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| |  | | --- | | **Release Notes for STM8S/A Standard Peripherals Library Drivers (StdPeriph\_Driver)** Copyright � 2011 STMicroelectronics |      |  | | --- | | ***Contents***  1. [STM8S/A Standard Peripherals Library Drivers update history](#_gjdgxs) 2. [License](#_30j0zll)  ***STM8S/A Standard Peripherals Library Drivers update history***  **V2.0.0 / 25-February-2011** **Main Changes**   * Overall peripheral drivers updated to support ***STM8A*** product family devices * stm8s.h   + Add definition of ***STM8A*** product family devices   + Add "error" directive to force device family choice   + Updated to support  ***IAR Embedded Workbench for STM8 (EWSTM8)*** toolchain specific declarations   + Add HSE\_Value definition depending on device choice   + Add definition of Device on-chip RC oscillator frequencies HSI\_VALUE and LSI\_VALUE   + Add EEPROM definition in compiler defines (COSMIC, RAISONANCE, IAR)   + Add MEMCPY definition per devices family in RAISONANCE compiler defines   + Add RAM\_EXECUTION define to allow handling functions execution from RAM   + Add IN\_RAM macro to manage functions execution from RAM   + Remove  "stm8s\_type.h" inclusion and replace it by the file content   + Remove AWU\_CSR\_MR bit definition   + Remove CANCCR register from CLK controller registers   + Remove CLK\_CANCCR\_RESET\_VALUE definition   + Remove CLK\_CANCCR\_CANDIV definition   + Remove SWIM\_struct definition   + Remove CAN\_BTR2\_CLKS bit definition   + Remove SWIM\_BaseAddress definition   + INTERRUPT\_HANDLER" macro added to manage interrupt vector declarations for all supported toochains. * stm8s\_adc1.c/.h   + Add the support of analog channel 12   + Update ADC1\_SetHighThreshold() and ADC1\_SetLowThreshold() functions * stm8s\_awu.c/.h   + Remove AWU\_ReInitCounter() function   + Change "const" by "CONST" in the  APR\_Array and TBR\_Array declarations   + Change LSI\_FREQUENCY\_MIN value to 110000 instead of 100000   + Change LSI\_FREQUENCY\_MAX value to 150000 instead of 200000 * stm8s\_beep.c/.h   + Change LSI\_FREQUENCY\_MIN value to 110000 instead of 100000   + Change LSI\_FREQUENCY\_MAX value to 150000 instead of 200000 * stm8s\_can.c/.h   + Remove CAN\_SelectClock() function   + Update CAN\_Init() function   + Update CAN\_Transmit() function * stm8s\_clk.c/.h   + Replace uc8 by CONST uint8\_t in HSIDivFactor and CLKPrescTable declaration   + Remove CLK\_CANDivider\_TypeDef   + Remove CLK\_CANConfig(CLK\_CANDivider\_TypeDef CLK\_CANDivider) function * stm8s\_flash.c/.h   + Update FLASH\_Lock() function by using the new definition of FLASH\_MemType\_TypeDef enum variables   + Update FLASH\_ProgramOptionByte() and FLASH\_EraseOptionByte() functions to handle the case of ROP option byte and to check on EOP flag instead of HVOFF   + Change OPERATION\_TIMEOUT value to 0xFFFFF   + Update FLASH\_EraseBlock() function to use new definition of PointerAttr   + Update FLASH\_ProgramBlock() function to use new definition of PointerAttr   + Add detailed description of execution from RAM using functions provided by this driver and with the different supported toolchains. For more information, refer to stm8s\_flash.h and stm8s\_flash.c files. * stm8s\_gpio.c/.h   + Update GPIO\_Mode\_TypeDef enum variables by hexadecimal definition * stm8s\_I2c.c/.h   + Update I2C\_Flag\_TypeDef definition enum variable   + Update IS\_I2C\_CLEAR\_FLAG\_OK macro definition   + Update I2C\_Event\_TypeDef definition and naming:     - I2C\_EVENT\_MASTER\_START\_SENT changed to I2C\_EVENT\_MASTER\_MODE\_SELECT     - I2C\_EVENT\_MASTER\_ADDRESS\_ACKED removed and replaced by I2C\_EVENT\_MASTER\_TRANSMITTER\_MODE\_SELECTED and I2C\_EVENT\_MASTER\_RECEIVER\_MODE\_SELECTED     - I2C\_EVENT\_MASTER\_HEADER\_ACKED changed to I2C\_EVENT\_MASTER\_MODE\_ADDRESS10     - I2C\_EVENT\_SLAVE\_ADDRESS\_MATCHED removed and replaced by I2C\_EVENT\_SLAVE\_RECEIVER\_ADDRESS\_MATCHED and I2C\_EVENT\_SLAVE\_TRANSMITTER\_ADDRESS\_MATCHED and I2C\_EVENT\_SLAVE\_GENERALCALLADDRESS\_MATCHED     - I2C\_EVENT\_SLAVE\_BYTE\_TRANSMITTING event added   + Update I2C\_ITPendingBit\_TypeDef enum variabale definition   + Update I2C\_GetITStatus() function to check on the interrupt configuration bits   + Add defines for REGISTER\_Mask, REGISTER\_SR1\_Index, REGISTER\_SR2\_Index, FLAG\_Mask and ITEN\_Mask   + Update I2C\_ClearFlag() function to clear only the flags that are cleared by writing 0   + Add IS\_I2C\_CLEAR\_ITPENDINGBIT\_OK macro   + Update I2C\_ClearITPendingBit() function to clear only the flags that are cleared by writing 0   + Update I2C\_GetFlagStatus() function   + Add new function I2C\_GetLastEvent()   + Update I2C\_CheckEvent() function   + Add detailed description of I2C events and how to manage them using the functions provided by this driver. For more information, refer to stm8s\_i2c.h and stm8s\_i2c.c files * stm8s\_itc.c /.h   + Update ITC\_GetCPUCC() function to support EWSTM8 toolchain * stm8s\_spi.c/.h   + Update SPI\_CalculateCRCCmd() function by removing the the disable of SPI (should be done outside the function) * stm8s\_uartx.c/.h   + Remove CLK driver inclusion  **V1.1.1 / 06-05-2009** **Main Changes**   * General   + Project template updated for both STVD and RIDE toolchains   + Almost peripheral examples reviewed and validated with both Cosmic and Raisonance compilers * Library   + stm8s.h:     - \_\_CONST  definition added for Cosmic and Raisonance compilers     - TINY definition added for Cosmic and Raisonance compilers     - NEAR definition added for Raisonance compilers     - CAN registers declaration updated     - ADC1 registers declaration updated   + stm8s\_adc1.h:     - IS\_ADC1\_BUFFER\_OK macro definition updated   + stm8s\_beep.c:     - BEEP\_Init function updated: BEEP->CSR |= BEEP\_CSR\_BEEPEN; removed from init function   + stm8s\_can.c/.h:     - Private variables declaration changed to volatile     - CAN\_DeInit function updated     - CAN\_Receive function updated     - CAN\_FilterInit funtion updated     - CAN\_Transmit function updated     - CAN\_IT\_TypeDef enum updated: CAN\_IT\_ERR and CAN\_IT\_LEC definition updated to avoid ANSI check error with Cosmic   + stm8s\_clk.h:     - CLK\_Peripheral\_TypeDef enum updated: - CLK\_PERIPHERAL\_UART1 definition updated and conditioned by the device to use   + stm8s\_gpio.h:     - The GPIO\_Mode\_TypeDef enum element definition updated: - GPIO\_MODE\_OUT\_OD\_LOW\_FAST - GPIO\_MODE\_OUT\_PP\_LOW\_FAST - GPIO\_MODE\_OUT\_OD\_LOW\_SLOW - GPIO\_MODE\_OUT\_PP\_LOW\_SLOW - GPIO\_MODE\_OUT\_OD\_HIZ\_FAST - GPIO\_MODE\_OUT\_PP\_HIGH\_FAST - GPIO\_MODE\_OUT\_OD\_HIZ\_SLOW - GPIO\_MODE\_OUT\_PP\_HIGH\_SLOW   + stm8s\_tim3.h:     - IS\_TIM3\_CLEAR\_FLAG\_OK macro definition updated     - TIM3\_GetITStatus and TIM3\_GetFlagStatus functions updated: Local varaiables changed to volatile   + stm8s\_usart1.h:     - UART1\_IT\_TypeDef enum description updated to give more details on the element values convention.   + stm8s\_usart2.h:     - UART2\_IT\_TypeDef enum description updated to give more details on the element values convention.   + stm8s\_usart3.h:     - UART3\_IT\_TypeDef enum description updated to give more details on the element values convention.   + stm8s\_gpio.c:     - GPIO\_ReadInputPin function updated   + stm8s\_i2c.c:     - I2C\_ClearFlag function description and code updated     - I2C\_ClearITPendingBit function description and code updated   + stm8s\_itc.c:     - The private function ITC\_GetCPUCC definition updated for Raisonance   + stm8s\_tim1.c:     - TIM1\_GetITStatus and TIM1\_GetFlagStatus functions updated: Local varaiables changed to volatile   + stm8s\_tim2.c:     - TIM2\_GetITStatus and TIM2\_GetFlagStatus functions updated:Local varaiables changed to volatile   + stm8s\_tim5.c:     - TIM5\_GetITStatus and TIM5\_GetFlagStatus functions updated:Local varaiables changed to volatile   + stm8s\_tim6.c:     - TIM6\_GetITStatus and TIM6\_GetFlagStatus functions updated: Local varaiables changed to volatile * Examples   + Almost examples were updated with both Cosmic and Raisonance compilers using STVD toolchain.     - Exception is made for the following FLASH examples: - FLASH\_EraseBlockOnFlashProgramMemory - FLASH\_WriteEraseBlockOnDataEepromMemory - FLASH\_BlockOperationOnFlashProgramMemory --> Dependency related to linkerfile edition   + All examples readme.txt files were updated :     - @par Directory contents section updated     - @par Hardware and Software environment section updated     - @par How to use it ? section updated   + Mono LCD driver updated: mono\_lcd.c     - LCD\_SendByte function updated by adding a delay (LCD\_Delay(80);) after sending the last byte   + Micro Sd driver updated : micro\_sd.c     - MSD\_WriteByte function updated to support 2G SD card (type: kingston)   + AWU example updated     - AWU\_AutoLSICalibration private function removed and replaced by u32 LSIMeasurment to measure LSI w/ either TIM1 or TIM3 depending on the used device   + BEEP example updated     - BEEP\_AutoLSICalibration private function removed and replaced by u32 LSIMeasurment to measure LSI w/ either TIM1 or TIM3 depending on the used device     - Add BEEP\_Cmd function call in the example due to BEEP\_Init function update.   + CLK example     - CLK\_ClockSelection updated   + SPI example     - SPI\_FastCommunication example renamed to SPI\_FastCommunicationMicroSD * Projects   + Project templates updated for STVD and RIDE toolchain     - asm\_functions.asm file removed from both projects STVD with Raisonance and RIDE7     - stm8s\_it.c file updated to support both Cosmic and Raisonance compiler     - stm8\_interrupt\_vector.c and stm8s\_it.h files were updated to use @far instead of @near     - Optimization option updated for STVD with Raisonance project     - SCINAME(STM8) linker option added for STVD with Raisonance project     - STM8\_OB.asm file added within RIDE7 project to configure option bytes  **V1.1.0 / 02-27-2009** **Main Changes**   * General   + The STM8S Firmware library supports now STM8S Performance line (STM8S208 and STM8S207 sub-families), Access line (STM8S105 and STM8S103 sub-families) and STM8S903.   + RN0022 "STM8S firmware library Release note" document merged in "stm8s\_fwlib\_um.chm" user manual.   + "stm8s\_fwlib\_um.chm" user manual: structure and content enhanced to provide  complete information about the library and how it can be used.   + List of peripheral examples reviewed: redundant examples were removed (same example provided for two or more peripherals) and others were added * Library   + stm8\_map.h renamed to stm8.h and the following modification were performed:     - add the library configuration section     - add definition of the used compiler     - add definition of the library supported devices     - add definition of the standard peripheral driver use     - add definition of pointer declaration for FLASH routines     - Update peripheral registers and bit definition to support STM8S103 & STM8S903 devices: TIM5 & TIM6 registers and structures added     - OPT base address updated     - Peripheral declaration conditioned by supported devices     - add macros added for interrupts and bits handling (content of legacy stm8s\_macro.h file)   + stm8s\_macro.h file removed and its content is copied to stm8s.h file   + stm8s\_conf.h:     - Include stm8.h file instead of stm8s\_type.h and stm8s\_macro.h files     - #define DEBUG removed     - Cosmic section definition removed     - HSE value definition conditioned by supported devices     - CAN definition added     - TIM5 & TIM6 definition added     - Peripheral definition conditioned by supported devices     - add section for peripheral header file inclusion (content of legacy stm8s\_lib.h file)   + stm8s\_lib.h file removed and its content is copied to stm8s\_conf.h file   + All peripheral drivers (tm8s\_ppp.c)     - '#include "stm8s\_map.h"' replaced by '#include "stm8s.h"'     - Cosmic sections removed, except from stm8s\_falsh.c   + stm8s\_awu.h/.c:     - AWU\_AutoLSICalibration function removed and added in AWU example   + stm8s\_beep.h/.c:     - BEEP\_AutoLSICalibration function removed and added in BEEP example   + stm8s\_can.h/.c:     - CAN driver added   + stm8s\_clk.h:     - CLK\_Peripheral\_TypeDef enum updated :       * CLK\_PERIPHERAL\_USART replaced by CLK\_PERIPHERAL\_UART1       * CLK\_PERIPHERAL\_LINUART replaced by CLK\_PERIPHERAL\_UART2       * CLK\_PERIPHERAL\_UART3, CLK\_PERIPHERAL\_TIMER6 and CLK\_PERIPHERAL\_TIMER5 added     - IS\_CLK\_PERIPHERAL\_OK macro updated   + stm8s\_flash.h/.c:     - FLASH\_ProgramWord function updated to write data in big endian format     - Only FLASH\_EraseBlock() &  FLASH\_ProgramBlock() functions can be executed from RAM     - FLASH\_EraseBlock()function is updated to support the lower memory size devices     - Add a check on the HVOFF flag in the FLASH\_EraseBlock and FLASH\_ProgramBlock functions before coming back to fetch from flash     - Parameter FLASH\_STATUS\_END\_HIGH\_VOLTAGE added in the FLASH\_Status\_TypeDef  enumeration   + stm8s\_i2c.h :     - IS\_I2C\_INPUT\_CLOCK\_FREQ\_OK macro updated   + stm8s\_itc.h/c:     - ITC\_Irq\_TypeDef updated: thefollowing parameters removed: - ITC\_IRQ\_USART\_TX - ITC\_IRQ\_USART\_RX - ITC\_IRQ\_LINUART\_TX - ITC\_IRQ\_LINUART\_RX - ITC\_IRQ\_ADC , and the following parameters added : - ITC\_IRQ\_UART2\_RX - ITC\_IRQ\_UART2\_TX - ITC\_IRQ\_UART3\_TX - ITC\_IRQ\_UART3\_RX - ITC\_IRQ\_ADC2 - ITC\_IRQ\_ADC1 - ITC\_IRQ\_TIM6\_OVFTRI - ITC\_IRQ\_PORTF     - ITC\_SetSoftwarePriority() function updated * Examples   + All examples readme.txt files were updated :     - @par Directory contents section updated     - @par Hardware and Software environment section updated     - @par How to use it ? section updated   + Micro SD driver     - microsd.c file: MSD\_WriteBlock function updated to support buffer size lower than block size for the MicroSD memory card   + ADC1 examples removed (equivalent examples are available for ADC2)   + AWU example updated     - AWU\_AutoLSICalibration private function added to calibrate LSI w/ TIM3   + BEEP example updated     - BEEP\_AutoLSICalibration private function added to calibrate LSI w/ TIM3   + CAN example added   + CLK examples     - ManualClcokSwitch example removed   + FLASH examples updated to support STM8S105, STM8S103 and STM8S903     - Rename and update the example " FLASH\_WriteErase" by "FLASH\_WriteEraseBlockOnDataEepromMemory"     - Rename and update the example " FLASH\_EraseBlock" by "FLASH\_EraseBlockOnFlashProgramMemory"     - FLASH\_BlockOperationOnFlashProgramMemory example added to show the possibility to continue execution from RAM while program operation on FLASH Program is on going   + I2C\_EEPROMRandomRead, I2C\_EEPROMReadWrite and I2C\_EEPROMSequentialRead examples merged in one single example: I2C\_EEPROM     - add driver for I2C EEPROM: i2c\_ee.c/.h   + TIM3 examples removed (equivalent examples are available for TIM1 and TIM2)   + TIM5 example added   + UART2 & UART3 examples removed (equivalent examples are available for UART1) * Projects   + Project templates updated for STVD and RIDE toolchain     - project.stw: one Workspace file including five projects related to the FW Lib STM8S supported devices - stm8s103.stp  Project file for STM8S103 product - stm8s105.stp  Project file for STM8S105 product - stm8s207.stp  Project file for STM8S207 product - stm8s208.stp  Project file for STM8S208 product - stm8s903.stp  Project file for STM8S903 product (not available on RIDE)  **V1.0.1 -  09/22/2008** **Main Changes**   * I2C driver Update   + stm8s\_i2c.c: I2C\_ClearFlag, I2C\_GetITStatus and I2C\_ClearITPendingBit functions updated   + stm8s\_i2c.h: I2C\_IT\_TypeDef enumeration updated & new I2C\_ITPendingBit\_TypeDef enumeration added * I2C IAP, SPI IAP, UART3 Lin & TIM3 OCActiveMode examples removed from the package. * TIMx\_GetCapturex functions updated on TIM1, TIM2 and TIM3 * CLK driver updated (CLK\_AdjustHSICalibrationValue function optimized) * Projects template updated * stm8s\_map.h file updated (CAN registers structure added) * User manual updated: new section added (Usage of STM8S Firmware Library Examples)  **V1.0.0 -  08/15/2008** **Main Changes**   * Created  ***License*** The enclosed firmware and all the related documentation are not covered by a License Agreement, if you need such License you can contact your local STMicroelectronics office.  **THE PRESENT FIRMWARE WHICH IS FOR GUIDANCE ONLY AIMS AT PROVIDING CUSTOMERS WITH CODING INFORMATION REGARDING THEIR PRODUCTS IN ORDER FOR THEM TO SAVE TIME. 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