

# webODV Data Extractor HowTo

Sebastian Mieruch, Alfred Wegener Institute, Bremerhaven, GERMANY ([sebastian.mieruch@awi.de](mailto:sebastian.mieruch@awi.de))

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This document describes briefly the basic functionality of the webODV Data Extractor.

## General

We restrict the number of your webODV data extractor sessions or instances to **4**, i.e. you can only use this number of extractor instances simultaneously, e.g. in different browser tabs. Your session will be automatically closed after 1 h of inactivity. If this happens, we will save the current state of the extractor and inform you by a pop-up message. At the moment the current state of the extractor will be saved in your browser, i.e. it will be restored in a follow up session in the same browser as long as you do not delete your browser's cache.

## 1. Select cruises / domain / time range

To extract data you have to follow the four steps indicated on the top pager bar. The pages do not have to be visited by order, rather you can jump between them. Click with the left mouse button or use the keyboards arrow keys for navigation.

## SELECTION STATUS

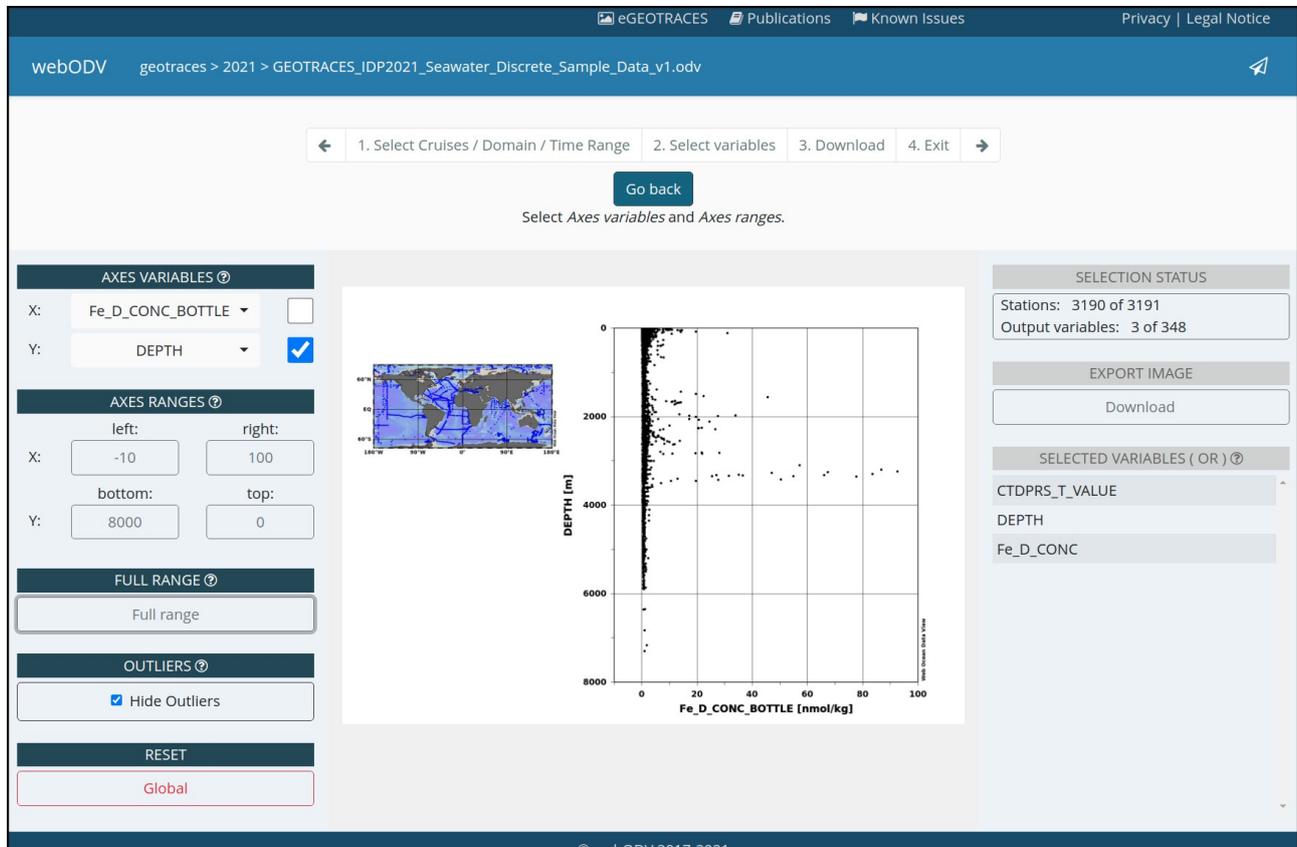
This info box informs about the number of selected stations and output variables. A download of data with selecting zero stations or variables is not possible and error messages will appear in the case.

## **EXPORT IMAGE**

Download the current map as a high quality .png image.

## **DATA PREVIEW**

Switch to the visualization layout and create a scatter plot of the data. Select x and y axes variables, set axes ranges and hide/show outliers.



## **SELECTED VARIABLES (OR)**

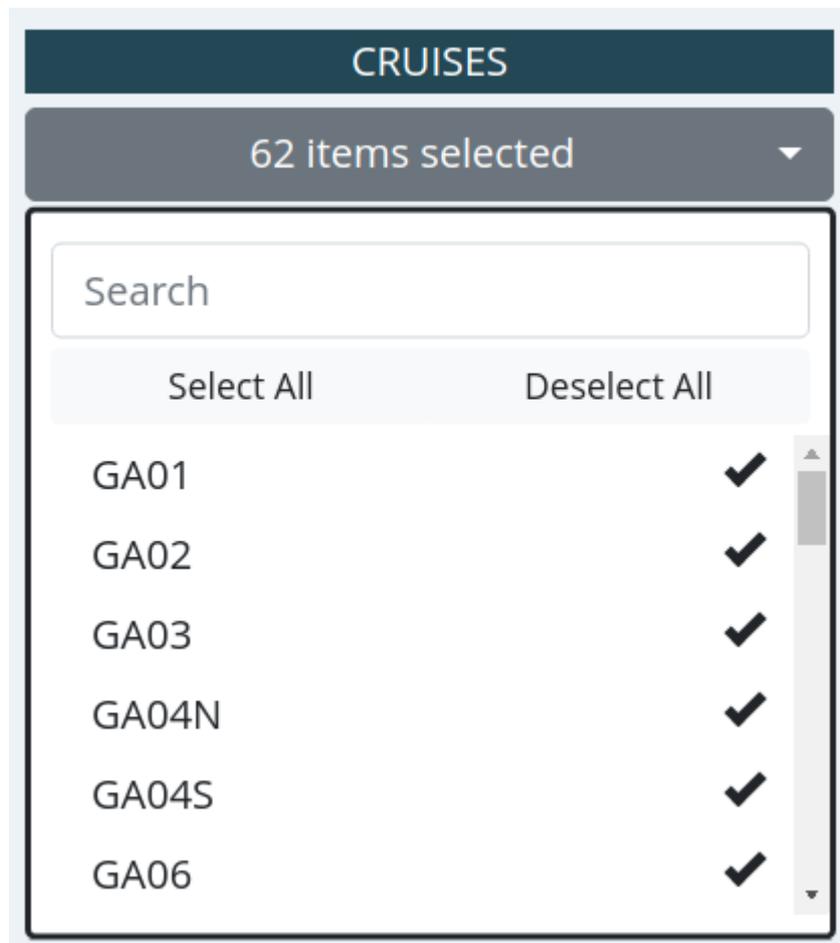
This list shows the currently selected variables, whereas the actual selection takes place on page two. The OR or AND in brackets indicates the selection mode and is explained below in the context of variable selection.

## **STATION INFO**

This dropdown menu provides information (meta data) about a clicked station (blue dot) in the map.

## **CRUISES**

A dropdown for selecting and deselecting cruises by names. Options are to *Select All* or *Deselect All*. Additionally a search function is provided as explained below:



To start with the search function it makes sense to first *Deselect All*. Then the list of search results is updated in real-time while typing. A click on *Select All* checks then only the search results, which is the desired selection.

### **MAP DOMAIN**

A click on *ZOOM MODE* activates the interactive zoom function within the map. The size of the new zoom rectangle can be changed by moving edges or corners of the rectangle with clicking and dragging the mouse. New rectangles can be created by clicking into the map, while holding the left mouse button and dragging.

*ZOOM OUT* automatically zooms out of the selected region. *FULL RANGE* creates a map including all stations, but no "station free" area. *GLOBAL* displays a global map.

### **TIME RANGE**

Select a date in the format mm/dd/yyyy by directly editing within the field or use the calendar widget. Range: 01/01/1850-12/31/2023. Click on the widget's top line to switch between years, click again to switch between decades and so on.

### **RESET**

Finally, two reset buttons are provided. The *Page* button resets the current page to default values, whereas the *Global* button resets all settings of the Extractor back for this dataset.

## 2. Select variables

The screenshot displays the '2. Select variables' step of the webODV interface. The breadcrumb trail is 'webODV > geotraces > 2021 > GEOTRACES\_IDP2021\_Seawater\_Discrete\_Sample\_Data\_v1.odv'. The progress bar shows steps: 1. Select Cruises / Domain / Time Range, 2. Select variables (current), 3. Download, 4. Exit. The main interface is divided into three main sections: 'LOGIC' (OR selected), 'TREEVIEW' (Global selected), and 'VARIABLES'. The 'VARIABLES' section features a world map and a search bar. Below the search bar is a tree view of variables: 'All' (expanded), 'CTDPRS\_T\_VALUE' (checked), 'DEPTH' (checked), 'Sample Metadata' (unchecked), 'Seawater-Hydrography and Inert Gases' (unchecked), 'Seawater-Biogeochemistry' (unchecked), 'Seawater-Nutrient and Water Isotopes' (unchecked), and 'Seawater-Dissolved, total dissolvable and total trace elements' (expanded). Under this last category, 'Fe\_D\_CONC' is checked, while 'Al\_D\_CONC', 'Ba\_D\_CONC', 'Cd\_D\_CONC', 'Co\_D\_CONC', and 'Cu\_D\_CONC' are unchecked. On the right, the 'SELECTION STATUS' panel shows 'Stations: 3190 of 3191' and 'Output variables: 3 of 348'. The 'DATA PREVIEW' panel shows a 'Scatter plot' button and a small plot. The 'SELECTED VARIABLES ( OR )' panel lists 'CTDPRS\_T\_VALUE', 'DEPTH', and 'Fe\_D\_CONC'.

The second page provides the variable selection for the final download. Disabled and **unchecked** gray items indicate that these variables are not available for the station selection. Disabled and **checked** gray items are mandatory for download.

Two modes are available for the variable selection:

**OR mode:** In this case all stations in the map are shown, which have data for one **OR** more of selected variables.

**AND mode:** Only stations are shown, that have data for **ALL** of the selected variables.

Note that the stations in the map change dynamically according to the selected variables.

Further, variables with suffix CONC include all available sampling variants, i.e. **\_BOTTLE**, **\_FISH**, **\_PUMP**, **\_BOAT\_PUMP**, **\_SUBICE\_PUMP**, **\_SENSOR** and **\_UWAY**.

## 4. Download

The screenshot shows the webODV interface for downloading data. At the top, there are navigation links for eGEOTRACES, Publications, and Known Issues, along with Privacy and Legal Notice links. The breadcrumb trail indicates the current page is 'geotraces > 2021 > GEOTRACES\_IDP2021\_Seawater\_Discrete\_Sample\_Data\_v1.odv'. A progress bar at the top shows four steps: '1. Select Cruises / Domain / Time Range', '2. Select variables', '3. Download' (which is currently active), and '4. Exit'. Below the progress bar, the text 'Download data in different formats.' is displayed. On the left side, there are two sections: 'DOWNLOAD' with buttons for 'ASCII Spreadsheet (.txt)', 'ODV Collection (.odv)', and 'netCDF (.nc)'; and 'RESET' with a 'Global' button. In the center, there is a world map showing a global cruise track with blue lines and dots, overlaid on a color-coded oceanographic map. The map includes latitude and longitude markings from 60°N to 60°S and 180°W to 180°E. On the right side, there are three sections: 'SELECTION STATUS' showing 'Stations: 3190 of 3191' and 'Output variables: 3 of 348'; 'DATA PREVIEW' with a 'Scatter plot' button and a small scatter plot visualization; and 'SELECTED VARIABLES ( OR ) ?' with a list of variables: 'CTDPRS\_T\_VALUE', 'DEPTH', and 'Fe\_D\_CONC'. At the bottom of the page, the copyright notice '© webODV 2017-2021' is visible.

The download page allows to download the selected data in different formats, ASCII SPEADSHEET (.txt), ODV COLLECTION (.odv) or NETCDF (.nc).

## 5. Exit

The last page simply brings the user back to the webODV homepage.