NUC970 Linux BSP Revision History

Revision 20160510 (Released 2016-05-10)

- (Kernel) Upgrade kernel to version 3.10.101.
- (Kernel) Add Smart Card driver.
- (Kernel) Enhanced SPI driver functions and fixed bug that driver refers to the wrong defined structure.
- (Kernel) Enhanced frame buffer driver functions and support MPU 8080 mode display.
- (Kernel) Added pin selections for 16/18/24-bit LCD interface.
- (Kernel) Added safety check for 16-bit LCD interface if NUC977 chip is selected.
- (Kernel) Added invert right/left channel output function to let speak connected with speak out pin in EVB work well in NAU8822 driver.
- (Kernel) Added configuration RGB888/RGB565 on 800x480 5-Inch Color TFT LCD.
- (Kernel) Added VCAP packet mode and planar mode and can use at the same time.
- (Kernel) Added GPIO Port J.
- (Kernel) Added set ADC default clock set to 2MHZ.
- (Kernel) Added ADC driver enable average function for XY, Z1 and Z2.
- (Kernel) Fixed VCAP preview function.
- (Kernel) Added ECAP sensor power-down pin selection for EV-board(nuc977,nuc972).
- (Kernel) Added EBI driver.
- (Kernel) Add time-out function when RTC initial fail.
- (Kernel) Fixed CAN driver unstable problem.
- (Kernel) Fixed JPEG decode bug.
- (Kernel) Fixed UART flow control bug.
- (Kernel) Updated WDT driver to support WDIOF_MAGICCLOSE attribute.
- (Kernel) Updated EMAC driver to fix memory leak issue.
- (Kernel) Fixed SC driver for function prototype definition error.
- (Kernel) Fixed MTP key programming failure caused by compiler optimization.
- (Kernel) Fixed kernel halt problem in case of USB Host select OHCI only.
- (Kernel) Fixed mistakes on the multi-function pin settings of USB Host power control pins.
- (Kernel) Optimize NAND flash driver.
- (Kernel) Fixed UART2 uses wrong multi-function pin problem.
- (Kernel) Fixed spi wrong configuration mode for mode-2 and mode-3.
- (Kernel) Fixed USB 1.1 TT connect/disconnect problem.
- (U-Boot) SPI performance optimization
- (U-Boot) Fixed UART FIFO_FULL checking.
- (U-Boot) Updated SD/eMMC clock settings.
- (U-Boot) Added Macronix MX25L25635F/ Winbond W25Q256/ EON EN25Q64 SPI flash support.
- (U-Boot) Added to support environment variables in EMMC.
- (U-Boot) Added support for SPI flash 4-byte address mode.
- (U-Boot) Set SD port 1 disabled in default configuration.
- (Applications) Added line edit related functions in busybox default configuration.
- (Applications) Added i2c-tools utility.
- (Applications) Added Python-2.7.9.
- (Applications) Added DMA demo code.
- (Applications) Added EBI demo code.

- (Applications) Added RS485 example.
- (Applications) Fixed CAN example.
- (Applications) Updated JPEG sample code header file.
- (Applications) Updated SC sample code to fix T1 card caused kernel crash issue.
- (Applications) Added lighttpd-1.4.39.
- (Applications) Added samples for lighttpd configuration file and homepage html.
- (Nu-Writer) Added start address and length on erase mode.
- (Nu-Writer) Fixed burn key failed at second time on MTP mode.
- (Nu-Writer) Add "USB with SHA" and "USB without SHA" in the SHA mode.
- (Nu-Writer) Added "chipwritewithOOB", it can burn file to NAND flash(data +OOB).
- (Nu-Writer) Fixed erase flash when using start address and length.

Revision 20151106 (Released 2015-11-06)

- (Kernel) Added SPI quad/dual mode driver.
- (Kernel) Added CAN driver.
- (Kernel) Improve performance of capture driver.
- (Kernel) Added 4-byte addressing mode for eFeon SPI flash.
- (Kernel) Added graphic 2D and user space memory manager drivers.
- (Kernel) Added capture driver for planar and packet data format.
- (Kernel) Added selection for RGB888 or RGB565 on LCD menu configuration.
- (Kernel) Added smart card driver.
- (Kernel) Added IIO normal ADC driver.
- (Kernel) Added JPEG codec driver
- (Kernel) Added SPANSION NAND flash support.
- (Kernel) Removed PB16 unused pin in GPIO driver.
- (Kernel) Improved EMAC driver performance.
- (Kernel) Fixed NUC970_USBH_PWR_NONE bug that USBH_OVRCUR should not be used in USBH driver.
- (Kernel) Support SDH dual ports at the same time.
- (Kernel) Fixed some naming error in ETIMER Kconfig.
- (Kernel) Fixed some buggy high speed devices have bulk endpoints using max-packet sizes larger than 64 under full-speed mode problem.
- (U-Boot) Added support for YAFFS2 file system.
- (U-Boot) Fixed problem of bootm or go command will disable SPI quad mode after executing and let kernel can handle SPI flash well.
- (U-Boot) Added mkimage "-s" option.
- (U-Boot) Improved SPI performance.
- (U-Boot) Improved SD/eMMC performance.
- (yaffs2util) Added "inband-tags" option.
- (Samples) Added JPEG example.
- (Samples) Fixed CAP example.
- (Samples) Added 2D / CAN / SPI quad/dual mode device interface examples。
- (Samples) Added minigui-3.0.12.
- (Tool chain) Added mkimage utility.
- (Nu-Writer) Burning NAND image use block units.
- (Nu-Writer) Added AES on the Pack mode.
- (Nu-Writer) Disable FS type from NAND mode page. User can use data mode instead of fs type.

- (Nu-Writer) Modified eMMC clock to 1MHz when Nu-Writer runs on USB mode. eMMC clock is set to 6MHz for booting.
- (Nu-Writer) Added xusb.bin for 16MB, 32MB, 64MB
- (Nu-Writer) Add ChipReadWithBad/ChipEraseWithBad options in path.ini.
- (Nu-Writer) Fixed bug for burning image failed when image size is large than 31MB.
- (Nu-Writer) Added MTP functions in pack mode.
- (Nu-Writer) Added retry function to connect nuc970 for the first time.

Revision 20150519 (Released 2015-05-19)

- (Kernel) Added FIQ function.
- (Kernel) Improved UART receive function.
- (Kernel) Fixed wrong definition of AIC register.
- (Kernel) Added default configuration for NUC973/NUC976/NUC977.
- (Kernel) Added hardware mode of UART CTS/RTS in driver.
- (Kernel) Fixed default size of MTD partitions.
- (Kernel) Added kernel menu items for USBH power pin.
- (Kernel) Fixed problem of memory leakage in the CAP driver.
- (Kernel) Fixed problem of timer suspension.
- (Kernel) Added full duplex function in ALSA sound driver and added MIC BIAS control function.
- (Kernel) Modified default SPI clock speed to suitable one.
- (Kernel) Fixed wrong description of UART function in kernel menu.
- (Kernel) Fixed problem of RX wrong count in EMAC driver.
- (U-Boot) Modified default LCD output clock speed to get better display quality on panel.
- (U-Boot) Modified environment variables and memory address.
- (U-Boot) Added new configuration file.(Not included for NAND).
- (U-Boot) Fixed problem of the IP address of TFTP server will be overwritten by DHCP server.
- (U-Boot) Fixed problem of CRC function will not work while using other version of tool chain.
- (U-Boot) Added LCD function.
- (Samples) Updated busybox.
- (Samples) Add mtd_utils and yaffs2utils utilities.
- (rootfs) Fixed auto mounting script.
- (rootfs) Add fonts for QT.

Revision 20150311 (Released 2015-03-11)

- (Kernel) Added MTP function in crypto driver.
- (Kernel) Fixed WDT driver access register failed bug.
- (Kernel) Added interrupt function in GPIO driver.
- (Kernel) Added unlock code to fix cpu reset bug.
- (Kernel) Added SPI flash device in default platform configuration.
- (Kernel) Removed port A configuration in EMAC0 interface.
- (Kernel) Updated both EMAC0 and EMAC1 driver, don't let kernel crash while PHY is absent. Just print out message to notify user.
- (Kernel) Added SPI device interface.
- (Kernel) Fixed bug for releasing irq while closing UART function.
- (Kernel) Fixed bug for Tx function of RS485.
- (Kernel) Added PH4-7, PI5-8 for UART-1.
- (Kernel) Fixed warning messages of UART driver while compiling.
- (Kernel) Improved performance of EMAC driver.
- (U-Boot) Increase size of CONFIG_SYS_NAND_U_BOOT_SIZE to 500Kbytes.
- (U-Boot) Added MTD and UBIF function.

- (U-Boot) Fixed problem which secret key file is overwritten.
- (U-Boot) Set default method for checksum is CRS32.
- (U-Boot) Fixed compilation error if disable SPI flash function.
- (U-Boot) Added hardware checksum method.
- (U-Boot) Fixed the size of appended 0 to the end of image when calling AES encrypt.
- (U-Boot) Added user option (-k) for mkimage tool to designate key file for AES encryption.
- (U-Boot) Added default key file (key.dat).
- (U-Boot) Modified command "decrypt problem". The key to be program to MTP should not be all 0s.
- (U-Boot) Remove some unnecessary files.
- (U-Boot) Fixed DevBoard crash issue by removing WDT clock source setting in hw_watchdog_reset().
- (U-Boot) Add GPIO function.
- (Samples) Added MTP program/lock/status sample codes.
- (Nu-Writer) Performance improved.

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