In Situ Acoustic Doppler Viewer

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We have developed this unit to help our customers process data coming from Acoustic Doppler instrument that does not change the position while collecting data.

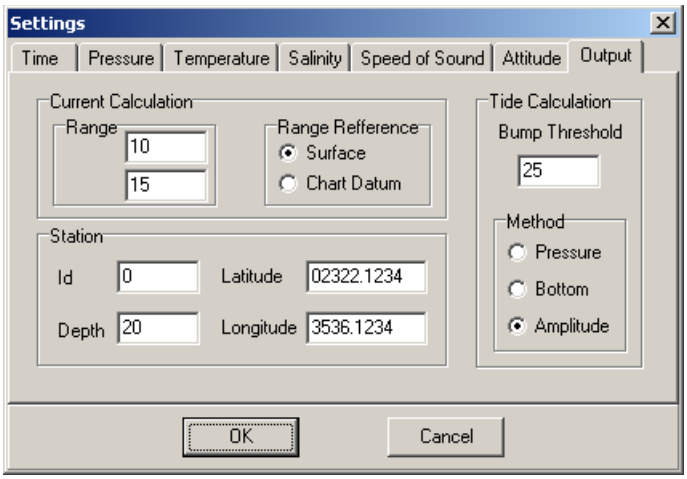
The main purpose of such survey is to monitor current, tide, salinity, pressure for a longer period of time.

There are several icons on the Acoustic Doppler Viewer shell. Your work should progress from left to right.

FIGURE 1. *Acoustic Doppler Viewer .*

1.First,**access the Control Panel to shape your output data**, setting initial, calibration, and correction values. You can come back any time to this dialog during processing and check your data for different input values. All input values are saved in the default .ini file located in the project folder and it will be available for you when you start the program again.

FIGURE 2. *Acoustic Doppler Viewer Control Panel*

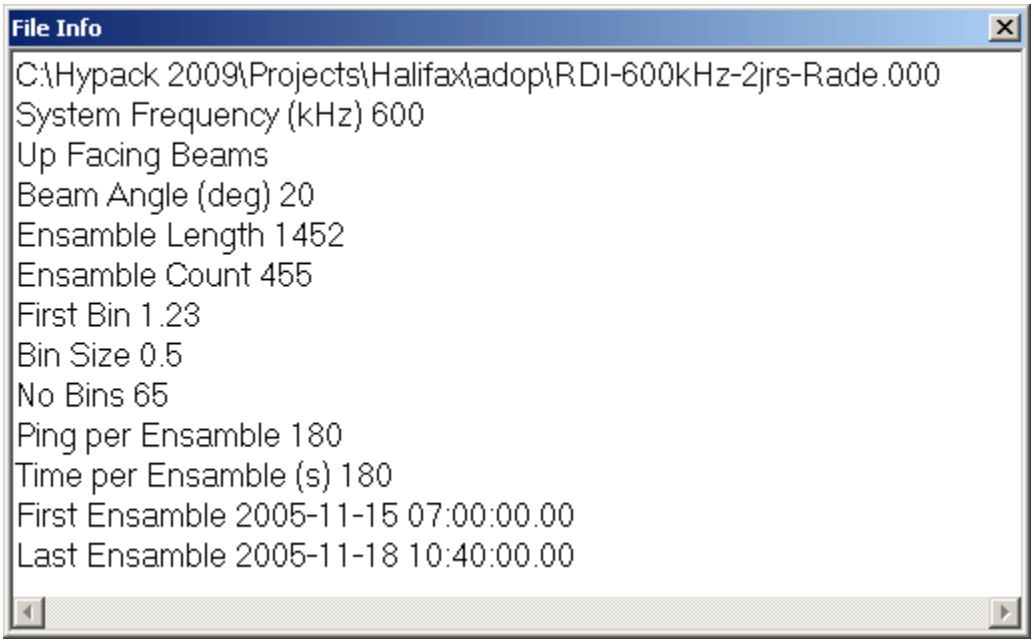


2.Now you can **open your data file**. It can be raw data file from RDI, Sontek, or Nortek instrument, or from catalog file containing such raw data. Additionally, you can open an .ini file that will set your input data if you do not like setup from default .ini file.

Once, when the data file(s) are loaded opening window look something like this.

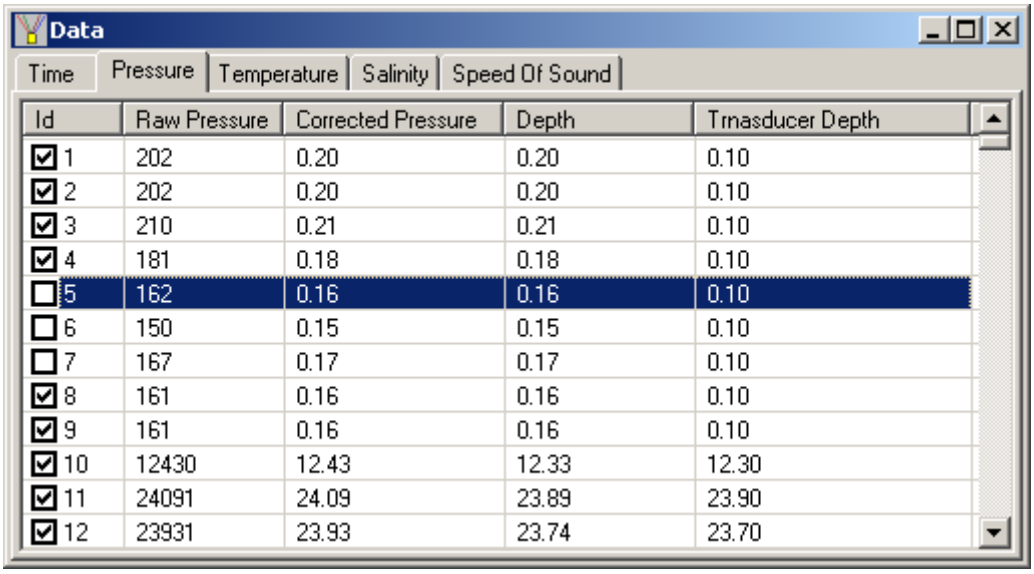
3.Before processing any data it is good habit to **take look at your data header**. It will help you to navigate through your data set much easier.

FIGURE 3. *Sample file Header*



4. **Now, in the Data Spreadsheets you can see raw numerical values of all relevant data.** Each record has a check box that allows you to exclude it from processing. Initially, you will see a question mark for unprocessed data. Right-click to open a menu that gives you a chance to start the processing and viewing data.

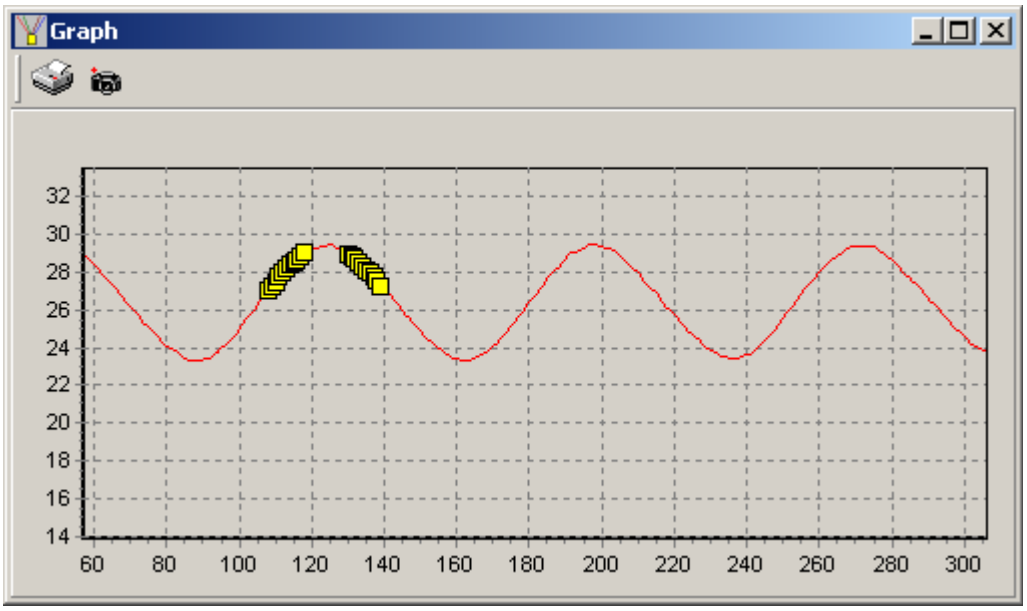
FIGURE 4. *Data Spreadsheets*



Id	Raw Pressure	Corrected Pressure	Depth	Tmasducer Depth
1	202	0.20	0.20	0.10
2	202	0.20	0.20	0.10
3	210	0.21	0.21	0.10
4	181	0.18	0.18	0.10
5	162	0.16	0.16	0.10
6	150	0.15	0.15	0.10
7	167	0.17	0.17	0.10
8	161	0.16	0.16	0.10
9	161	0.16	0.16	0.10
10	12430	12.43	12.33	12.30
11	24091	24.09	23.89	23.90
12	23931	23.93	23.74	23.70

The Graph window allows you to zoom in/out or select/delete data. You can also print or save to bitmap format.

FIGURE 5. *Graph Window*



The last icon gives you integral visual appearance of your data. You can navigate through the data set using combo boxes, or you can display new windows to see more details.

FIGURE 6. *Integral Visual Appearance of your Data*

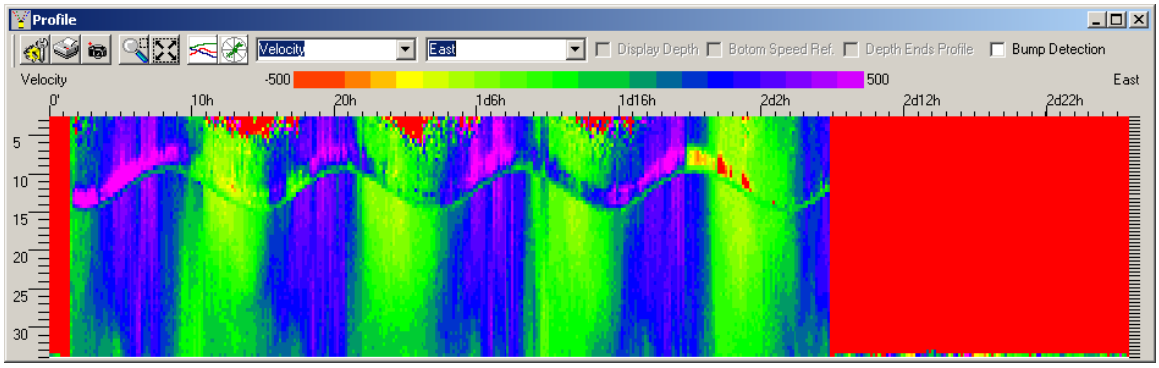


FIGURE 7. *Amplitudes for each of four beams (0-255 range). Sample 153 (left), Cell 12 Across of All Samples (right)*

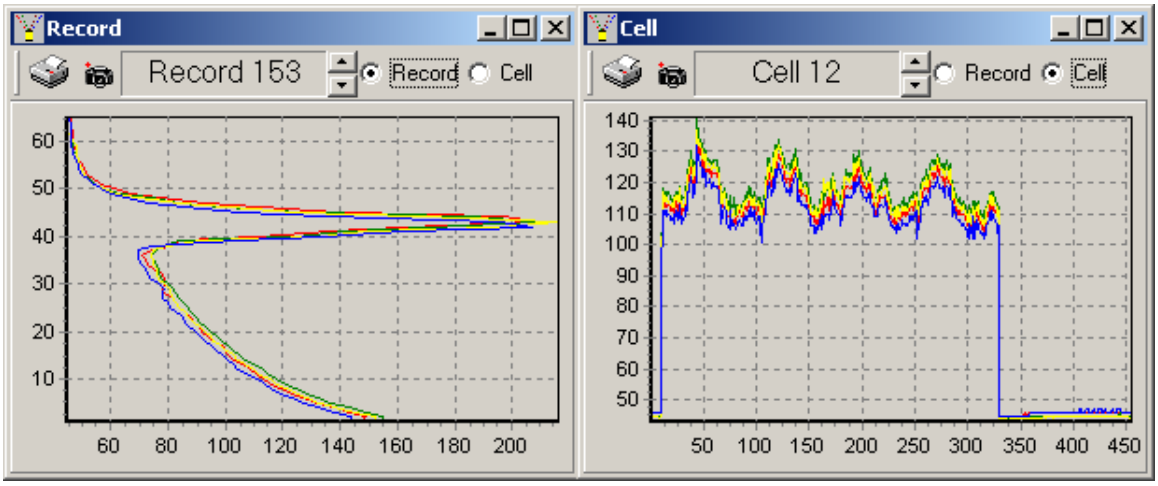
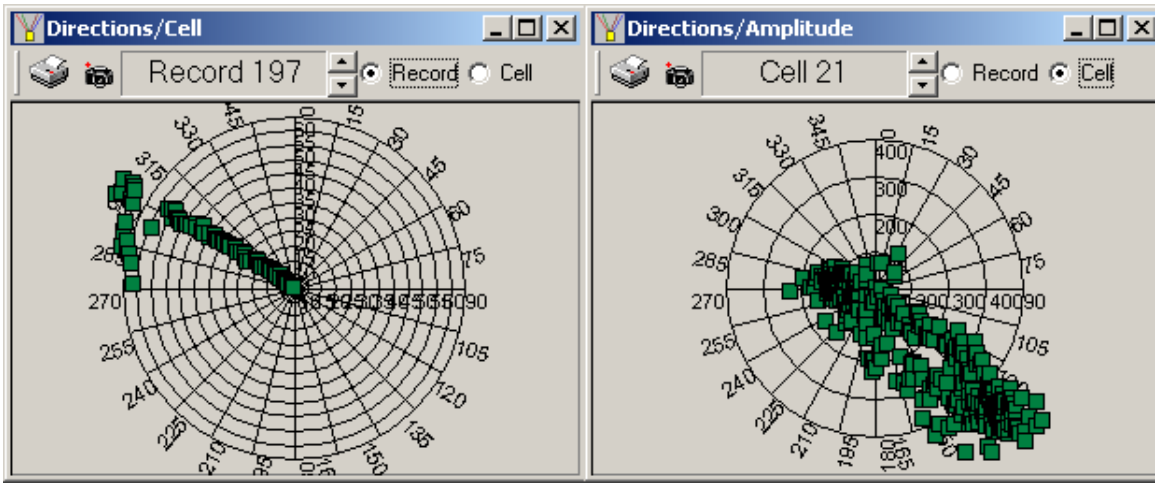


FIGURE 8. *Current Direction Distribution*



Finally, you can export either tide or current data file.