FerryBox Tools

SMHI

6th FerryBox Workshop 8-9 September 2014 Tallinn

Oceanographic Unit SMHI Gothenburg

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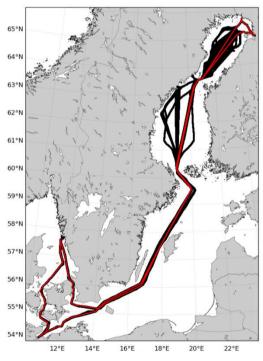


TransPaper

- Background
 - TransPaper RoRo Vessel
 - Ports: Gothenburg-Kemi-Oulu-Lübeck-Gothenburg (weekly)
 - Data from November 2009 to present
 - Data collected in real time and delayed mode
 - Tab separated ASCII text files
 - FerryBox and CO₂ measurements
 - Water samples for laboratory analyses



All positions 2013

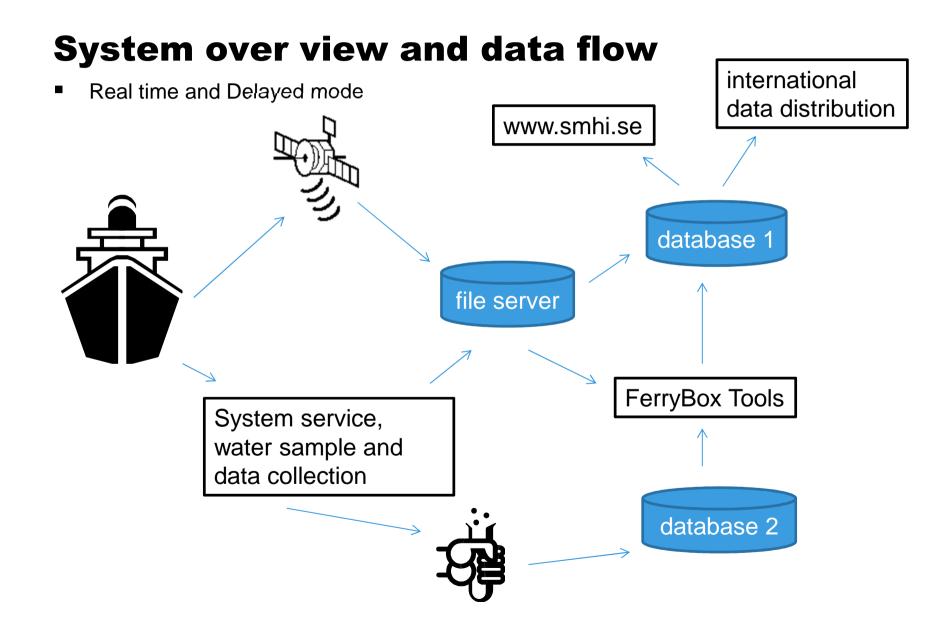




Why FerryBox Tools?

- There are problems in all data
- Automated measurements should be compared to data from reference samples
 - The data resides in different databases
- Quality Control need to be carried out at different times:
 - Near real time
 - Weekly or biweekly
 - Yearly





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FerryBox Tools

- Objectives
 - Easy to use tool for visualizing data
 - Easy to set time period and change scale
 - Quality control
 - Ability to use for non Python users
 - Open Source



QC

- QC0: automatic control, upper and lower limits for each variable. Limits read from an extern text file, which is read at start up. Performed on raw data.
- QC1: ability to change quality flag manually. Set: variable, start date and end date in the FerryBox Tools GUI. Setting written to a text file.

Convenient to keep QC0 and QC1 outside of the Python code. Easy to use for people not using Python.



Software

- Python 2.7
- Numpy
- Tkinter 8.5
- Matplotlib
- Basemap
- Pyodbc





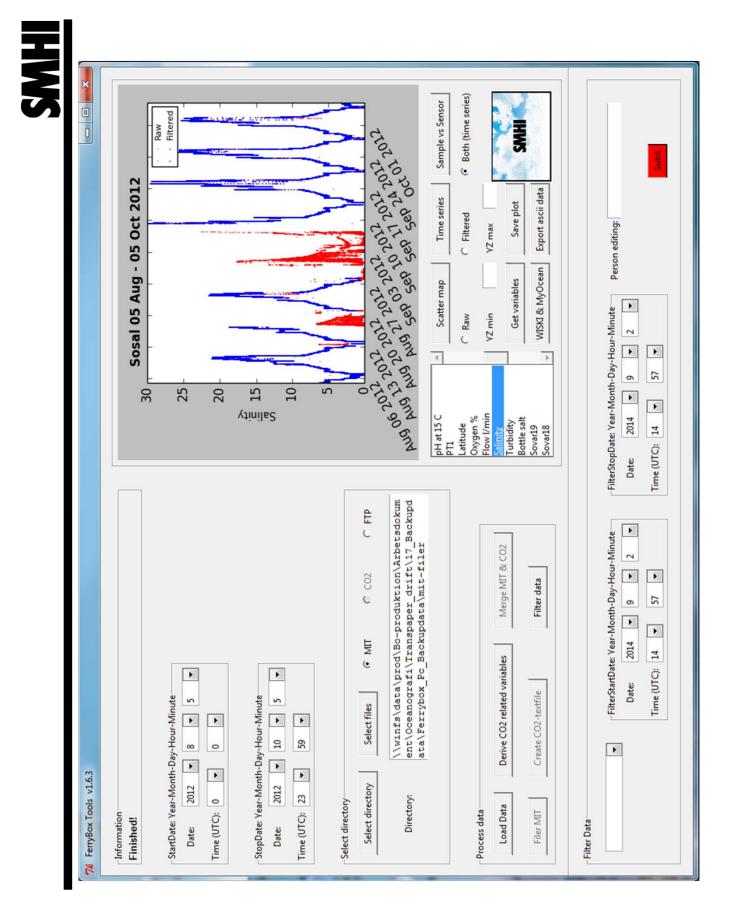
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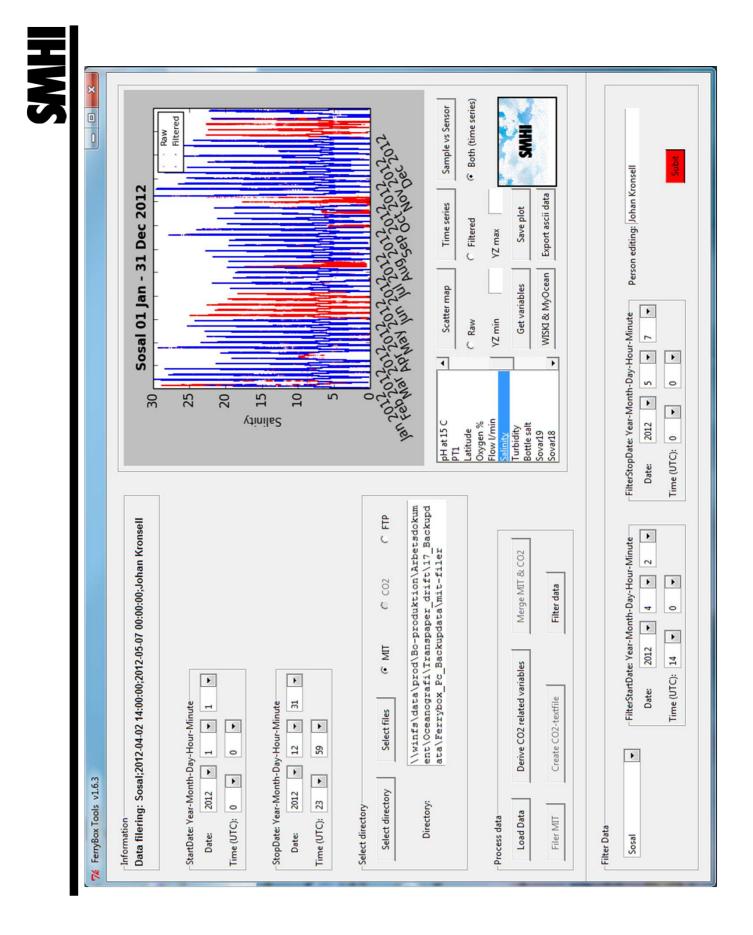


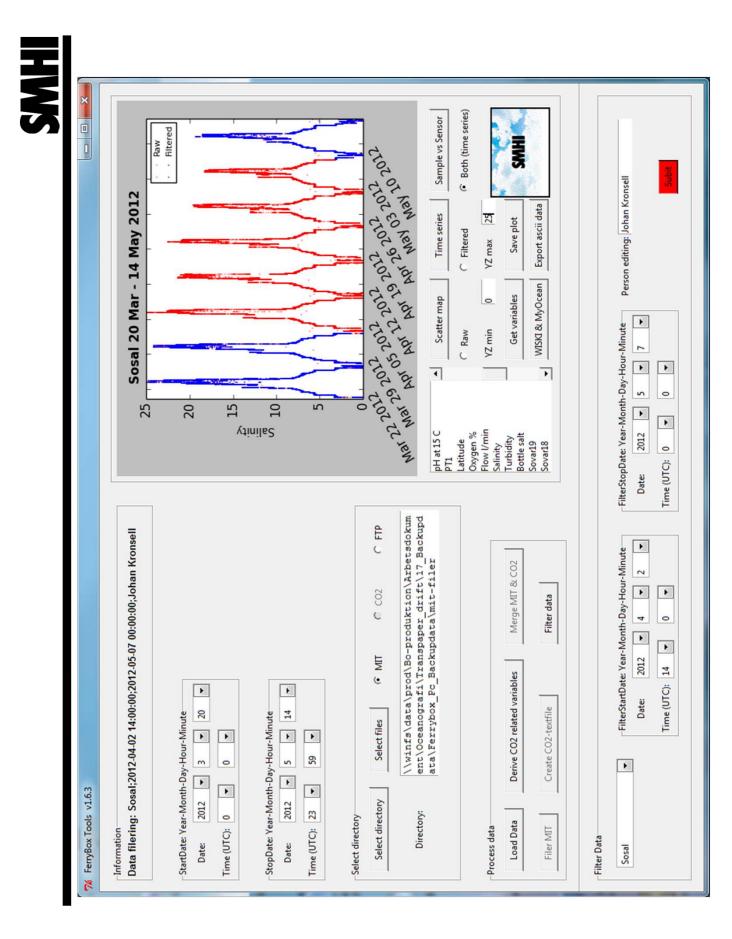
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<u>SMHI</u>

What's next?

- The software will be distributed freely
- Potential users should contact us to give input about functionality
- Persons interested in developing FerryBox Tools further may contribute
- Current version adapted for SMHI systems. Easy to change, if data is in text files or read from database by ODBC.



Questions?