
PS Audio PerfectWave Transport Firmware Version Log:

Version 22 27 February 2012

Versions:

Bootloader: Any
Main Firmware: 1.22
User Interface: 1.10
Web Interface: 1.05
FPGA: 0.51

Feature Additions:

1. Release supporting new displays DLC0430-DMG-T and DLC0430-EZG-T-3.
Previous displays Truly and New Haven continue to be supported in this release.

Version 21 15 February 2012

Versions:

Bootloader: Any
Main Firmware: 1.21
User Interface: 1.10
Web Interface: 1.05
FPGA: 0.51

Feature Additions:

February 6, 2012 Dave P.

FPGA: 4 changes from version .50:

- 1)Version number on line 192 of ata_com_top incremented from 32 hex to 33 hex
- 2)Clock period on line 156 changed to 44.289 ns per Ted Smith recommendation
- 3)Clock period on line 157 changed to 40.690 ns per Ted Smith recommendation
- 4) Various compile instructions changed in PWTrev49.xise and mapsynthesis.xds per Ted Smith recommendation

Changes tested internally as well as by 2 customers David Lovell and Allen Brown

Feature Additions:

September 30, 2011 Bob S.

1. Added pre-emphasis detection and sending to PWD.

Version 20 11 August 2011

Versions:

Bootloader: Any
Main Firmware: 1.20
User Interface: 1.10
Web Interface: 1.05
FPGA: 0.44

Feature Additions:

1. Reduce TCP/IP Window size from 1024 to 512 bytes; very significant increase in reliability of file download from new server to embedded system.

Version 19 15 June 2011

Versions:

Bootloader: Any
Main Firmware: 1.19
User Interface: 1.10
Web Interface: 1.05
FPGA: 0.44

Feature Additions:

1. Auto-detect parallel flash chip by vendor and device ID, and drive accordingly:
 Microchip SST39VF3201, -3202; Atmel AT49BV320D official, and China-bought "Atmel" chips w/unofficial Product ID values.
2. Corrected album-art-update failure in systems with Solomon LCD controller chip.

Release 18 18 May 2011

Versions:

Bootloader: Any
Main Firmware: 1.18
User Interface: 1.10
Web Interface: 1.05
FPGA: 0.44

Feature Additions:

BETA 1 18 May 2011

1. Eliminate flicker observed when Solomon LCD Controller used w/New Haven display.

Other categories as in Release 16, below.

Release 17 12 May 2011

Versions:

Bootloader: Any
Main Firmware: 1.17
User Interface: 1.10
Web Interface: 1.05
FPGA: 0.44

Feature Additions:

BETA 1 12 May 2011

1. Support for Solomon LCD Controller.
2. Autodetect Solomon/Epson at run time.
3. Support for Truly and New Haven LCD panels.
4. Fix bug revealed by website upgrade to PHP 5.3: HTTP request text upper/lowercase switch no longer available; Apache overrides this, causing errors because one instance of "Content-Length" had a lowercase 'l', previously covered, but must now be corrected in firmware to work w/site. grrrrrr!!!!

Other categories as in Release 16, below.

Release 16 09 March 2010

Versions:

Bootloader: Any
Main Firmware: 1.16
User Interface: 1.10
Web Interface: 1.05
FPGA: 0.44

Main Firmware Changes:

Bug Fixes:

1. Fixed remote control reception problems by removing glitch filter from interrupt routine.
2. Fixed invalid disc lockup problem.
3. Fixed <4 track disc track names in track select screen.
4. Fixed web version display on init screen.

Feature Additions:

1. Added http control functions.
http://pwt1/commands.cgi?command=xxx¶meter=yyy
2. Added UDF support.

Known Bugs/Issues:

1. FPGA: ISO track names only work in 8.3 format. Long filenames not supported.
2. FPGA: Long cd tracks display invalid times.

Requested features not implemented:

1. Auto-play feature.
2. Display IP address
3. Better eject button debouncing
4. Increase progress bar resolution.

Technical Notes:

1. Updated C Compiler to C32 V1.10B
2. Updated TCP Stack To V5.20

Beta Versions:

A. 01 March 2010
Original Release
B. 02 March 2010
Fixes for ISO formatted discs.
C. 08 March 2010
Fixed DHCP Client include problem (from CES)
D. 08 March 2010
Added Reset() after unit id setting.
Fixed Unit ID MAC Address setting.

User Interface Changes:

None

Web Interface Changes:

1. Added network setup page.
2. Added control page.

FPGA Changes:

1. Better udf filename support.
2. ISO support
3. Invalid discs now clear busy flag.

Version 1.15

30 December 2009

No main firmware release, just an FPGA update.

Version 1.14 12 December 2009

1. Switched to FatFS from MDD Filesystem to attempt to fix downloader problems and add SDHC support.
2. Fixed high speed spi flag, also seperated into download in progress and sd card read in progress flags.
3. Added ability to insert sd card after initial boot.
4. Added download status information to connection/memory bar.
5. Fixed reboot from camera software by removing reboot.c from tcp stack.
6. Internet: ok message now must contact server at least once.
7. Changed to FPGA firmware V0.40

Beta Versions:

- A. 18 November 2009
 Original Release
- B. 19 November 2009
 Fixed High Speed SPI Bug
- C. 12 December 2009
 No PIC Changes, Just FPGA V0.40

Version 1.13 19 November 2009 - First CE Release

1. Added test for ENC28J60. If not found - connection message is blank but firmware still runs.
2. Fixed screen blank after touchscreen calibration.
3. Added cdplayer.c define for beta testing lookup address.
4. Added High Speed SPI flag for EMI purposes.
5. Fixed tftp reboot problem.

Version 1.12 29 June 2009

1. Added functionality which would ignore FPGA data briefly to allow it to catch up and prevent gui glitches.
2. Track Select Screen now goes by pages rather than track by track.

Minor Update A 29 June 2009

1. Fixed seek back command.
2. Seek from remote is now much smoother.
3. Track select now based on pages of 4 and at the end, shows blank tracks until it rolls over to track 1 again.

Version 1.11 26 June 2009

1. Added auto re-dim after a delay.
2. Reverted to old track change method (instant send).
3. Added timeout to reading screen which shows invalid disc screen.

Minor Update A 29 June 2009

1. Now ignores data tracks on cds.

Version 1.10 16 June 2009

1. Added dimmer setting from gui and also stores value in eeprom.
2. Fixed < 4 track cds on track select screen.
3. Touchscreen is now ignored when in standby.
4. Added DVD track filenames in track select screen.
5. Fixed Bug - Take 3 :) - Play button now operates properly on first press in enhanced view.
6. Random ejects should be solved.

Notes:

1. Get rid of bitmap image decoders and simplify process.
2. After touch calibration, screen goes blank.
3. Add versions to internal web page.

Version 1.09 12 June 2009

1. Downloaded album information update functionality added.
2. New gui updates implemented (status bar with internet and memory status messages) (text under icons)
3. Fixed EasyGui auto-update bug with dummy.
4. Added compile-time define to use beta downloader lookup code.
5. Fixed play button first press auto-update issue on enhanced view.
6. Added dimmer selection modes for testing but can't edit from gui yet.
7. Fixed eject which occurred sometimes when loading discs.
8. Fixed MAC address problem.
9. Removed eject button from Insert Disc screen. Whole screen now acts like eject button.

Version 1.08 29 May 2009

1. Re-wrote UART routines.
2. Added compile-time debugger code to downloader through RS232.
3. Implemented new FPGA time reporting.
4. Added seek functionality with repeat feature on remote and finger slide on progress bar.
5. Repeat feature should work now with exception of bug #1 listed below.

6. Track fwd and bwd now on timer to prevent sending commands when FPGA is busy.

Version 1.07

22 May 2009

1. Added initial downloader support.
2. Fixed MAC address to match with Unit ID.
3. Fixed Bug: External IR working (glitch detector).
4. Fixed Bug: Track back while in pause mode now works.
5. Fixed Bug: Potentially fixed random track close problem.

Version 1.06

15 May 2009 (Initial Beta Release)

1. Fixed trigger jack (pull-up resistor also required)
2. Album Information and Art support from sd card added.
3. New FPGA code increases buffer size, reduced time between track and other bug fixes.
4. Several other bug fixes that I can't remember.

Known Bugs:

1. Seek control disabled due to time bug in fpga.
2. Might need to account for frames in Seek (Play Location) commands.
3. Sometimes ejects disc after memory playback re/inster different disc generally with dvd material.
4. Track back on dvd's doesn't work properly due to time reporting - need to work around this.
5. Very bad noise when memory runs out on dvd.
6. Auto-play no longer works. Not sure why.
7. Play button flip on enhanced view doesn't flip the first time.

Version 1.05

12 May 2009

1. Added HDMI I2C communication with PWD (but it doesn't work so I removed it)
2. Fixed Bug (Again): FPGA version now reads properly.
3. Several graphical changes.

Version 1.04

08 May 2009

1. Updated method to get track number and times from FPGA.
2. Fixed Bug: When power is off, remote commands no longer lightup display.
3. Added text string truncation both in number of characters and number of pixels to gui.
4. Fixed Bug: FPGA version now reads properly.

5. Repeat feature now implemented in FPGA.
6. Upgraded to TCP/IP Stack V5.0 which supports the 100mbps controller and the Zero G Wifi controller.
7. Added cddb id calculation.
8. Added 12V trigger code (untested).
9. Fixed Bug: Version screen would flip back and forth quickly.
10. Fixed Bug: Re-inserting the same disc while playing from memory now resumes play.
11. Seek control implemented (but disabled due to FPGA time issues).
12. Fixed Bug: Track back now restarts current track unless elapsed time < 1s in which case it goes to the previous track.
13. Fixed Bug: Unit ID now saved properly.

Version 1.03 30 April 2009

1. Fixed version screen.
2. Added new track select screen with 4 track names.
3. Stop and Eject now work properly on memory playback screen.
4. Detects data-only cd and shows invalid disc screen.
5. Detects end of disc and stops disc.
6. Detects memory buffer underrun when disc removed and reverts to Insert Disc screen.
7. Sends stop command before turning power off.

Known Bugs:

- X 1. When power is off, issuing a remote control command turns the display back on improperly.
- X 2. Restart from disc insert when in memory mode does not work.
- X 3. Repeat functions not implemented.
- X 4. Seek control not implemented.
- X 5. String length checks (both number of pixels and characters) need to be performed.
- X 6. FPGA version lookup buggy.
- X 7. Invalid track number and length sometimes occur.

Version 1.02 30 April 2009

1. Tons of new features and bug fixes.

Version 1.01 29 April 2009

1. Initial re-write from Andrei's code.