

Wake up Sleep Mode through PWC USART

Introduction

This sample code demonstrates how to wakeup Sleep mode through PWC USART receive.

In most cases, any peripheral interrupt in a nested vectored interrupt controller is able to wakeup device from Sleep mode.

Note: This sample code is written based on Artery's V2.x.x BSP. For other versions of BSP, users should pay attention to the differences in use.

Applicable products:

Product series	AT32Fxx series
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List of major peripherals used:

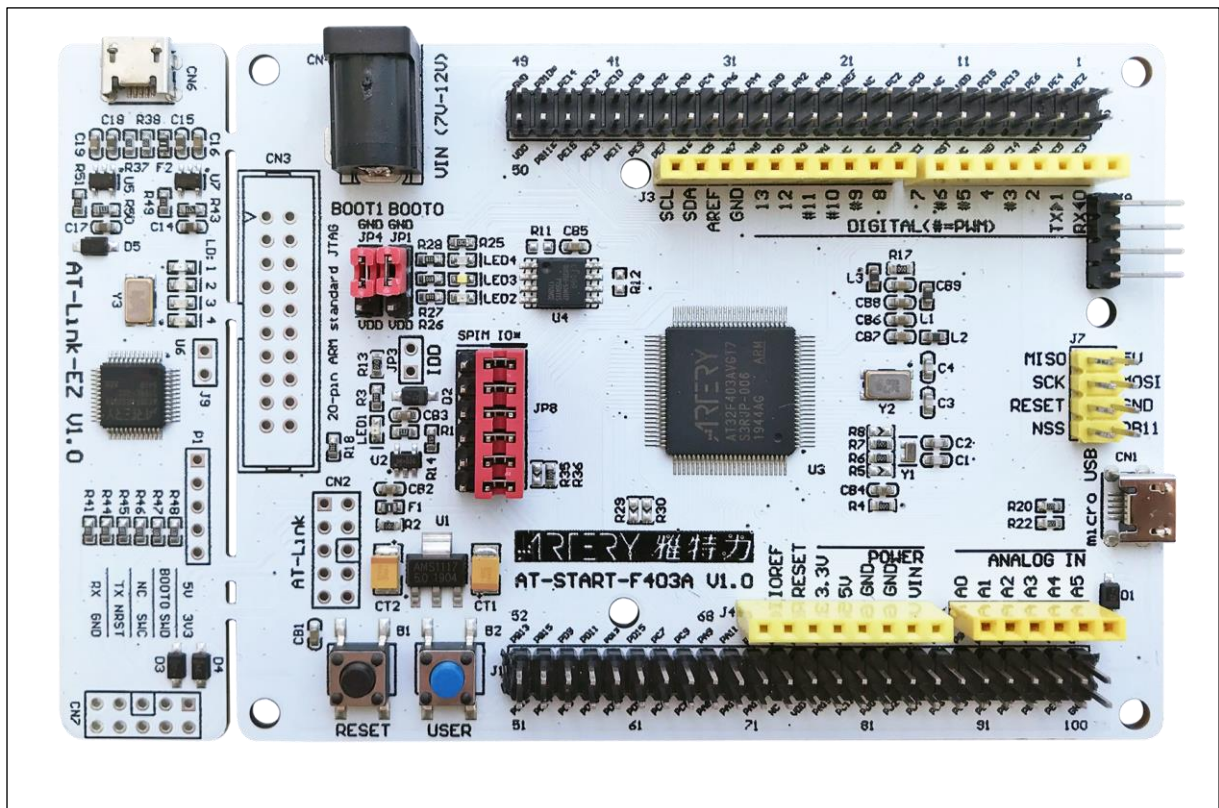
Peripherals	PWC
	USART
	GPIO

1 Quick start

1.1 Hardware resources

- 1) AT-START-F403A V1.0 evaluation board (use evaluation board corresponding to specific product series)
- 2) Serial interfaces: PA9, PA10

Figure 1. AT-START-F403A V1.0 evaluation board



1.2 Software resources

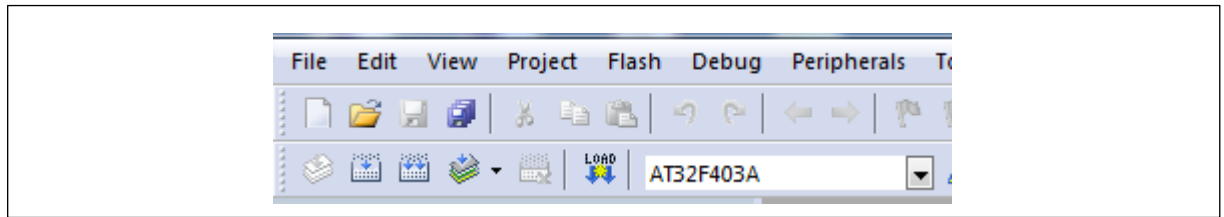
- 1) SourceCode
 - pwc_sleep_usart1

Note: All of projects are built based on Keil 5. For the need to run them in other compiling environments, user can make simple adjustments according to AT32xxx_Firmware_Library_V2.x.x\project\at_start_xxx\templates.

1.3 Example case

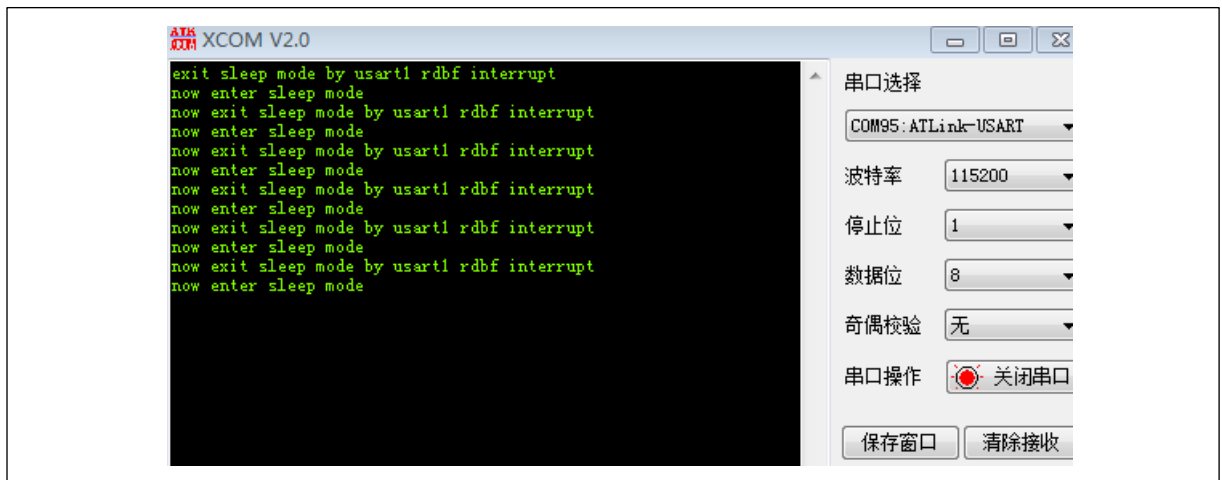
- 1) Open “pwc_sleep_usart1” source code, compile and download it to the evaluation board
- 2) As AT-START-F403A V1.0 is used in the example, we choose AT32F403A project here

Figure 2. Keil project selection



- 3) Reset the evaluation board, wait for the serial interface assistant to print out “now enter sleep mode” and then send another data via this assistant, now you can see that Sleep mode is woke up as shown below:

Figure 3. View results



2 Revision history

Table 1. Document revision history

Date	Revision	Changes
2021.12.03	2.0.0	Initial release

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