

BIOACOUSTIC PROBE OPERATING SYSTEM (BPOS) RELEASE NOTES

BPOS Released BProber What's new

- 1.5.3 25 Apr 06 1.7.3 **Future compatibility with range-threshold comparisons.**
- IR dialog space allocated for future capabilities.
 - Fix for very uncommon year-boundary wakeup bug.
 - Log filesystem-full percentage at sampling start/stop.
 - Slight improvement in accelerometer noise.
 - BPROBER 1.7.3 REQUIRED; BPROBER 1.7.3 IS INCOMPATIBLE WITH FIRMWARE PRIOR TO 1.5.3.
- 1.5.2 30 Mar 06 1.7.2 **Bugfixes, enhancements.**
- Fixed incorrect and missing timestamps (introduced in 1.5.0).
 - Properly downloads unsaved fast-sample-rate test data.
 - Acoustic file sizes doubled for sample rate > 10159 Hz.
 - Improved compatibility with newer Palms, esp. Palm TX.
 - Update firmware from Palm using Dataviz Word emulator.
 - Download delay increased 1.5 -> 2 s, easier with Windows.
 - Improved immunity to power-failure-on-wake after long sleep.
 - Slightly more accurate time-setting from Palm.
 - Acoustic saturation level (incl. gain) reported in BProber 1.7.2.
 - LED stop alert when attempting download of nonexistent data.
 - Fewer log complaints about bogus infrared transmissions.
 - Improved delayed-start behavior across a new year.
 - Alpha series: improved power robustness.
 - Alpha series: fast sampling couldn't be stopped, fixed.
 - Alpha series: BProber doesn't report disabled-channel data.
 - BPROBER 1.7.2 REQUIRED; NOTE THAT BPROBER 1.7.2 IS INCOMPATIBLE WITH FIRMWARE PRIOR TO 1.5.2.
- 1.5.1 23 Nov 05 1.7.1 **Tag-specific and user-interface improvements.**
- Fixed overflow in zero-drift compensation for s/n 011.
 - Custom LED in s/n 029 defaults to off.
 - New bootloader code, only required for s/n 029.
 - BProber calibrate page only shows data from valid sensors.

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| 1.5.0 | 11 Nov 05 | 1.7.0 | <p>Conditional acoustic sampling.</p> <ul style="list-style-type: none"> • Can sample acoustics conditionally on temperature. • Can compensate pressure offset drift for temperature. • Spurious infrared signals less likely to abort sampling. • Rare crashes during infrared communication may be fixed. • Alarm flashes LED 10s on wakeup to condition battery. • Improved BProber user interface, plus access to new features. • Refuses impossible sample rates rather than attempting them. • Slightly reduced power consumption at fast sample rates. • Fixed rare bug of disregarding alarm and starting immediately. • BPROBER 1.7.0 REQUIRED; NOTE THAT BPROBER 1.7.0 IS INCOMPATIBLE WITH FIRMWARE PRIOR TO 1.5.0. |
| | 11 Apr 05 | 1.6.6 | <p>Extension to BProber.</p> <ul style="list-style-type: none"> • BProber can now request download of accelerometer data. |
| 1.4.1 | 25 Mar 05 | 1.6.5 | <p>Minor fixes and functionality improvements.</p> <ul style="list-style-type: none"> • Log flushed to storage when going to sleep. • Log notes wakeup time (for alarm-based sampling). • Slightly better power-fail transient rejection for B-series tags. • Auxiliary sampling can be turned off or set to 4 Hz. • Infrared notify when ERASE or FORMAT 100% complete. |
| | 13 Aug 04 | 1.6.4 | <p>Added functionality to BProber.</p> <ul style="list-style-type: none"> • BProber can now request partial downloads. |
| 1.4.0 | 15 Jun 04 | | <p>Bugfixes.</p> <ul style="list-style-type: none"> • Restored ability to download acoustic data from memory. |
| 1.3.9 | 28 Apr 04 | | <p>Infrared-stop enabled in alarm-controlled sampling.</p> <ul style="list-style-type: none"> • Timed sampling can now be terminated via infrared. |
| 1.3.8 | 10 Apr 04 | 1.6.3 | <p>Recommended sensor range reported.</p> <ul style="list-style-type: none"> • Reports sensor range, if available, instead of A/D saturation. • Fixed nest overflow bug when aborting pre-sample sleep. • BProber “zero” function provides helpful dialog before acting. |
| 1.3.7 | 12 Mar 04 | 1.6.2 | <p>Calibration enhancements.</p> <ul style="list-style-type: none"> • User can request information on saturation levels. |

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- 1.3.6 24 Feb 04 **Additional bootcode protection.**
- Significantly better protection against bootcode corruption.
 - Fix for bogus calibration update times introduced in 1.3.5.
- 1.3.5 19 Feb 04 1.6.1 **Auxiliary sampling improvements.**
- BProber can zero pressure xdcr, BPOS notes temp at rezero.
 - Calibration updates available immediately, no reset required.
 - “Calibration” page reflects 20-sample averages (B series only).
 - Recorded auxiliary data use 4-sample average (B series only).
 - Power-fail handling better in both bootcode and OS.
- 1.3.4 28 Jan 04 **Minor enhancements.**
- Additional improvements to handling of corrupt filesystems.
 - New bootcode tolerates low-battery situations better.
- 1.3.3 27 Jan 04 **Better filesystem recovery.**
- Eliminated infinite loop in certain corrupt-filesystem cases.
 - More detailed corrupt-filesystem information in log.
- 1.3.2 27 Jan 04 1.6 **Faster, fixes. REQUIRES UPDATING BPROBER TO 1.6!**
- Maximum sampling rate now 20 kHz instead of 15 kHz.
 - Better longevity at sampling rates of 10 kHz and below.
 - New bootcode behaves better in low-power situations.
 - New bootcode can be updated via infrared.
 - Formatting now reserves 512KB, not 256KB, for firmware.
 - Fixes and enhancements to calibration-file system.
 - BProber STATUS page reports bootcode version.

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- 1.3.1 14 Nov 03 1.5 **Fixes. REQUIRES UPDATING BPROBER TO 1.5!**
- Doesn't infinite-loop on rebuild when storage is full.
 - Erasing filesystem resets and re-enables logging.
 - Attempting to download nonexistent data (i.e. an empty file or null directory) sends an error alert to the Palm.
 - A full filesystem reports 0 instead of a few kB available.
 - Better log entry when filesystem is full.
 - B-Probe serial number (or nickname if set) is now shown in the Control pane of BProber after the first infrared interaction.
 - The B-Probe's bad-block table can be downloaded.
 - BProber asks for confirmation if the user changes the sampling regime and then gives a "wake" or "start" command without first "send"-ing the new regime.
 - Patched memory leak in BProber.
 - Better filesystem consistency after erase abort.
 - Power-fail routine tries to save unwritten data.
 - Bootcode copes better with power failure.
- 1.3.0 18 Sep 03 1.44 **Monoblock data storage, fast filesystem rebuilds**
- Allow filesystem ERASE even if filesystem is corrupted.
 - Rebuild 30 times faster; 1GB rebuilds in under 2 minutes.
 - More helpful LED flashing during superfast rebuild: one flash for every 8 (rather than 2) MB processed.