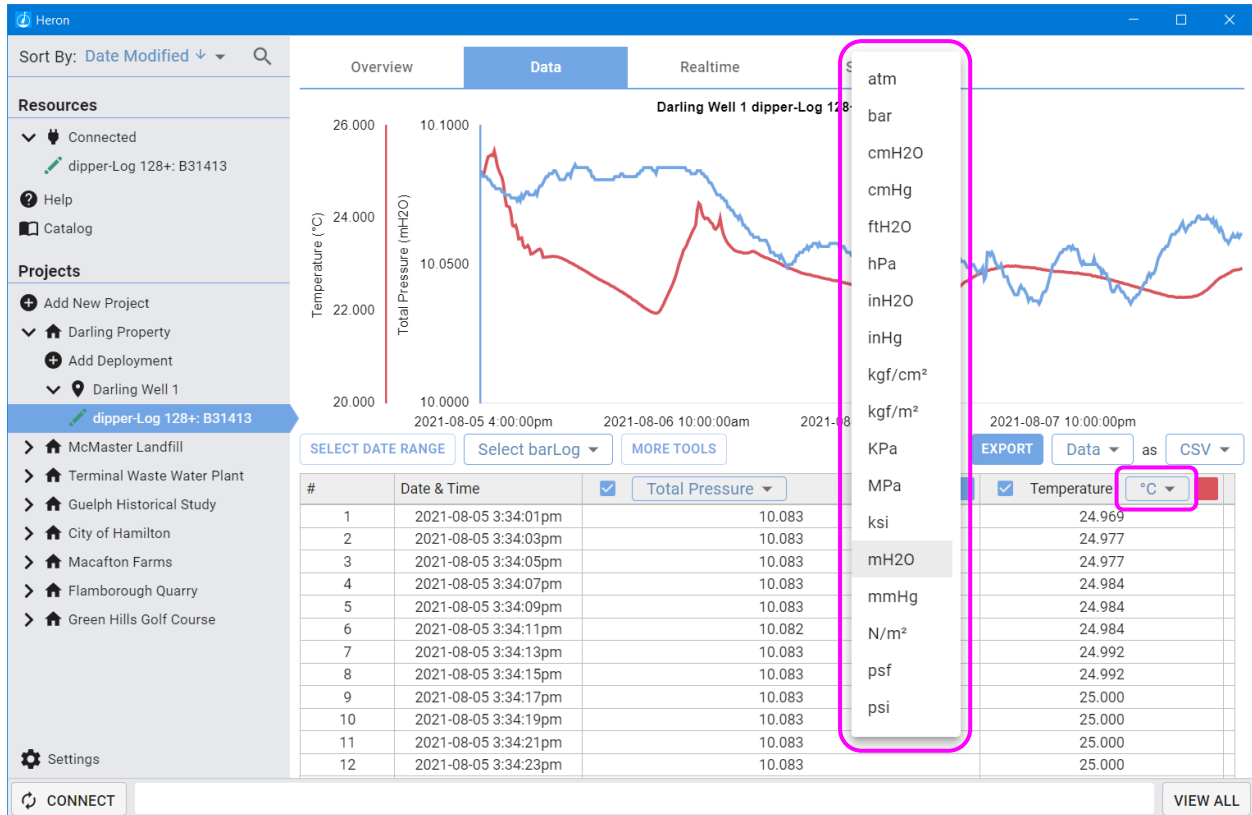
You can deselect a parameter (like pressure, or temperature) by deselecting the column in the chart. This will update the graph to remove that parameter. You can re-select the parameter to bring it back.



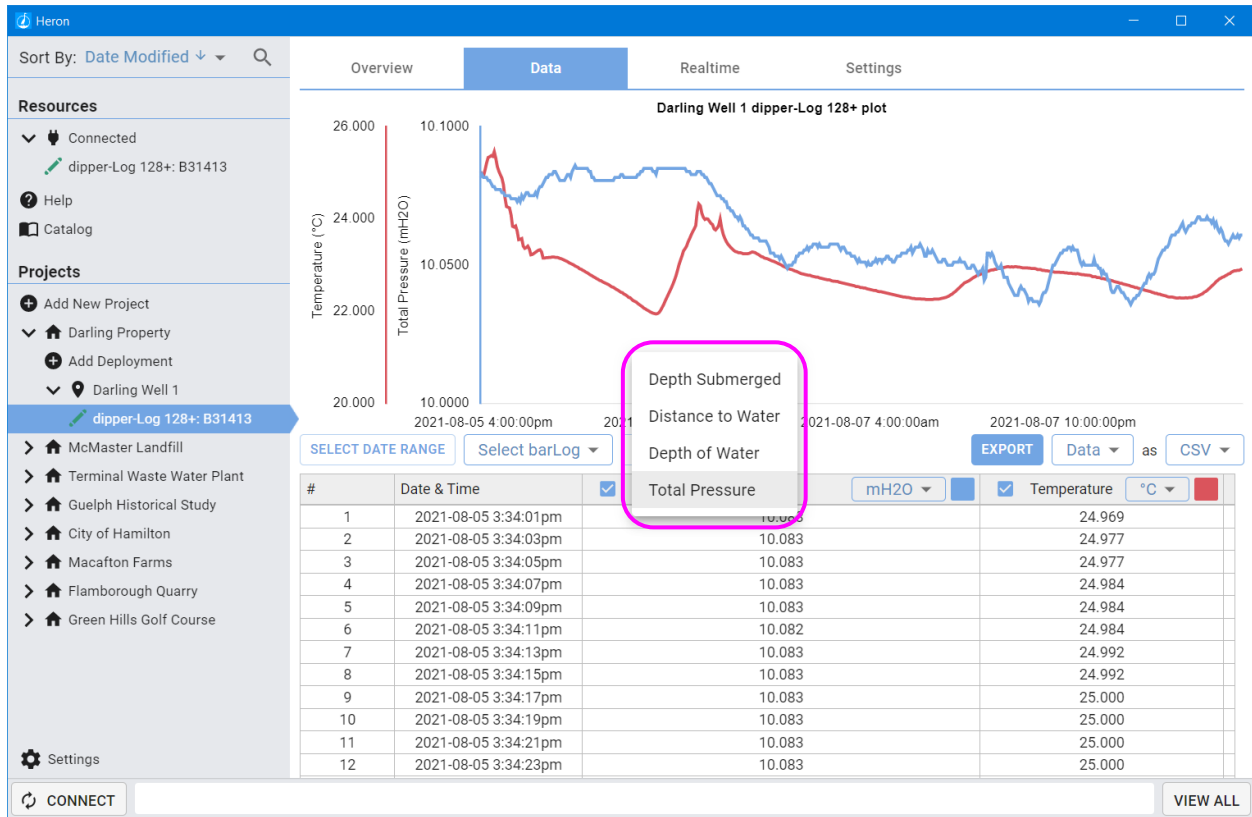
The graph colour can be changed by selecting the colour swatch on the chart title. This will update the graph to reflect your new colour choice. Have some fun, be an artist and let the graph reflect your personal style!



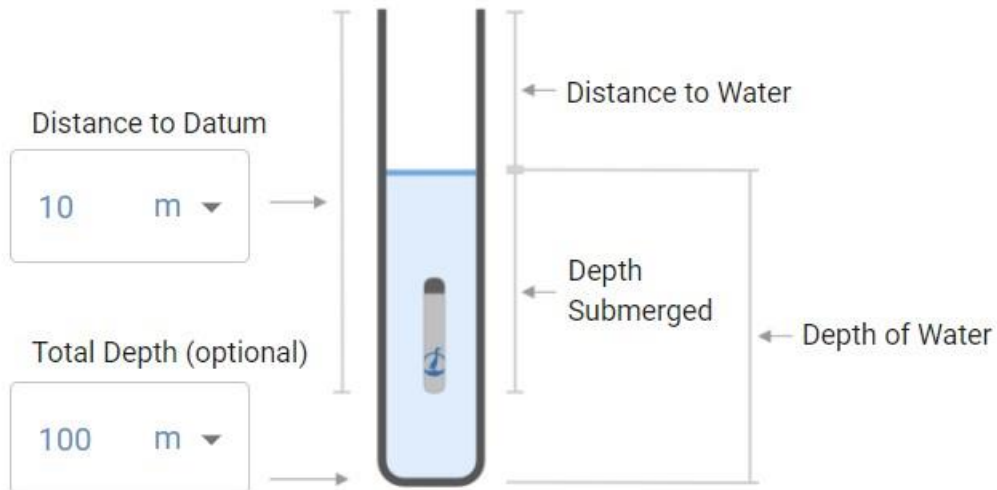
Units can be changed by selecting from the dropdown in the chart. There are many unit options to choose from. Selecting a new one automatically updates all of your data points and the graph.



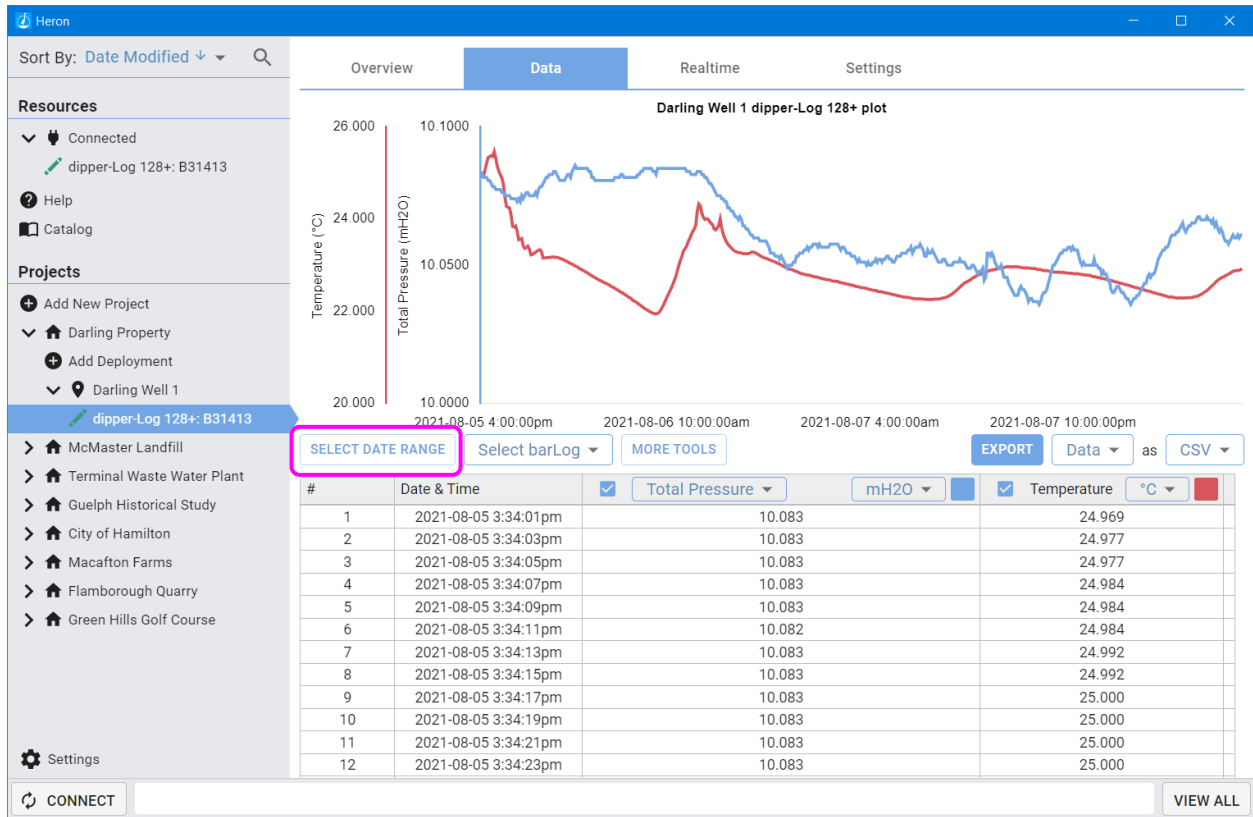
When using a pressure logger, the default heading will be “Total Pressure”. This is the raw pressure data measured from the transducer. No transformations have been applied to this data. You can select alternatives from the drop down.



- Total Pressure is your raw unaltered pressure readings.
- Depth submerged is your raw pressure minus barometric pressure. If a bar-Log has been selected, this will be used to subtract from the Total Pressure. If no bar-Log has been selected, the software will use a single reading recorded at the start of the last mission to subtract from the rest of the data set. This is not as accurate as a bar-Log, however, provides a very good alternative (as a backup).
- Distance to Water is the distance from your datum point to the top of the water.
- Depth of Water is only available if Total Well Depth has been entered. This value will be the Total Well Depth minus the Distance to Water.



You can refine your data to a select date range by clicking on “SELECT DATE RANGE”. A new tool panel will open that presents you with the ability to narrow in your data range. Select the calendar icon to set your date range. Click done when complete.



Sort By: Date Modified ▾ 🔍

Overview Data Realtime Settings

Darling Well 1 dipper-Log 128+ plot

Temperature (°C) 26.000 10.1000 24.000 22.000 20.000

Total Dissolved Solids (mH2O)

2021-08-05 3:34:01pm 2021-08-07 10:00:00pm

EXPORT Data as CSV ▾

mH2O ▾ ☒ Temperature °C ▾ ☒

24.969 24.977 24.977 24.984 24.984 24.992 24.992 25.000 25.000 25.000 25.000


1 2 3 4 5 6 7 8 9 10 11 12


2021-08-05 3:34:11pm 10.082 24.984 2021-08-05 3:34:13pm 10.083 24.992 2021-08-05 3:34:15pm 10.083 24.992 2021-08-05 3:34:17pm 10.083 25.000 2021-08-05 3:34:19pm 10.083 25.000 2021-08-05 3:34:21pm 10.083 25.000 2021-08-05 3:34:23pm 10.083 25.000

Settings

CONNECT VIEW ALL

Filter by Date Range ✕

Start 2021-08-05 3:34:01pm 

End 2021-08-08 2:40:39pm 

RESET REMOVE FILTER

DONE

Sort By: Date Modified ▾ 🔍

Overview Data Realtime Settings

Darling Well 1 dipper-Log 128+ plot

Temperature (°C) 26.000 10.1000 24.000 22.000 20.000

Total Dissolved Solids (mH2O)

2021-08-05 3:34:01pm 2021-08-07 10:00:00pm

EXPORT Data as CSV ▾

mH2O ▾ ☒ Temperature °C ▾ ☒

24.969 24.977 24.977 24.984 24.984 24.992 24.992 25.000 25.000 25.000 25.000

1 2 3 4 5 6 7 8 9 10 11 12

2021-08-05 3:34:11pm 10.082 24.984 2021-08-05 3:34:13pm 10.083 24.992 2021-08-05 3:34:15pm 10.083 24.992 2021-08-05 3:34:17pm 10.083 25.000 2021-08-05 3:34:19pm 10.083 25.000 2021-08-05 3:34:21pm 10.083 25.000 2021-08-05 3:34:23pm 10.083 25.000

Settings

CONNECT VIEW ALL

2021 Aug 5 03:34 AM PM

August 2021

Sun Mon Tue Wed Thu Fri Sat

1 2 3 4 5 6 7

8 9 10 11 12 13 14

15 16 17 18 19 20 21

22 23 24 25 26 27 28

29 30 31

CANCEL OK

If you make a mistake or wish to start over, you have two options. “RESET” will set the date range to cover all data points available (the default setting) allowing you to make changes from there. “REMOVE FILTER” removes the date filter entirely.

Filter by Date Range
×

Start
2021-08-05 3:34:01pm

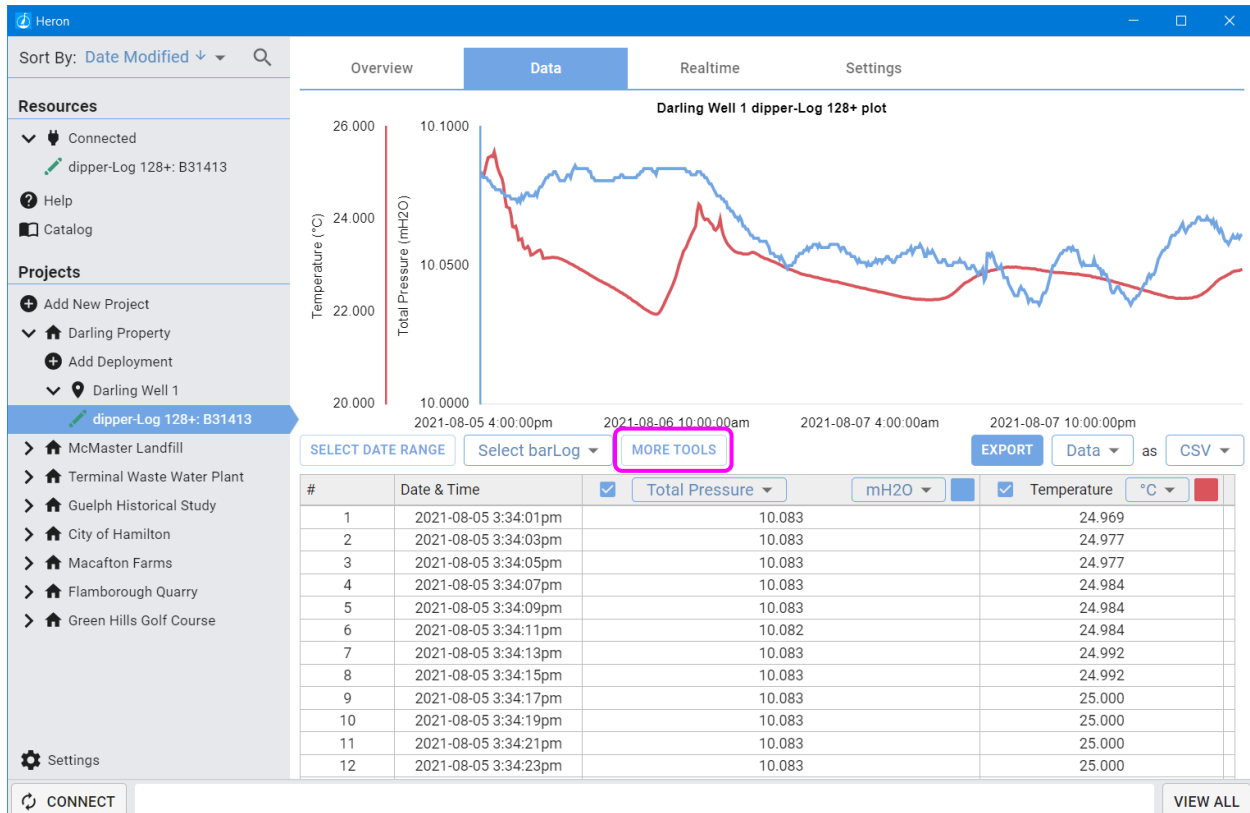
End
2021-08-08 2:40:39pm

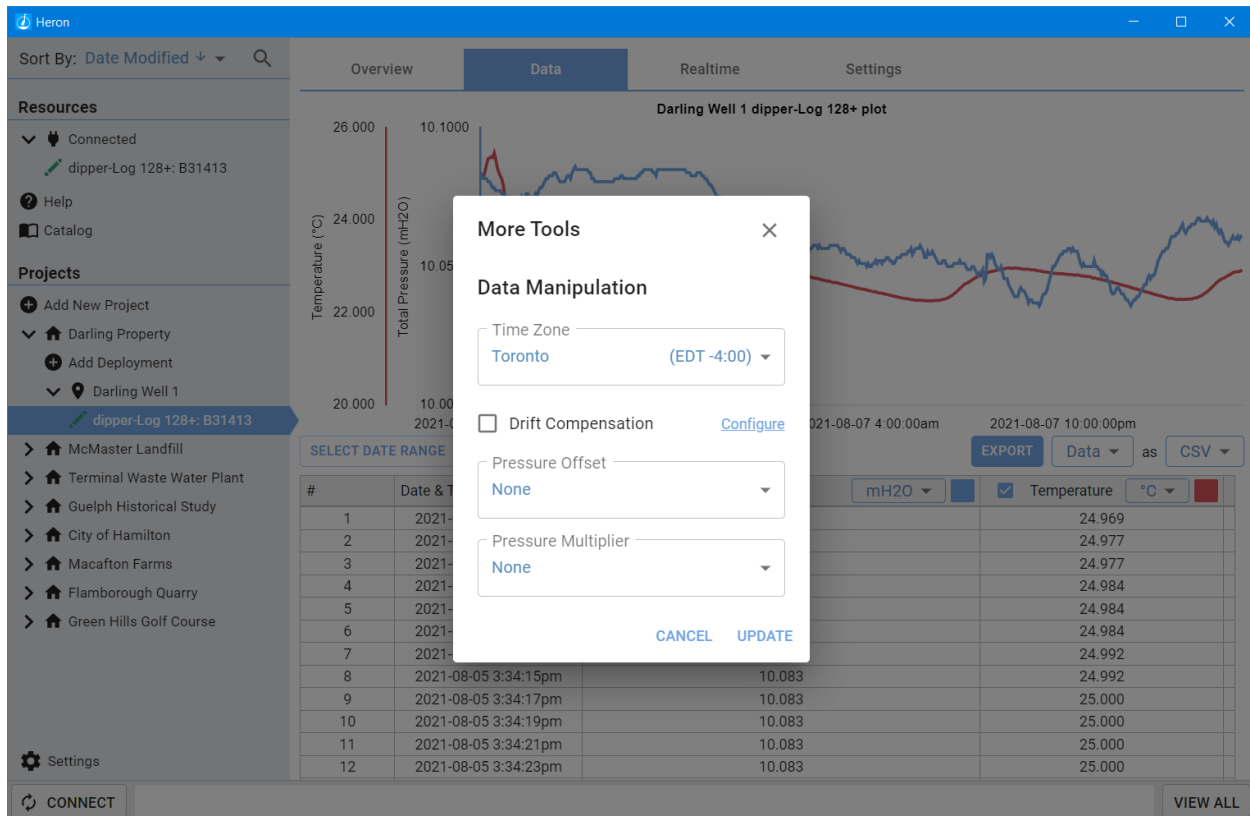
RESET

REMOVE FILTER

DONE

“MORE TOOLS” allows you to perform basic data manipulation tasks. These include, changing time zone, applying offsets, and applying multipliers to the data. These tools can help to make changes to your data to account for elevation and/or density. The offset tools can also be used to correct for mistakes made during setup or deployment.





Offset:

- **First Reading:** In cases where no barLog data is available but your dipperLog was started before placement in well, this option allows you to use that first recorded barometric pressure reading to compensate all subsequent data points. This will not adjust your data for barometric influences over the time of the recordings, it will simply remove a constant value representing an approximate barometric pressure.
- **Last Reading:** This option works the same way as the “First Reading” choice with the exception of using the last recorded data point for the calculations. If your dipperLog recorded the first data point when submerged because of a delayed start, this allows you to use the last reading as an alternate barometric pressure value.
- **Programmed Value:** This selection will use the saved “barometric” value that the dipperLog stores when initially started. This is the same value that is used to calculate the Real Time reading value. This stored value will change every time the dipperLog is reprogrammed and re-started.
- **Custom Value:** When this option is selected a new field becomes available which enables the user to enter a constant value by which to offset the recorded values in memory. This could be an average barometric pressure reading from a local weather station or news channel.

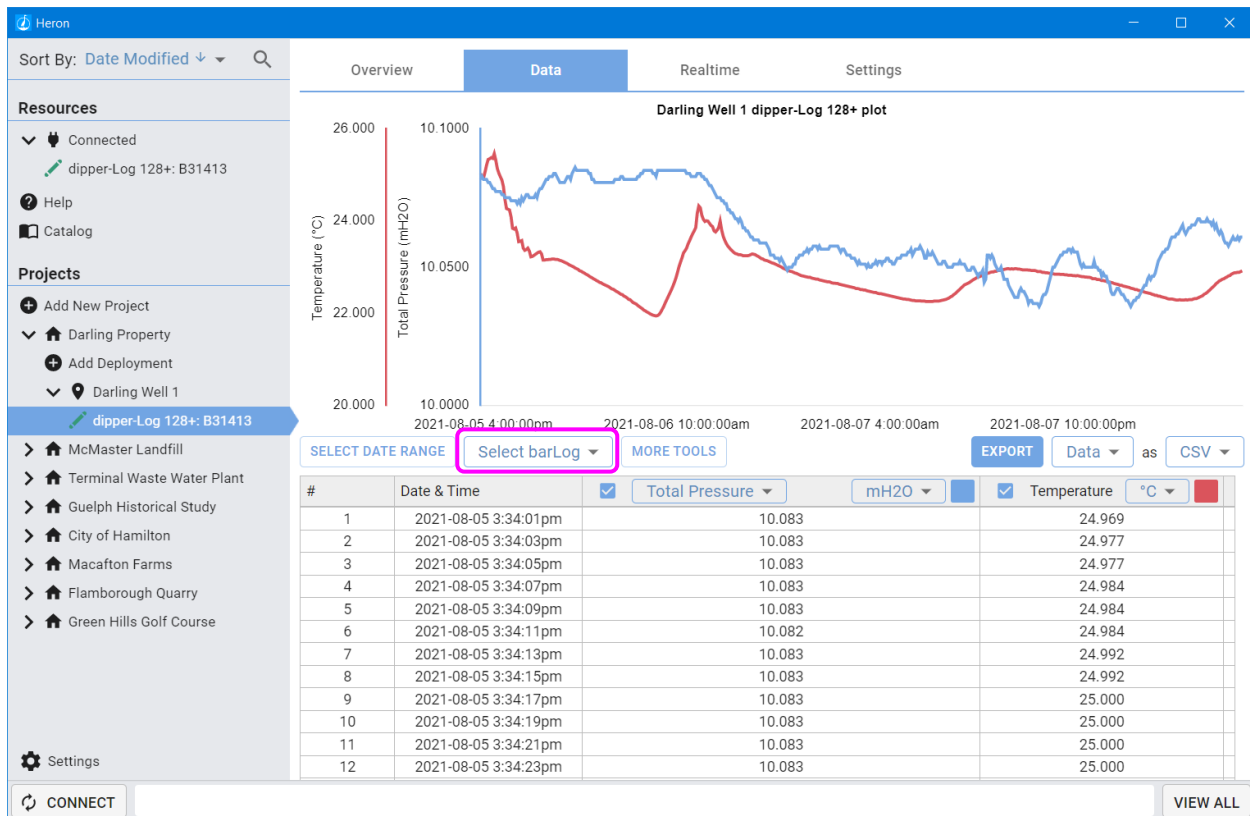
Multiplier:

- **Low Level:** This selection will multiply all downloaded readings by 0.9
- **Custom Value:** This option allows you to select a constant value by which to adjust your readings. Since 1 is the specific gravity of clean water, the software calculates the height of

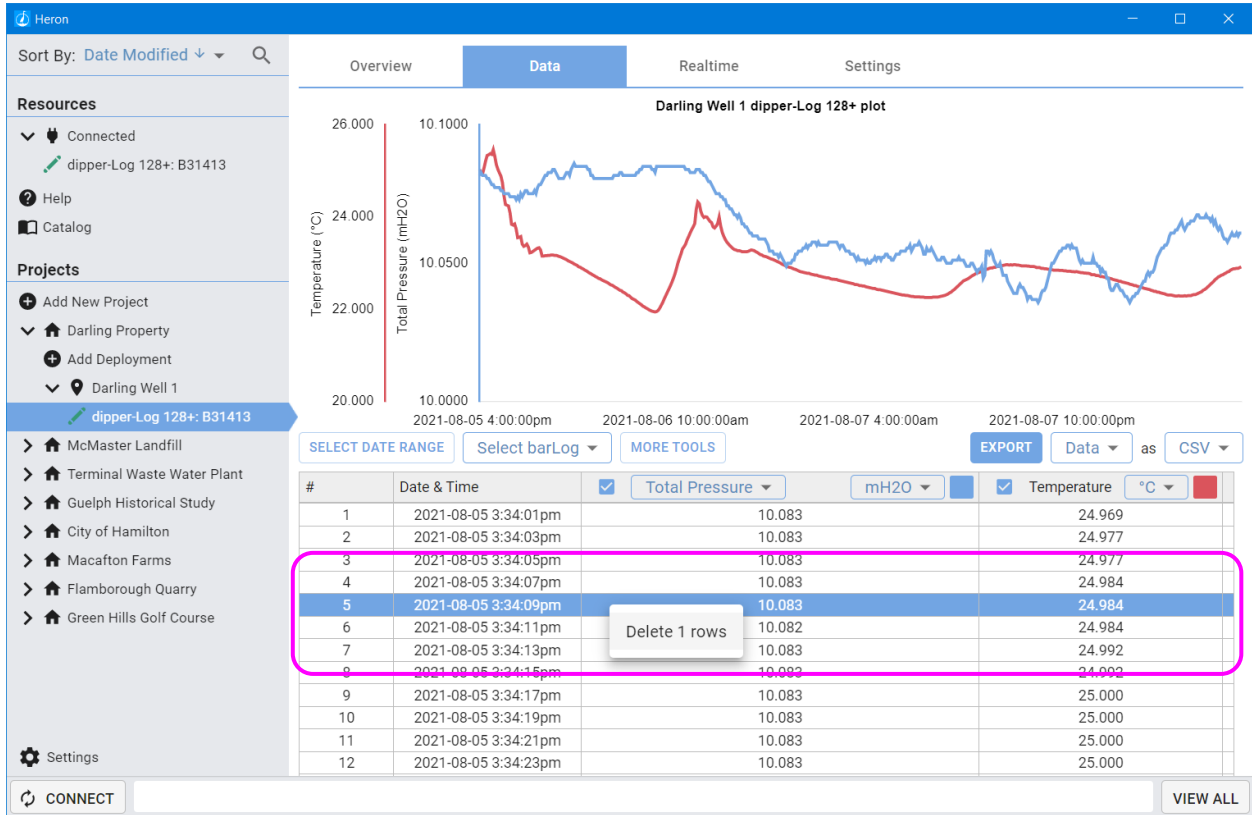
water using 1 as the density. This option allows you to make the necessary adjustment when the fluid you are monitoring has a density of more or less than 1, i.e. seawater or brackish water.

- "While density of pure water at 4 degrees Celsius is equal to 1, the density of seawater ranges over somewhat higher values, which vary with proximity to shores, rivers, etc., as well as with geographic location & depth. Representative average values are 1.026– 1.028," Van Nostrand's, Scientific Encyclopedia 7th edition. Canada, 1989: 2046.
- You could also adjust your data for altitude using this option. Simply define a factor based on the height above sea level of your job site and enter it in the custom value field.

Select a bar-Log allows you to select a bar-Log from the same project to use to compensate your data. bar-Logs must be in the same project for this to work.



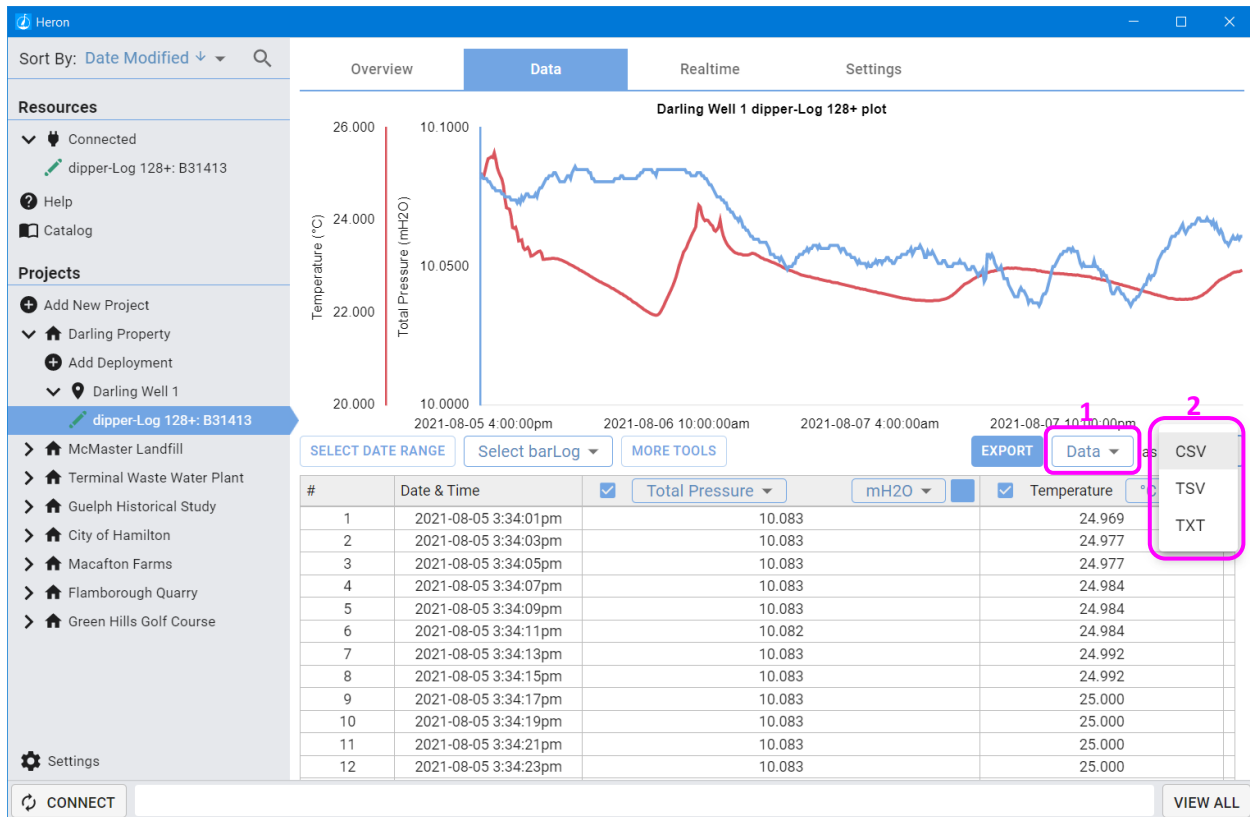
If you have unwanted data points, you can delete them by selecting them and right clicking (click and hold on touch screen devices). Select to delete the rows. This action cannot be undone! We cannot recover data that has been deleted!



Exporting your data

From the Data tab you can export your data in the form of a chart or a graph.

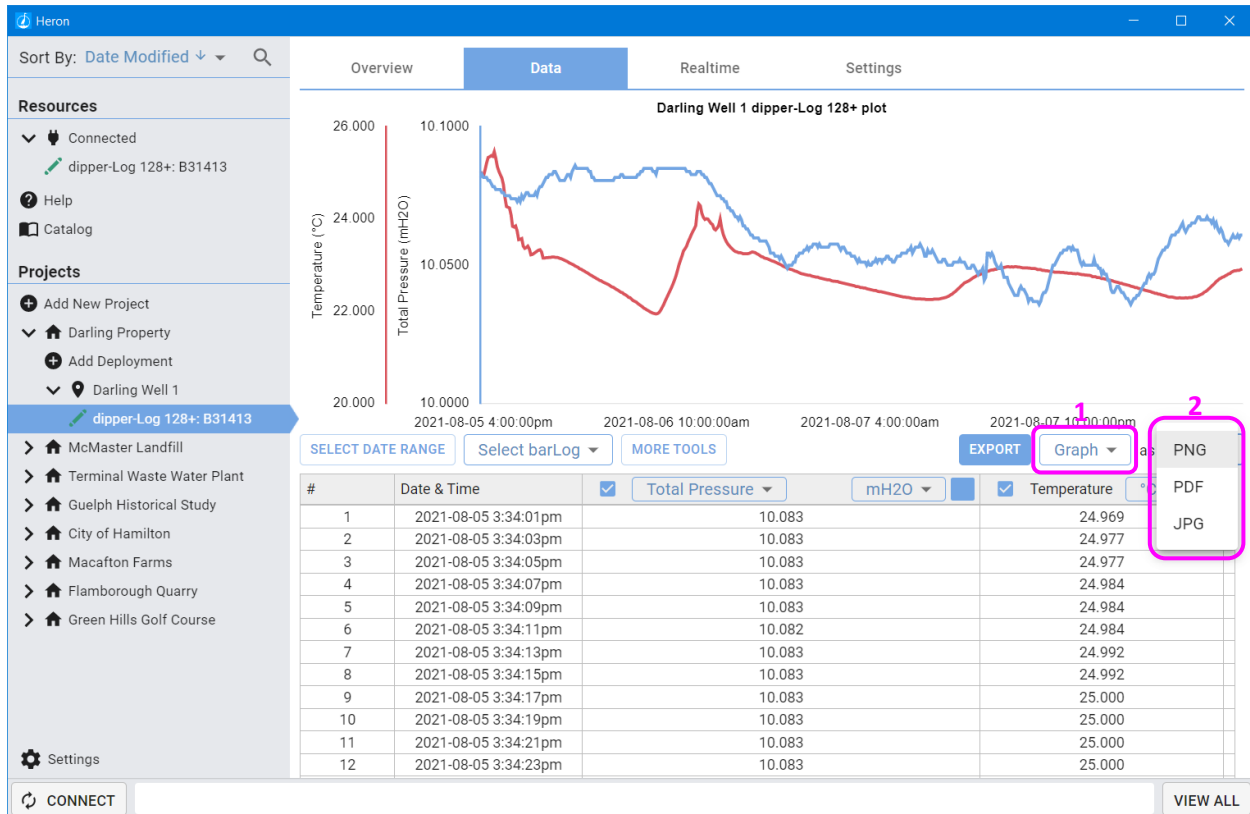
To export a chart, select Data and then select the file type you wish to use. CSV is the most common for use in spreadsheet applications like Microsoft Excel or Libre Office Calc. TXT can be selected if you are facing challenges with CSV. Both formats can be opened in Excel, Calc, or a text editor like Note Pad. The exported data will reflect exactly what is shown in your chart. Any data manipulations/selections/offsets/etc. will be reflected in the exported data. Click Export to finish.



The screenshot shows the Heron software interface. The 'Data' tab is active, displaying a line chart titled 'Darling Well 1 dipper-Log 128+ plot'. The chart shows two data series: Temperature (°C) and Total Pressure (mH2O). Below the chart is a table with 12 rows of data. The 'EXPORT' button is highlighted, and a dropdown menu is open showing options: Data, CSV, TSV, and TXT. The 'Data' option is selected, and the 'CSV' option is highlighted in the dropdown.

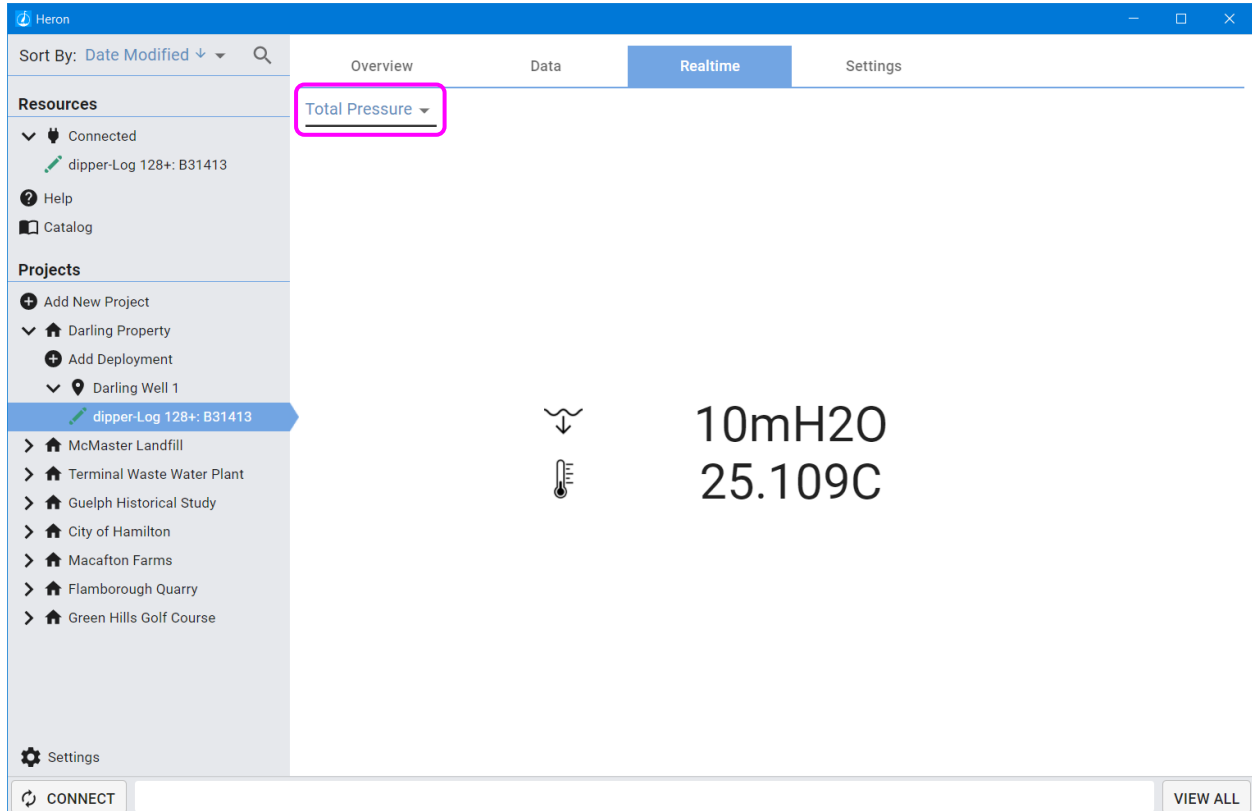
#	Date & Time	Total Pressure	mH2O	Temperature
1	2021-08-05 3:34:01pm	10.083		24.969
2	2021-08-05 3:34:03pm	10.083		24.977
3	2021-08-05 3:34:05pm	10.083		24.977
4	2021-08-05 3:34:07pm	10.083		24.984
5	2021-08-05 3:34:09pm	10.083		24.984
6	2021-08-05 3:34:11pm	10.082		24.984
7	2021-08-05 3:34:13pm	10.083		24.992
8	2021-08-05 3:34:15pm	10.083		24.992
9	2021-08-05 3:34:17pm	10.083		25.000
10	2021-08-05 3:34:19pm	10.083		25.000
11	2021-08-05 3:34:21pm	10.083		25.000
12	2021-08-05 3:34:23pm	10.083		25.000

To export a graph, select Graph from the export dropdown. Next select the file type you wish to use. When you click export, it will export exactly what is shown in the graph. Any data manipulations/selections/offsets/etc. will be reflected in the exported graph.



Realtime Readings

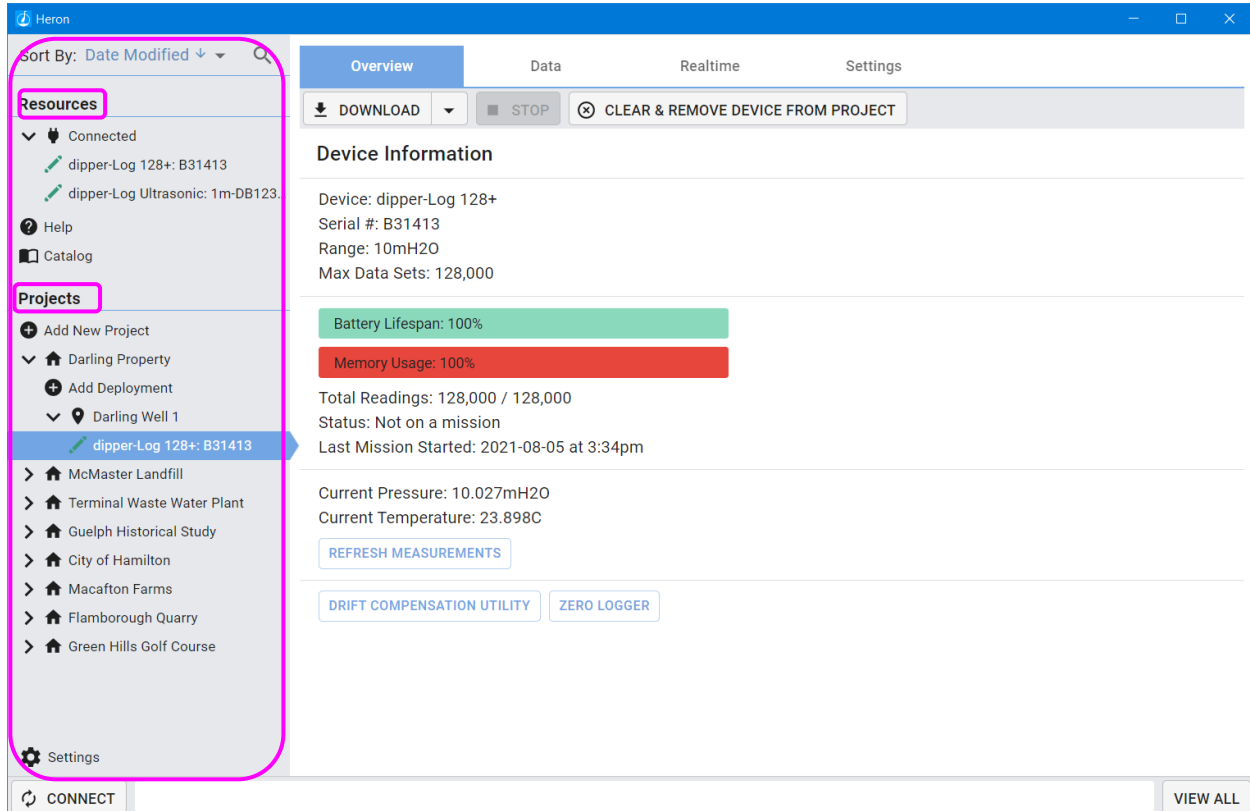
Realtime readings can be accessed in the “Realtime” tab for connected devices. This will show you the current state of the device and is updated every 1 second. In the top left-hand corner, you can select different ways to display your data.



The screenshot shows the Heron web application interface. The top navigation bar includes tabs for Overview, Data, Realtime (selected), and Settings. A dropdown menu for 'Total Pressure' is highlighted with a pink box. The left sidebar contains sections for Resources (Connected devices, Help, Catalog) and Projects (Add New Project, Darling Property, Add Deployment, Darling Well 1, and a list of locations including McMaster Landfill, Terminal Waste Water Plant, Guelph Historical Study, City of Hamilton, Macafton Farms, Flamborough Quarry, and Green Hills Golf Course). The main content area displays two real-time readings: '10mH2O' with a water level icon and '25.109C' with a temperature icon. At the bottom, there is a 'CONNECT' button and a 'VIEW ALL' button.

Managing your data

Data management is handled by a database. This database can be exported or imported as desired from the settings page. You navigate the database using the Data Management panel on the left hand side of the software. It is divided into two main sections: Resources, and Projects.



The screenshot displays the Heron software interface. On the left, the Data Management panel is visible, featuring a search bar and a 'Sort By: Date Modified' dropdown. The panel is divided into two sections: 'Resources' and 'Projects'. The 'Resources' section lists connected devices, including 'dipper-Log 128+: B31413' and 'dipper-Log Ultrasonic: 1m-DB123'. The 'Projects' section lists various locations, such as 'McMaster Landfill', 'Terminal Waste Water Plant', 'Guelph Historical Study', 'City of Hamilton', 'Macafton Farms', 'Flamborough Quarry', and 'Green Hills Golf Course'. The 'dipper-Log 128+: B31413' device is selected, and its details are shown on the right. The 'Device Information' section includes fields for Device, Serial #, Range, and Max Data Sets. Below this, there are two progress bars: 'Battery Lifespan: 100%' (green) and 'Memory Usage: 100%' (red). Further down, the 'Total Readings' and 'Status' are displayed, along with the 'Last Mission Started' time. At the bottom of the panel, there are buttons for 'REFRESH MEASUREMENTS', 'DRIFT COMPENSATION UTILITY', and 'ZERO LOGGER'. The bottom of the interface features a 'CONNECT' button and a 'VIEW ALL' button.

Sort By: Date Modified

Resources

- Connected
 - dipper-Log 128+: B31413
 - dipper-Log Ultrasonic: 1m-DB123
- Help
- Catalog

Projects

- Add New Project
- Darling Property
 - Add Deployment
 - Darling Well 1
 - dipper-Log 128+: B31413
- McMaster Landfill
- Terminal Waste Water Plant
- Guelph Historical Study
- City of Hamilton
- Macafton Farms
- Flamborough Quarry
- Green Hills Golf Course

Settings

Overview Data Realtime Settings

DOWNLOAD STOP CLEAR & REMOVE DEVICE FROM PROJECT

Device Information

Device: dipper-Log 128+
Serial #: B31413
Range: 10mH2O
Max Data Sets: 128,000

Battery Lifespan: 100%
Memory Usage: 100%

Total Readings: 128,000 / 128,000
Status: Not on a mission
Last Mission Started: 2021-08-05 at 3:34pm

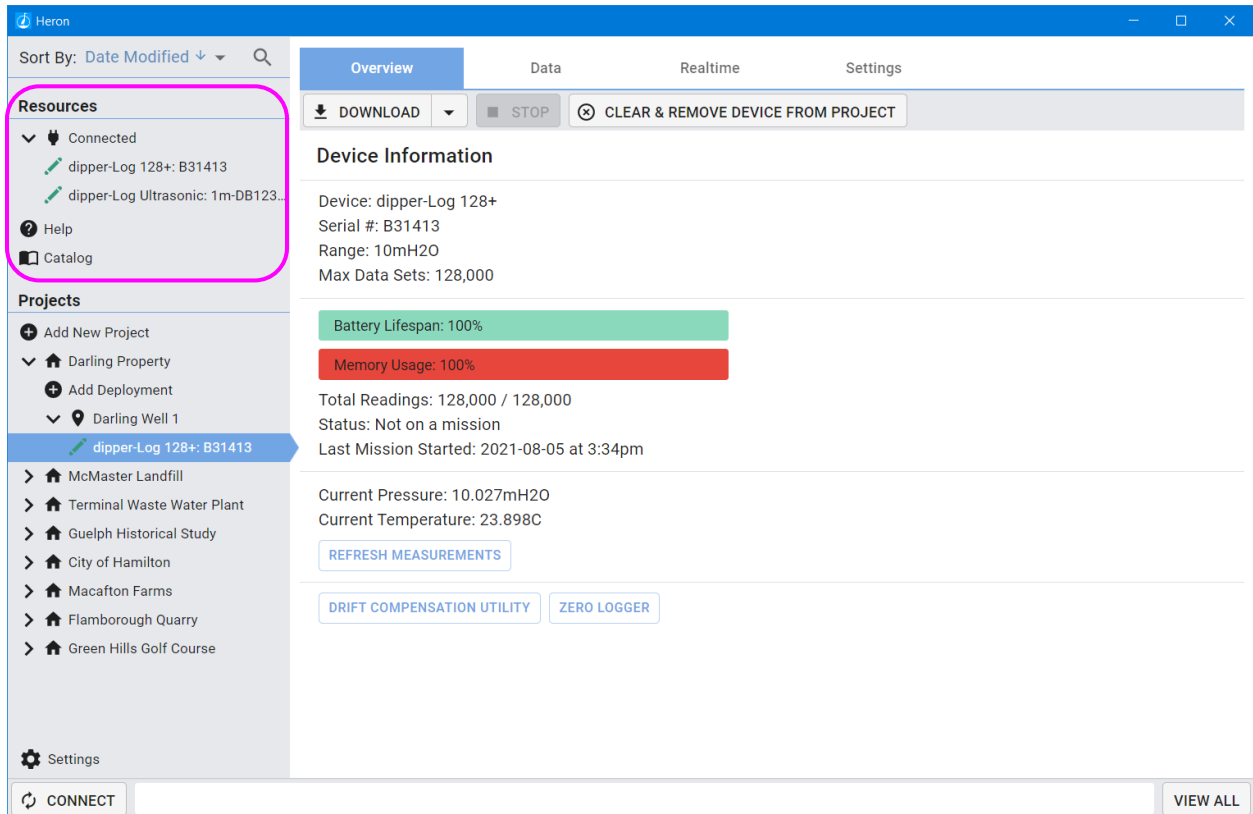
Current Pressure: 10.027mH2O
Current Temperature: 23.898C

REFRESH MEASUREMENTS

DRIFT COMPENSATION UTILITY ZERO LOGGER

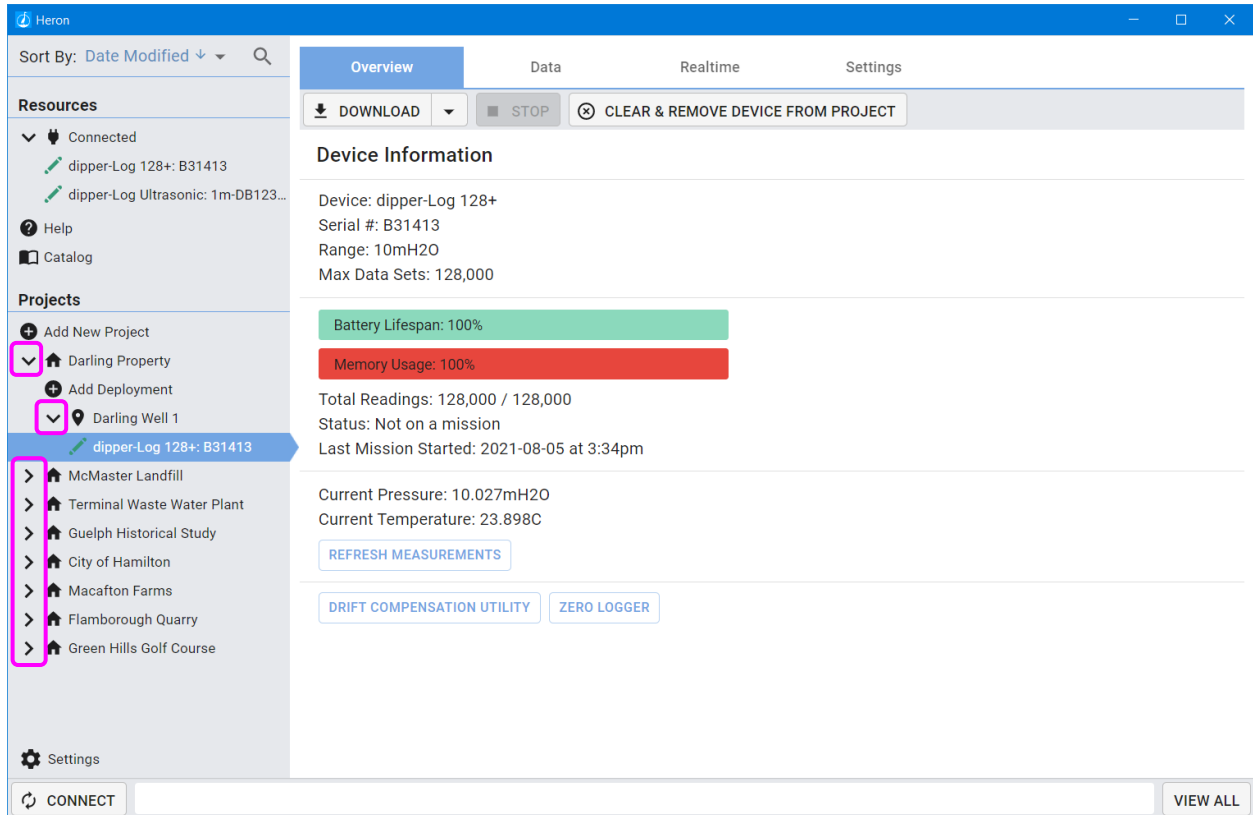
CONNECT VIEW ALL

Resources, shows all of your connected devices under “Connected”. It also features a “Help” page with troubleshooting tips and a copy of this manual. The catalog page allows you to view the most recent catalog if you have an active internet connection.



The screenshot displays the Heron software interface. On the left sidebar, the 'Resources' section is highlighted with a pink box. It contains a 'Connected' dropdown menu with two items: 'dipper-Log 128+: B31413' and 'dipper-Log Ultrasonic: 1m-DB123...'. Below this are links for 'Help' and 'Catalog'. The 'Projects' section lists various locations like 'McMaster Landfill', 'Terminal Waste Water Plant', etc. The main panel shows 'Device Information' for the selected device, including serial number, range, and max data sets. It also displays battery and memory usage bars, total readings, status, and last mission start time. At the bottom, there are buttons for 'REFRESH MEASUREMENTS', 'DRIFT COMPENSATION UTILITY', 'ZERO LOGGER', and 'VIEW ALL'.

Projects is where all of your projects are organized. You can open and close projects and their associated deployments by selecting the drop down arrows.



The screenshot shows the Heron software interface. On the left sidebar, under the 'Projects' section, there is a list of projects. The 'daripper-Log 128+: B31413' project is selected, and its details are shown on the right. The 'daripper-Log 128+: B31413' project is highlighted with a blue bar. The 'daripper-Log 128+: B31413' project is highlighted with a blue bar.

Projects List:

- daripper-Log 128+: B31413
- daripper-Log Ultrasonic: 1m-DB123...
- McMaster Landfill
- Terminal Waste Water Plant
- Guelph Historical Study
- City of Hamilton
- Macafon Farms
- Flamborough Quarry
- Green Hills Golf Course

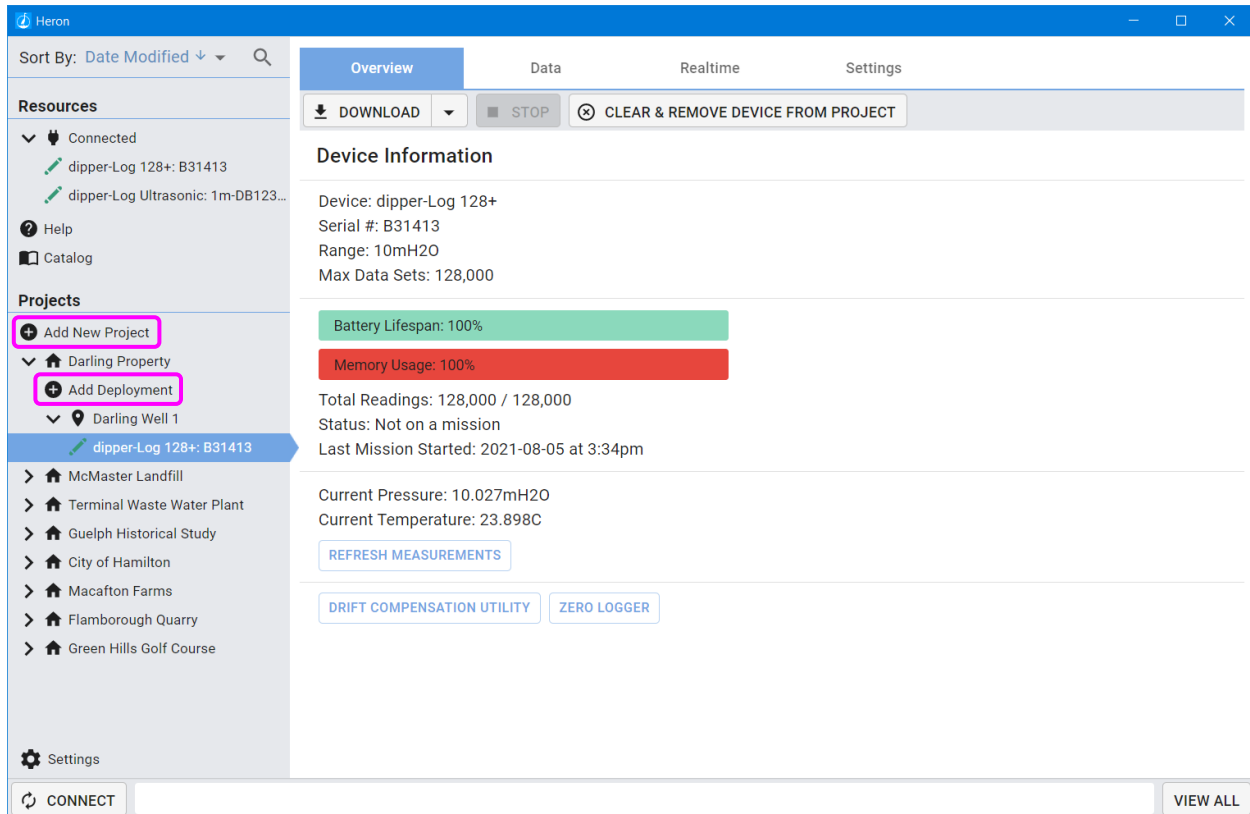
Device Information:

- Device: dipper-Log 128+
- Serial #: B31413
- Range: 10mH2O
- Max Data Sets: 128,000
- Battery Lifespan: 100%
- Memory Usage: 100%
- Total Readings: 128,000 / 128,000
- Status: Not on a mission
- Last Mission Started: 2021-08-05 at 3:34pm
- Current Pressure: 10.027mH2O
- Current Temperature: 23.898C

Buttons:

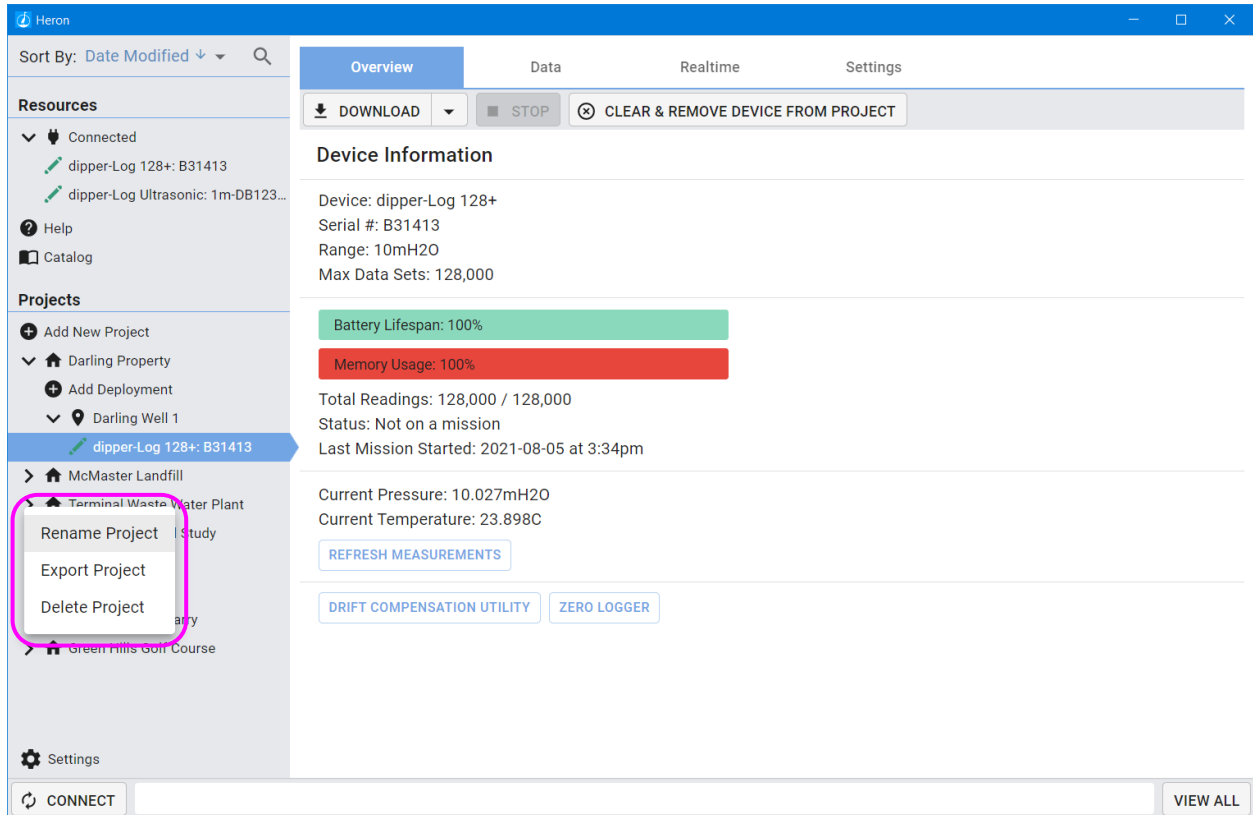
- DOWNLOAD
- STOP
- CLEAR & REMOVE DEVICE FROM PROJECT
- REFRESH MEASUREMENTS
- DRIFT COMPENSATION UTILITY
- ZERO LOGGER
- VIEW ALL

New projects and new deployments can also be created using the “Add New ...” buttons. This will allow you to add new sections, however devices won’t appear here unless they are later assigned to the same projects and deployments.



The screenshot displays the Heron Instruments web application interface. The left sidebar contains a 'Resources' section with 'Connected' devices (dipper-Log 128+: B31413 and dipper-Log Ultrasonic: 1m-DB123...) and a 'Projects' section. In the 'Projects' section, 'Add New Project' and 'Add Deployment' buttons are highlighted with pink boxes. Below these are several project entries, including 'Darling Property', 'Darling Well 1', and a list of locations like 'McMaster Landfill', 'Terminal Waste Water Plant', 'Guelph Historical Study', 'City of Hamilton', 'Macafton Farms', 'Flamborough Quarry', and 'Green Hills Golf Course'. The main content area shows the 'Overview' tab for the selected device 'dipper-Log 128+: B31413'. This tab includes a 'Device Information' section with details like 'Device: dipper-Log 128+', 'Serial #: B31413', 'Range: 10mH2O', and 'Max Data Sets: 128,000'. It also features two progress bars: 'Battery Lifespan: 100%' (green) and 'Memory Usage: 100%' (red). Below these are 'Total Readings: 128,000 / 128,000', 'Status: Not on a mission', and 'Last Mission Started: 2021-08-05 at 3:34pm'. The bottom section shows 'Current Pressure: 10.027mH2O' and 'Current Temperature: 23.898C', with buttons for 'REFRESH MEASUREMENTS', 'DRIFT COMPENSATION UTILITY', and 'ZERO LOGGER'. At the bottom of the interface, there is a 'CONNECT' button on the left and a 'VIEW ALL' button on the right.

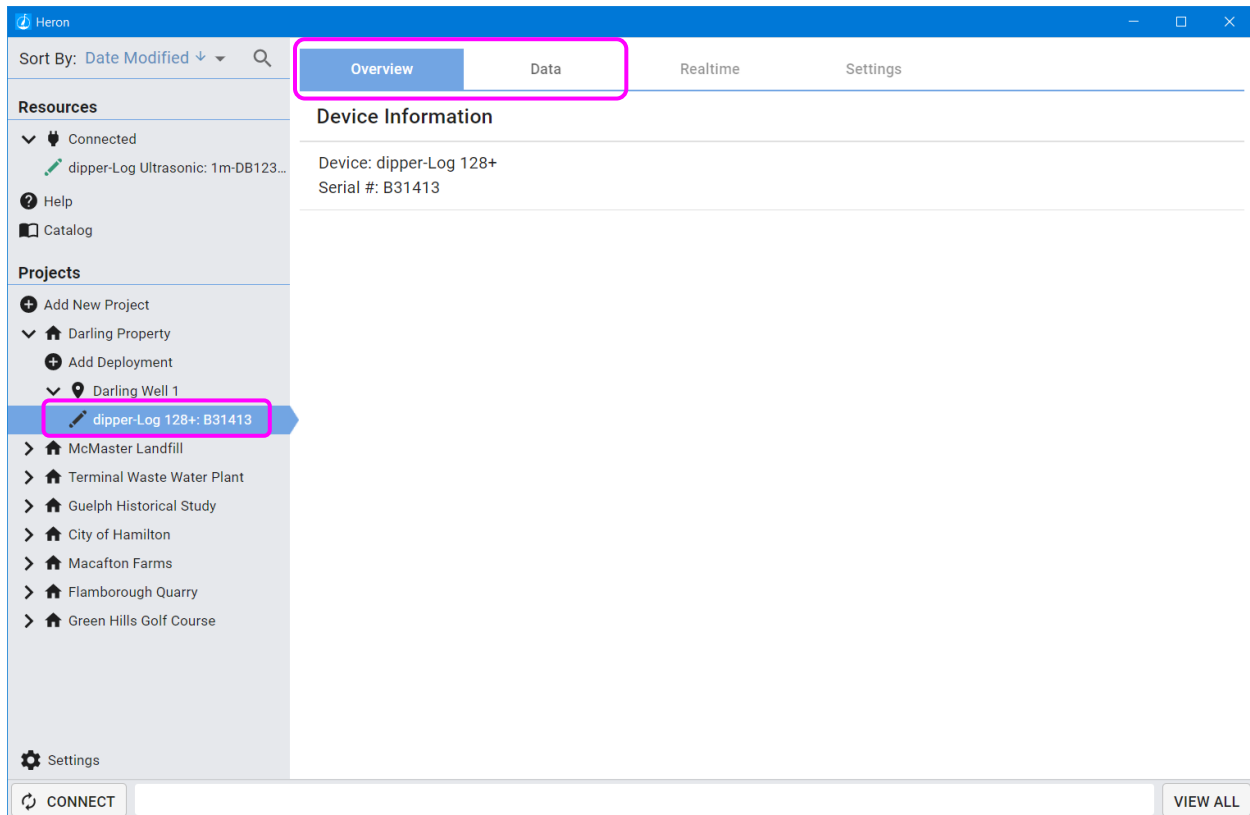
You can right click (or click and hold on touch screen devices) to Rename, Export, or Delete Projects and Deployments. To reimport you can do so from the Software Settings page.



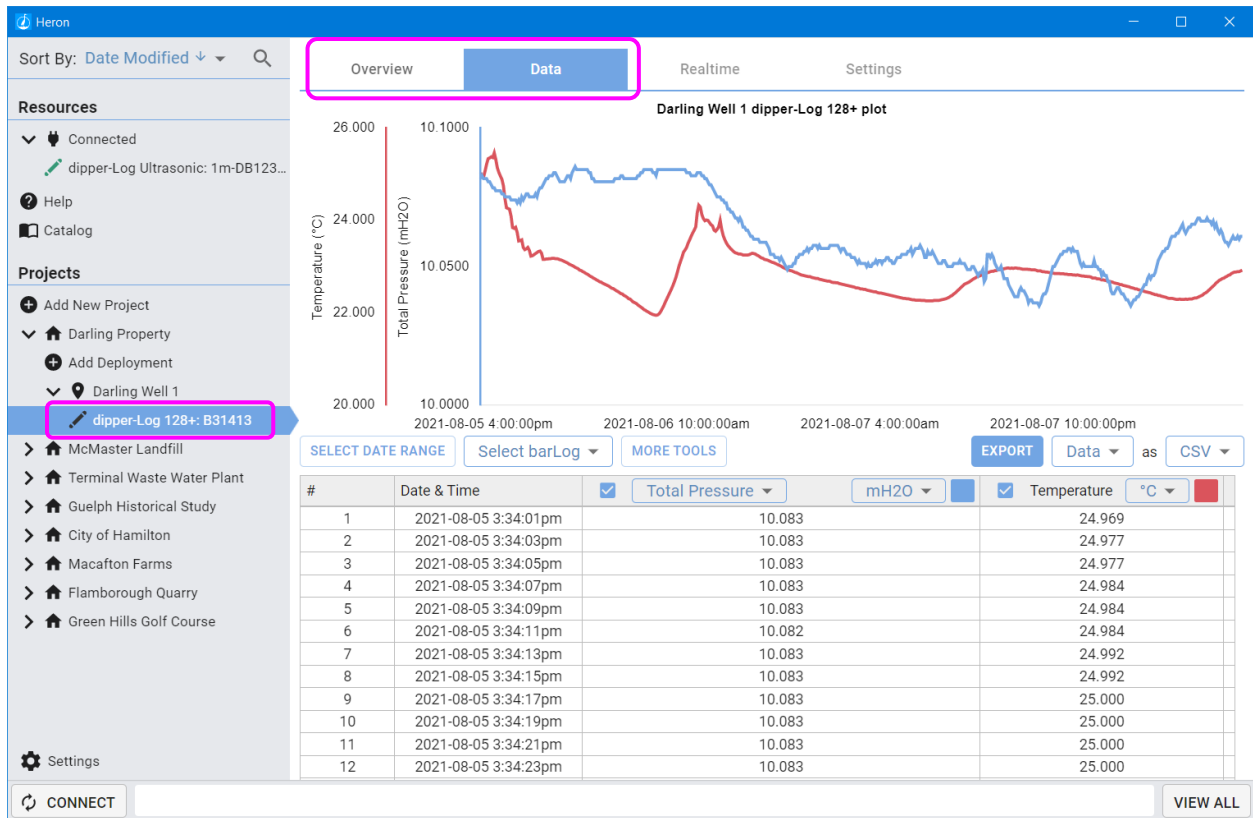
The screenshot displays the Heron software interface. On the left sidebar, under the 'Projects' section, a right-click context menu is open for the project 'dipper-Log 128+: B31413'. The menu options are 'Rename Project', 'Export Project', and 'Delete Project', which are highlighted by a pink rectangle. The main panel shows the 'Overview' tab for this project, displaying device information, battery status (100%), memory usage (100%), total readings (128,000 / 128,000), status (Not on a mission), last mission start time (2021-08-05 at 3:34pm), current pressure (10.027mH2O), and current temperature (23.898C). At the bottom of the interface, there is a 'CONNECT' button and a 'VIEW ALL' button.

Connected devices will appear within their respective Projects and Deployments with a green icon next to their names. This indicates that the device is connected, either directly or remotely and can be interfaced with for realtime readings, mission updates, data downloads, etc. Devices that are not connected, will still show up, however their icons will be black. This indicates that they are not able to be interfaced with. You can however view and manipulate data already downloaded from those devices.

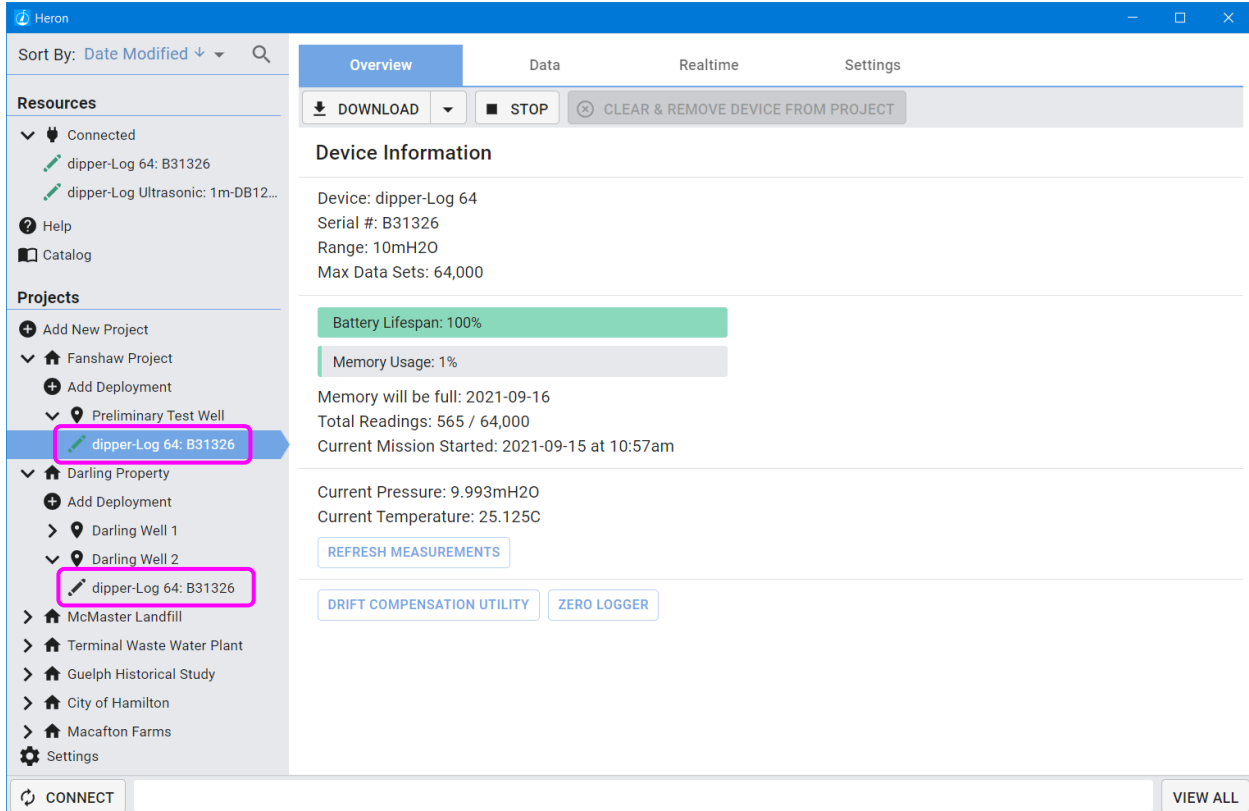
Disconnected Logger. See examples below. Notice the black icon to the left of the logger's name. This is in contrast to a green icon that would be present if the device was connected.



The screenshot displays the Heron software interface. On the left sidebar, under the 'Projects' section, the item 'dipper-Log 128+: B31413' is highlighted with a pink box. The main panel shows the 'Overview' tab selected, also highlighted with a pink box. Below the tab, the 'Device Information' section displays 'Device: dipper-Log 128+' and 'Serial #: B31413'. The device icon in the sidebar is black, indicating it is disconnected. At the bottom of the interface, there is a 'CONNECT' button and a 'VIEW ALL' button.



If a logger has been used in multiple projects, it may appear twice within your database. When you assign a logger to a new project, its data and its name from the old project will remain where it was. All new connections and data will be downloaded and available in the new project.



The screenshot displays the Heron Instruments web application interface. The left sidebar contains a 'Resources' section with 'Connected' devices (dipper-Log 64: B31326 and dipper-Log Ultrasonic: 1m-DB12...) and a 'Projects' section with various project entries. The 'dipper-Log 64: B31326' entry is highlighted with a pink box. The main content area shows the 'Overview' tab for the selected device, displaying device information (dipper-Log 64, Serial #: B31326, Range: 10mH2O, Max Data Sets: 64,000) and status metrics (Battery Lifespan: 100%, Memory Usage: 1%). The 'Current Mission Started' is 2021-09-15 at 10:57am. The 'Current Pressure' is 9.993mH2O and the 'Current Temperature' is 25.125C. The interface includes buttons for 'DOWNLOAD', 'STOP', 'CLEAR & REMOVE DEVICE FROM PROJECT', 'REFRESH MEASUREMENTS', 'DRIFT COMPENSATION UTILITY', 'ZERO LOGGER', and 'VIEW ALL'.

Sort By: Date Modified

Resources

- Connected
 - dipper-Log 64: B31326
 - dipper-Log Ultrasonic: 1m-DB12...
- Help
- Catalog

Projects

- Add New Project
- Fanshaw Project
 - Add Deployment
 - Preliminary Test Well
 - dipper-Log 64: B31326
- Darling Property
 - Add Deployment
 - Darling Well 1
 - Darling Well 2
 - dipper-Log 64: B31326
- McMaster Landfill
- Terminal Waste Water Plant
- Guelph Historical Study
- City of Hamilton
- Macafon Farms
- Settings

Overview Data Realtime Settings

DOWNLOAD STOP CLEAR & REMOVE DEVICE FROM PROJECT

Device Information

Device: dipper-Log 64
Serial #: B31326
Range: 10mH2O
Max Data Sets: 64,000

Battery Lifespan: 100%
Memory Usage: 1%

Memory will be full: 2021-09-16
Total Readings: 565 / 64,000
Current Mission Started: 2021-09-15 at 10:57am

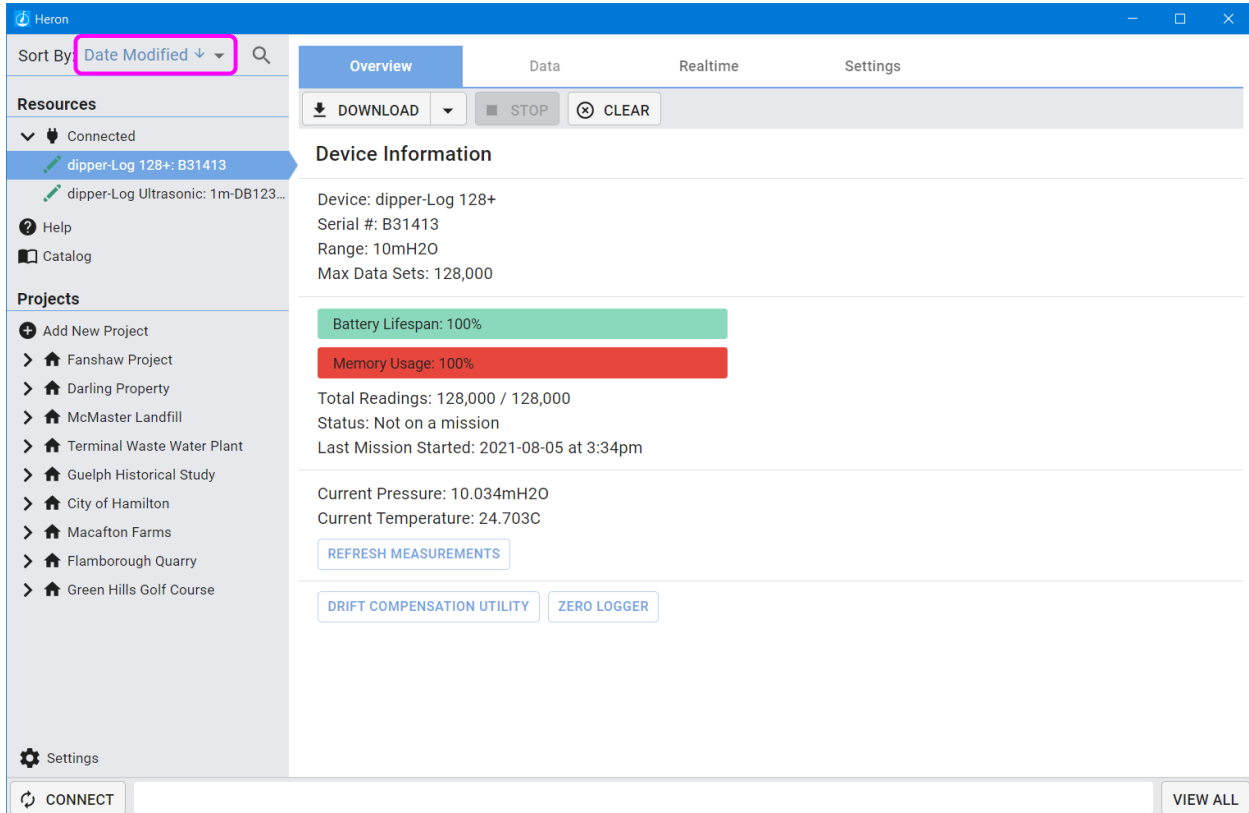
Current Pressure: 9.993mH2O
Current Temperature: 25.125C

REFRESH MEASUREMENTS

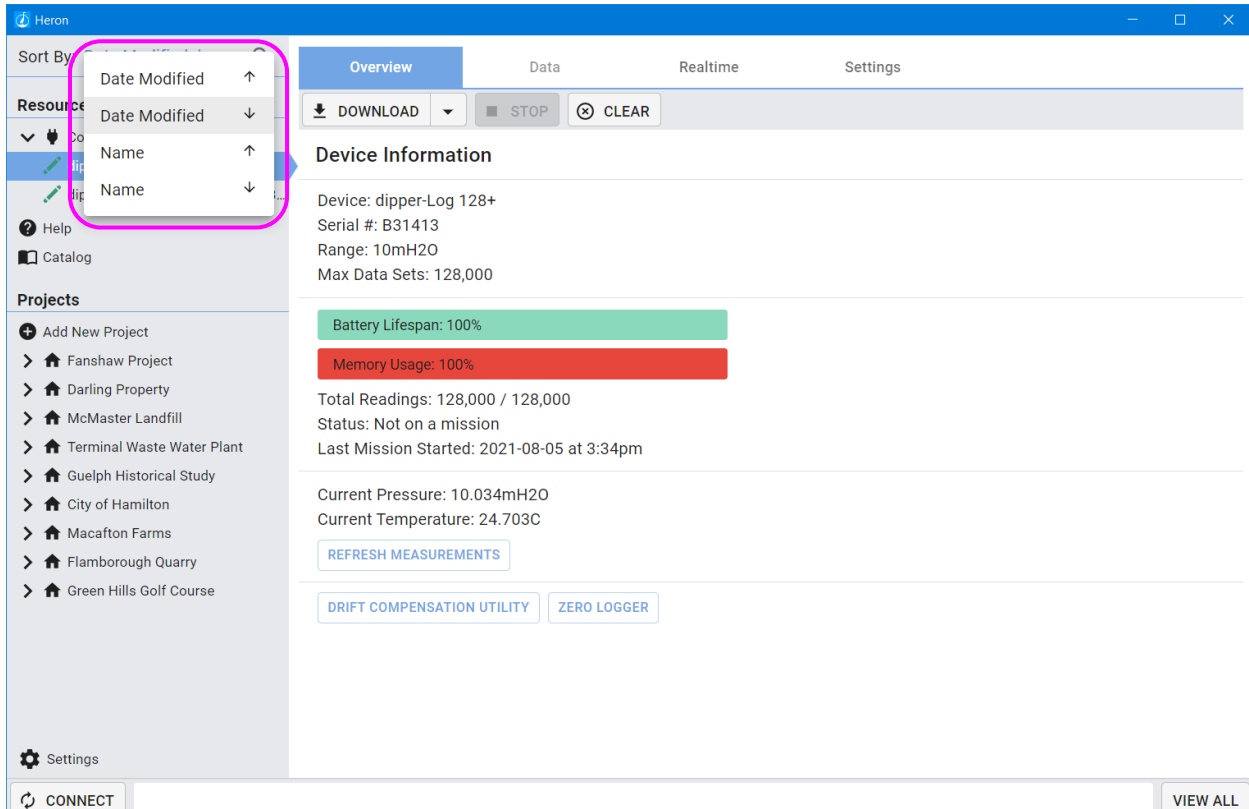
DRIFT COMPENSATION UTILITY ZERO LOGGER

CONNECT VIEW ALL

You can sort all of projects by selecting the Sort By feature in the top of the navigation pane.

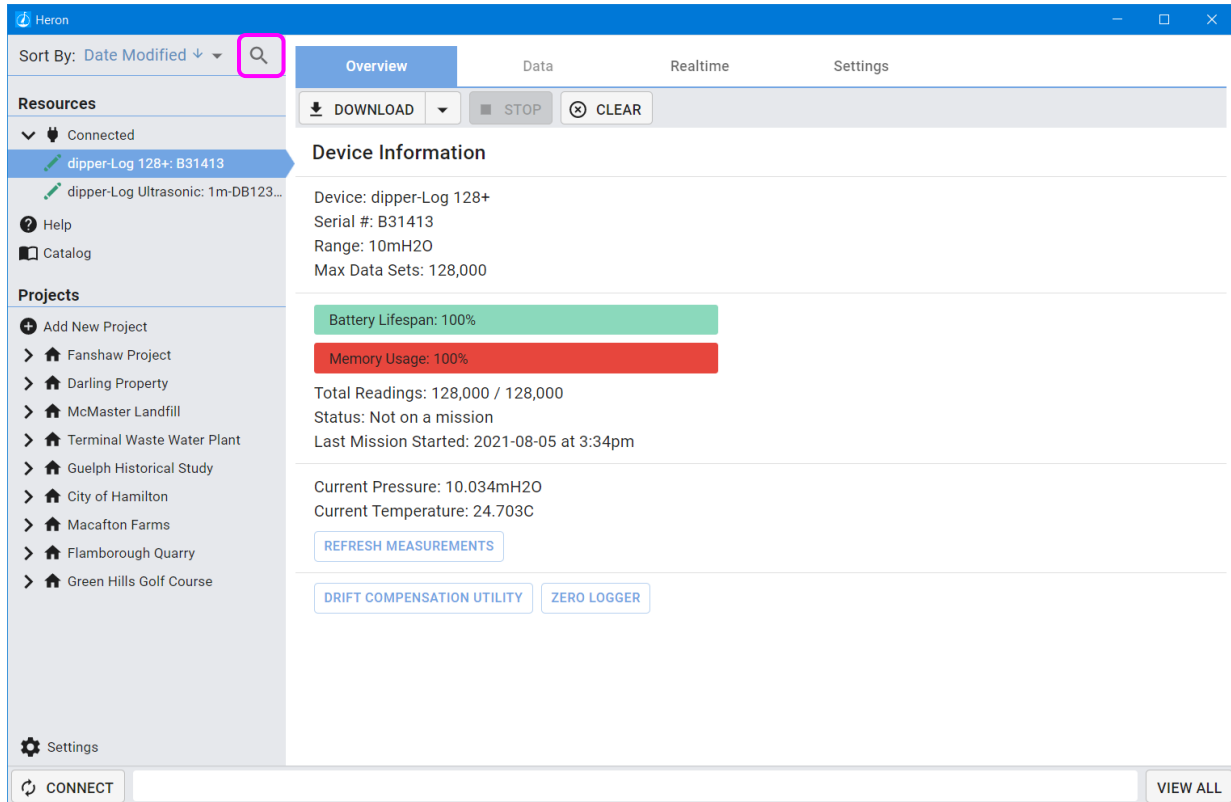


The screenshot shows the Heron software interface. In the top left navigation pane, the 'Sort By' dropdown menu is highlighted with a pink box and set to 'Date Modified'. The main panel displays 'Device Information' for a 'dipper-Log 128+' device. The device details include: Serial #: B31413, Range: 10mH2O, Max Data Sets: 128,000, Battery Lifespan: 100%, Memory Usage: 100%, Total Readings: 128,000 / 128,000, Status: Not on a mission, Last Mission Started: 2021-08-05 at 3:34pm, Current Pressure: 10.034mH2O, and Current Temperature: 24.703C. There are buttons for 'REFRESH MEASUREMENTS', 'DRIFT COMPENSATION UTILITY', and 'ZERO LOGGER'. At the bottom, there is a 'CONNECT' button and a 'VIEW ALL' button.

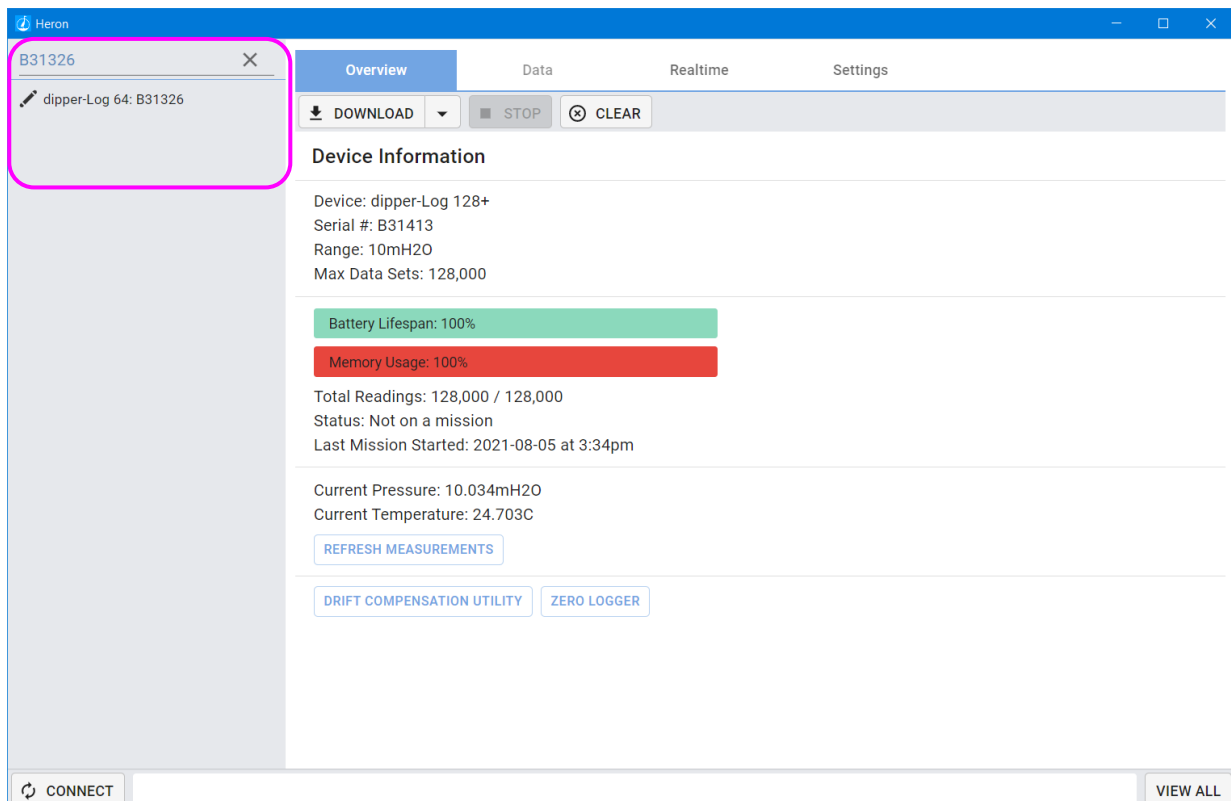


The screenshot shows the Heron software interface with the 'Sort By' dropdown menu open. The menu is highlighted with a pink box and shows two options: 'Date Modified' (with an up arrow) and 'Name' (with a down arrow). The main panel displays 'Device Information' for a 'dipper-Log 128+' device. The device details include: Serial #: B31413, Range: 10mH2O, Max Data Sets: 128,000, Battery Lifespan: 100%, Memory Usage: 100%, Total Readings: 128,000 / 128,000, Status: Not on a mission, Last Mission Started: 2021-08-05 at 3:34pm, Current Pressure: 10.034mH2O, and Current Temperature: 24.703C. There are buttons for 'REFRESH MEASUREMENTS', 'DRIFT COMPENSATION UTILITY', and 'ZERO LOGGER'. At the bottom, there is a 'CONNECT' button and a 'VIEW ALL' button.

You can search for any device or project by using the search function (located beside the Sort By function).

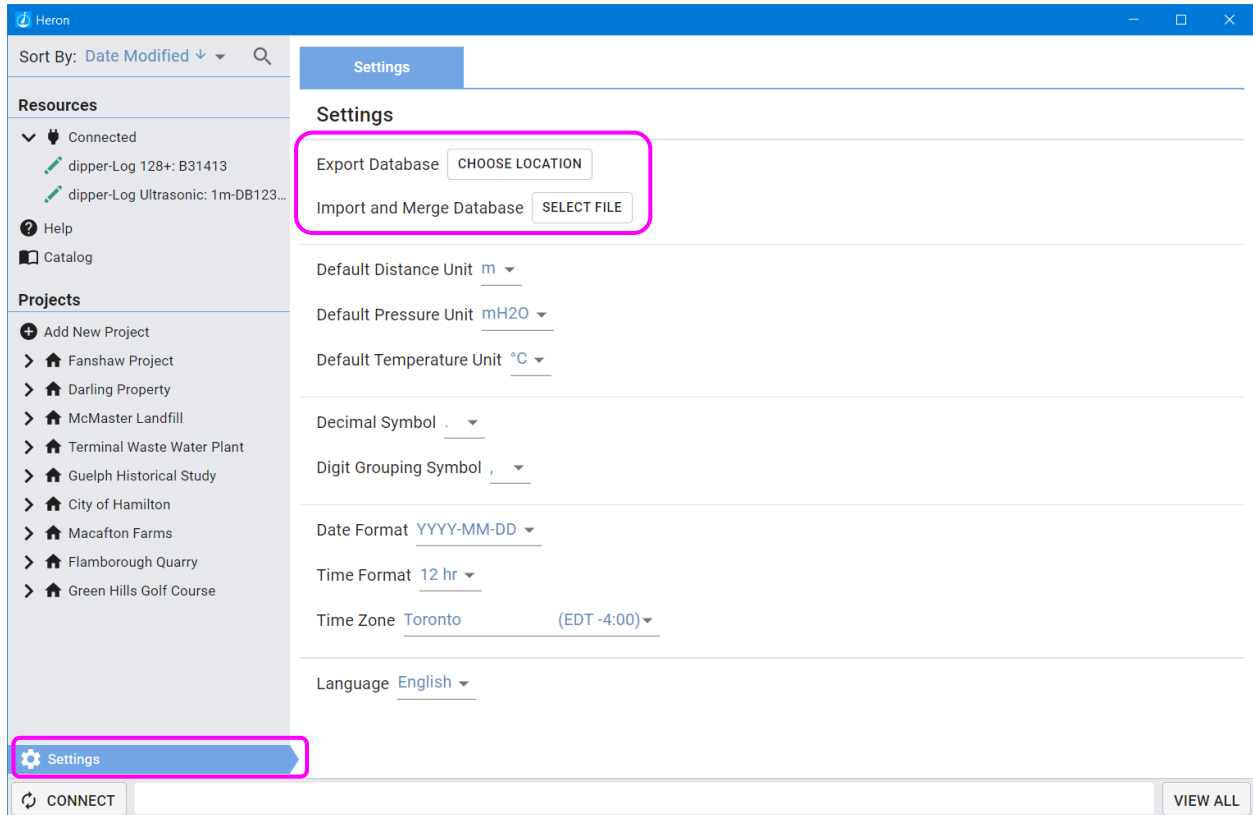


The screenshot shows the Heron software interface. At the top, there is a search bar with a magnifying glass icon, highlighted by a pink box. Below the search bar, the 'Sort By: Date Modified' dropdown is visible. The left sidebar contains 'Resources' and 'Projects' sections. The 'Resources' section lists 'dipper-Log 128+: B31413' and 'dipper-Log Ultrasonic: 1m-DB123...'. The 'Projects' section lists various locations like 'Fanshaw Project', 'Darling Property', etc. The main content area displays 'Device Information' for the selected device, including 'Device: dipper-Log 128+', 'Serial #: B31413', 'Range: 10mH2O', 'Max Data Sets: 128,000', 'Battery Lifespan: 100%', 'Memory Usage: 100%', 'Total Readings: 128,000 / 128,000', 'Status: Not on a mission', 'Last Mission Started: 2021-08-05 at 3:34pm', 'Current Pressure: 10.034mH2O', and 'Current Temperature: 24.703C'. There are buttons for 'DOWNLOAD', 'STOP', 'CLEAR', 'REFRESH MEASUREMENTS', 'DRIFT COMPENSATION UTILITY', and 'ZERO LOGGER'. A 'CONNECT' button is at the bottom left, and a 'VIEW ALL' button is at the bottom right.



The screenshot shows the Heron software interface with a search bar highlighted by a pink box. The search bar contains the text 'B31326'. Below the search bar, the 'Sort By: Date Modified' dropdown is visible. The left sidebar contains 'Resources' and 'Projects' sections. The 'Resources' section lists 'dipper-Log 64: B31326'. The 'Projects' section lists various locations like 'Fanshaw Project', 'Darling Property', etc. The main content area displays 'Device Information' for the selected device, including 'Device: dipper-Log 128+', 'Serial #: B31413', 'Range: 10mH2O', 'Max Data Sets: 128,000', 'Battery Lifespan: 100%', 'Memory Usage: 100%', 'Total Readings: 128,000 / 128,000', 'Status: Not on a mission', 'Last Mission Started: 2021-08-05 at 3:34pm', 'Current Pressure: 10.034mH2O', and 'Current Temperature: 24.703C'. There are buttons for 'DOWNLOAD', 'STOP', 'CLEAR', 'REFRESH MEASUREMENTS', 'DRIFT COMPENSATION UTILITY', and 'ZERO LOGGER'. A 'CONNECT' button is at the bottom left, and a 'VIEW ALL' button is at the bottom right.

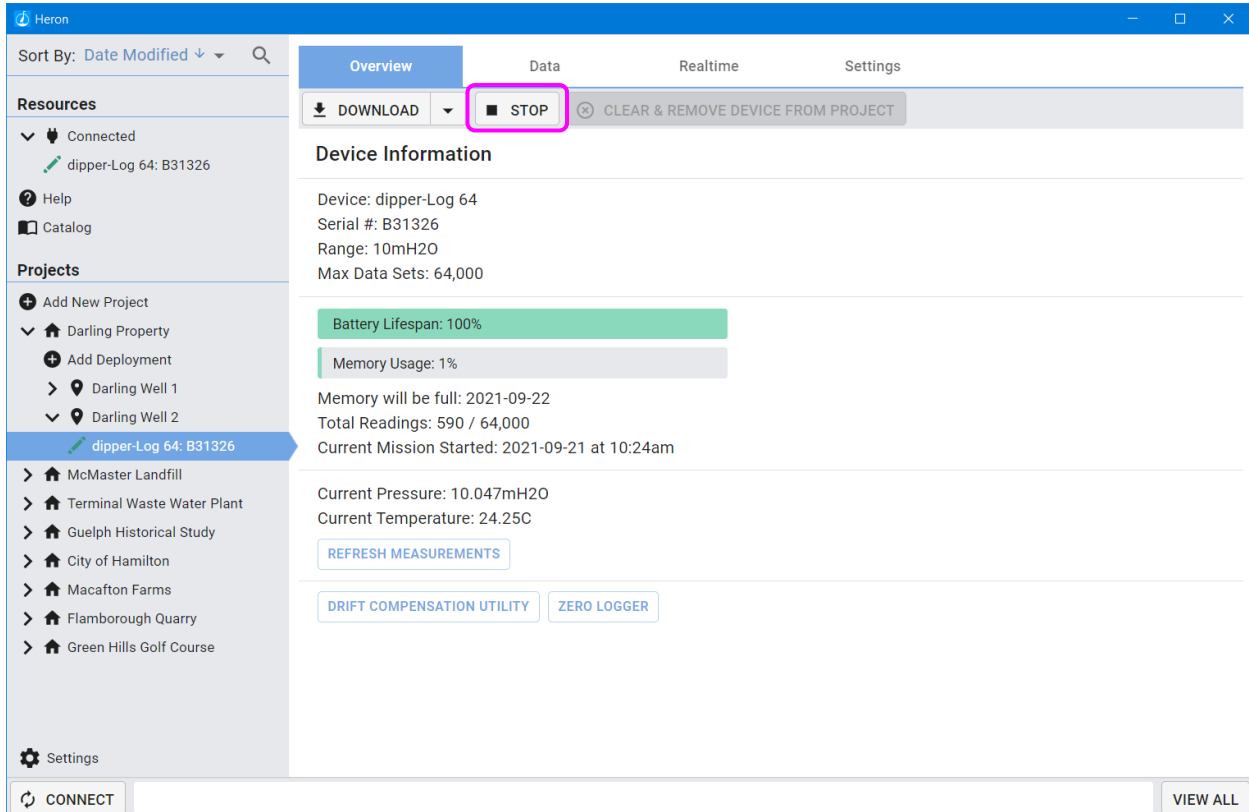
Software Settings are available at the very bottom of your navigation pane. Here you can import your exported Projects and Deployments, or export your whole Database.



The screenshot displays the Heron software interface. On the left, a navigation pane lists 'Resources' and 'Projects'. At the bottom of this pane, a 'Settings' button with a gear icon is highlighted with a pink box. The main window shows the 'Settings' page. At the top of this page, there are two buttons: 'Export Database' with a 'CHOOSE LOCATION' button next to it, and 'Import and Merge Database' with a 'SELECT FILE' button next to it. These two buttons are enclosed in a pink rectangular box. Below these are various settings: 'Default Distance Unit' (m), 'Default Pressure Unit' (mH2O), 'Default Temperature Unit' (°C), 'Decimal Symbol' (.), 'Digit Grouping Symbol' (,), 'Date Format' (YYYY-MM-DD), 'Time Format' (12 hr), 'Time Zone' (Toronto (EDT -4:00)), and 'Language' (English). At the bottom of the interface, there is a 'CONNECT' button and a 'VIEW ALL' button.

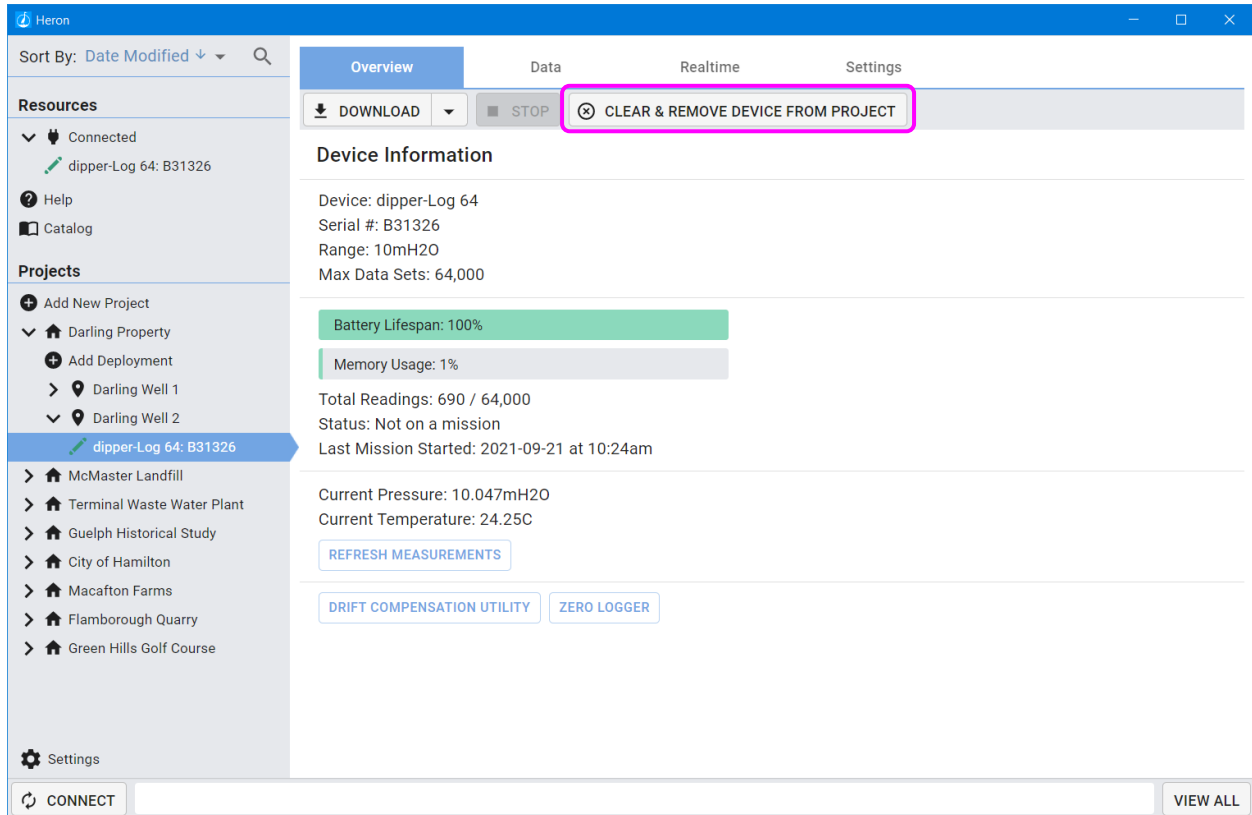
Stopping and Clearing a Logger

Stopping and clearing your logger helps the battery last longer between missions. You can do so by clicking the Stop button.



The screenshot displays the Heron Instruments software interface. The left sidebar contains a 'Resources' section with 'Connected' devices, including 'dipper-Log 64: B31326'. Below this is a 'Projects' section with a list of locations: McMaster Landfill, Terminal Waste Water Plant, Guelph Historical Study, City of Hamilton, Macahton Farms, Flamborough Quarry, and Green Hills Golf Course. The main panel shows the 'Overview' tab for the selected device. At the top of the main panel, there are tabs for 'Overview', 'Data', 'Realtime', and 'Settings'. Below these tabs, there are three buttons: 'DOWNLOAD', 'STOP' (highlighted with a red rectangle), and 'CLEAR & REMOVE DEVICE FROM PROJECT'. The 'Device Information' section displays the following details: Device: dipper-Log 64, Serial #: B31326, Range: 10mH2O, and Max Data Sets: 64,000. Below this, there are two progress bars: 'Battery Lifespan: 100%' (green) and 'Memory Usage: 1%' (grey). Further down, it shows 'Memory will be full: 2021-09-22', 'Total Readings: 590 / 64,000', and 'Current Mission Started: 2021-09-21 at 10:24am'. At the bottom of the main panel, there are two buttons: 'REFRESH MEASUREMENTS' and 'DRIFT COMPENSATION UTILITY'. The bottom status bar includes a 'CONNECT' button and a 'VIEW ALL' button.

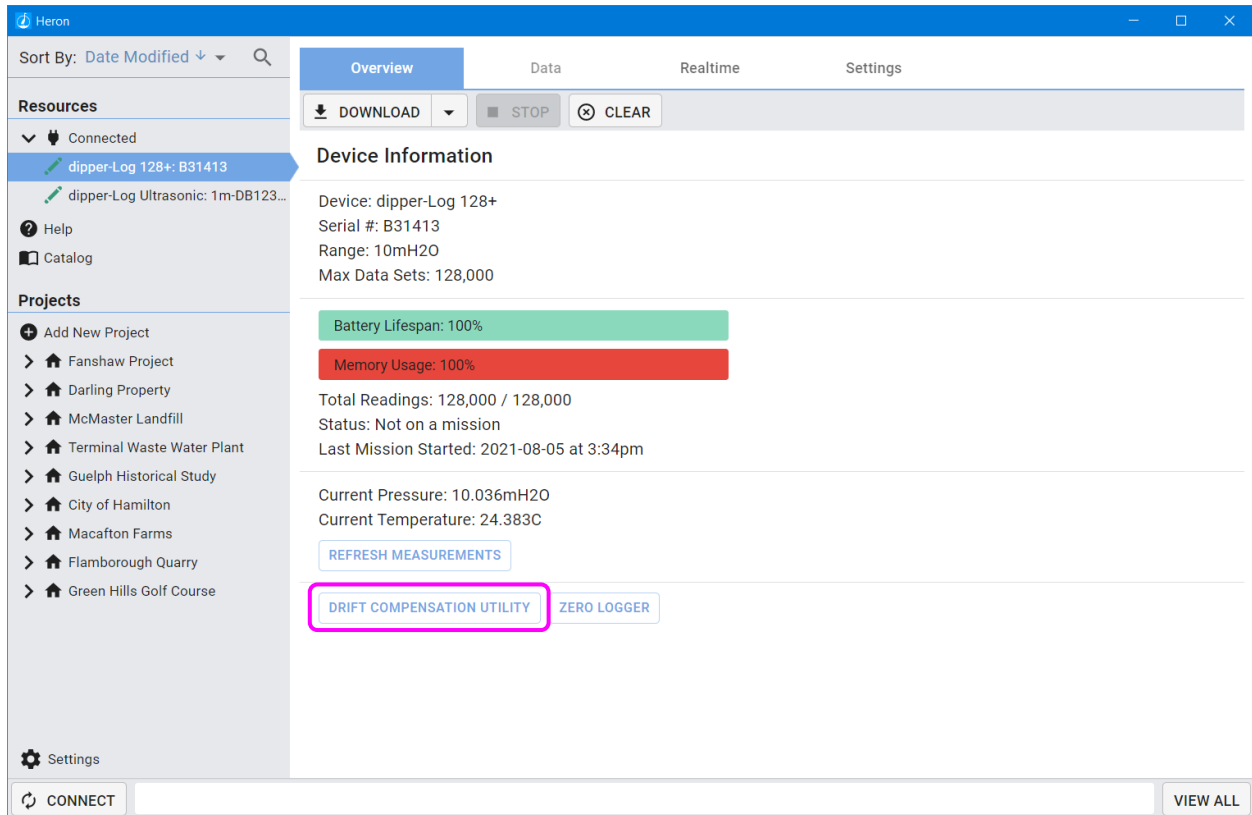
You can now click to Clear and Remove the Device from its project associations. This will set the logger to factory defaults. It is now safe to store for extended periods of time.



The screenshot displays the Heron Instruments software interface. On the left, a sidebar lists resources and projects. The 'Resources' section shows a connected device 'dipper-Log 64: B31326'. The 'Projects' section lists several locations, including 'McMaster Landfill', 'Terminal Waste Water Plant', 'Guelph Historical Study', 'City of Hamilton', 'Macafon Farms', 'Flamborough Quarry', and 'Green Hills Golf Course'. The 'Overview' tab is selected, showing device information: 'Device: dipper-Log 64', 'Serial #: B31326', 'Range: 10mH2O', and 'Max Data Sets: 64,000'. Below this, a 'Battery Lifespan: 100%' bar is shown in green, and a 'Memory Usage: 1%' bar is shown in grey. Further down, it states 'Total Readings: 690 / 64,000', 'Status: Not on a mission', and 'Last Mission Started: 2021-09-21 at 10:24am'. At the bottom, there are buttons for 'REFRESH MEASUREMENTS', 'DRIFT COMPENSATION UTILITY', and 'ZERO LOGGER'. A red box highlights the 'CLEAR & REMOVE DEVICE FROM PROJECT' button in the top right corner of the 'Overview' tab.

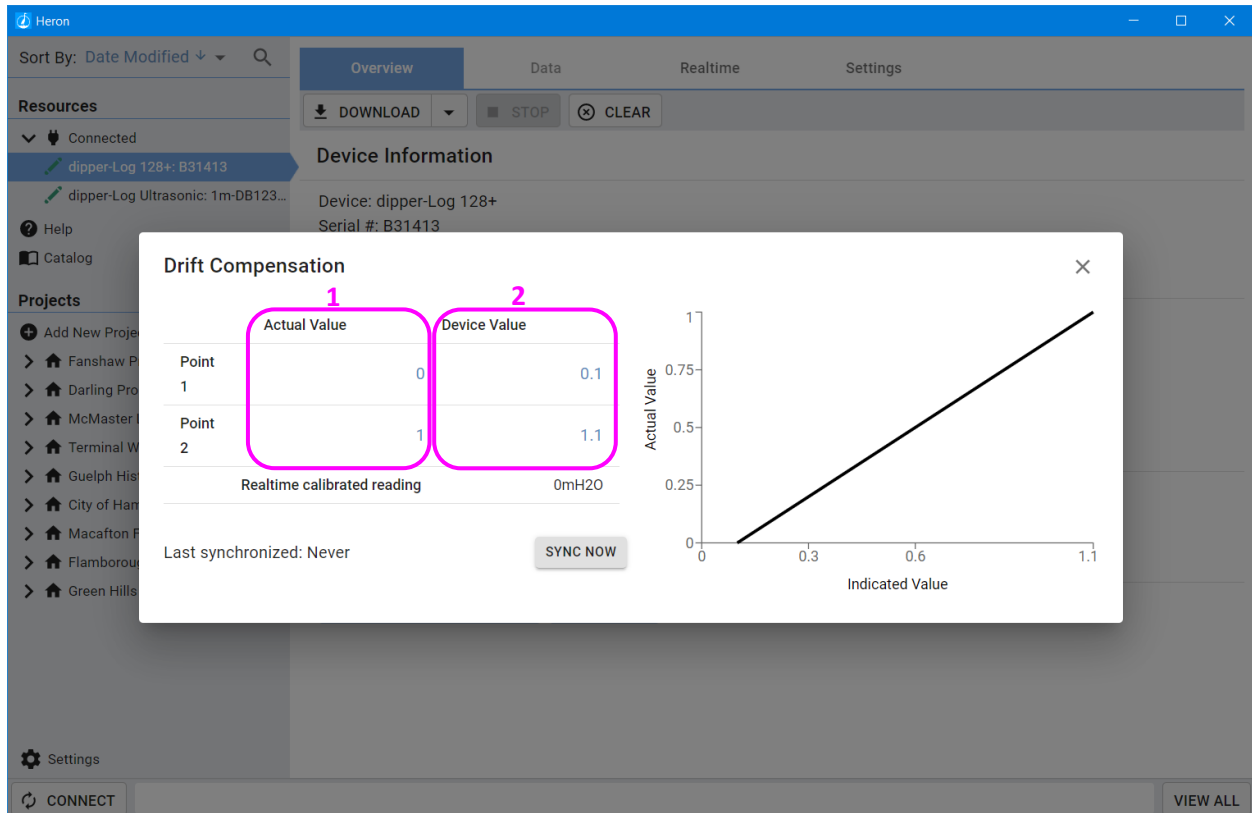
Advanced Features

Drift Compensation is a tool to provide basic correction tools for pressure transducers that may have experienced drift over time. It is also used for achieving higher accuracy in extremely low water level conditions. This utility is only available when a logger is connected. It is available on the Device Overview page.



The screenshot displays the Heron software interface. On the left, a sidebar contains 'Resources' (Connected devices: dipper-Log 128+ B31413, dipper-Log Ultrasonic 1m-DB123...) and 'Projects' (Add New Project, Fanshaw Project, Darling Property, McMaster Landfill, Terminal Waste Water Plant, Guelph Historical Study, City of Hamilton, Macahton Farms, Flamborough Quarry, Green Hills Golf Course). The main area shows the 'Overview' tab for the 'dipper-Log 128+ B31413' device. It includes a 'Device Information' section with details like 'Device: dipper-Log 128+', 'Serial #: B31413', 'Range: 10mH2O', and 'Max Data Sets: 128,000'. Below this are progress bars for 'Battery Lifespan: 100%' and 'Memory Usage: 100%'. Further down, it shows 'Total Readings: 128,000 / 128,000', 'Status: Not on a mission', and 'Last Mission Started: 2021-08-05 at 3:34pm'. At the bottom of the main area, there are buttons for 'REFRESH MEASUREMENTS', 'DRIFT COMPENSATION UTILITY' (highlighted with a pink box), and 'ZERO LOGGER'. The bottom of the interface features a 'CONNECT' button and a 'VIEW ALL' button.

The first step is to decide on 2 data points that you can accurately expose your logger to while taking a realtime reading. Both values must be within the logger's original range. You then enter in the actual values that you are expecting the logger to read. Next, enter the values the logger is giving you for those points. The graph will reflect the transformations needed to be applied. Finally, select Sync Now to lock in your changes.



Drift Compensation

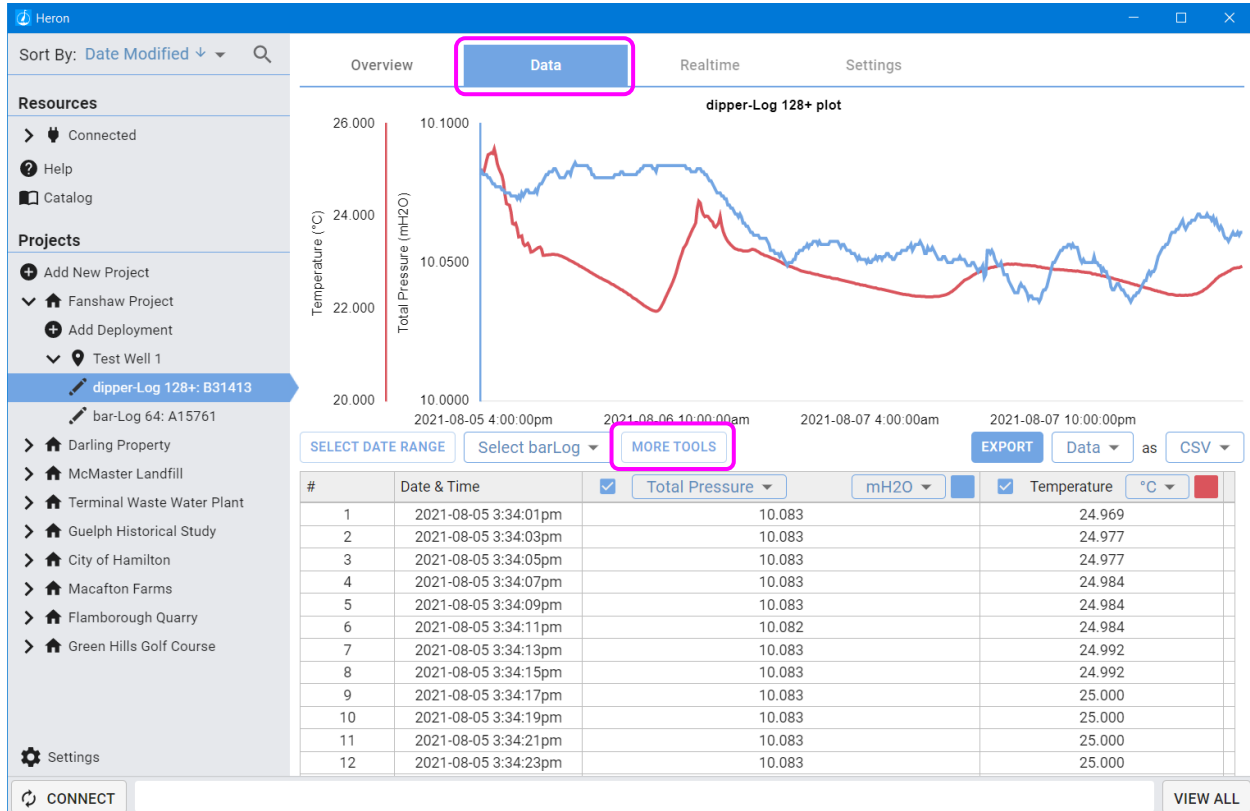
	Actual Value	Device Value
Point 1	0	0.1
Point 2	1	1.1

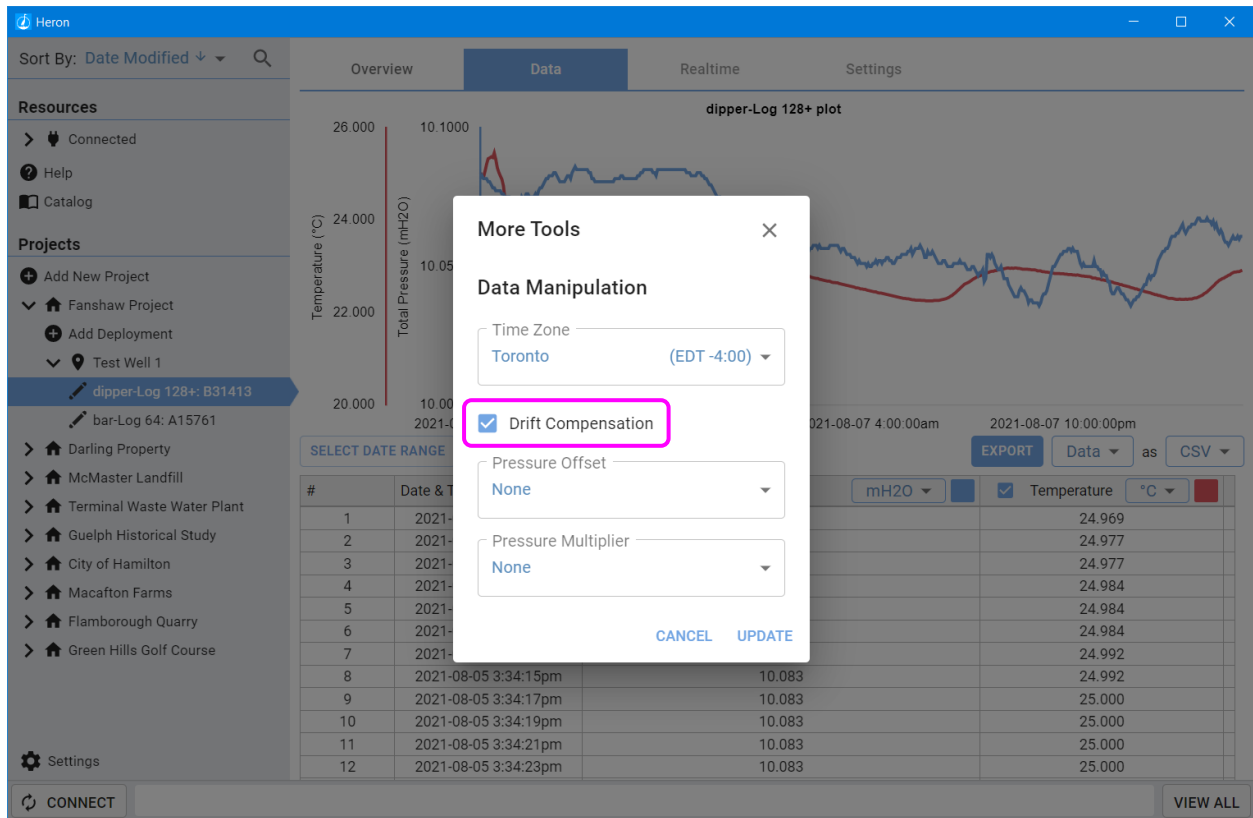
Realtime calibrated reading 0mH2O

Last synchronized: Never **SYNC NOW**

Graph: Actual Value vs. Indicated Value

To activate the drift compensation on your data, you must navigate to the Data tab. Select “MORE TOOLS” and then select “Drift Compensation”. This will apply your compensation formula to your entire data set. You can always deselect the compensation or reconfigure it at any time the logger is connected.



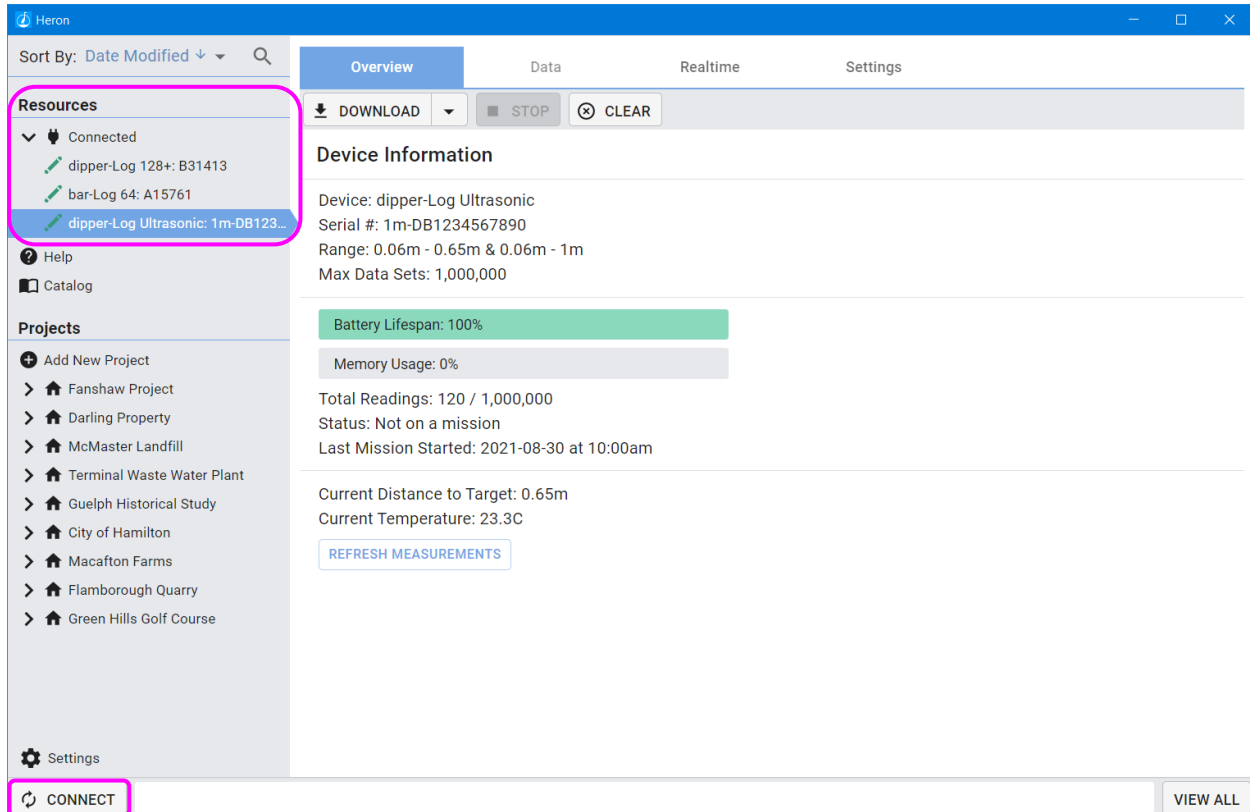


This tool is easiest to use for shallow deployment compensation. If you are going to use this feature regularly, we recommend purchasing a direct read cable to make it more convenient to get readings from discrete levels.

Downloading multiple devices

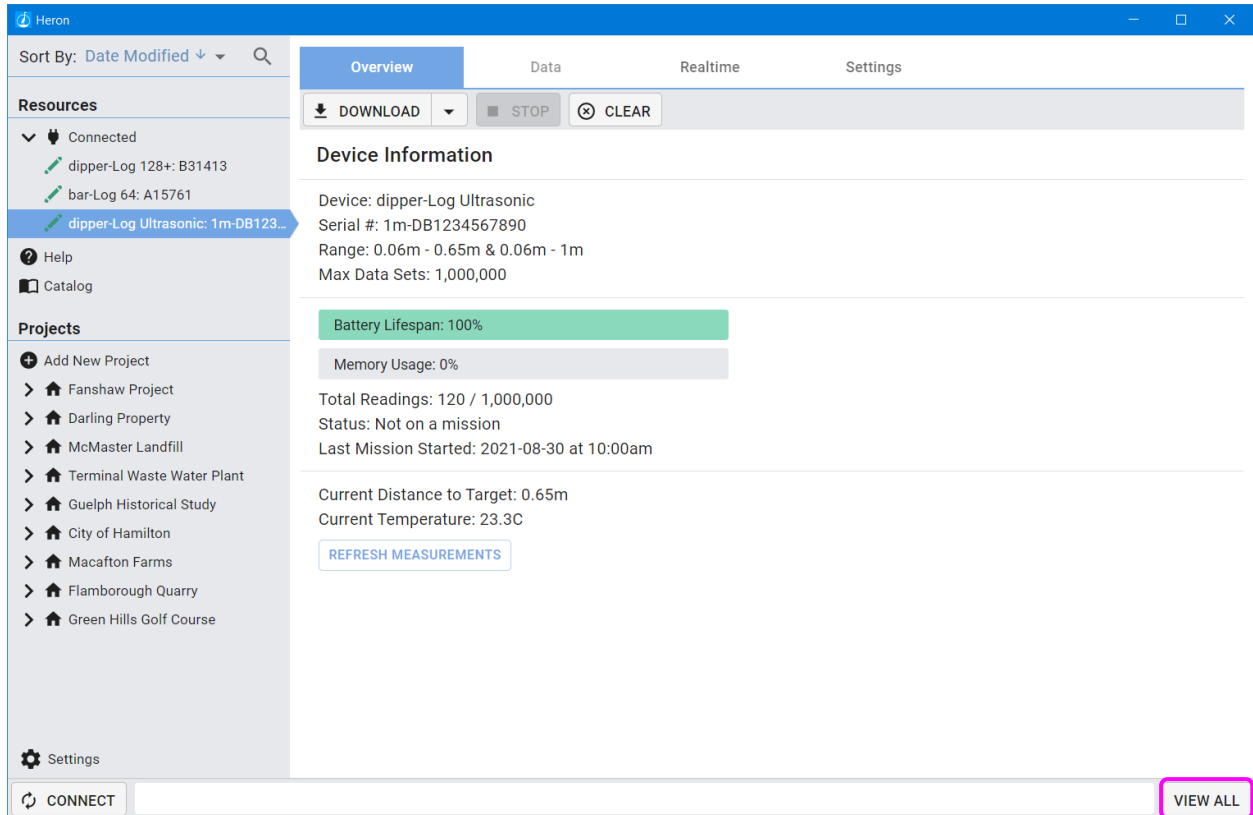
You can download multiple devices at once to help you save time. This is especially useful if you have 100+ loggers in a project. You will need a separate pc-com cable for every device. You may also need one or more USB hubs to accommodate the extra pc-com cables depending on how many USB ports your computer has.

Once all of your pc-com cables and dipper-Logs are plugged in, click the “CONNECT” button in the bottom left of the software. All of your devices should now show up in the “Connected” drop down in “Resources” of the navigation Pane.



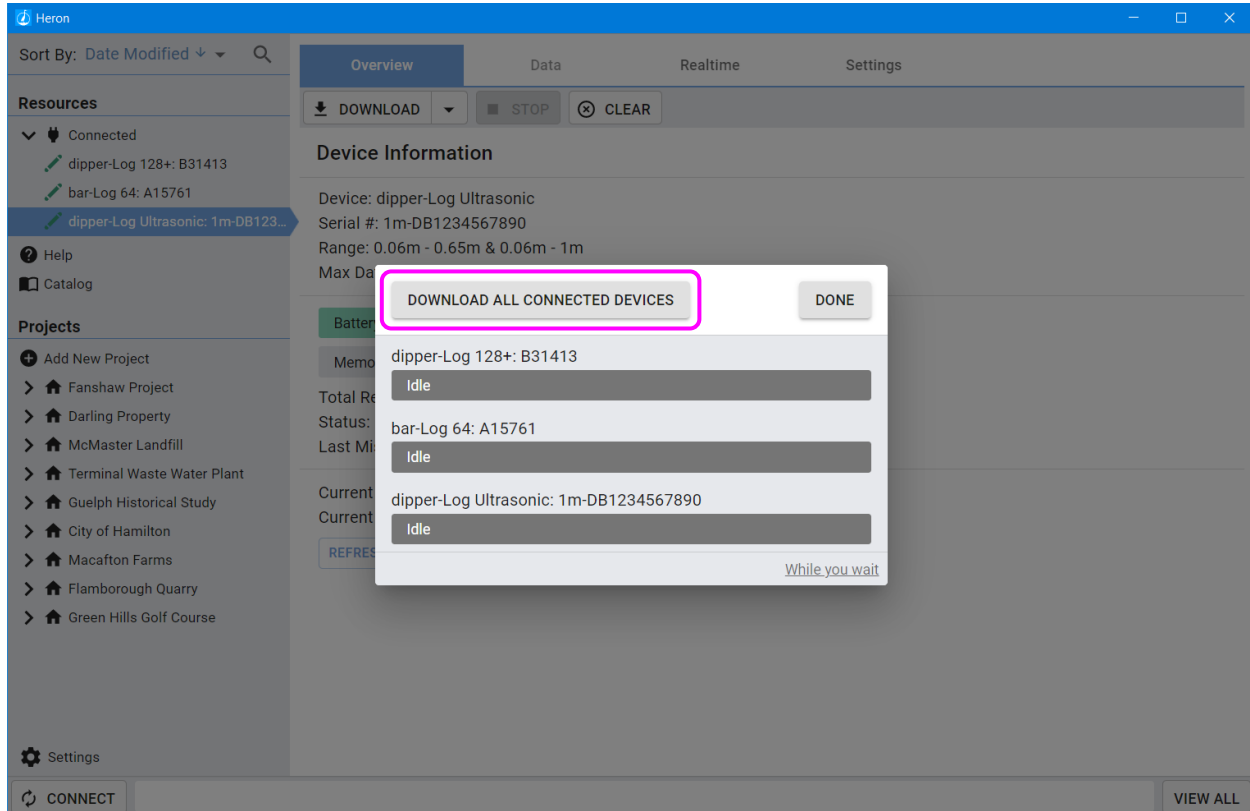
The screenshot shows the Heron software interface. On the left, the 'Resources' pane is expanded, showing a list of connected devices: 'dipper-Log 128+: B31413', 'bar-Log 64: A15761', and 'dipper-Log Ultrasonic: 1m-DB123...'. The 'CONNECT' button is highlighted in the bottom left corner. The main pane displays 'Device Information' for the selected device, including details like 'Device: dipper-Log Ultrasonic', 'Serial #: 1m-DB1234567890', 'Range: 0.06m - 0.65m & 0.06m - 1m', 'Max Data Sets: 1,000,000', 'Battery Lifespan: 100%', 'Memory Usage: 0%', 'Total Readings: 120 / 1,000,000', 'Status: Not on a mission', 'Last Mission Started: 2021-08-30 at 10:00am', 'Current Distance to Target: 0.65m', and 'Current Temperature: 23.3C'. A 'REFRESH MEASUREMENTS' button is also visible.

Click “VIEW ALL” in the bottom right corner of the software. This will bring up a panel with all of your loggers displayed.

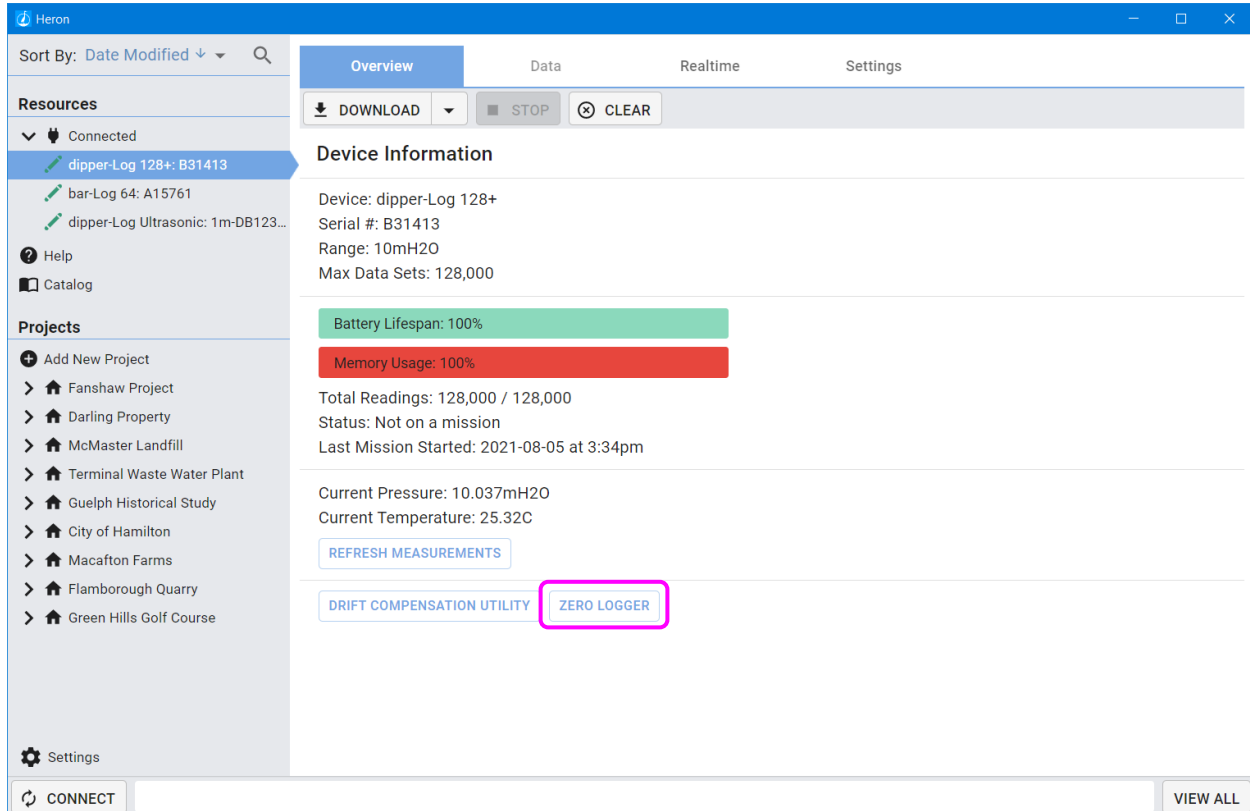


The screenshot shows the Heron software interface. On the left is a sidebar with 'Resources' (Connected devices: dipper-Log 128+: B31413, bar-Log 64: A15761, dipper-Log Ultrasonic: 1m-DB123...) and 'Projects' (Add New Project, Fanshaw Project, Darling Property, McMaster Landfill, Terminal Waste Water Plant, Guelph Historical Study, City of Hamilton, Macafton Farms, Flamborough Quarry, Green Hills Golf Course). The main area has tabs for Overview, Data, Realtime, and Settings. Under Overview, there are buttons for DOWNLOAD, STOP, and CLEAR. Below these is 'Device Information' for the 'dipper-Log Ultrasonic' device, showing serial number 1m-DB1234567890, range 0.06m - 0.65m & 0.06m - 1m, and max data sets of 1,000,000. It also shows 'Battery Lifespan: 100%' and 'Memory Usage: 0%'. Further down, it displays 'Total Readings: 120 / 1,000,000', 'Status: Not on a mission', and 'Last Mission Started: 2021-08-30 at 10:00am'. At the bottom of the main area, it shows 'Current Distance to Target: 0.65m' and 'Current Temperature: 23.3C' with a 'REFRESH MEASUREMENTS' button. In the bottom right corner, there is a 'VIEW ALL' button highlighted with a pink box.

Select “DOWNLOAD ALL CONNECTED DEVICES”. This will download all of your connected devices at once and add them to the database. This is a huge time saver for large projects! You now have more time to do things like writing that novel you always wanted to or practicing your golf swing. The free time is all yours!



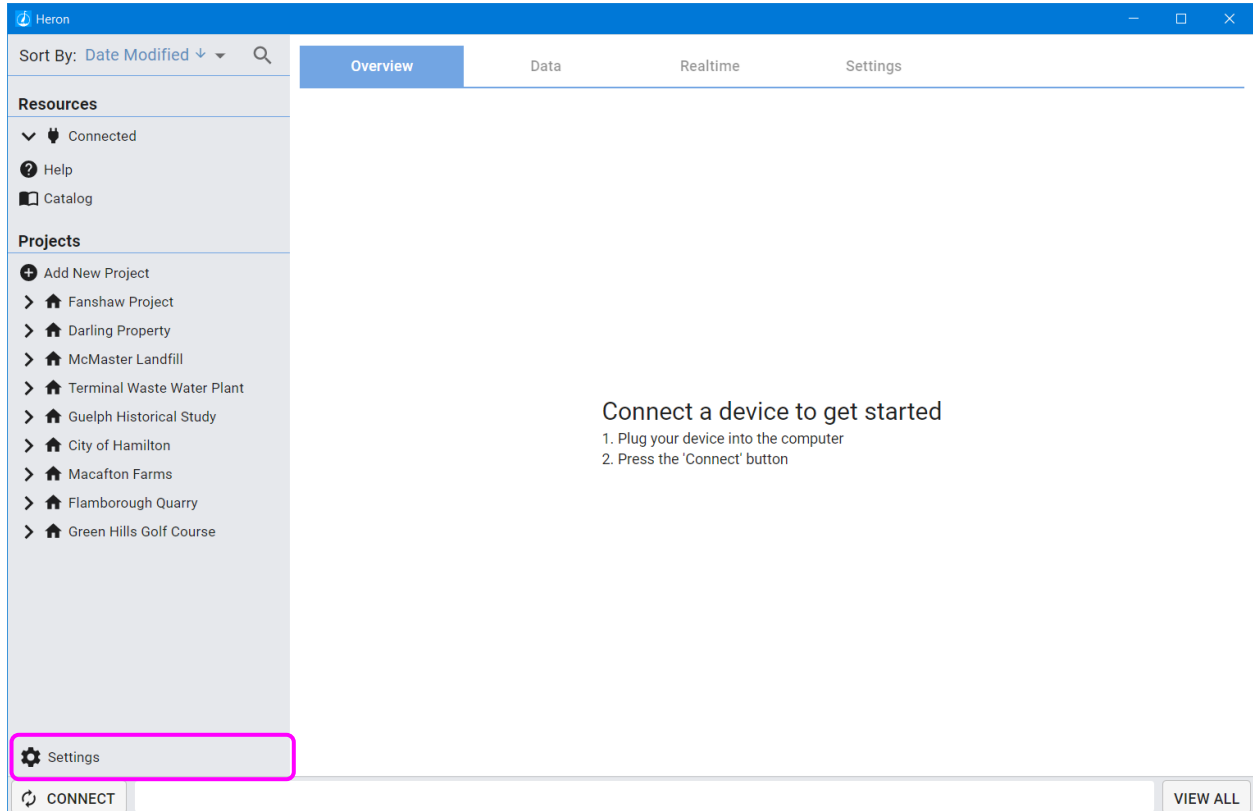
Zeroing a logger is a way to account for barometric pressure without having to worry about a bar-Log. It is not always as accurate, but it is a good idea to zero your logger as a backup. To do this, your logger cannot be submerged under water. It must be in air only. Make sure the logger is also connected to your computer. Select your logger and on the overview page, you can select “ZERO LOGGER”. This takes a barometric pressure reading and stores it to a separate section of its memory.



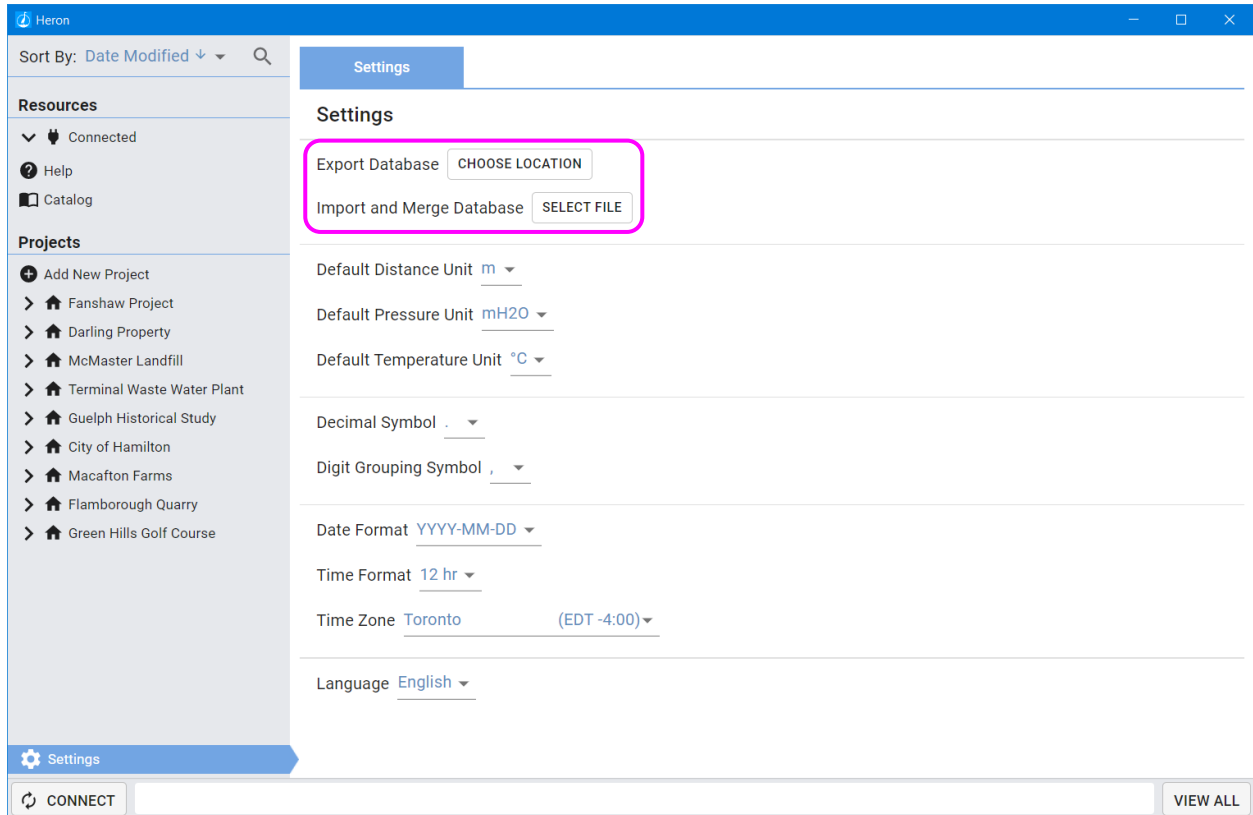
The screenshot shows the Heron software interface. On the left, there is a sidebar with 'Resources' and 'Projects'. The 'Resources' section shows a list of connected devices, with 'dipper-Log 128+: B31413' selected. The 'Projects' section lists several projects, including 'Fanshaw Project', 'Darling Property', 'McMaster Landfill', 'Terminal Waste Water Plant', 'Guelph Historical Study', 'City of Hamilton', 'Macrafton Farms', 'Flamborough Quarry', and 'Green Hills Golf Course'. The main area displays the 'Overview' page for the selected device. It includes tabs for 'Overview', 'Data', 'Realtime', and 'Settings'. The 'Overview' tab is active, showing 'Device Information' and 'Battery Lifespan: 100%'. The 'Device Information' section lists the device name, serial number, range, and maximum data sets. The 'Battery Lifespan' section shows a green bar at 100%. The 'Memory Usage' section shows a red bar at 100%. The 'Total Readings' section shows 128,000 / 128,000. The 'Status' section shows 'Not on a mission'. The 'Last Mission Started' section shows '2021-08-05 at 3:34pm'. The 'Current Pressure' section shows '10.037mH2O'. The 'Current Temperature' section shows '25.32C'. At the bottom of the main area, there are three buttons: 'REFRESH MEASUREMENTS', 'DRIFT COMPENSATION UTILITY', and 'ZERO LOGGER'. The 'ZERO LOGGER' button is highlighted with a pink box. At the bottom of the interface, there is a 'CONNECT' button and a 'VIEW ALL' button.

Changing your default settings

The software will automatically try to read your computer settings and apply appropriate defaults the first time you open it up. However, if you would like to alter those defaults you can do so in the “Software Settings” page.

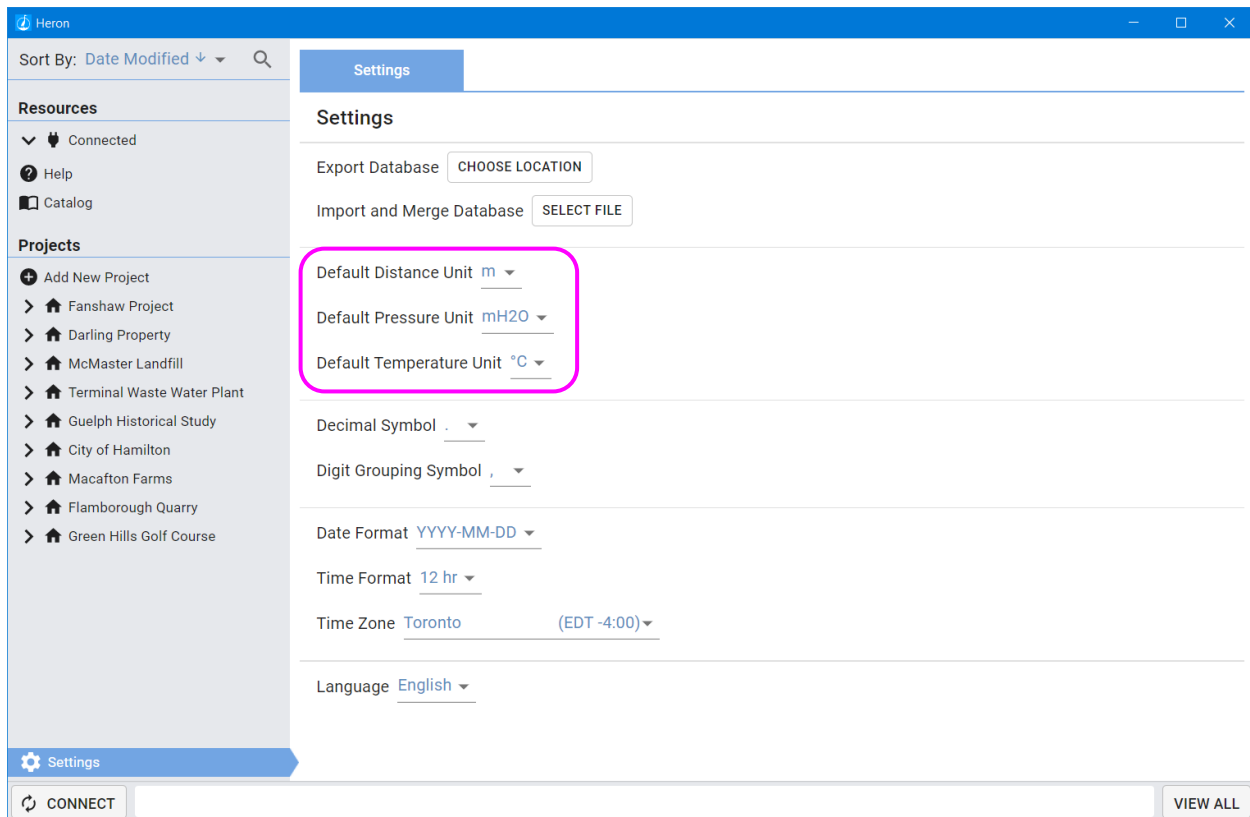


The first tools available here are your export and import database tools. This will allow you to move databases between computers, or to backup databases to avoid inadvertent data loss.



The screenshot shows the Heron Instruments Inc. web application interface. The top navigation bar is blue with the Heron logo and the text "HERON INSTRUMENTS INC.". Below the navigation bar, there is a sidebar on the left with a search bar and a list of resources and projects. The main content area is titled "Settings" and contains various configuration options. A red box highlights the "Export Database" and "Import and Merge Database" buttons, which are labeled "CHOOSE LOCATION" and "SELECT FILE" respectively. The "Export Database" button is also labeled "CHOOSE LOCATION". The "Import and Merge Database" button is also labeled "SELECT FILE". The settings page includes options for Default Distance Unit (m), Default Pressure Unit (mH2O), Default Temperature Unit (°C), Decimal Symbol (.), Digit Grouping Symbol (,), Date Format (YYYY-MM-DD), Time Format (12 hr), Time Zone (Toronto (EDT -4:00)), and Language (English). At the bottom of the page, there is a "CONNECT" button and a "VIEW ALL" button.

Default units can be changed for Distance, Pressure, and Temperature.



Heron

Sort By: Date Modified ▾ 🔍

Resources

- Connected
- Help
- Catalog

Projects

- Add New Project
- Fanshaw Project
- Darling Property
- McMaster Landfill
- Terminal Waste Water Plant
- Guelph Historical Study
- City of Hamilton
- Macahton Farms
- Flamborough Quarry
- Green Hills Golf Course

Settings

Export Database

Import and Merge Database

Default Distance Unit m ▾

Default Pressure Unit mH2O ▾

Default Temperature Unit °C ▾

Decimal Symbol . ▾

Digit Grouping Symbol , ▾

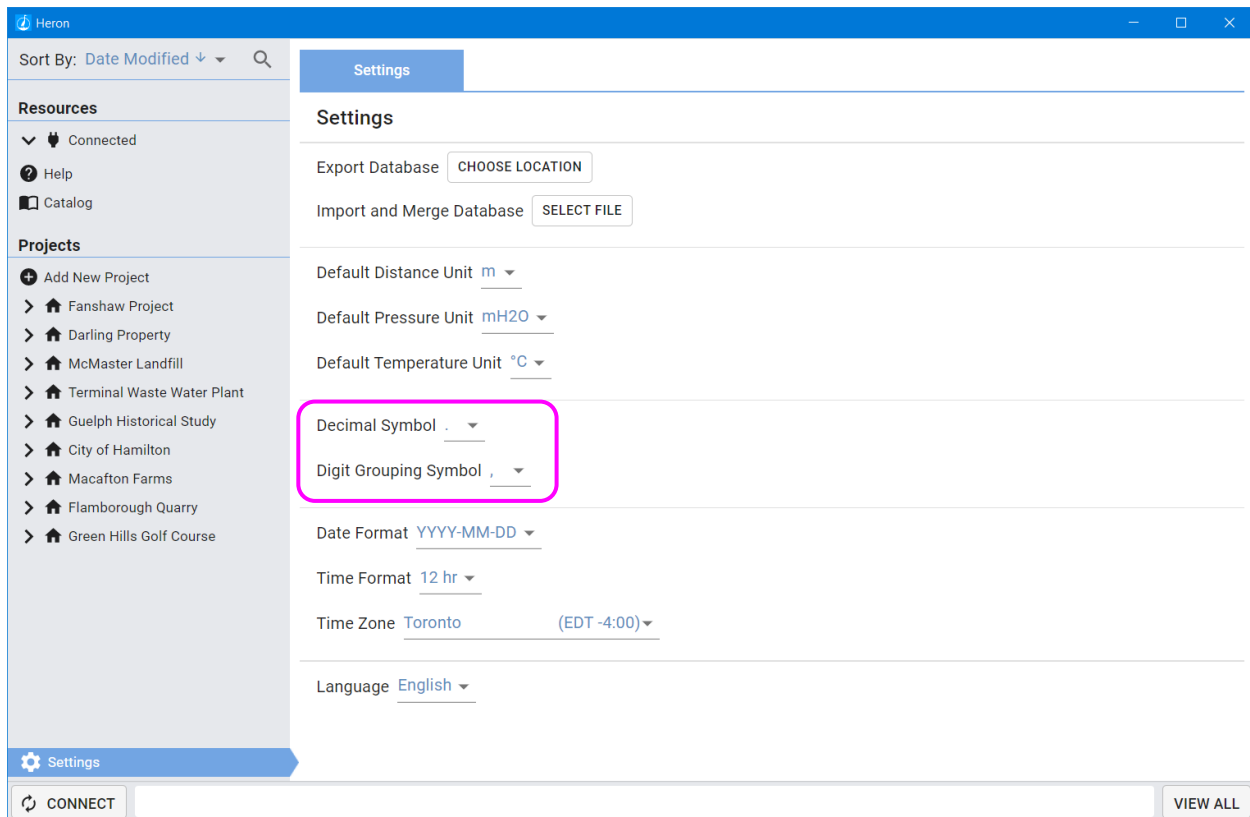
Date Format YYYY-MM-DD ▾

Time Format 12 hr ▾

Time Zone Toronto (EDT -4:00) ▾

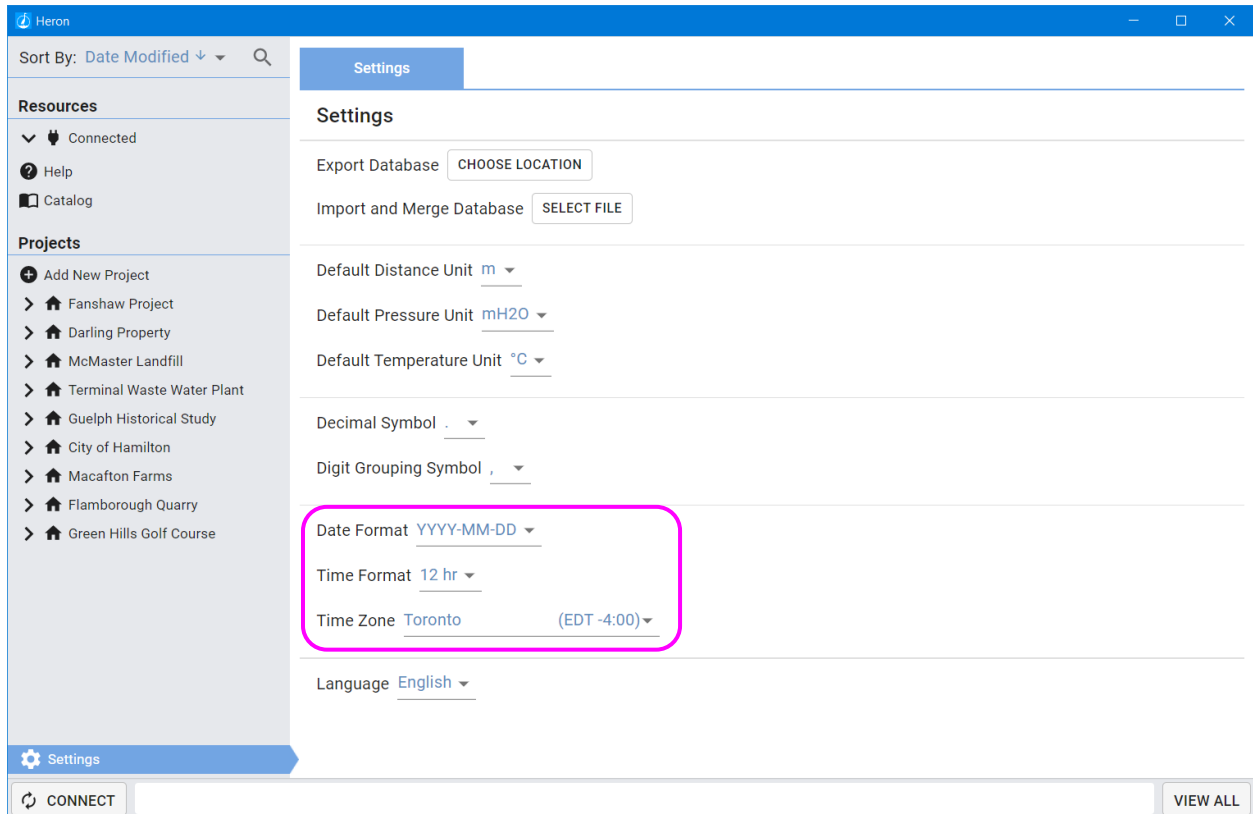
Language English ▾

Decimal and Digit grouping symbol can be changed to reflect your regional preference.



The screenshot shows the Heron application interface. On the left is a sidebar with 'Resources' (Connected, Help, Catalog) and 'Projects' (Add New Project, Fanshaw Project, Darling Property, McMaster Landfill, Terminal Waste Water Plant, Guelph Historical Study, City of Hamilton, Macahton Farms, Flamborough Quarry, Green Hills Golf Course). The main area is titled 'Settings' and contains various configuration options: 'Export Database' (CHOOSE LOCATION), 'Import and Merge Database' (SELECT FILE), 'Default Distance Unit' (m), 'Default Pressure Unit' (mH2O), 'Default Temperature Unit' (°C), 'Decimal Symbol' (.), 'Digit Grouping Symbol' (,), 'Date Format' (YYYY-MM-DD), 'Time Format' (12 hr), 'Time Zone' (Toronto (EDT -4:00)), and 'Language' (English). The 'Decimal Symbol' and 'Digit Grouping Symbol' fields are highlighted with a red box. At the bottom, there is a 'CONNECT' button and a 'VIEW ALL' button.

Date and time format can be edited to your liking. Time zone selection is based on your country. If you don't see your preferred time zone, you may have to change your computers geographic settings and restart the software to view time zones from another country.



You are now an expert in Heron Instruments software. Use your powers for good, not evil.