

ONC Oceans 2.0 Data Portal (De Leo, Scherwath, Jenkyns)

Step-by-step 'script'

LOG-IN

- Log-in Page (Privacy statement - [what is this? explain briefly Data Policy](#))
- Mention that this system only displays NEPTUNE and Arctic Observatory data. VENUS has its own data portal since it was developed way earlier; but we are in the process of merging/incorporating VENUS data into the Oceans 2.0 portal.

1. Plotting Utility (explore the data) - **M. Scherwath**

Brief talk about data QA/QC process before having data available on Oceans 2.0

- * Have your 'installation' detailed map at hand (Example: Barkley Canyon)
- * Show examples of list of instruments and devices (also from installation tab)

Explain whole Upper horizontal menu

(Data Search* > Code Runner**> Plotting Utility> Seatube* >Digital Fishers*** > Cameras* > Projects > More > Tools)

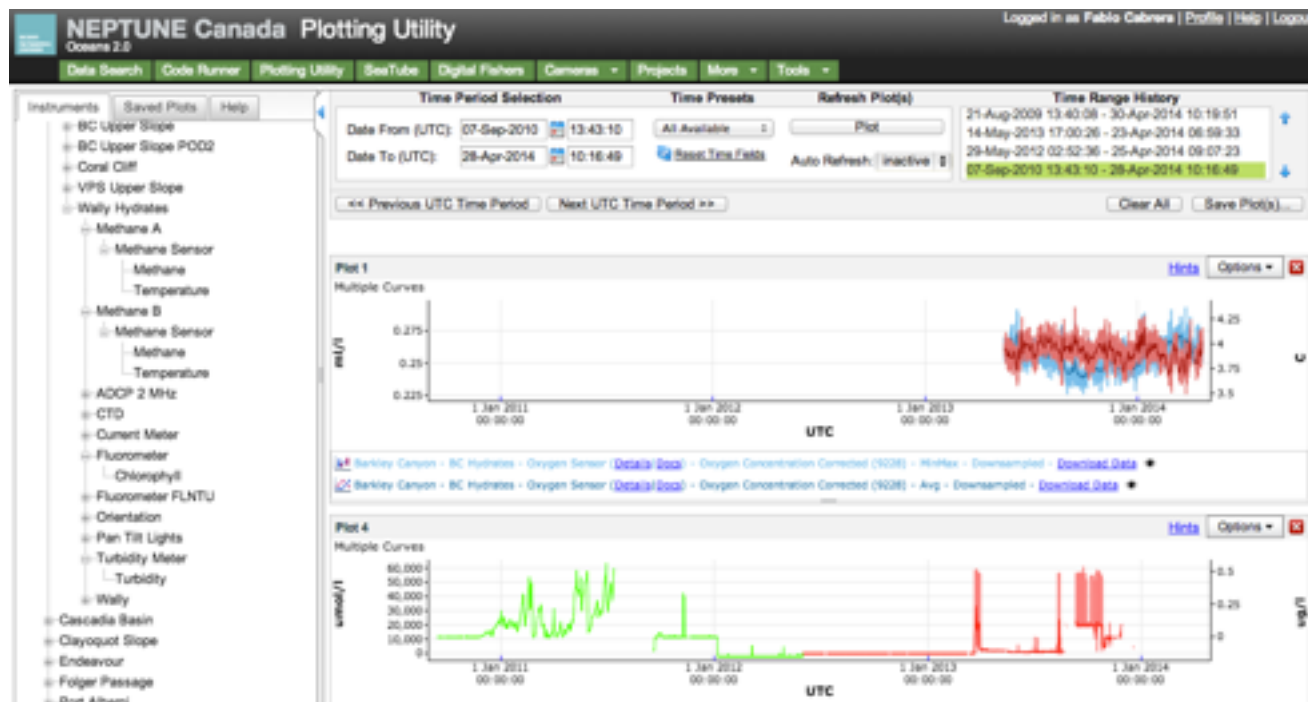
- * Fabio is going to cover
- ** Reyna is going to cover
- ** Natasha is going to cover

1.1. Example1 (Barkley Hydrates/Wally hydrates/Wally)

- Plot **O2** and **Temperature** in the same chart (both plots from [Barkley Hydrates](#)). *Show how to right-click on the drop-down 'sensor' menu to plot two parameters in the same chart.
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- Plot **Turbidity** and **Chlorophyll** in the same chart (from Wally Hydrates)



- * Explain how the data displayed is constrained by data available. If the plot below has more data available, it will constrain the data displayed in the top two charts (as in Figure above).
- * Explain how to dive in the data (either dragging and dropping the + cursor, or selecting the exact time period or time presets from the menus/tabs above). To go back to the whole data set just click on 'all available' and hit 'refresh' plot.

Links for Device Details page (go over briefly into the main tabs - **R. Jenkyns**):

- General (PI, contact info, etc)
- Sensor (which sensors, IDs, units)
- Device Action (chronology, deployment, pre-deployment tests/calibration)
- Events
- Site (current destination)

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The screenshot shows the NEPTUNE Canada Device Details page for a Sea-Bird SBE 63 Dissolved Oxygen Sensor. The page is titled "NEPTUNE Canada Device Details" and is logged in as Fabio Cabrera. The device ID is 23048 and the device name is Sea-Bird SBE 63 Dissolved Oxygen Sensor 630109. The page includes a navigation menu with options like Data Search, Code Runner, Plotting Utility, SeaTube, Digital Fishers, Cameras, Projects, More, and Tools. The main content area displays various fields for the device, including General, Sensor, Ip, Electrical Rating, Data Rating, Nameplate, Port, Physical Characteristics, Device Action, Event, Site, Additional Attributes, and Workflow. The General tab is selected, showing fields for Device Id, Device Name, Device Code, Engineering List Id, Principal Investigator, Owner, Email, Telephone, Fax, Device Category, Agreement, Security Tier, Powerable, VENUS Searchable, NEPTUNE Searchable, Memo, Last Modified By, and Last Modified Date.

Link for Documentation page (from bottom of chart)

- List of documents available (Calibration coefficients, User Manual). Very briefly go over this section.
- Also in the tabs below the charts you have links to download the data (both the **min/max** or the **Avg. data**. What those mean? Does it vary according to interment type, etc)

Options tab (to the right of the charts) - Cosmetics - **Back to Scherwath**

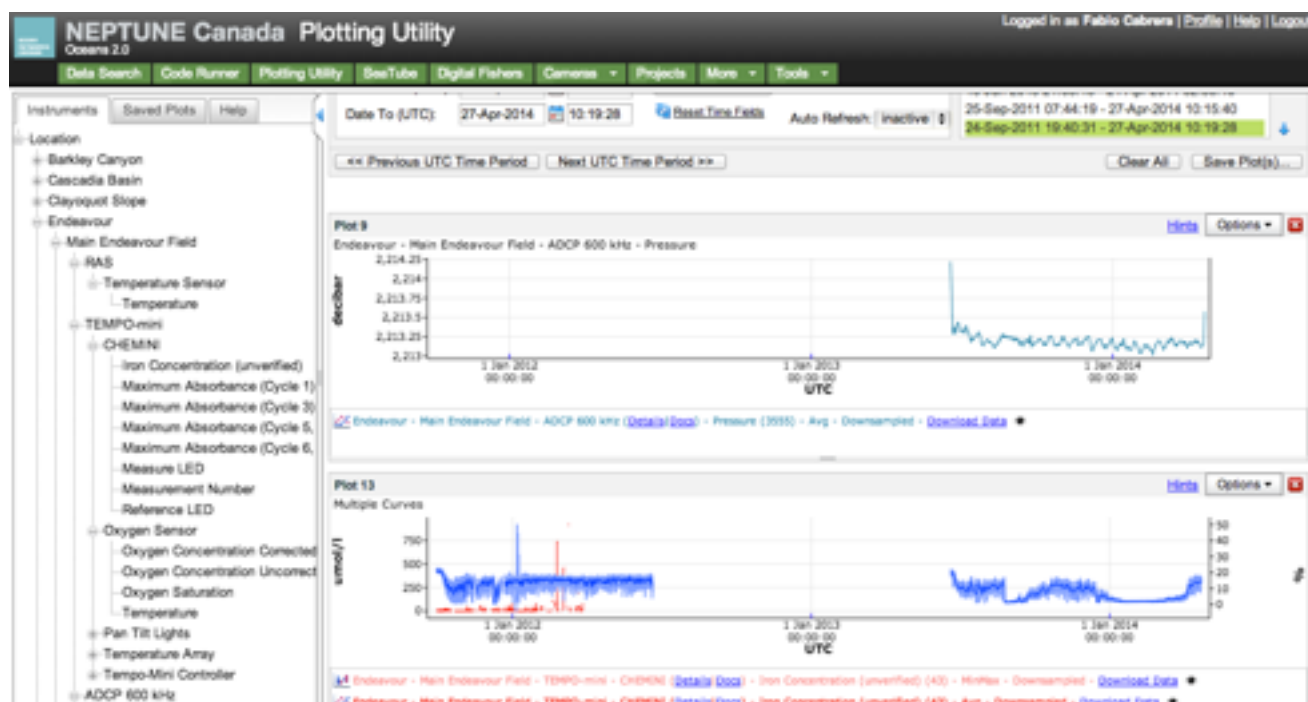
- 'Image of the plot'
- 'Plotted values' (quick look at the data) - [Explain why they differ from real data on data search](#)
- 'Plot properties' (briefly overview of 'Plot', 'Axis' and 'Curve' tabs)

1.2. Example 2 - Endeavour (MEF)

- Plot **ADCP 600 KHz Pressure** data in one plot. Go in 'Options' > 'Plot properties' and select the option 'line'.
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- Plot **Tempo-MINI Chemini Iron Concentration** and Oxygen from Oxygen Sensor both in the same plot
- * Again just point to the links about all the metadata, device details, etc at the bottom of the charts.



2. Data Search (Tool to Download Data) - F. De Leo

- * Briefly explain concept of shopping cart (like Amazon for example), with Steps 1,2,3
- * Explain left-panel hierarchical tree where data products can be sorted by 'Instrument type' (alphabetical), 'location', 'topology' or 'project. Explain also 'Filter on' option

2.1. Example 1 - Barkley Canyon

- In BC Axis POD1 Select **Imaging Rotary Sonar**
- At **STEP 1** (select device/instrument).

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NEPTUNE Canada Data Search
Oceans 2.0


Logged in as Fabio Cabrera | Profile | Help | Logout

Data Search | Code Runner | Plotting Utility | SeaTube | Digital Fishers | Cameras | Projects | More | Tools

Step 1. Choose Data Source | Step 2. Select Data Product | Step 3. View Cart (0 items) | Data Search Help

Sort by: Location | Filter on: No filter

- Barkley Canyon
 - BC Axis POD1
 - ADCP 2 MHz
 - ADCP 600 kHz
 - ADCP 75 kHz
 - Hydrophone
 - Imaging Rotary Sonar**
 - Junction Box
 - Pan Tilt Lights
 - Video Camera
 - BC Hydrates
- ISDM
- PANGAEA
- IRIS



Imaging Rotary Sonar

Device

- Kongsberg Mesotech Rotary Sonar 1071 sonar head 3 (11301) Details | Documentation

Select Data Product

Next >>

- Open the 'Documentation' page and briefly explain contents and show photo.
- Open *Device Details* page (just mention this was already covered by Reyna, only cover the tabs 'Data Rating' (once per hour) and 'Additional attributes' and explain:
 - Sweeps per set (5) , 'Step size', 'Scan Central Azimut'.

NEPTUNE Canada Device Details
Oceans 2.0

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Data Search | Code Runner | Plotting Utility | SeaTube | Digital Fishers | Cameras | Projects | More | Tools

Device id: 11301 Device Name: Kongsberg Mesotech Rotary Sonar 1071 sonar head 3

Attribute Code	Value	Unit	Description	Comment	Last Modified Date	Last Modified By
CaptureSamples	1024	Count	Number of samples per ping		2010-07-30 20:49:15	Ian Ross
Gain	400	%			2011-05-13 19:52:14	Ian Ross
OperatingMode	Standard	NA	Standard or Slaved		2013-04-19 19:07:29	Tim Lavallee
PingInterval	30	ms	Ping interval 0 means as fast as possible		2012-08-14 23:21:23	Martin Schenwath
Resolution	High	Count	High (8 bits) or low (4 bits)		2010-07-08 20:08:23	Tim Lavallee
SamplingFrequency	38400	Hz	Range 3,125 Hz to 307,200 Hz		2012-08-14 23:21:54	Martin Schenwath
ScanAngleRange		deg	Used with ScanCentralAzimuth to define a scan		2012-10-02 22:14:55	Tim Lavallee
ScanCentralAzimuth	45	deg	Central angle for scan (0 - 360)		2012-12-05 00:13:07	Seann Wagner
SkipSamples	0	Count	Number of samples to skip		2010-07-08 20:08:23	Tim Lavallee
StepSize	0.225	deg			2010-07-08 20:08:23	Tim Lavallee
SweepsPerSet	5	Count			2010-07-30 20:49:32	Ian Ross
TransmitPulseLength	25	usec	Range 25 usec to 2500 usec		2010-07-08 20:08:23	Tim Lavallee
BaudRate	0	bps	Instrument baud rate - Applies to serial devices only		2010-06-17 20:54:44	Dmytro Draga
ConcurrentTelnetAllowed	false	NA	Allows both telnet and data acquisition driver running concurrently		2009-12-03 23:40:25	Tim Lavallee
IdleTimeout		s	Maximum idle time in seconds before the driver will automatically reconnect		2009-07-23 21:14:57	Tim Lavallee
useMessageBuffering	true	NA			2009-03-31 18:38:04	Dmytro Draga
WarnNetworkCongestion	true	NA	Warn if driver detects network congestion (readings with same time stamp)		2011-03-28 17:38:57	Tim Lavallee

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- At **STEP 2** (select/click data products)
 - see/explain data availability (dive into specific time range either by selecting a window inside the green box or manually inputting the date/time range)
 - click data products boxes (click the log file to briefly explain what contains)
 - Click on links for explanations about data product (*SWEEP X SCAN* mode). Click and zoom in the images.

NEPTUNE Canada Data Search
Oceans 2.0

Logged in as Fabio Cabrera | Profile | Help | Logout

Data Search | Code Runner | Plotting Utility | SeaTube | Digital Fishers | Cameras | Projects | More | Tools

Step 1. Choose Data Source | **Step 2. Select Data Product** | Step 3. View Cart (0 items) | Data Search Help

Imaging Rotary Sonar
Kongsberg Mesotech Rotary Sonar 1071 sonar head 3 (11307) Details | Documentation

Date From (UTC): 21-Apr-2014 02:07:13 | Last 24 Hours |
Date To (UTC): 22-Apr-2014 02:07:13 | Base Time Fields

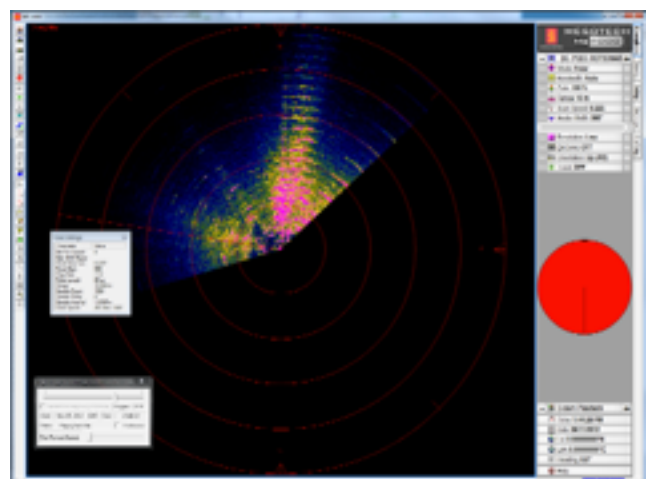
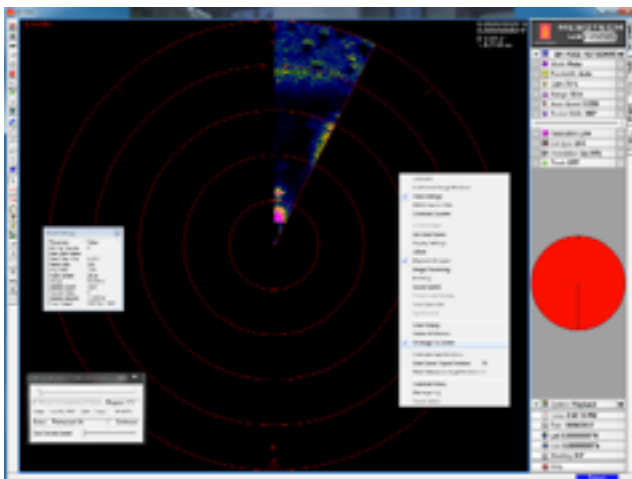
Data Availability

Green bars mark periods of available data. Click drag to zoom; double click to see full history.

Link | SonarView | SonarView | SonarView

Imaging Rotary Sonar | Annotations

NOTE: Most data products have additional Metadata automatically generated and added to the Cart. **Add to Cart**



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- * Is it worth mentioning about the *annotations* tab?
- Select data products and click **ADD to Cart** and **Next**

- At **STEP 3** (check the status of the data product loading)
 - download files and metadata by clicking the selecting the items in the cart and pressing **download**.

- *Troubleshooting* - **File Download** tool (staff scientists can double check all the files available for that instrument)
- Click on file Download just show how it looks like (select the last day of any Kongsberg sonar and point to the file naming with time stamps on it, file size, etc on the resulting file listings)

2.2. Example 2 - Endeavour (see how we are doing with time...we can skip it if we think they had a good sample in Example 1)

- Main Endeavour Field (MEF)
 - At **STEP 1** (select device/instrument)
 - Select **TEMPO-MINI Video Camera**
 - > Click on *Documentation* page (brief description, show documents available and show pictures)
 - > Point to *Device Details* page (do not need to go over again...)
 - At **STEP 2** select the time range (last 2 hours)
 - click in the **MP4 file** data product box as well as in the **log file** data product
 - download the files (show a sample video).
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3. SeaTube PRO (View, Query and Annotate Videos) - F. De Leo

- * Mention the all our data portal tools are in constant improvements based on user requirements. Mention example of Dhungal at the Marine Imaging Workshop, who gave input on how to improve the annotation interface.
- * Videos are stored from our ROV video/visual surveys and also from the fixed cameras.

3.1 ROV Videos - Examples

OE0059 (Search 'INDEEP': RESULT 'Moving the INDEEP to the camera tripod)

R1555 (Clayoquot Slope: 'crab' for crab farming methane bubbles)

R1555 (Clayoquot Slope: 'Corals' (3:05), 'Whale Bones' (5:29), 'Tubeworms' (8:05), bacterial mat).

- * Show the query tool ('Search Comments - Within a video).
- * 'Add annotations' tool
- * 'Take a snapshot' tool
- * 'Search All Videos' tool (Search all the video library)
- * 'Make a short video for
- * Explain play lists (show my playlist)
- * MAP > PROFILE > DETAIL tabs (explain briefly)

Fixed Camera Videos - Examples

Barkley Canyon POD1

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2013 > July 15 > 10:05:31 (kelp blade)

2013 > August 25 > 22:00:16 (Copepod rain)

* Add Annotation (Shared?, Flagged?)

Barkley Canyon POD3

2013 > October 15 > 22:05:41 (Copepod rain)

Wally Hydrates

2014 > April 14 > 9:20:49

* Show how the number of videos depends on the scientist controlling the Crawler

Camera control pages (try to match when light schedule will go on). If not turn the lights on Tempo-Mini on)

* Tabs MAP > INFO > USERS > MESSAGES

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