Release Notes for AT32F403A_407 Firmware Library

V2.1.9-2024/08/08

1. Adjusted bus clock frequency in sdio demo.
2. Updated the “lwip_periodic_handle” function in EMAC demo.
3. Updated the “i2c_flag_clear”and “i2c_init” function.
4. Updated msc iap demo and improved compatibility.
5. Updated initialization configuration process in I^2C DMA related demos.
6. Fixed AC6 compilation problems of some demos.
7. Updated some notes.

V2.1.8-2024/01/26

1. Updated leap year calculation function.
2. Updated USB hid report descriptor.
3. Updated some notes.

V2.1.7-2024/01/05

1. Updated the counter counting mode in the input_capture demo of timer.
2. Fixed HID low-speed identification problems in USB demo.
3. Updated systick initialization function in systick interrupt demo.
4. Added winusb demo.
5. Updated the method on how to call the xx_interrupt_flag_get function in all demos.

V2.1.6-2023/10/26

1. Removed SRAM extension demo.
2. Updated some notes and readme.

V2.1.5-2023/08/04

1. Added AT32IDE project to demos under utilities.
2. added CRC polynomial support.
3. Updated USB driver and demo, improved data alignment and code process.
4. Improved redirecting compatibility while using printf in IAR9.
5. Added macro definitions regarding Flash size and Flash demo.
6. Updated some notes.

V2.1.4-2023/02/16

1. Fixed AC6 compilation problems in freertos demo in utilities.
2. Updated EMAC related demo, updated *cc.h* file to fix alignment problem after AC6 compilation, and added lwip assert to output from serial port.
3. Updated lwip lower layer package interface in EMAC demo to support multi-packet transmission.
4. Added LEXT_VALUE macro definition in *at32f403a_407_conf.h*.
5. Added spim related descriptions in **.ld* file to support spim address link processing in gcc environment.
6. Updated some notes.

V2.1.3-2022/11/18

1. Deleted the version and date entries from the header of each file
2. Added *Release Notes_Drivers* to record the updates of drivers separately, which is located under libraries\drivers.
3. Updated I^2C interrupt and changed DMA demo to non-blocking.
4. Fixed the problem of USB cdc_msc composite failure in linux environment.
5. Updated USB virtual msc iap demo for linux environment.
6. Updated USB audio related contents for better compatibility.
7. Updated IAR_Programmer.exe.
8. Added interrupt enable determination to the flag bit detection for the interrupt function of USART interrupt demo.
9. Added repeat_conversion_loop_transfer demo to ADC to allow DMA to obtain ADC data in a circular way.

V2.1.2-2022/08/16

1. Added IAR v9.3 project demo into template.
2. Fixed the problem of printf's failure to output in gcc environment.
3. Startup file supports configuration wizard.

V2.1.1-2022/07/22

1. Added the GPIO io toggle demo.
2. Updated I^2C eeprom demo with additional 16-bit address support.
3. Updated some demos, their drive processes, and some notes.

V2.1.0-2022/06/09

1. Added the USART RS485 demo.
2. Added the USB composite_vcp_msc demo.
3. Added the EMAC mqtt customer-side demo.
4. Added a demo on how to enable FLASH access protection.
5. Updated some demos, their drive processes, and some notes.

V2.0.9-2022/04/25

1. Modified descriptors of the USB virtual msc iap demo.
2. Added the network connection status detection feature to the EMAC related demo, and updated the local_time variable.
3. Updated some demos and notes.

V2.0.8-2022/04/02

1. Added wdt_standby demo.
2. Introduced DSP related source code, and added cmsis_dsp demo.
3. Updated some demos, their drive processes, and some notes.

V2.0.7-2022/02/11

1. Added the virtual_comport demo in USB.
2. Updated the USB msc iap demo to ensure its full compatibility with different systems.
3. Updated some demos, their drive processes, and some notes.

V2.0.6-2021/12/31

1. Revised wrong parameter definitions in the interrupt priority group.
2. Integrated the serial port initialization and redirection functions of printf into xx_board.c, and removed related contents in demo.
3. Updated some demo to support AC6 and –O3 compilation.
4. Added composite_audio_hid demo in the USB, and optimized reporting and synchronization mechanism
5. Revised wrong definitions about speed status and duplex modes while using phy dp83848 of AT32F407 EMAC.

V2.0.5-2021/12/17

1. Revised flag clear functions of peripherals in order to avoid inappropriate bit operations.
2. Unified pwc_wakeup_pin_enable function interface.
3. Revised the 4-byte alignment problem of USB device array.
4. Updated the virtual space of virtual_msc_iap demo to 100 MB.
5. Revised bulk transfer complete problem of the serial port in the composite_vcp_keyboard demo.
6. Updated keyboard-related transmit functions in USB demo.
7. Updated timer frequency configuration process for triggering ADC conversions in ADC demo.
8. Adjusted XMC peripheral driver structure, and updated the corresponding demo.

V2.0.4-2021/11/26

1. Updated some notes and readme.
2. Modified the sampling frequency judgement process for configuring the microphone frequency using audio codec.
3. Revised byte alignment problem while USB writing to fifo.

V2.0.3-2021/11/15

1. Updated some flag_clear functions of some peripheral drivers, and revised improper operational problem when bit is w1c.
2. Added a process to judge unlock flags after unlocking USD or SLIB.
3. Changed the macro definitions of some GPIO pin multiplexed function.
4. Updated notes and description in some documents.

V2.0.2-2021/10/27

1. Changed the modification procedure of mass storage demo in order to optimize CV test.
2. Updated usb cdc demo.
3. Changed EMAC SMI frequency division to support 240 MHz.

V2.0.1-2021/10/21

1. Updated the names of some library functions.
2. Updated the time of HEXT startup timeout.
3. Revised some USB functions.

V2.0.0-2021/07/01

1. Initial release of AT32F403A/F407 firmware library.