



SeaDataCloud

Interaction with VRE developments

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Plenary Meeting, Athens, 18th-19th October 2017
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What we have : *3 independent stages*

- Data collection (release from AWI – splitting by regional leaders)
- Quality control (using ODV) – list of QC changes to be sent to the data providers
- Climatology (using DIVA with unix/linux/windows (cygwin)) – possibility to add external datasets as new files in datasource

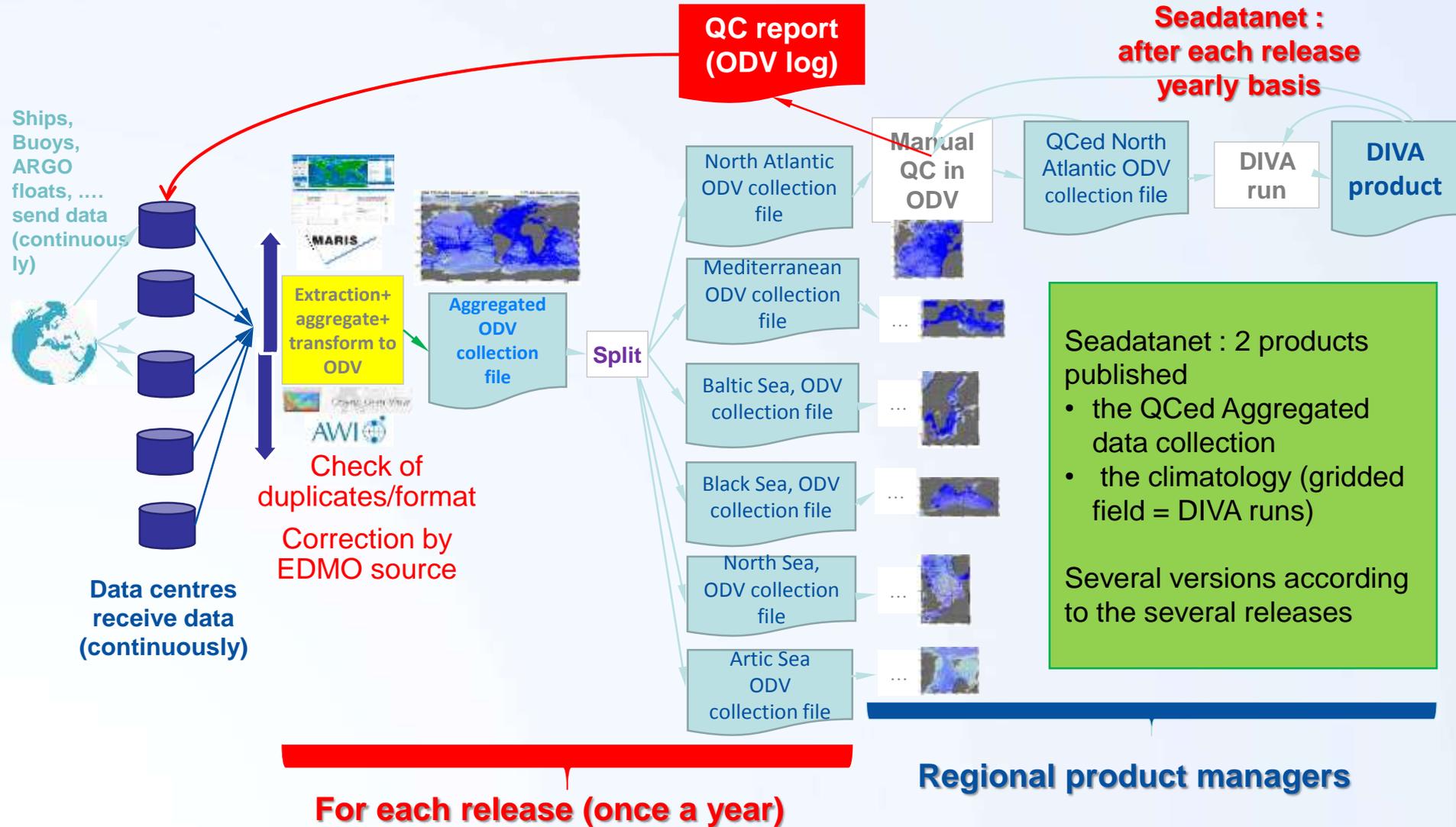
What we expect to have in the VRE

- Better use of data resources and analytical processes in a cloud environment with connected links and interoperability with others data sources
- Goal : robust infrastructure with a fast answer and better connection between data centers (log correction) and tools

Data Workflow

SeaDataNet

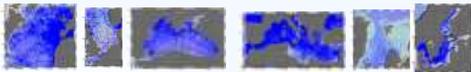
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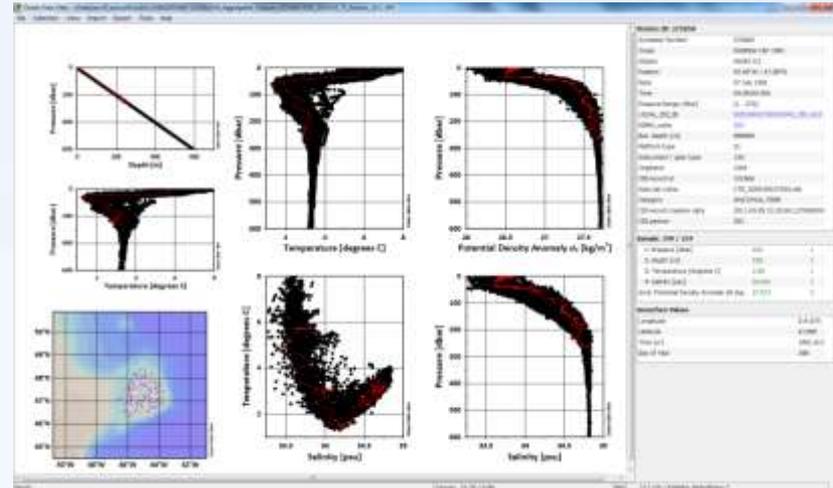
Aggregated dataset Quality control different steps



Regional subsets collection

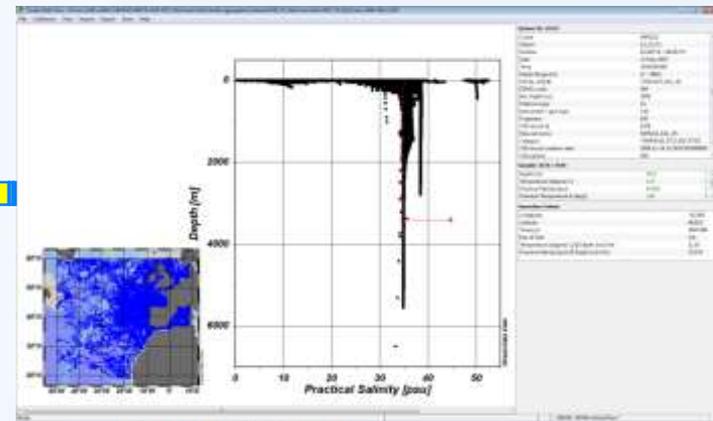


QC



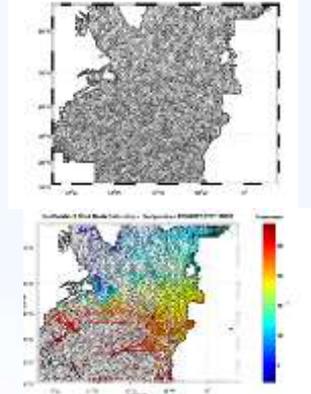
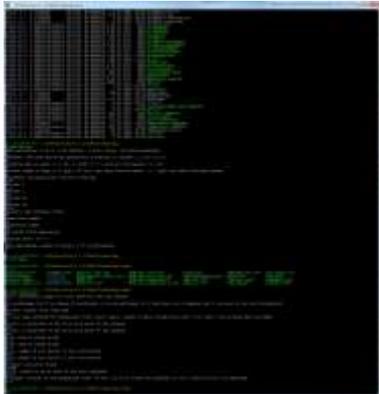
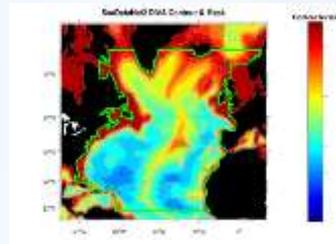
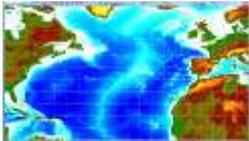
To send to the NODCs:

- a list of data with QC=0 (no QC analysis performed) **for the entire time period of the data collection**
- a list of outliers **for the entire time period of the data collection**
- a report with the general description of the entire data collection (format problem, ...)



Aggregated dataset – Climatology different steps

DIVA



Support →

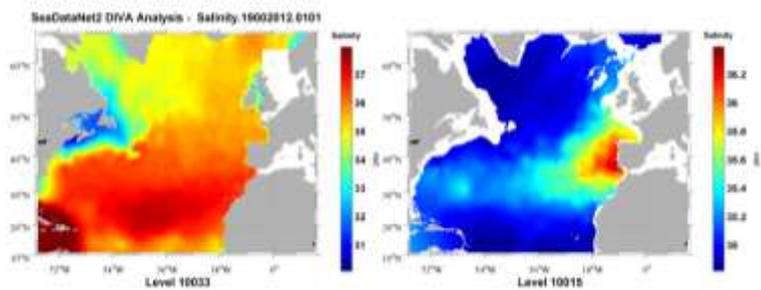
Windows (Cygwin) – Linux/Unix (need fortran compiler, netcdf library)

Different steps → different runs

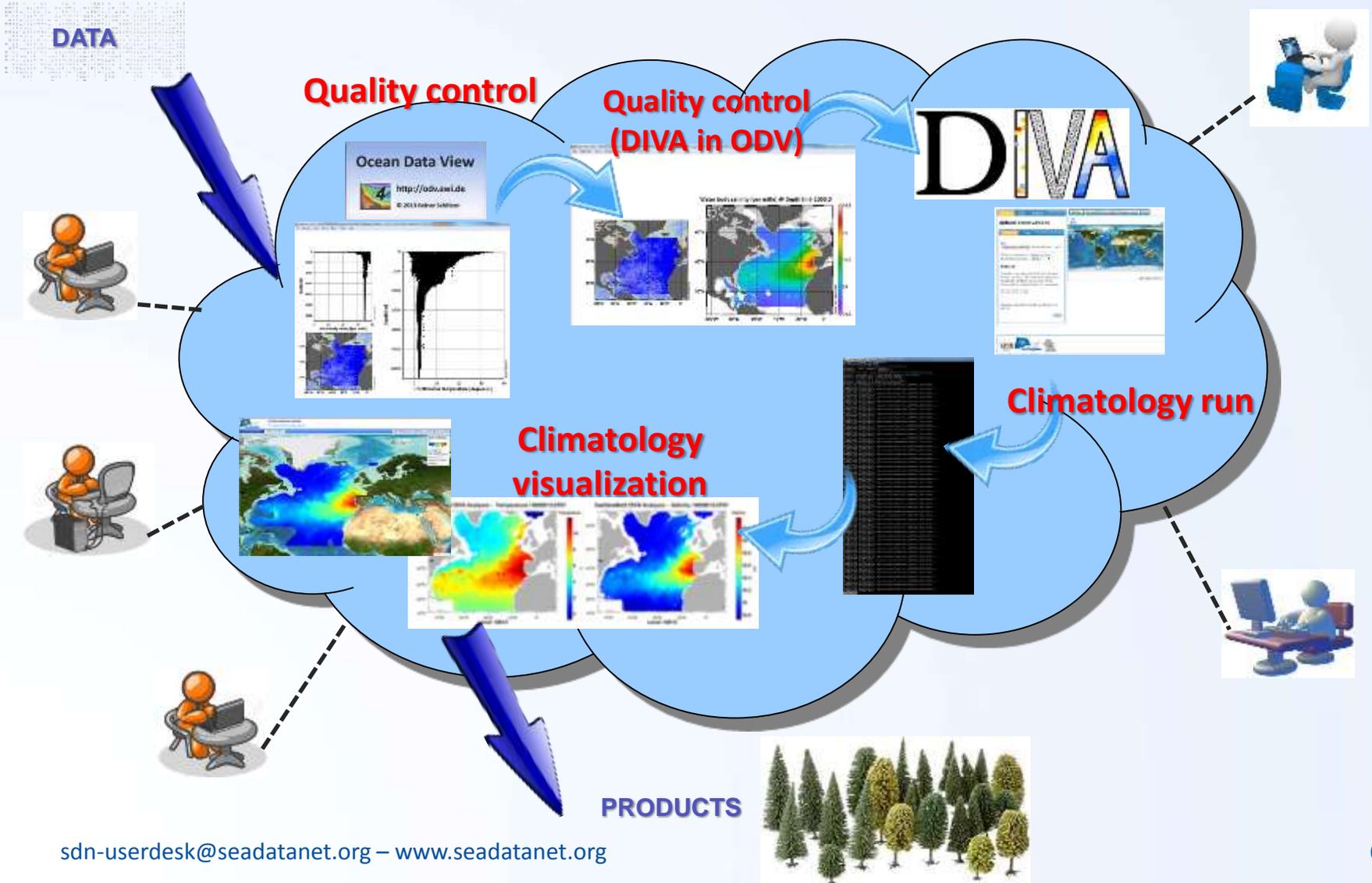
- First analysis of the resolution
- Data analysis
- Definition of a background field
- Run taking into account the background field
- Run with different time periods (year, decadal) (monthly, seasonal)
- Others options like detrending, advection...
- Several climatology, several resolution (vertical and horizontal)
- Using external datasets
- Etc...

Visualization

Ncview, Matlab, Python, Gnuplot



VIRTUAL RESEARCH ENVIRONMENT - [VRE]



In the VRE

- **Log in with single sign on (Marine ID)**
- Upload the dataset into the private user workspace (B2DROP space)
- **Open the ODV online data editor** and load the dataset (import menu in the ODV GUI)
- Edit and make correction on the dataset
- Actions on dataset in recorded, edit report can be sent to the data providers
- Go back to the VRE home screen
- **Open the DIVA config tool**
- Configuration (which data, which DIVA parameters, ...)
- Run (Jupyter Notebook) : email address for notification when RUN finished
- **Visualisation tool** load the DIVA results
- **Publishing GUI** (Sextant) to publish data

Comparison without and with VRE

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