



MSM16-2 processing log TVMUC navigation data

a) Original data

The original navigation data was measured by a moon pool mounted IXSEA Posidonia USBL positioning system. The data was recorded and provided by the IXSEA Abyss in 1 second interval as raw NMEA streams.

These data sets contain:

- USBL position from IXSEA GAPS
- Timestamp
- Immersion

b) Processing

I. Processing steps:

1. Extraction of positions from NMEA raw data of Posidonia
2. Manual validation of erroneous positions by reviewing speed, time and distance jumps
3. Removing of invalid positions
4. Smoothing of the track using a Gaussian/9 filter (in ADELIE GIS)
4. Interpolating missing data
5. Conversion of data to files of 1 and 10 second resolution

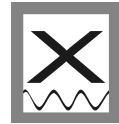
II. Processed data:

Result of the processing is the verified navigation in 1 second and in 10 second interval, held in ASCII table files (tab delimited) with the following format:

- Column 1: Latitude [decimal degree]
- Column 2: Longitude [decimal degree]
- Column 3: Date [Format: DD.MM.YYYY HH:MM:SS]
- Column 4: Immersion [metres]

III. Statistic

Station Number	Starttime	Endtime	Number of 1 s Positions
866	06.10.2010 07:55	06.10.2010 13:34	20340



c) Dive maps

