

AT32F4xx PWC PVM Usage

Introduction

This sample code demonstrates how to use PWC PVM module in AT32F4xx series.

PVM module is often used for power voltage detection so that it can disable the execution of transactions when a power-down condition occurs.

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	AT32F4xx
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List of major peripherals used:

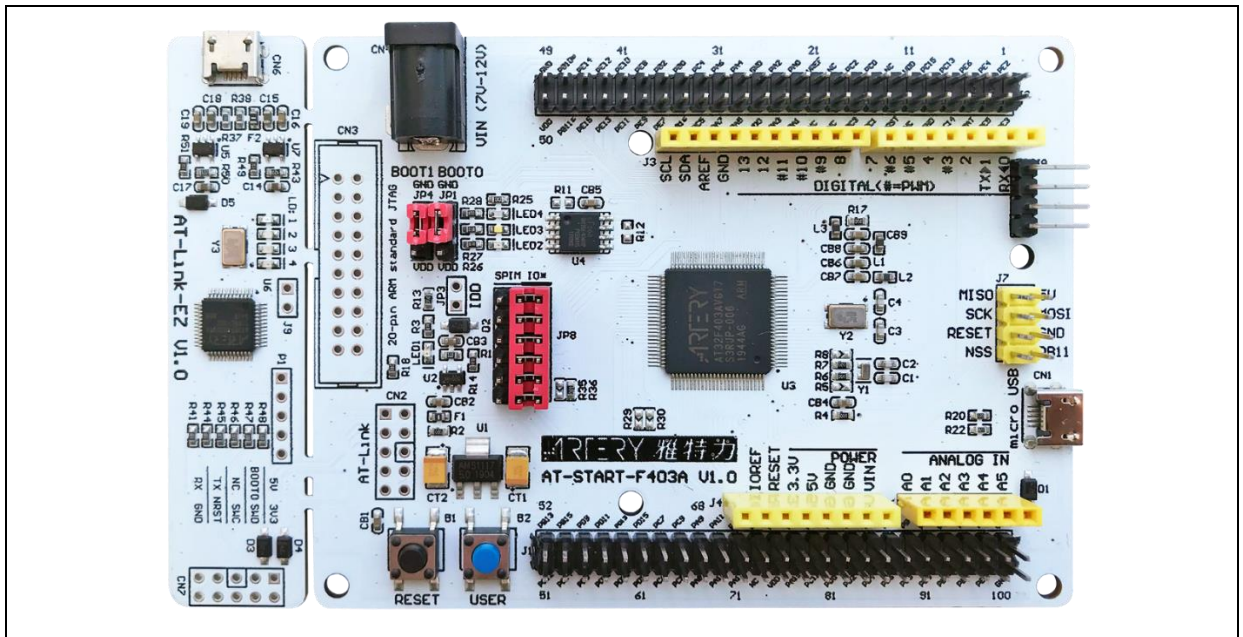
Peripherals	PWC
	EXINT
	GPIO

1 Quick start

1.1 Hardware resources

- 1) AT-START-F403A V1.0 evaluation board (select evaluation board according to the corresponding MCU series)
- 2) Adjustable power supply

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



1.2 Software resources

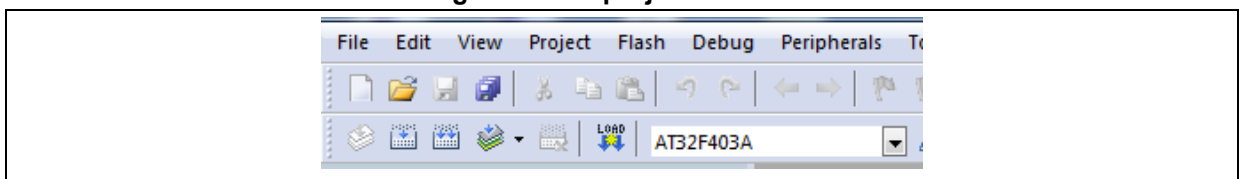
- 1) Source code
 - pwc_power_voltage_monitor

Note: All of projects are built based on Keil 5. For the need to run 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_power_voltage_monitor, compile and download it to the evaluation board AT-START-F403A
- 2) Here we select AT32F403 project as AT-START-F403A V1.0 evaluation board is used in this sample code

Figure 2. Keil project selection



- 3) Reset the board. Adjust this power voltage up and down based on a 2.9 V threshold level, and view test result.

LED2/LED3/LED4 will toggle each time voltage supply is greater than 2.9 V

LED2/LED3/LED4 will toggle each time voltage supply is smaller than 2.9 V

2 Revision history

Table 1. Document revision history

Date	Revision	Changes
2021.12.03	2.0.0	Initial release

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