

## BPM-200 SOFTWARE REVISION HISTORY

### 6.028 07/01/21

- Use browser-based Tutorial.
- Fix tooltip memory leak.

### 6.027 06/17/20

- Make USB communication receive a Threaded function.

### 6.026 05/24/18

- Fix 'odd' Cancel button appearance in Utils|Import.
- Adjust Search and Cursor dialogs in Reports to accommodate Win 10 1803.
- Correct display of stimulus type "Grass" in Reports.
- Adjust Reports|Search Age & Date control positions.

### 6.025 05/28/16

- Remove %DS\_MODALFRAME from main and help dialogs to correct failure of dialog headers to display in some Win10 systems.
- Improve screen filling for high DPI displays (ie. 3200x1800x205DPI).

### 6.024 04/17/15

- Show file info during REPORTS|EXPORT; Tidy up MBDUMP.TXT format when appending data.
- Add Data Export Format selection to UTILS|MISC; Add CVS Data File Export option.
- Improve screen filling for smaller displays.
- Update copyright to 2016; Use FREEFILE for disk I/O (missed two in 6.023).

### 6.023 04/21/15

- Update copyright to 2015; Try to eliminate UAC notice in OS>-Vista.
- Remove space after device SN: in TEST|INIT.
- Use FREEFILE for all disk I/O (OPEN...).
- Work around DIALOG UNITS/PIXELS issue in PB10.04 (see '@@').
- Use SQLTools v3.14.
- Revise default VEP protocols (2uV/div, 128 ave.); Remove extraneous style settings from TEXTBOX & LISTBOX; Change SetFocus CB.LPARAM to SendMessage CBHNDL, %WM\_NEXTDLGCTL, CB.LPARAM, 1.

### 6.022 05/24/13

- Use 2.8.28 USB driver (fully supports Win8).
- Restore missing or incorrect Help images (Utils|Cmpt..Utils|Stim..) and add BPM200 Stimulus calibration values in cd-s/m<sup>2</sup>.
- Create BPM100 Driver boot loader program (BPM100\_DRIVER.EXE).
- Use SQLTools v3.12; Remove %BIF\_NewDialogStyle from SHBrowseForFolder as redundant when %BIF\_UseNewUI is present.
- Add detection of Stim. Sync. cable to Test|Init.
- Enable Reports|Export as text file (MBDUMP.TXT in data directory); Improve error handling if database is already open; Allow checksum function to handle 0-length data; Rename Utils|Convert Utils|Import; Rewrite DB save routines for improved ease of future programming; Utils|Import can now import BPM200 data (from MBDUMP.TXT); Adjust vert. location of Info display for Utils; Add %WS\_EX\_TRANSPARENT

attribute to area behind left buttons (%IDC\_L1) to more uniformly remove remnants of warnings on some systems; Update Help.

- Remove unnecessary 'admin.' warning; Update Help.
- Make sure TEST|...|Init progress bar advances to 100%; Add BPM200 hardware and firmware version display during Test|...|Init; Remove BPM100 hardware indication from Utils|User; Update Help & Tutorial accordingly.
- Streamline some conditional INSTR statements; update RGI Copyright to 2012.
- Do not require Admin. Rights if BPM200 hardware ONLY or BPM100 driver is loaded at system startup; Use SQLTools v3.04.

#### **6.021 11/04/11**

- Better implement Unicode emulation in Win98 (& RGIREG.DLL).
- Align position of Cursor dialog in Reports with graph edge (broken in 6.020).

#### **6.020 04/19/11**

- Scale graphic areas to pixels for precise alignment of mouse cursor to graphic cursor in reports.
- Adjust screen sizes slightly to preserve pixel/tick relations.
- Correct registry access functions (BYVAL %NULL); Improve Client info passing from external program via command line file parameter; Accommodate new compiler (10.0).
- Restore focus after Electrode Impedance Test & Reports|Delete so accel. keys work properly.
- Redraw screen after Elec. Test error for better appearance.
- Completely Exit program when "X" is pressed with a print job in queue.
- Properly handle separate VEP & ERG Analyze parameters; Use string constant for ERG/VEP test labels.

#### **6.019 07/31/10**

- Correct default Test|Protocols.
- Correct failure to display BPM200 Stimulus SN# in Help if first non-zero hexadecimal character was not 1-9.

#### **6.018 06/24/10**

- Correct printing of Test: in Reports|Print (broken in 6.016).
- Localize a few text items in Test/Reports graphs & Test|Protocol missed in 6.016.
- Short circuit parallel port detection when possible to improve speed.
- Add 'Reset' function to Util|Stim.; Add BPM200 Stim SN to RGIDEF.DAT.
- Restore focus properly after selection of OK in Util dialogs.
- Remove setting of Timer as 'default' button in Test to avoid improper handling of keyboard Enter Key.
- Dynamically load and free Tutorial Shockwave DLL to save a few resources.

#### **6.017 03/10/10**

- Correct BPM100 default parallel port location detection broken as part of 'localization' effort in 6.016.
- Try 'auto' port detection scheme for XP, etc.
- Make sure 64-bit OS detection routines exist in the OS kernel.
- Provide WHQL signed USB driver.

#### **6.016 02/23/10**

- Move all 'localization' text to resource; Make tooltip code a bit more efficient.
- Correct font sizes in printing second of 2 reports per page (broken in 6.015).
- Use \$RGIURL in Menu 'tag' for Help|RetinoGraphics Web Site.
- Change SCProc0 function to PostMessage to avoid multiple 'hits'.
- Add 64-bit OS check to WinVer function; Don't look for BPM-100 with 64-bit OS (Test|Init).
- Show BPM100/200 configuration in status2; Get BPM-200 stimulus serial number during Test|Init; Show Model(s) & SN(s) of supported hardware in Help|About.
- Utils|Compact DB operation REQUIRES 8.3 'short' path name.

**6.015 12/29/09**

- Utils|Compact DB operation REQUIRES 8.3 'short' path name.
- Test for Adobe Flash Player installed in Help|Tutorial & provide option to download it
- Don't 'theme' Progress Bars to avoid lag in Vista and Win7 Aero response and adjust for consistent appearance.
- Don't erase graphic screen in Reports after selecting Previous.
- Correct background color of Reports|Analyze Smooth & Extract.
- Improve Tool Tip for Utils|Misc|Parport Base Address; Add print size info to SDEBUG; Refine Print routine.
- Correct synchronization of Grass stimulus.

**6.014 12/12/09**

- Force BPM-200 USB driver to load D2XX (again).
- BPM-200 USB driver v2.6.0
- Improve Help file for Utils|Misc|Parport Base Address.
- Update graphic & print font selection to PB9 syntax; Correct some 'memory leak' in Utils|Stim.
- Correct coding of DIALOG SEND...%WM\_COMMAND...%BN\_CLICKED.
- Make sure font is not in use before destroying it; Resolve unhandled error in Utils/Compact.
- Move Warning dialog a bit so as not to overlap the OK button in Utils|User and Utils|Compact.
- Incorporate Manifest in resource.
- Properly exit subclassing functions on handled key (FUNCTION = 0).
- Optionally create database debugging file.
- Revise tutorial for Captivate 4 (no ERGTUTOR\_skin.swf).
- Correct possible numeric overflow during test averaging (define SumAD() AS LONG rather than INTEGER).

**6.013 12/02/06**

- Update callback messages to CB.XXXX format for PB9; 'Adapt' for PB9 SETFOREGROUND bug.
- Begin collecting text data for localization.

**6.012 10/20/08**

- This time really fix the 'lingering' Autoscale problem.

**6.011 10/16/08**

- Correct 'lingering' Autoscale from Reports affecting Reports & Test.

**6.010 10/03/08**

- Resolve USB issues with AMD/64 processor.
- Force D2XX USB driver load for BPM200 hardware & remove non RGI devices from USB .INF files.

**6.009 06/04/08**

- Consolidate Accelerator functions (Assign into Attach); Remove extraneous 'status2' indications.
- Handle possibility of BPM100 SN#000 AND BPM200 hardware.
- Add Tutorial to Help menu & put 'About' last; Add Tutorial & built-in Shockwave viewer
- Always 'Theme' non-client areas.

**6.008 12/30/07**

- Add user supplied parallel port base address to Utils|Misc for BPM100 ONLY (for Express Card ports, etc.)
- Arrow key cursor movement 'accelerator' in Reports changed from Control key to Shift key.
- Code Signed as of 03/19/08.
- USB driver v2.2.6 as of 04/12/08; .DLL 04/19/08 (BPM200 Hardware Only).

**6.007 11/18/07**

- Correct premature enabling of Update button in Reports after cursor/0 change.
- Accommodate new PB compiler (8.04) differences in determining text size for info/warning dialogs.
- 'Enter' can close Help|About.
- Make BPM200 ONLY version (as well as BPM100 ONLY, etc.); Get BPM200 Stimulus calibration 'defaults' from RGIREG.DLL.
- Test|Protocol|Stimulus now has settings every 5HZ from 5 to 65; Remove 'Auto' selection from Test|Protocol|Notch.

**6.006 09/21/07**

- Prepare BPM100 ONLY version for release.
- Enable/Disable Util/Cmpt & Util/Cnvt properly in response to setting new database path in Util/User.
- Correct improper 'init' of hardware if protocol is changed in Test before selecting Init.
- Add 'dimmed' colors in ERG/VEP Test Waveform graph area to reduce illumination in darkened environments.
- Correct removal of tooltips in Test dialog.
- Add RGB capability to Utils|Stimuli anticipating BPM200 hardware; Replace Yellow with User for BPM200 Stims.
- Add 1s "Waiting for System to Stabilize" delay after Protocol-notch change, before any test; correct "residual" progress bar line after Protocol change.
- Correct bug in Test|Timer which could cause GPF if DAT were changed to 0 (Protocol) while timer is displayed. Adjust Test|Timer if it is displayed as DAT is changed.
- Correct issue with Util|Stim. which could cause 'Canceled' stimulus changes to be saved.
- Correct Test|ERG/VEP where: Cancel button is enabled Test when re-Init is required after hardware error; selecting preView during a test preView would cause a second test.
- Add 15us stimulus duration to BPM200 stimuli.
- Add Electrode Test (BPM200 hardware only) & enlarge 'function' buttons, etc. to accommodate this.
- Change checkboxes, etc. to better support XP Themes & eliminate checkbox accelerator conflicts.
- Correct Cancel button in Test|Run displayed as disabled after Device I/O Error; Add 'theme' checkbox to Utils|Misc.
- 'Tweek' flash start group delay comp. in Test for BPM100; Right justify list boxes in Test|Protocol, Utils|Stim, & Utils|Misc.; Limit BPM Stim. D/A max to 250; Correct focus issue with list box & right mouse click (6.005).
- Correct Print position of RGI and Dark Adapt time.
- Correct Database-Create issue with spaces in path; Improve database creation error checking.
- Correct Waveform-Print cursor alignment.
- Display Reports|AutoScale scale factor as #.##.
- Correct some mishandling of various button enabling/disabling by Test Warnings. Modify 'warning' dialogs to properly display 'drop shadow' in Vista Aero.

**6.005 10/27/06**

- Make SUB to show modeless dialogs as active/inactive.
- Correct focus restore after HELP.
- Correct bug in Convert which failed to properly restore client data array.
- Release DC created in shadow function & correct LR corner.
- Make tooltip windows slightly longer.
- Create "gradient" captions for dialogs.
- Restore application if minimized/hidden upon attempting 2nd instance.
- Tweak Comments print for better match to Client dialog & reduce landscape font size.
- Left mouse button, ⇨ ↑ increase value in list box, right mouse button, ⇩ ↓ decrease it.
- Remove XP parallel port "fix"; Install applies Registry patch.
- Add 400h parallel port base address for SPP-100 card.
- Help file no longer always on top.

- Add delay to Util/Cmpt to make status more visible.
- Order Search results by time as well as date.

**6.004 05/25/06**

- Add new Print dialog for 2/page (w/help).
- Adjust font sizes for better landscape printing.
- Change main dialog style on the fly to make better program opening.
- Correct misreading of lower case filenames on convert.
- Correct bug in Test|Timer which allowed multiple instances.
- Add %WS\_GROUP to Test, Reports, Utils main controls and Test|Protocol to eliminate arrow key focus change.
- Add Web Site to Help.

**6.003 02/05/06**

- Add moveable zero line to Reports (w/help).
- PostMessage to initial Reports/Search dialog launch to avoid GPF's in Win98.
- Fix mouse button action outside the "box" during cursor/zero placement.
- Replace some timer stuff with DIALOG POST's (REP).
- Correct # of ports in Win98 & Add WINIO check (Test/Init-BPMinit).
- Add CHDIR to start in the right place.
- Send %BM\_CLICK instead of %BN\_CLICKED if flicker=notch (TEST/Pro).
- Print User Address in smaller font.

**6.002 01/29/06**

- Add test for admin. rights (w/help).
- Remove Key from About dialog.
- Correct date in About dialog.

**6.001 01/09/06**

- Add keyboard cursor control (w/help).
- Test for Notch = Flicker (w/help).
- Add next cursor & cursor reselect w/mouse in graph area (w/help).

**6.000 12/28/06**

- Initial release.

**BPM-100 DRIVER REVISION HISTORY**

**1.00 05/31/12**

- Initial release.