

POSEIDON User Manual

Une image contenant texte, capture d’écran, horloge, logiciel

Description générée automatiquement

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# Introduction

The 'Poseidon' interface allows a Hydroblock or Hydroball user to view the obtained bathymetric surveys. This manual informs the user about the various features of the Poseidon web platform and explains how to navigate it effectively.

# System Requirements

Power: **12 V DC to 28 V DC** or **110 V AC to 240 V AC**

**Never apply power to the system if the GNSS antenna and/or sonar are not connected !**

# Connection Instructions (WIFI)

## Step 1 :

Connect to the WIFI network: Hydro B. The password for connection is: cidco1234

## Step 2 :

Open a web page and enter the following connection IP address: 192.168.100.1

# WEB Interface when the system is not ready (Red Display)

If the system is not ready, one of the displays, whether NDSS, IMU, or Sonar, will be red.

1. GNSS: This means the user must wait a few minutes for the GNSS antenna to connect to satellites and determine its position.
2. IMU: The user must wait for the IMU to complete its configuration.
3. Sonar: The user must wait for the sonar to complete its configuration.

**Note: If the banners remain red, it indicates that no data is being received by the sensors. This could be due to a damaged sensor or incorrect configuration of the Hydroblock. If the red banners persist, contact the CIDCO maintenance team.**

# WEB Interface when the system is ready (Green Display)

If the system is ready, all three displays (GNSS, IMU, and Sonar) will be green. At this point, the user can begin recording data by selecting the green virtual button labeled 'Start recording.'

Data Description:

1. GNSS: Degrees with decimals
2. IMU: Degrees with decimals

**NOTE: The positioning convention is ENU, which corresponds to East, North, and Up.**

# WEB Interface during data recording

The web interface should resemble the one shown in Figure X after the start of data recording. The system informs the user that recording has begun in two ways:

1. The green virtual button 'Start recording' now becomes a red button with the label 'Stop Recording.'
2. A banner appears indicating: 'The system is currently recording data.'

**NOTE: Raw data recording begins as soon as the system is initialized and only stops when the system is turned off.**

# WEB Interface of System Status

To access this interface, the user must select 'System Status' as shown in Figure 1.

This page allows the user to check the system status, including:

1. **CPU LOAD: The percentage indicating the amount of processors that are running or waiting to be executed.**
2. **CPU TEMPERATURE: The internal computer temperature.**
3. **MEMORY UTILIZATION: The percentage of used memory.**
4. **DISK SPACE: The percentage of disk space used.**

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*Figure 1: System Status*

# WEB Interface for Data Download

The user can download the dataset from this WEB interface.

To download a file, the user needs to click on the file name.

To delete files, the user selects the checkbox next to the files to be deleted and then clicks the virtual 'Delete' button. The user is prompted to confirm the deletion of files.

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*Figure 2: Download Data*

# WEB Interface for Automatic IMU Calibration

The user can start the automatic calibration of the IMU by selecting the virtual button 'Zero IMU offsets.' This is mainly used to quickly calibrate the IMU in the workshop.

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*Figure 3: Calibration*

# WEB Interface for System Diagnostics

This interface informs the user about the system status. It is mainly used for diagnosing the equipment in the workshop.Une image contenant texte, capture d’écran, logiciel, Page web

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*Figure 4: Diagnostics*

# WEB Interface for System Settings

This interface allows the user to manually modify system settings, including manual calibration of the IMU and Sonar.

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*Figure 5: System Settings*

***Note: It is not recommended to adjust these settings without the guidance of a CIDCO advisor.***

The units for the different parameters are as follows:

**IMU**

1. HeadingOffset: Degrees with decimals
2. PitchOffset: Degrees with decimals
3. RollOffset: Degrees with decimals

**Sonar**

1. SonarAbsorption: /10dB/M @ 675kHz
2. SonarPulseLength: Microseconds
3. SonarRange: Meters
4. SonarStartGain: dB

**Note : The Sonar range must be one of the following values: 5, 10, 20, 30, 40, or 50.**