



Using the DCDB CSB Point Store API

How to download raw CSB data in a defined geographic area

CSB Tools Workshop
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The IHO DCDB Viewer

The screenshot displays the IHO DCDB Viewer interface. At the top left is the IHO logo (International Hydrographic Organization). The main title is "Data Centre for Digital Bathymetry Viewer". The interface is divided into several sections:

- Layers Panel (Left):** Contains a tree view for "IHO DCDB/NOAA NCEI" and "EMODnet". Under "IHO DCDB/NOAA NCEI", there are several sub-sections with checkboxes and radio buttons for selecting data types like "Multibeam Dataset Tracklines", "Multibeam Survey Footprints", "Single-Beam Surveys", and "NOAA Hydrographic Surveys". There are also search boxes for "NCEI/DCDB Surveys" and "CSB Files".
- Main Map Area:** Shows a map with a dense network of red lines representing bathymetry data. A vertical scale bar is visible on the left side of the map. A status bar at the bottom left shows coordinates: "Position: -75.096°, 37.142°" and "Elevation: -33.28 meters". A scale bar indicates 10km and 6mi.
- Identified Features Panel (Right):** A window titled "Identified Features (986)" showing a list of "Crowdsourced Bathymetry Files (986)". Each entry consists of two time ranges, such as "2026-02-16T17:33 - 2026-02-16T23:34".
- Context Menu (Bottom Right):** A menu is open over the map, listing actions: "Extract NCEI/DCDB Data", "Extract Multibeam Data", "Extract Single-Beam Data", "Extract CSB Data Files", "Extract CSB Point Store Data" (highlighted), and "Extract NOAA Hydrographic Survey Data".

What is the CSB Point Store?

Layers

IHO DCDB/NOAA NCEI

- Multibeam Dataset Tracklines
- All Multibeam Datasets
 - Multibeam Raw
 - Multibeam Processed
 - Multibeam Products
- Multibeam Survey Footprints
- Multibeam Bathymetry Mosaic
- Single-Beam Surveys
- Single-Beam Sounding Density
- NOAA Hydrographic Surveys:
 - All Surveys with Digital Data
 - Surveys with BAGs
- BAG Shaded Relief Imagery

Search NCEI/DCDB Surveys [X] Reset

Crowdsourced Bathymetry Files

Search CSB Files [X] Reset

U.S. Bathymetry Coverage and Gap Analysis

EMODnet

Australia

Canada

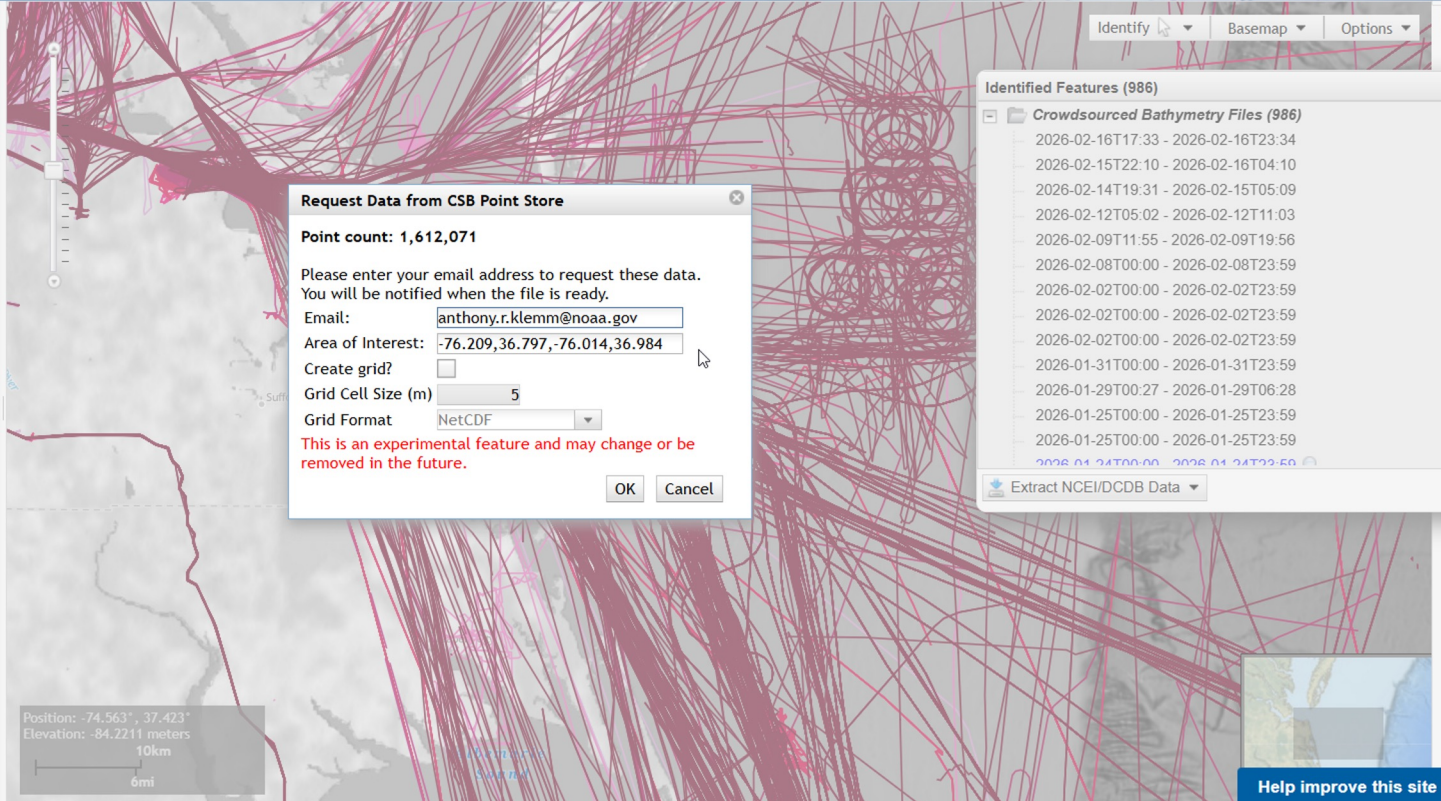
Cape Verde

France

Grid Extract

More Information

Help



Identify Basemap Options

Identified Features (986)

- Crowdsourced Bathymetry Files (986)
 - 2026-02-16T17:33 - 2026-02-16T23:34
 - 2026-02-15T22:10 - 2026-02-16T04:10
 - 2026-02-14T19:31 - 2026-02-15T05:09
 - 2026-02-12T05:02 - 2026-02-12T11:03
 - 2026-02-09T11:55 - 2026-02-09T19:56
 - 2026-02-08T00:00 - 2026-02-08T23:59
 - 2026-02-02T00:00 - 2026-02-02T23:59
 - 2026-02-02T00:00 - 2026-02-02T23:59
 - 2026-02-02T00:00 - 2026-02-02T23:59
 - 2026-01-31T00:00 - 2026-01-31T23:59
 - 2026-01-29T00:27 - 2026-01-29T06:28
 - 2026-01-25T00:00 - 2026-01-25T23:59
 - 2026-01-25T00:00 - 2026-01-25T23:59
 - 2026-01-24T00:00 - 2026-01-24T23:59

Extract NCEI/DCDB Data

Request Data from CSB Point Store

Point count: 1,612,071

Please enter your email address to request these data.
You will be notified when the file is ready.

Email:

Area of Interest:

Create grid?

Grid Cell Size (m)

Grid Format

This is an experimental feature and may change or be removed in the future.

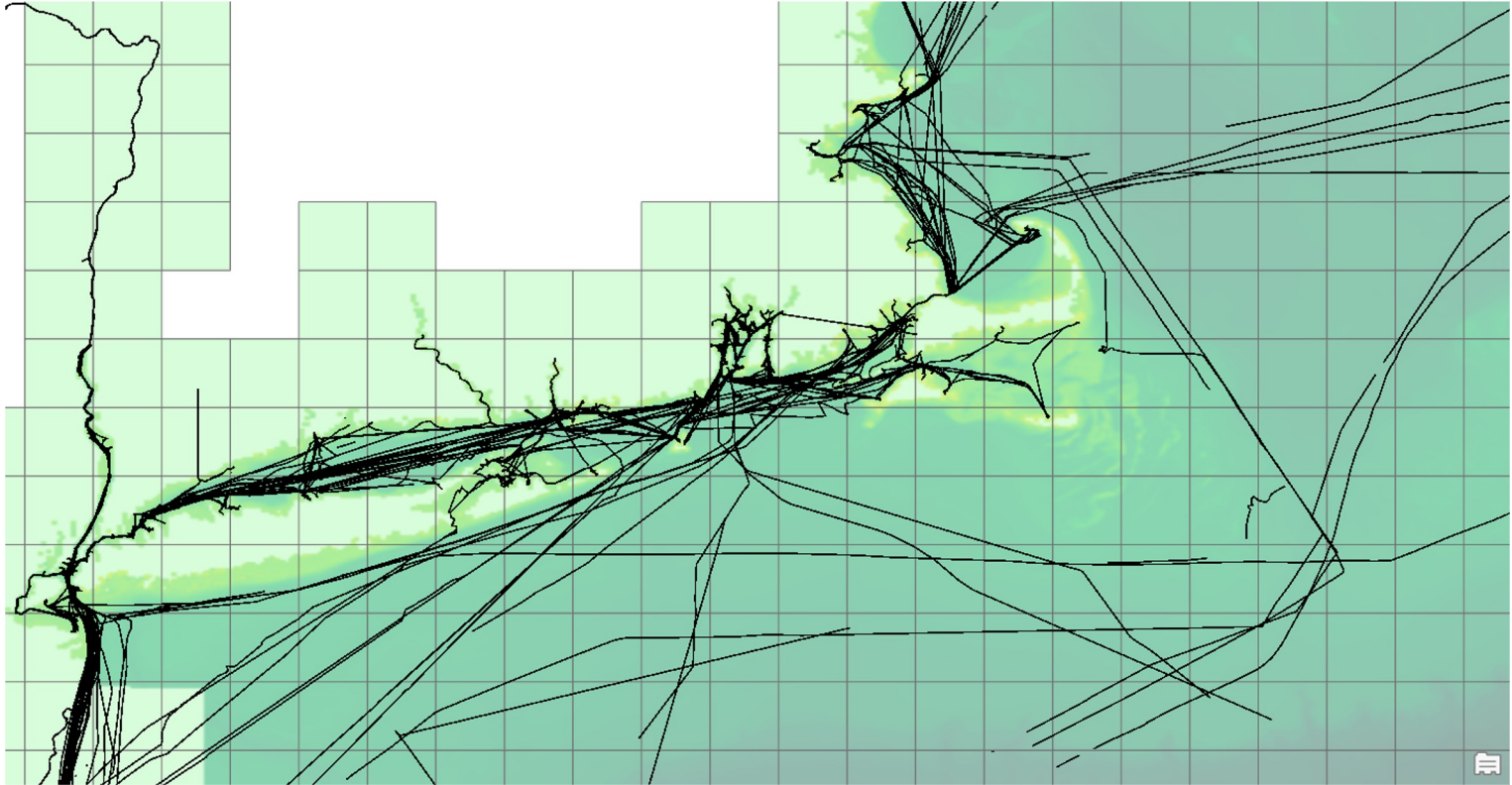
OK Cancel

Position: -74.563°, 37.423°
Elevation: -84.2211 meters
10km
6mi

Help improve this site

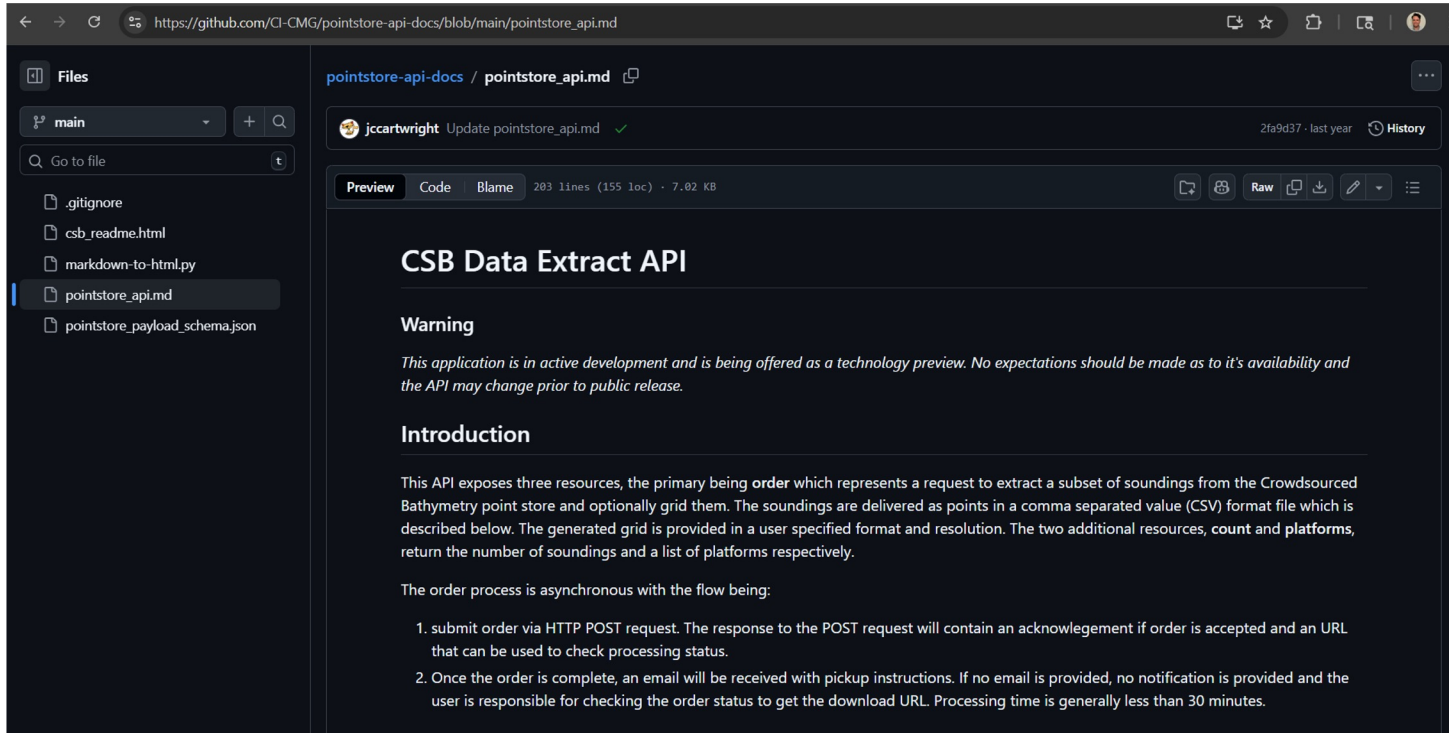
Large Area Downloads

Why would you want to break your downloads into a tessellation scheme?



DCDB CSB Point Store Documentation Github Repo

<https://github.com/CI-CMG/pointstore-api-docs/tree/main>



The screenshot shows a GitHub repository page for 'pointstore-api-docs' with the file 'pointstore_api.md' selected. The left sidebar shows the file tree with 'pointstore_api.md' highlighted. The main content area shows the file's metadata, a warning, and an introduction.

Files

- main
- Go to file
- .gitignore
- csb_readme.html
- markdown-to-html.py
- pointstore_api.md
- pointstore_payload_schema.json

pointstore-api-docs / pointstore_api.md

jccartwright Update pointstore_api.md ✓ 2fa9d37 · last year History

Preview Code Blame 203 lines (155 loc) · 7.02 KB

CSB Data Extract API

Warning

This application is in active development and is being offered as a technology preview. No expectations should be made as to its availability and the API may change prior to public release.

Introduction

This API exposes three resources, the primary being `order` which represents a request to extract a subset of soundings from the Crowdsourced Bathymetry point store and optionally grid them. The soundings are delivered as points in a comma separated value (CSV) format file which is described below. The generated grid is provided in a user specified format and resolution. The two additional resources, `count` and `platforms`, return the number of soundings and a list of platforms respectively.

The order process is asynchronous with the flow being:

1. submit order via HTTP POST request. The response to the POST request will contain an acknowledgement if order is accepted and an URL that can be used to check processing status.
2. Once the order is complete, an email will be received with pickup instructions. If no email is provided, no notification is provided and the user is responsible for checking the order status to get the download URL. Processing time is generally less than 30 minutes.

Building a request payload for the API

```
def process_tile(bbox, email, tile_name, output_directory):
    print(f"Processing GRID_ID {tile_name} with bbox: {bbox}")

    # --- UPDATED PAYLOAD WITH DATE FILTER ---
    payload = {
        "email": email,
        "bbox": bbox,
        "datasets": [
            {
                "label": "csb",
                "archive_date": {
                    "start": START_DATE
                }
            }
        ]
    }
    # -----
```

Scraper script is shipped with NOAA's Pydro CSB Processing Tool

https://svn.pydro.noaa.gov/Docs/html/Pydro/universe_overview.html

The image displays two overlapping windows. The background window is a web browser showing the NOAA Pydro documentation page. The foreground window is a Windows File Explorer showing the contents of the CSB processing tool directory.

Pydro documentation page:

- Page title: Introduction to Pydro
- Section: What is Pydro
- Text: Pydro is a suite of software tools used to support hydrography and cartography. Pydro's name comes from the combination of Python and hydrography. It is (almost exclusively) built from open source components as well as public domain custom developed software. Pydro is maintained by the Hydrographic Systems and Technology Branch (HSTB) to support NOAA operations (aiding our survey fleet) and is now made available for public use.
- Text: You should start by running the Pydro Explorer which facilitates discovering and launching the other applications within the Pydro distribution. NOAA and Center for Coastal and Ocean Mapping at University of New Hampshire (HydroOffice) developed tools are available pertaining to:
 - data processing
 - depth surfaces
 - positioning
 - tides
 - sound speed
 - report generation
 - and more...
- Text: A more detailed list is available at [Programs distributed in Pydro](#)
- Section: Installation
- Text: See the [Downloads and Links](#) page for a windows installer link.
- Text: On the same [Downloads and Links](#) page is a link to supplemental data which is optional, started as well. Choices will be given as to which supplemental data is installed, such as [Datum Transformation \(VDatum\)](#) which some Pydro programs will use.
- Text: A 32 bit Java client is needed to print documents from the XmlDR application (for descri installer. If you decline to install it or want to download your own from [Oracle Java downloa](#)

Windows File Explorer:

- Path: C:\Pydro24\NOAA\site-packag > Python3 > svn_repo > HSTB > CSB_processing
- Table of files and folders:

Name	Date modified	Type	Size
__pycache__	9/12/2025 9:25 AM	File folder	
BETA_subordinate_tide_zones	6/3/2025 3:56 PM	File folder	
1-csb_scraper.py	3/2/2026 9:46 AM	Python File	5 KB
CSB_processing.py	1/14/2026 5:13 PM	Python File	87 KB
fes_model.py	8/22/2025 1:25 PM	Python File	2 KB
fes2022_config.yml	7/22/2025 9:44 AM	YML File	1 KB
README.md	8/22/2025 1:54 PM	MD File	10 KB
tide_zone_polygons.cpg	6/8/2024 3:54 PM	CPG File	1 KB
tide_zone_polygons.dbf	6/8/2024 3:54 PM	DBF File	4,405 KB
tide_zone_polygons.prj	6/8/2024 3:54 PM	PRJ File	1 KB
tide_zone_polygons.sbn	6/8/2024 3:54 PM	SBN File	36 KB
tide_zone_polygons.sbx	6/8/2024 3:54 PM	SBX File	1 KB