

BBADCP_format.txt

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Helen Beggs, 30 July 1998

BBADCP Processed ASCII Data File Format

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Based on Transect User's Manual (BB) - October 1993, Appendix A.

The following three lines are always written to the start of each ASCII output file:

| ROW | FIELD DESCRIPTION                            |
|-----|----------------------------------------------|
| A   | 1 NOTE 1                                     |
| B   | 1 NOTE 2                                     |
| C   | 1 DEPTH CELL LENGTH (cm)                     |
|     | 2 BLANK AFTER TRANSMIT (cm)                  |
|     | 3 ADCP DEPTH FROM CONFIGURATION FILE (cm)    |
|     | 4 NUMBER OF DEPTH CELLS                      |
|     | 5 NUMBER OF PINGS PER ENSEMBLE               |
|     | 6 TIME BETWEEN PINGS (hundredths of seconds) |
|     | 7 PROFILING MODE                             |

Whenever Transect displays a new data segment (a raw or averaged data ensemble), it writes the following data to the ASCII file. The first 6 rows contain leader, scaling, navigation, and discharge information. Starting with row 7, Transect writes information in columns based on the bin depth. When Transect writes the information for all bins in the current ensemble, it goes to the next ensemble and repeats the cycle starting with row 1. Fields are separated by one or more spaces. Transect does not split ensembles between files. Missing data (data not sent from the ADCP) are not included.

"Bad data" values: Velocity (-32768); Discharge (2147483647); Latitude/Longitude (3000).

In the case of moored ADCPs there is no navigation or discharge data.

| ROW | FIELD DESCRIPTION                                                                  |
|-----|------------------------------------------------------------------------------------|
| 1   | 1 ENSEMBLE TIME - Year (at start of ensemble)                                      |
|     | 2 - Month                                                                          |
|     | 3 - Day                                                                            |
|     | 4 - Hour                                                                           |
|     | 5 - Minute                                                                         |
|     | 6 - Second                                                                         |
|     | 7 - Hundredths of seconds                                                          |
| 8   | ENSEMBLE NUMBER (or SEGMENT NUMBER for processed or averaged raw data)             |
| 9   | NUMBER OF ENSEMBLES IN SEGMENT (if averaging ON or processing data)                |
| 10  | PITCH - Average for this ensemble (degrees)                                        |
| 11  | ROLL - Average for this ensemble (degrees)                                         |
| 12  | CORRECTED HEADING<br>-- Average ADCP heading + heading offset - magnetic variation |
| 13  | ADCP TEMPERATURE - Average for this ensemble (deg C)                               |

- 2 1-8 Not applicable to moored ADCPs.
- 9 DEPTH READING - Beam 1 average for this ensemble (m)
- 10 - Beam 2
- 11 - Beam 3
- 12 - Beam 4
  
- 3 1-5 Not applicable to moored ADCPs.
  
- 4 1-5 Not applicable to moored ADCPs.
  
- 5 1-9 Not applicable to moored ADCPs.
  
- 6 1 NUMBER OF BINS TO FOLLOW
- 2 MEASUREMENT UNIT
- 3 VELOCITY REFERENCE - (BT, LAYER OR NONE)
- 4 INTENSITY UNITS - dB or counts
- 5 INTENSITY SCALE FACTOR - in dB/count
- 6 SOUND ABSORPTION FACTOR - in dB/m
  
- 7 1 DEPTH - Corresponds to depth of data for present bin  
(depth cell); includes ADCP depth and blanking  
value; in m or ft.
- 2 VELOCITY MAGNITUDE
- 3 VELOCITY DIRECTION (degrees East from true North)
- 4 EAST VELOCITY COMPONENT - East(+)/West(-)
- 5 NORTH VELOCITY COMPONENT - North(+)/South(-)
- 6 VERTICAL VELOCITY COMPONENT - Up(+)/Down(-)
- 7 ERROR VELOCITY
- 8 ECHO INTENSITY - Beam 1
- 9 - Beam 2
- 10 - Beam 3
- 11 - Beam 4
- 12 PERCENT-GOOD
- 13 Not applicable to moored ADCPs.

Sample start to ASCII data file:

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TROPICS Mouth of Sepik ADCP 1136
22 May 1997 - 7 June 1998
  800   400  22000   30   5   100   4
97 5 22 3 0 0 0   4   0  -0.550  -0.500  331.730  19.360
-32768  -32768  -32768  -32768  -32768  -32768  -32768  -32768  220.00
220.00  220.00  220.00
0.00   10800.00   0.00   0.00   0.00
30000.0000000 30000.0000000  -32768  -32768  0.0
0.0   0.0   0.0   0.0   -0.0   0.0
-0.0  0.0  0.0
30 cm NONE dB 0.43 0.052
206.81  11.57  326.997  -6.3  9.7  -4.3  -1.9  84.8  97.7  95.9
89.5  100  2147483647
198.81  7.75  6.667  0.9  7.7  -2.5  -4.7  91.4  100.8  99.1
97.8  100  2147483647

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