What's New in Waves Version 2.0
April 13, 2001

Waves Firmware

1. The current release of the Waves firmware is Workhorse version 16.15.
2. Packets Mode of data collection can reduce the amount of data recorded by a factor of 10. See the included Excel file WavesDataSizes.xls for details regarding the data output of the ADCP Wave Gauge.
3. It is now possible to burst sample currents and burst sample waves independently. Example: One would like to burst sample currents at a 1 second sample rate so that waves will not alias or bias the currents data. The TB and TC commands do not work for waves however the TP command can be set to one second the TE command to 10 minutes and the WP command to 20 pings per ensemble. All this independent of the twice per second sample rate of the waves.
4. Version 6.15 fixes the problem of the ADC channels not being updated during the Waves pings.
5. It also fixes a bug in which the time between wave bursts is incorrectly executed if collecting packets data and the time between current profile pings is the same as the time between waves pings.
6. The bug in which the time between wave bursts was correctly sampled but incorrectly reported is also fixed. This was in firmware versions 16.05 and earlier. To fix packets data already collected with early firmware versions, see the Fix1.exe program on the Waves CD.

WavesMon

1. WavesMon version 2.0 is the current release.
2. The interfaces have been redone to make the whole process of setting up and processing waves data much simpler. It is recommended that you use the Auto-Setup wizard for both real-time deployments and playback of data. All of the flexibility is still available through the advanced menus.
3. Time series of peak direction, peak period and water level are now displayed on the history plot, in addition to the significant wave height.
4. WavesMon can now produce images of its screens in automated fashion for integration with a web site.
5. WavesMon can generate its own default setup files and has standard NEW, SAVEAS.
6. Packets data is automatically parsed and the currents data is written to a file of its own. This allows the currents data to be viewed using other RDI software tools.
7. Wave log output formats are documented in the software from the Output tab.
8. A diagnostic file can be enabled which saves the status of data screening and errors. This aids in determining why the software may be rejecting data.
9. The software can be run in automated fashion form the command line in the event the location is remote and no user will be available to respond to software prompts.
10. Kinematic correction for currents using the Doppler shifted dispersion relation is available if the currents are greater than about 0.7 m/s.
11. If data is being collected as raw, continuous ensembles at 2 Hz, then a sliding window can be used. For example: This allows one to process the latest 10 minutes of waves every 1 minute. 10-20 minutes allows enough waves data to be statistically realistic and the 1-minute updates make short-term trends and groupiness measurable.
12. Tmean, and Hmax are output form wave-log format 5.

WavesView

1. WavesView has been updated to handle waves data that may be processed without wave parameters or directional spectra.
2. WavesView now displays time series or current magnitude and direction collected just below the surface.

WavePlan

1. Very little has changed in WavePlan.
2. Wave plan currently has a bug that does not allow the bin-sizes to be set larger. If you are collecting waves data in a small wave climate, override the WS (bin size command) command with a large value.
3. Caution should be exercised to make sure that the instrument is profiling about 3 meters past the surface. More in very large wave climates.