

Categorization acoustic wideband data with LSSS-2.7

Institute of Marine Research and MAREC arrange a training course in processing and scrutinizing acoustic wideband data (from EK80). The training course is intended for scientists and technicians.

LSSS drawing-tools used during categorization and automatic drawing of bottom will be demonstrated, as well as export of data for abundance estimation, use of colour-scales and use of survey-local database. LSSS is being continually developed, so new functionality is added continuously. Special focus this time is how to handle and analyse the enormous amounts of data from the EK80 wideband echosounder (500 times more data than EK60).

The LSSS pre-processor toolbox KORONA makes categorization more objective and speeds up categorization. With the introduction of wideband data, the use of KORONA is even more important to get the full benefit out of the data. Wideband tools are demonstrated and used during exercises. Automatic categorization (“species identification”) of multifrequency and wideband data is studied.

Content

Installation: Sentinel, LSSS, feature library

Basic use of LSSS:

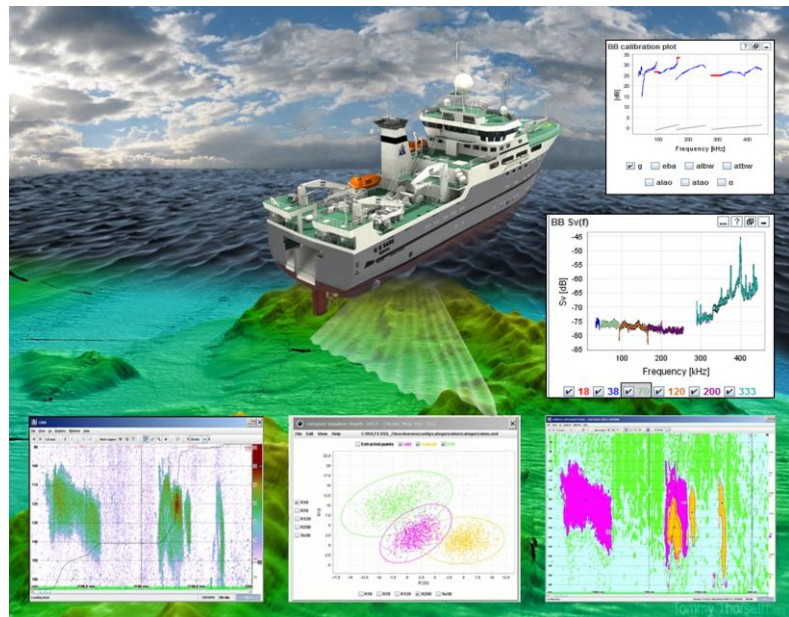
- Basic design
- Setup and data organizing
- Data interpretation tools
- Analysis of survey data
- Work and Snap files
- Database
- Data export and data copying
- Wideband functionality

Theory:

- Introduction to wideband
- Splitting data

Using preprocessor KORONA:

- Preprocessor design
- Wideband functionality
- The acoustic feature library
- Data improvement through preprocessing
- Automatic categorization (“species identification”)
- Training the library
- How to use (or not use) preprocessor results



API preview:

- The LSSS remote control http API
- The LSSS Python API

Workshop – scrutinize one day:

- Best quality of scrutiny in short time

Course material: Course material available ~ a week prior to the course at <ftp://lss@ftp.imr.no>. Material from last course is already available. Please use an ftp-client to download, e.g. FileZilla.

Dates (2020 – 5 days): Monday January 20 – Friday January 24 (5 days); 9:00 – 15:45.

Schedule (approximate):
Monday 8:30 – 10:00 Installation help
Monday – Tuesday Basic use of LSSS
Wednesday – Thursday Advanced use of LSSS and preprocessor
Friday Workshop – scrutinize one day of data

Location: Institute of Marine Research, Nordnes, Bergen, Norway, room “Pynten - stort”.

Registration: Registration continues until the course is full.
- IMR: Please register at Havforskningsakademiet
- International: Please register to: info@marec.no

Laptop: We ask you to kindly bring your own laptop computer with 64-bits operating system and at least 16 GB RAM (but preferably 32 GB or more).

Lecturers: Rolf J. Korneliussen (Head of Research), Institute of Marine Research
Inge K. Eliassen (Senior scientist), NORCE Norwegian Research Centre / MAREC