

Format description for European Sea Level Service delayed-mode data portal, Version 2.0, 02 Jul. 2008

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Filenames

All filenames should be in the form tg_<abbreviated site name¹>. If the data are in annual files, they should be tg_<abbreviated site name><YYYY> or tg_<abbreviated site name><YYMON> if monthly.

Height Units

All heights are to be given in metres.

Header information

Each file should have only one header.

All header lines are labelled with a #

There can be any number of header lines, but certain lines are mandatory.

The following list describes header information which contains labelled data.

1. The first line (`FORMAT VERSION`) is the format version number (e.g. 2.0)
2. The second line (`SITE NAME`) is the site name². This must be spelled exactly as given in the list of ESEAS sites.
3. The third line (`COUNTRY`) is the country name in English³.
4. The fourth line (`CONTRIBUTOR`) lists the department or laboratory originating the data⁴.
5. The fifth line (`LATITUDE`) gives an approximate latitude for the gauge. `LATITUDE` is in decimal degrees, to five decimal places, with a range of -90.00000 to +90.00000⁵.

¹ This is the 'Abbreviated term', selected from the approved list of ESEAS sites (E011).

² The full site name should be selected from the 'Term' field of ESEAS sites (E011).

³ The country name is the 'Term', as defined in the ISO Country code table (C320).

⁴ The contributor should be selected from the 'Term' field in the defined list of ESEAS contributors (C75).

⁵ The latitude should exactly match that given in the list of ESEAS defined sites (E011).

6. The sixth line (LONGITUDE) gives an approximate longitude for the gauge. LONGITUDE is in decimal degrees, to five decimal places, with a range of -180.00000 to +180.00000⁶.
7. The seventh line (COORDINATE SYSTEM) lists the coordinate system to which the LATITUDE and LONGITUDE refer.⁷.
8. The eighth line (START DATE/TIME) gives the start date and time of the data in the file, with the format yyyy/mm/dd hh:mi:ss. 24 hr clock and UTC are mandatory.
9. The ninth line (END DATE/TIME) gives the end date and time of the data in the file, with the format yyyy/mm/dd hh:mi:ss. 24 hr clock and UTC are mandatory.
10. The tenth line (TIME ZONE HOURS) gives the difference from UTC; All ESEAS data should be in UTC so this is "0".
11. The eleventh line (DATUM INFORMATION) lists the datum to which the data are referred.⁸ This should be consistent with the list of datums described under "L111"
12. The twelfth line (INSTRUMENT TYPE) describes the tide gauge used to make the measurements⁹.
13. The thirteenth line (PRECISION) should be the precision of the instrument in millimetres.
14. The fourteenth line (QUALITY CONTROL) lists the level that the data have been quality controlled to¹⁰.
15. The fifteenth line (NULL VALUE) defines the null value(s) to be used. This is -99.9999.
16. The sixteenth line (CREATION DATE UTC) gives the initial creation date of the data file in UTC, with the format yyyy/mm/dd.
17. If a "COLUMN" (see below) is provided to give the elapsed since a given time origin, the following should also be specified:
 - (a) ORIGIN DATE/TIME giving the date and time of the time origin, with the format yyyy/mm/dd hh:mi:ss. 24 hr clock and UTC are mandatory.

⁶ The longitude should exactly match that given in the list of ESEAS defined sites (E011).

⁷ This should be selected from the 'Abbreviated term' in the code table (L101).

⁸ The datum system should be selected from the 'Term' described in the code table (L111).

⁹ The instrument should be chosen from the 'Abbreviated term' in the ESEAS data production tool table (L221).

¹⁰ The quality-control level should be the 'Abbreviated term' chosen from the ESEAS QC list (L121).

(b) TIME UNITS giving the units of elapsed time of the time since origin column ("days", "hours", "minutes" or "seconds").

18. Lines labelled "COLUMN" describe all of the columns recorded in the data file, including quality flag channels. Each parameter recorded should be identified by the 8-byte parameter code (found in the Term URL in the code table P011) and the corresponding 'Abbreviated term' in the BODC Parameter Usage Vocabulary. Values should be reported to one tenth of the nominal precision. After each recorded data column, there should be a quality control column, labelled 'Quality control flag'.

The meaning of quality control flags should be defined in the header section. The meaning of the flags has been kept similar to that of ESEAS tide gauge data format v1 where possible, but the value of the flags has been altered to bring them in to line with SeaDataNet flags.

0	No quality control	No quality control procedures have been applied to the data value.
1	Good	Good quality data value that is not part of any identified malfunction and has been verified as consistent with real phenomena during the quality control process.
2	Probably good	(previously 'correct but extreme') Data value that is probably consistent with real phenomena but this is unconfirmed.
3	Probably bad	(previously 'doubtful') Data value recognised as unusual during quality control that forms part of a feature that is probably inconsistent with real phenomena.
4	Bad	(previously isolate spike or wrong value) An obviously erroneous data value.
8	Interpolated	This value has been derived by interpolation from other values in the data object.
9	Missing	The data value is missing. Any accompanying value will be a magic number representing absent data.

Body information

Free formatting should be used for the data columns (where data may be separated by any number of spaces). All columns must be defined in the header section.

Mandatory columns are: "Date yyyy/mm/dd", "Time hh:mi:ss" (format hh:mi:ss, 24 hr clock and UTC) , an observed sea level channel and a corresponding flag channel.

Example

```
# FORMAT VERSION 2.0
# SITE NAME Newlyn
# COUNTRY United Kingdom
# CONTRIBUTOR Proudman Oceanographic Laboratory
# LATITUDE 50.1030
# LONGITUDE -5.5428
# COORDINATE SYSTEM WGS84(3D)
# START DATE/TIME 2008/03/01 00:00:00
# END DATE/TIME 2008/03/31 23:45:00
# TIME ZONE HOURS 0
# DATUM INFORMATION ACD
# INSTRUMENT TYPE Bubbler
# PRECISION 0.002
# QUALITY CONTROL Delayed mode QC
# NULL VALUE -99.9999
# CREATION DATE UTC 04/06/2008
# ORIGIN DATE/TIME 1760/01/01 00:00:00
# TIME UNITS days
#
# COLUMN 1 Date yyyy/mm/dd
# COLUMN 2 Time hh:mi:ss
# COLUMN 3 ASLVZ01 SeaLevel
# COLUMN 4 Quality control flag
# COLUMN 5 ASLVR101 SLvRes
# COLUMN 6 Quality control flag
# COLUMN 7 TIME UNITS since ORIGIN DATE/TIME
#
# Quality control flags
#
# 0 No quality control
# 1 Good value
# 2 Probably good value
# 3 Probably bad value
# 4 Bad value
# 8 Interpolated value
# 9 Missing value
2008/03/01 00:00:00 3.6190 1 -0.1008 1 90640.0
2008/03/01 00:15:00 3.5780 1 -0.0601 1 90640.0104167
2008/03/01 00:30:00 3.4220 1 -0.1287 1 90640.0208333
2008/03/01 00:45:00 3.2890 1 -0.1690 1 90640.03125
2008/03/01 01:00:00 3.1980 1 -0.1627 1 90640.0416667
2008/03/01 01:15:00 3.0940 1 -0.1655 1 90640.0520833
2008/03/01 01:30:00 3.0580 1 -0.0977 1 90640.0625
2008/03/01 01:45:00 2.9060 1 -0.1447 1 90640.0729166
2008/03/01 02:00:00 2.8170 1 -0.1295 1 90640.0833334
2008/03/01 02:15:00 2.7250 1 -0.1200 1 90640.09375
2008/03/01 02:30:00 2.6110 1 -0.1372 1 90640.1041667
2008/03/01 02:45:00 2.5090 1 -0.1490 1 90640.1145833
```