

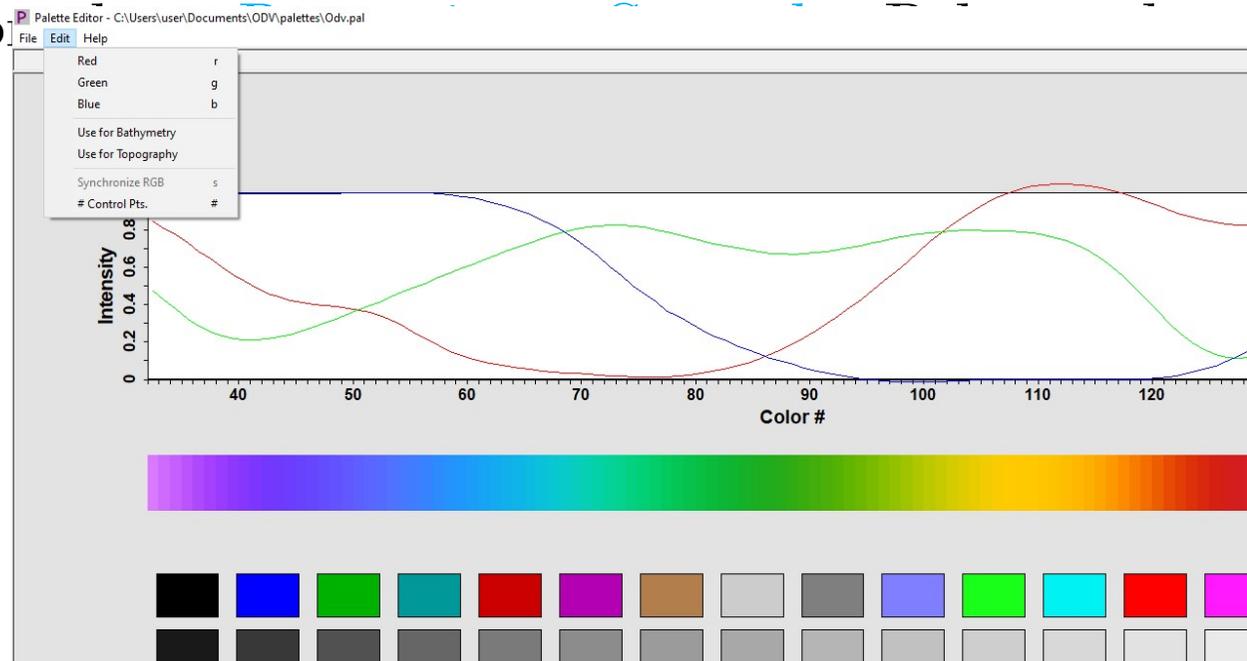
Additional options in ODV

Palette Editor

1 Surface Window > Oxygen at surface as z variable >

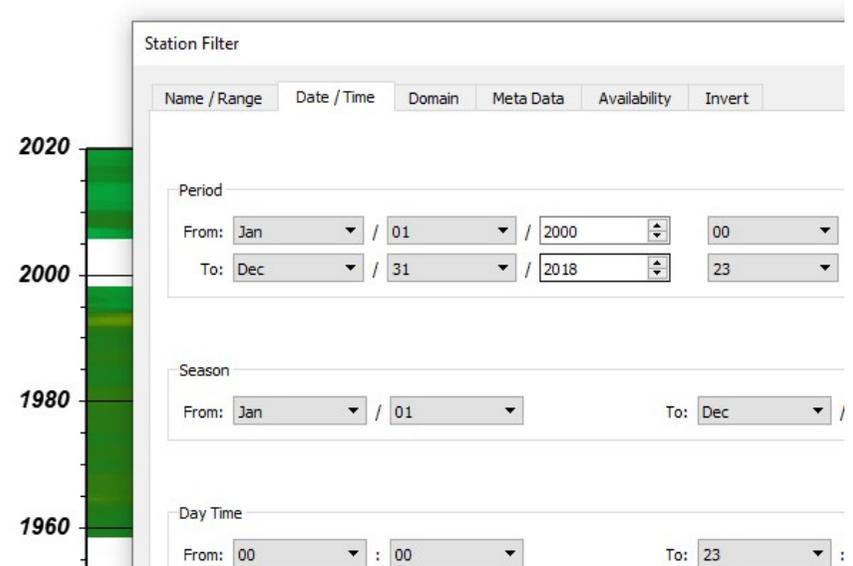
Tools > Palette Editor > Edit > change blue/green > save as new palette ODV2

Right click on
ODV2



Station Filter

- 1 Surface Window > Oxygen at surface as z variable >
- Right click map> Station Filter> Date/Time> enter 2000 to 2018
- Change y variable of plot to time/year to see the changes
- To get back the full values, go back to Station Filter> Date/Time > Relax Criteria
- Right click on plot> Full range to get back the entire time values

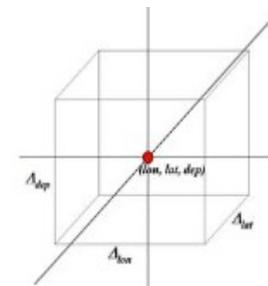


Box averaging

- **Tools** > **Box averaging** > select a created ascii file containing lat, lon, depth information at user-defined points at which box averaging need to be done.
- Output file will be listed containing mean of lat, long, depth, variable whose box averaging is done, standard deviation of the variable, no of data points used, no of points rejected

The format of the box definition file is as follows:

- plain ASCII, one box definition per line, 6 numbers separated by (one or more) spaces,
- meaning of numbers (see figure):
 $lon\ lat\ dep$ (box center) $\Delta_{lon}\ \Delta_{lat}\ \Delta_{dep}$ (box sizes). Longitudes and latitudes are in decimal degrees, and depth is in meters.



Once you have specified a box definition file, ODV will start working. Note that while averaging, ODV will check for data outliers and will use only data within 3 standard deviations of the mean. The output will be written to the directory of the box definition file. The output file names consist of the box definition file name, the label of the variable that is processed and the extension *.est*.

The format of the *.est* output file is as follows:

- plain ASCII, one line of output per line in the box definition file, 10 values separated by TABS,
- meaning of values:
 $lon\ lat\ dep$ (same as in box definition file) $\overline{lon}\ \overline{lat}\ \overline{dep}\ \overline{val}\ \sigma\ n_u\ n_r$.

$\overline{lon}\ \overline{lat}\ \overline{dep}\ \overline{val}$ are average longitude, latitude, depth and variable values of the data used, σ is the standard deviation of the variable values, n_u is the number of data points used and n_r is the number of data points rejected. A data point is rejected if its value differs from the mean \overline{val} by more than 3 standard deviations σ .

2D and 3D estimation

- **Tools**> **3D estimation**> select a created ascii file containing lat, lon, depth information at user-defined points at 3D estimation for any variable needs to be done.
- Output file will be listed containing longitude, latitude, depth, estimated value, normalized distance of averaged data x, y, z positions from estimation point and number of data points used
- Right click on plot> **Extras**> **2D estimation**
- 2D estimation is for gridded data with no depth information available. The input/output file does not contain depth

Change data properties

- **Collection > Properties > Data Variables.** Select any variable > **Edit > Change units**
- Same can be done with meta variables

The screenshot displays the Ocean Data View interface. On the left, a menu is open under the 'Collection' tab, showing options like 'Copy...', 'Create Snapshot...', and 'Edit'. The main window shows a vertical cross-section plot of ocean data with a color scale from blue (cold) to red (warm). A white bottle icon is visible in the plot. The 'Data Variables' dialog box is open, listing 24 variables. Variable 4, 'Oxygen [μmol/kg]', is selected. To the right, the 'Properties - Oxygen' panel is visible, showing the label 'Oxygen', units '~\$m~#mol/kg', decimal places set to 1, and data type set to 'FLOAT'.

Ocean Data View - C:\Users\User\Documents\ODV\c

File Collection View Import Export Tools

Copy...
Create Snapshot...
Move / Rename...
Delete
Sort and Condense
Delete Current Station
Delete Station Subset
Browse Info File
Browse Inventory
Browse Log File
Add Log File Comme
Create Overview Plots

Temperature [degrees C]

section Dis

Data Variables

1: Depth [m]
2: Temperature [degrees_C]
3: Salinity [psu]
4: Oxygen [μmol/kg]
5: Phosphate [μmol/kg]
6: Silicate [μmol/kg]
7: Nitrate [μmol/kg]
8: Nitrite [μmol/kg]
9: pH
10: Chlorophyll [μg/l]
11: Plankton/Biomass
12: Alkalinity [meq/l]
13: NO2+NO3 [μmol/kg]
14: pCO2 [μatm]
15: tCO2 [mmol/l]
16: Tritium [TU]
17: Helium [nmol/kg]
18: δ3He [%]
19: Δ14C [%]
20: δ13C [%]
21: Argon [nmol/kg]
22: Neon [nmol/kg]
23: CFC11 [pmol/kg]
24: CFC12 [pmol/kg]

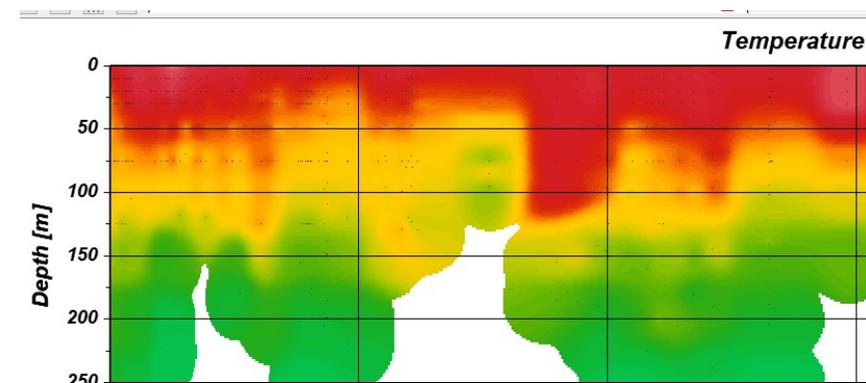
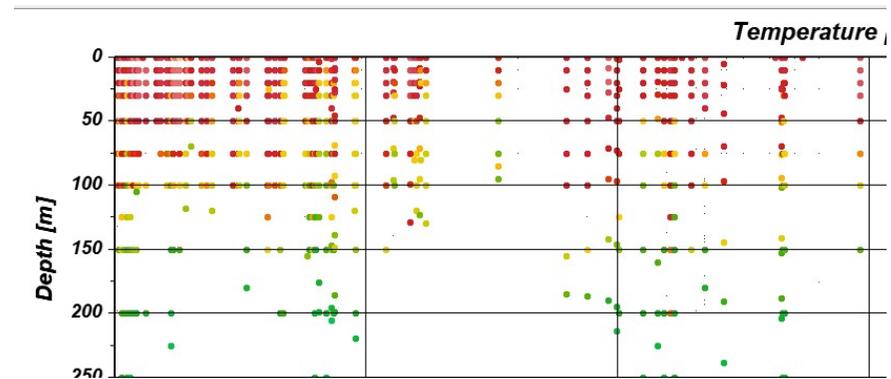
Top
Up
Down
Bottom
New
Edit
Delete

Properties - Oxygen

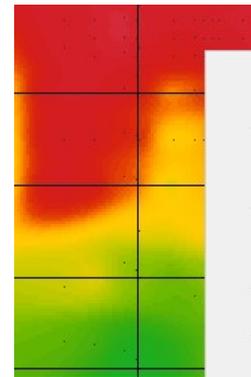
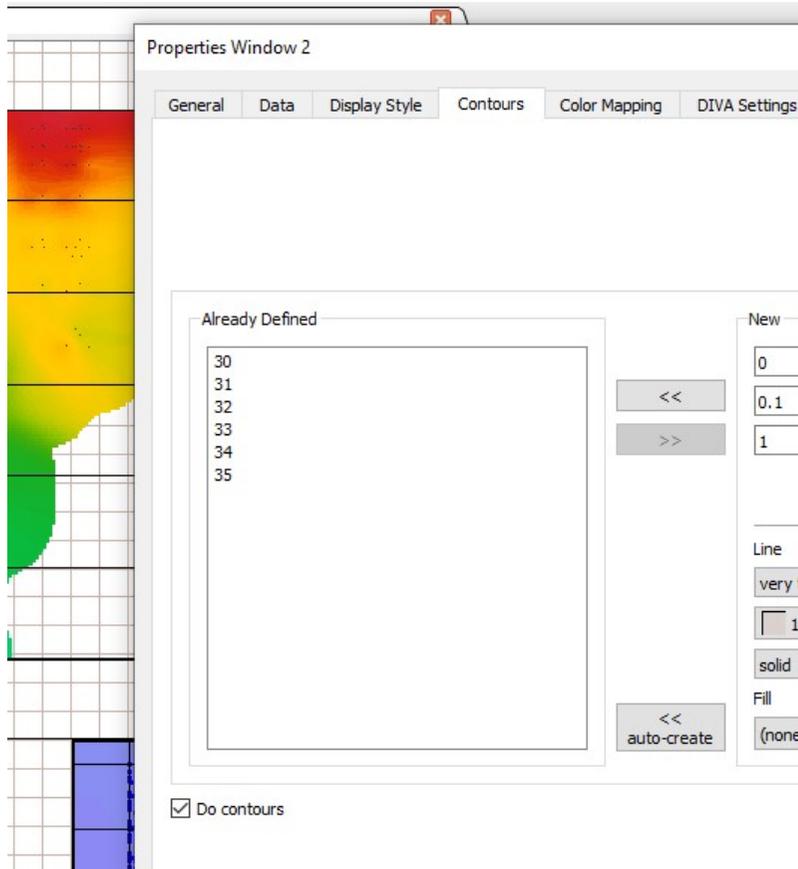
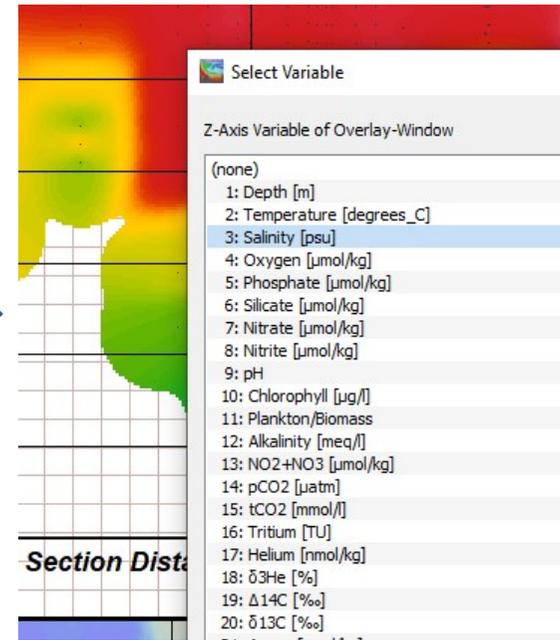
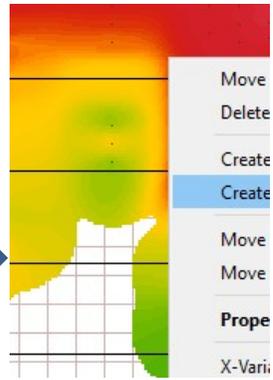
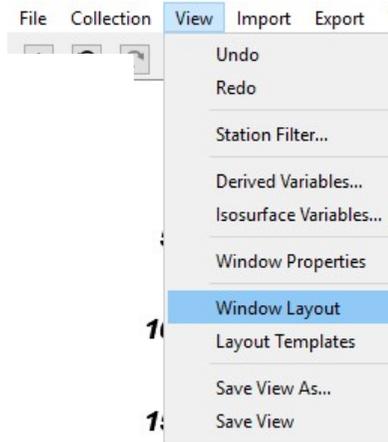
Label: Oxygen
Units: ~\$m~#mol/kg
Comment:
Error Variable: (none)
Decimal Places: 1
QF Scheme: WOD
Data Type: FLOAT
Byte Length: 4

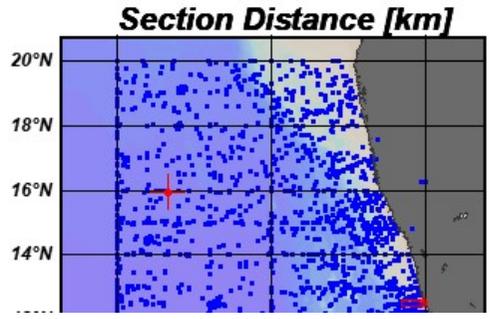
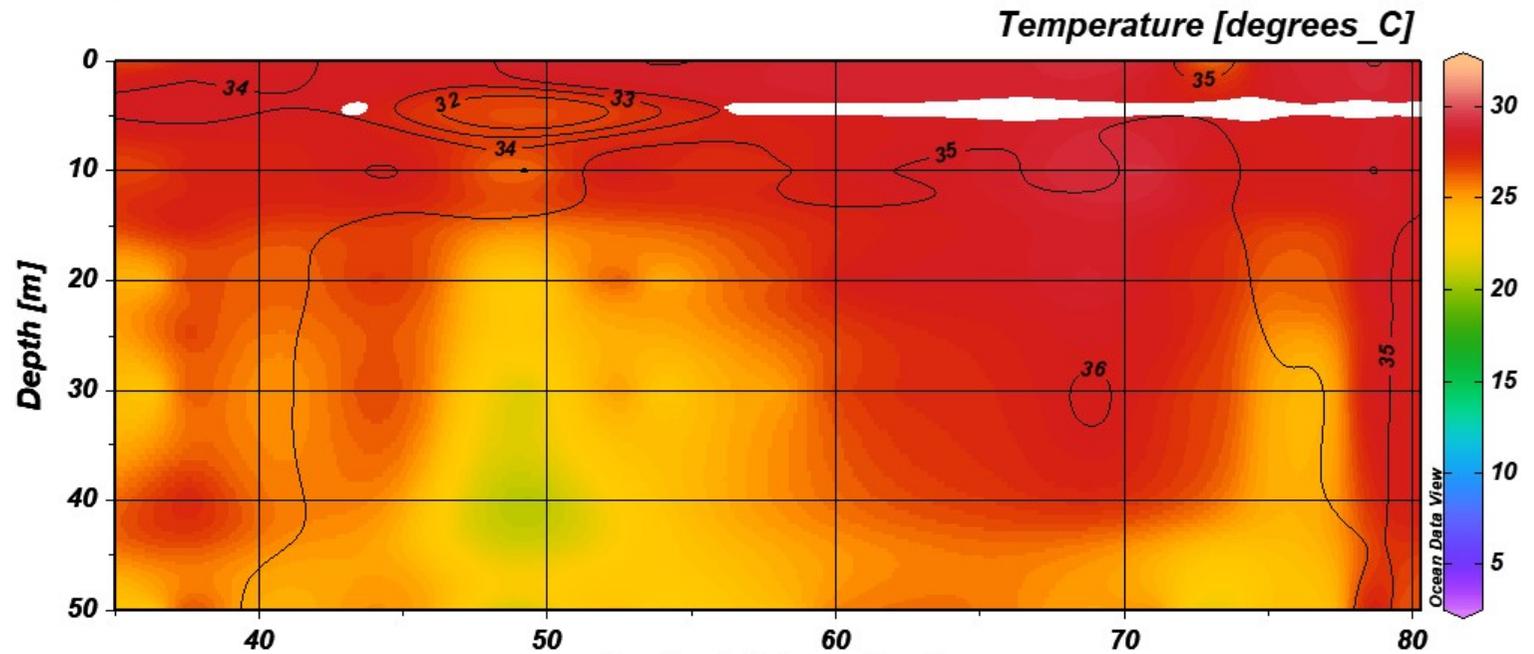
Overlay plots

- Open the `osd_wod` collection previously created.
- Define a new section along a thickly data populated region. A section can be a curve or any zigzagged feature.
- Plot **temperature as Z variable** and interpolate data using **weighted average gridding**.



- To overplot salinity contours on temperature, go to **File > View > Window Layout**
- Or alternatively, click on the **#** icon on the menu bar.
- Now **right click** on the image, select **Create overlay window**.
- Go back to figure, again **right click**, select **properties**, make sure the data tab shows the new variable – salinity
- Go to contours, select **do contours** and add a range of contours, with increments
- Go back to the figure, right click and select **Accept**

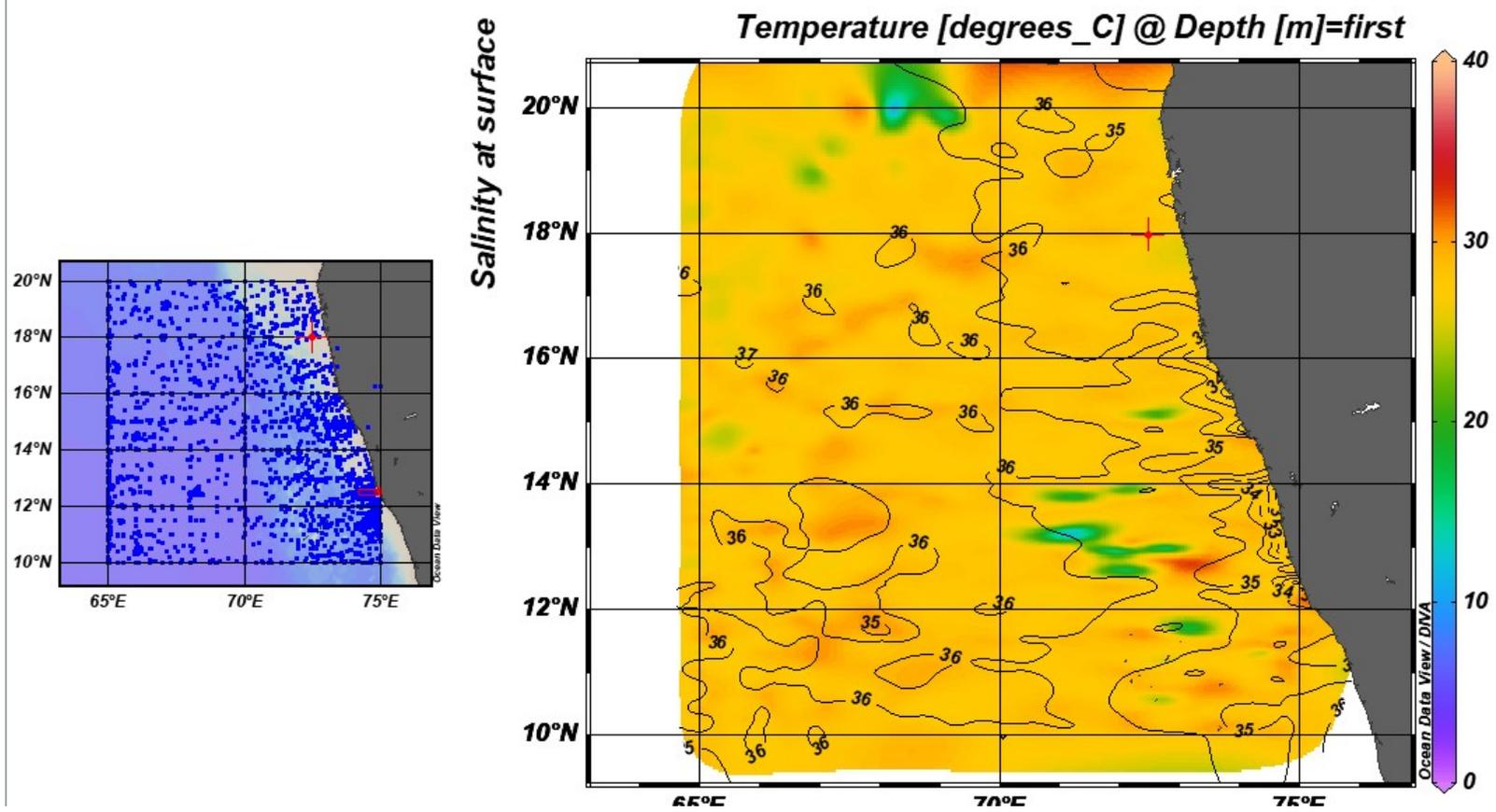




- Overlay window will be active only after data interpolation.
- To go back to the filled plot of temperature contours to change its properties, now it can only be accessed through **File > View > Window properties > Window 1.**
- For the window 2 (salinity contours) remove the colorbar from **Properties > Data > colorbar settings > Position > No colorbar.**

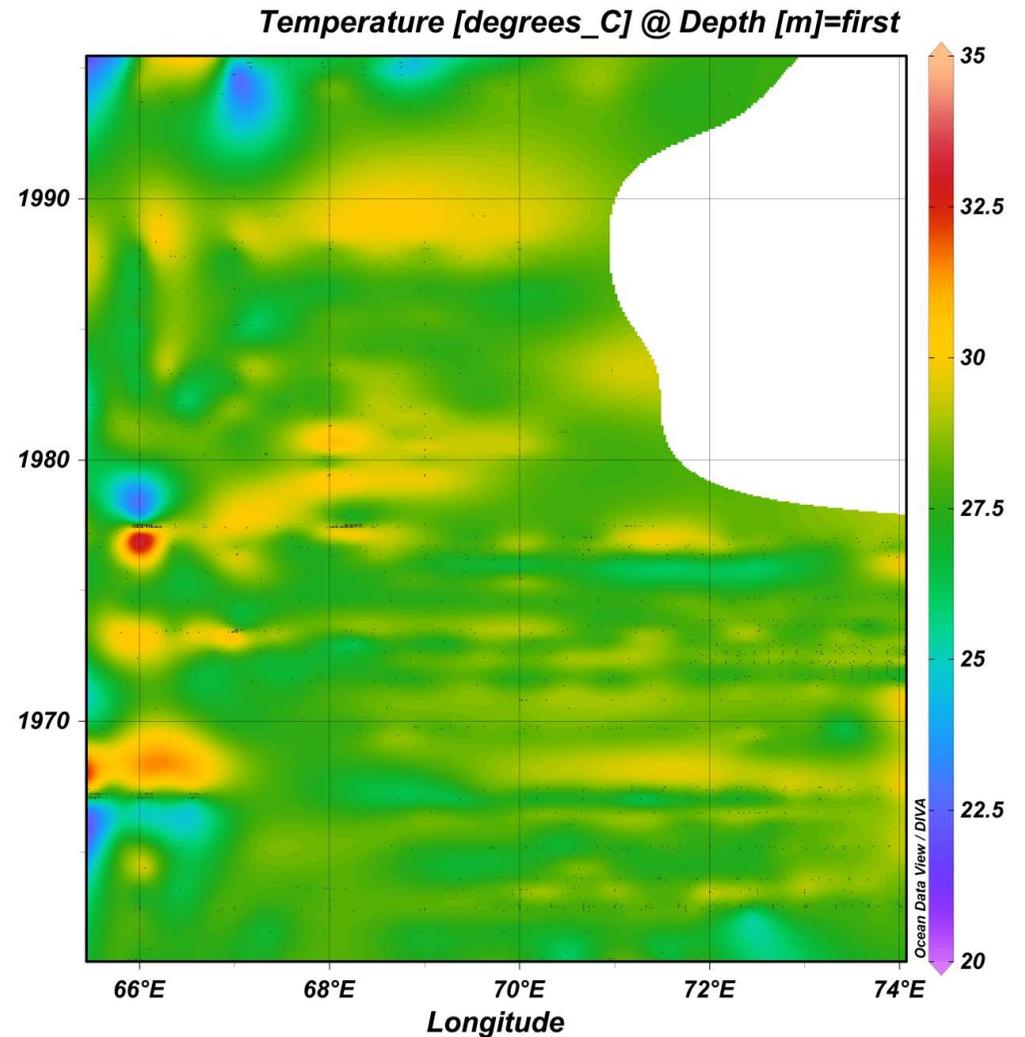
Task:

- Repeat the same for a surface plot, Reject the outliers.



Hovmoller Diagram

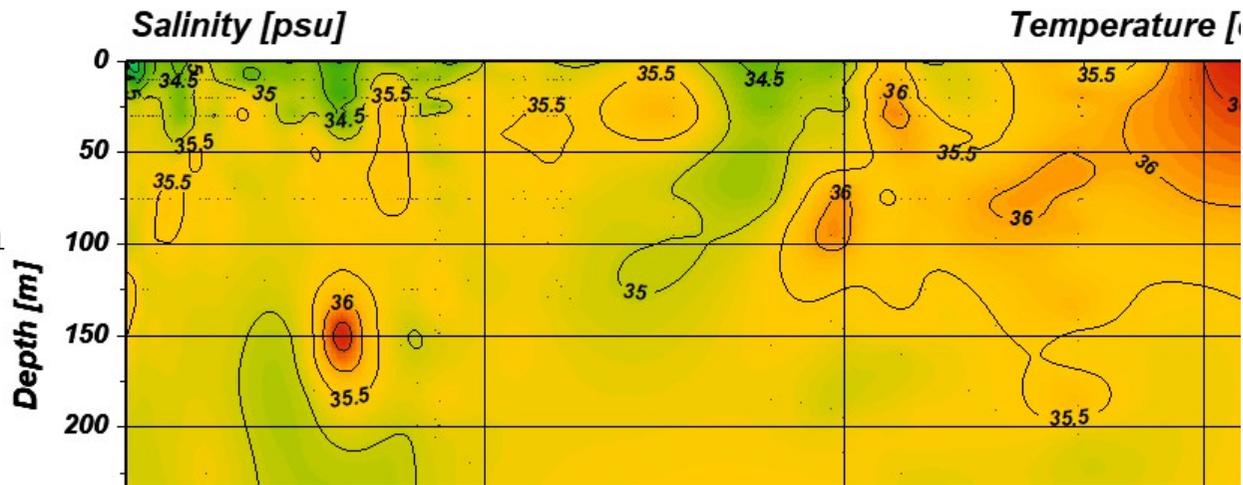
- Try a surface temperature plot with gridding.
- Change the y variable to time in years and zoom into the figure to get the desired filled region.
- This is similar to a Hovmoller (time-longitude) diagram, but without area averaging.



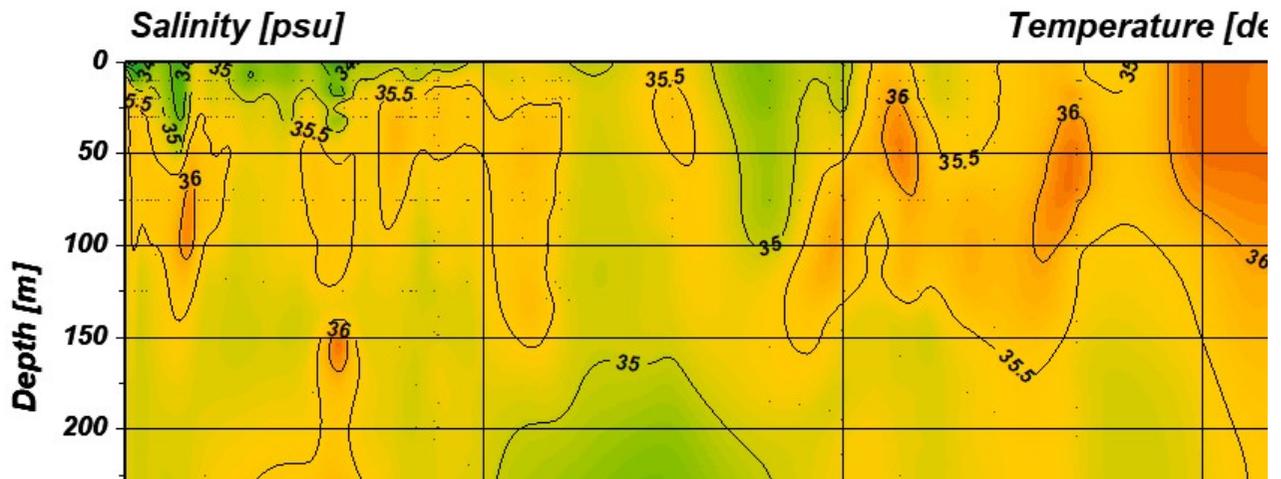
Isopycnic gridding

- **Isopycnic gridding** should always be used in areas with sharply sloping isopycnals, such as regions with strong currents and fronts.
- Note that this option is only enabled only if **potential density derived variable** is defined and **DIVA gridding** is used in **SECTION** mode
- To do this check the **Isopycnic gridding** box on the **Display Style** page of the window's **Properties** dialog

DIVA gridding with automatic scales



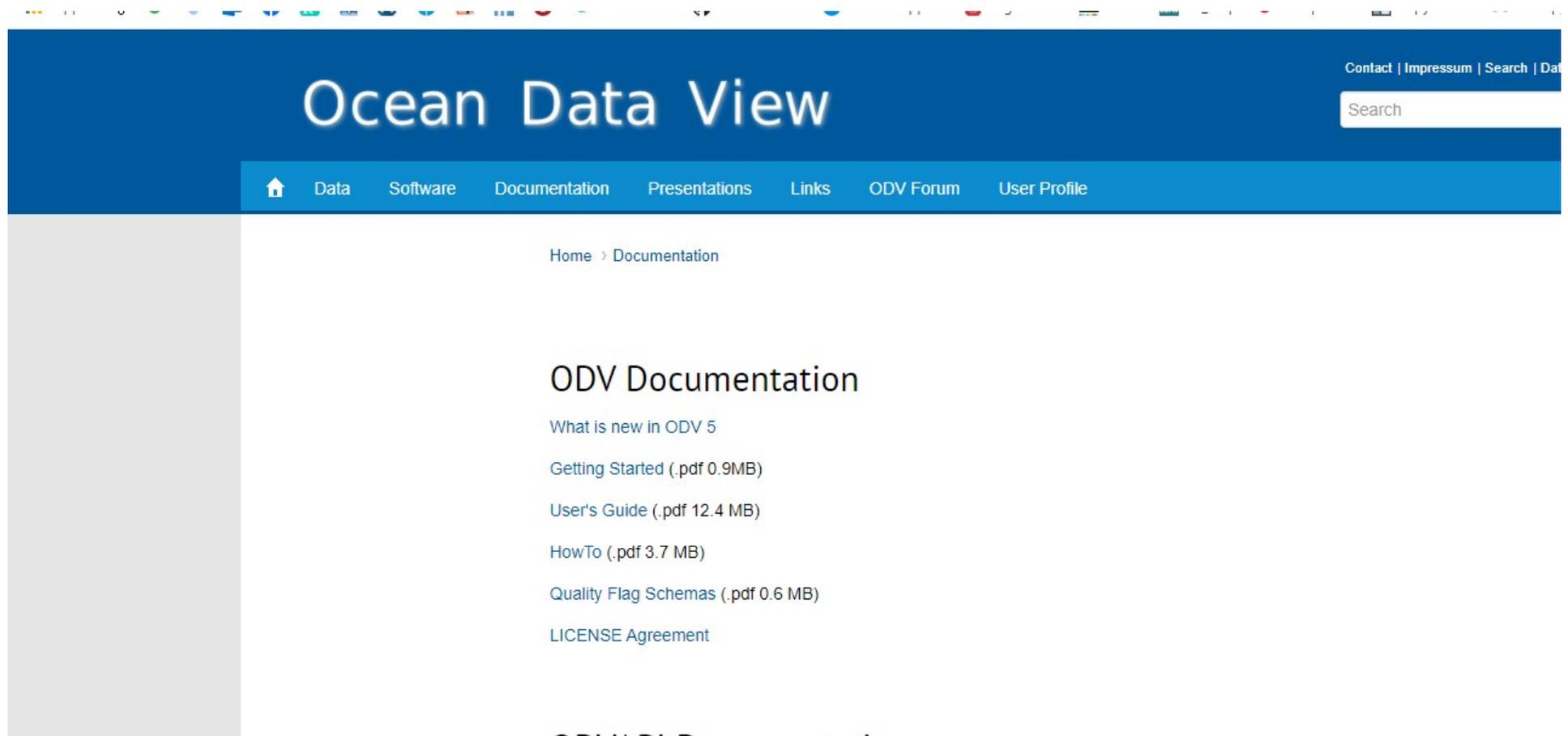
Isopycnic gridding



- Save the whole layout using **File > Save Canvas As**

ODV User Guide

<https://odv.awi.de/>



The screenshot shows the website interface for Ocean Data View. The top navigation bar is dark blue with the title "Ocean Data View" in white. To the right of the title are links for "Contact | Impressum | Search | Data". Below the title bar is a lighter blue navigation menu with a home icon and links for "Data", "Software", "Documentation", "Presentations", "Links", "ODV Forum", and "User Profile". A search box is located on the right side of the navigation bar. The main content area is white and features a breadcrumb trail "Home > Documentation". The primary heading is "ODV Documentation". Below this, there is a list of links: "What is new in ODV 5", "Getting Started (.pdf 0.9MB)", "User's Guide (.pdf 12.4 MB)", "HowTo (.pdf 3.7 MB)", "Quality Flag Schemas (.pdf 0.6 MB)", and "LICENSE Agreement".

Home > Documentation

ODV Documentation

- [What is new in ODV 5](#)
- [Getting Started \(.pdf 0.9MB\)](#)
- [User's Guide \(.pdf 12.4 MB\)](#)
- [HowTo \(.pdf 3.7 MB\)](#)
- [Quality Flag Schemas \(.pdf 0.6 MB\)](#)
- [LICENSE Agreement](#)

ODV user Forum

Welcome to the Ocean Data View User Forum

You must login to post a message to the conferences. Reading posts is possible without login.

Forum

ODV Forum

[ODV Forum](#)

Subforums

Forum	Topics	Posts	Last post
 Data Issues related to ODV datasets and formats	324	845	Estuarine Bathymetry (How do I use station data?) 29.07.2020 06:35 by WyyyyXZH@126.cor
 Software Everything around our Ocean Data View software	442	1102	section bathymetry 29.07.2020 06:33 by WyyyyXZH@126.cor
 API Everything around the ODV Application Programming Interface	5	6	Wrong link in libodv4 21.03.2016 21:22 by sh175@web.de
 General Everything around the ODV user forum	126	207	showing error when

WEB BASED ODV

<https://webodv.awi.de/explore/>

Apps M G O2 f R M t OTGA ODV Rohithocean Ferret Support FigureGen GMT M_Map Matplotlib JupyterLab



webODV Explore

This site lets you explore many popular environmental datasets using the *ODV-online* browser. [View](#) desktop software before you will feel at home instantly. If you are a new user see the [ODV documents](#).

Browse the tree structures below, rest the mouse over a dataset for a brief description, click separate browser tab. Return to this page to select another dataset.

Data exported and images created with the online tools on this website can be used in any publication. The following citation is included in the publication:

Schlitzer, Reiner and Sebastian Mieruch-Schnülle, webODV Explore, <https://webodv.awi.de>

Ocean

- › biogeochemistry
- › carbon
- › currents
- › hydrography
- › optics
- › sea-level
- › tracer

Atmosphere

- › radiosonde
- › weather

Sediment

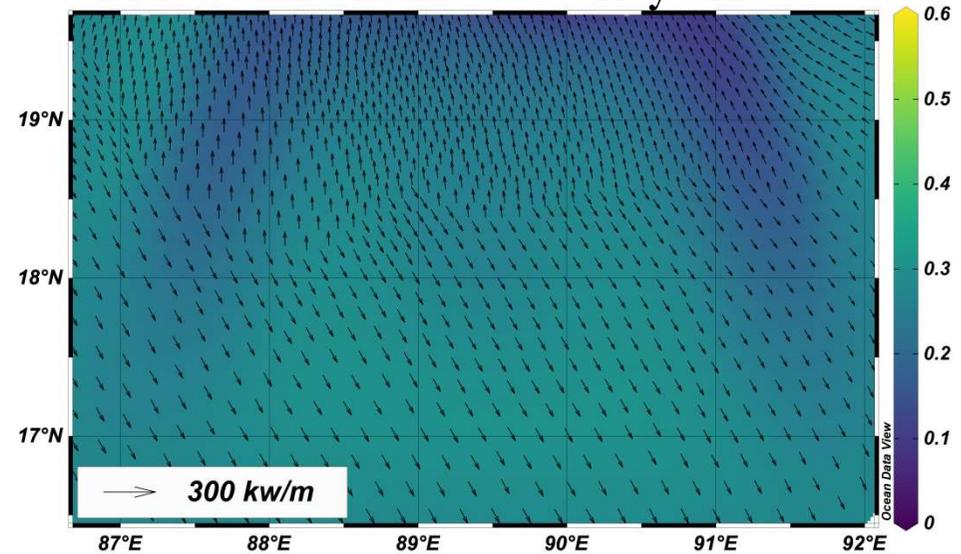
- › core-top

Ice

Rivers

TASK

(2) July minus Jan amplification Plus u and v fluxes as overlay arrows



Using model_test data plot the following: July minus Jan amplification with contour lines

