

STM32用cube配置FATFS模式下SPI读写SD卡

原创

[Drive World](#) 2019-12-17 09:21:28



974



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分类专栏: [模块程序](#)

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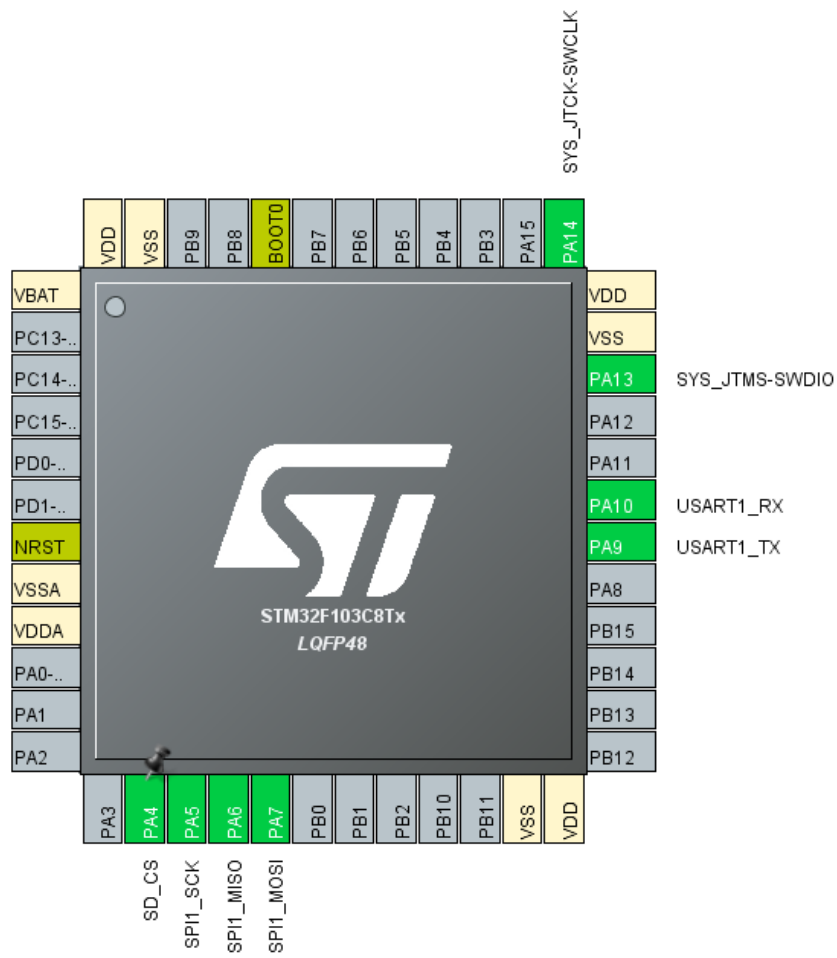
本文链接: https://blog.csdn.net/qg_39758638/article/details/103573843

文末源码!

1、搜先感谢网上大神分享, 在此为了让更多人少走远路, 最后有小编附上源码, 如有失效请告知, 谢谢!

2、注意: 读32G没有调试通过, 16G调试如下;

一、cube配置



STM32CubeMX File Window Help

Home > STM32F103C8Tx > sipddd.ioc - Pinout & Configuration >

Pinout & Configuration Clock Configuration Project

Additional Software Pinout

Search (Ctrl+F)

Categories A-Z

- System Core >
- Analog >
- Timers >
- Connectivity >
- Computing >
- Middleware >
- FATFS**
- FREERTOS
- USB_DEVICE

FATFS Mode and Configuration

Mode

☒ User-defined 勾选后默认配置不变

Configuration

Reset Configuration

Set Defines User Constants

Configure the below parameters :

Search (Ctrl+F)

- Version
 - FATFS version R0.11
- Function Parameters
 - FS_READONLY (Read-only mode) Disabled
 - FS_MINIMIZE (Minimization level) Disabled
 - USE_STRFUNC (String functions) Enabled with LF -> CRLF conversion
 - USE_FIND (Find functions) Disabled
 - USE_MKFS (Make filesystem function) Enabled
 - USE_FASTSEEK (Fast seek function) Enabled
 - USE_LABEL (Volume label functions) Disabled
 - USE_FORWARD (Forward function) Disabled
- Locale and Namespace Parameters
 - CODE_PAGE (Code page on target) Multilingual Latin 1 (OEM)
 - USE_LFN (Use Long Filename) Disabled
 - MAX_LFN (Max Long Filename) 255
 - LFN_UNICODE (Enable Unicode) ANSI/OEM
 - STRF_ENCODE (Character encoding) UTF-8
 - FS_RPATH (Relative Path) Disabled
- Physical Drive Parameters
 - VOLUMES (Logical drives) 1
 - MAX_SS (Maximum Sector Size) 512
 - MIN_SS (Minimum Sector Size) 512
 - MULTI_PARTITION (Volume partitions feature) Disabled
 - USE_TRIM (Erase feature) Disabled
 - FS_NOFSINFO (Force full FAT scan) 0
- System Parameters
 - FS_TINY (Tiny mode) Disabled
 - FS_NORTC (Timestamp feature) Dynamic timestamp
 - NORTC_YEAR (Year for timestamp) 2015
 - NORTC_MON (Month for timestamp) 6

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Additional Software Pinout

Search (Ctrl+F)

Categories A-Z

- System Core >
- DMA
- GPIO
- IWDG
- NVIC
- RCC
- SYS**
- WWDG
- Analog >
- Timers >
- Connectivity >
- Computing >
- Middleware >
- FATFS**
- FREERTOS
- USB_DEVICE

SYS Mode and Configuration

Mode

Debug Serial Wire

Configuration

Warning: This IP has no parameters to be configured.

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Pinout & Configuration

Additional Software

Pinout

USART1 Mode and Configuration

Mode

Mode: Asynchronous

Hardware Flow Control (RS232): Disable

默认配置

Configuration

Reset Configuration

Parameter Settings

User Constants

NVIC Settings

DMA Settings

GPIO Settings

Configure the below parameters :

Search (Ctrl+F)

Basic Parameters

Baud Rate: 115200 Bits/s

Word Length: 8 Bits (including Parity)

Parity: None

Stop Bits: 1

Advanced Parameters

Data Direction: Receive and Transmit

Over Sampling: 16 Samples

Categories: A-Z

System Core

DMA

GPIO

IWDG

NVIC

RCC

✓ SYS

WWDG

Analog

Timers

Connectivity

CAN

I2C1

I2C2

✓ SPI1

SPI2

✓ USART1

USART2

USART3

USB

Computing

Middleware

✓ FATFS

FREERTOS

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Pinout & Configuration

Additional Software

Pinout

USART1 Mode and Configuration

Mode

Mode: Asynchronous

Hardware Flow Control (RS232): Disable

Configuration

Reset Configuration

Parameter Settings

User Constants

NVIC Settings

DMA Settings

GPIO Settings

NVIC Interrupt Table

Enabled	Preemption Priority	Sub Priority
USART1 global interrupt	0	0

Categories: A-Z

System Core

DMA

GPIO

IWDG

NVIC

RCC

✓ SYS

WWDG

Analog

Timers

Connectivity

CAN

I2C1

I2C2

✓ SPI1

SPI2

✓ USART1

USART2

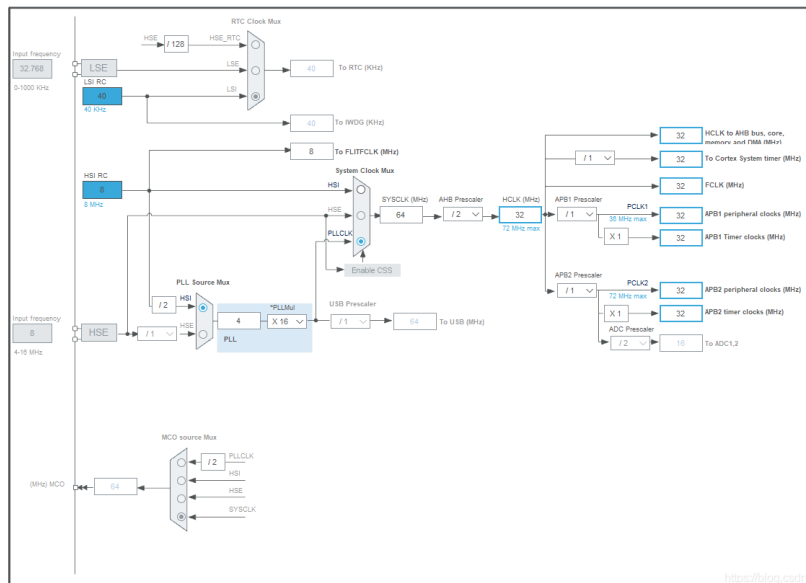
USART3

USB

Computing

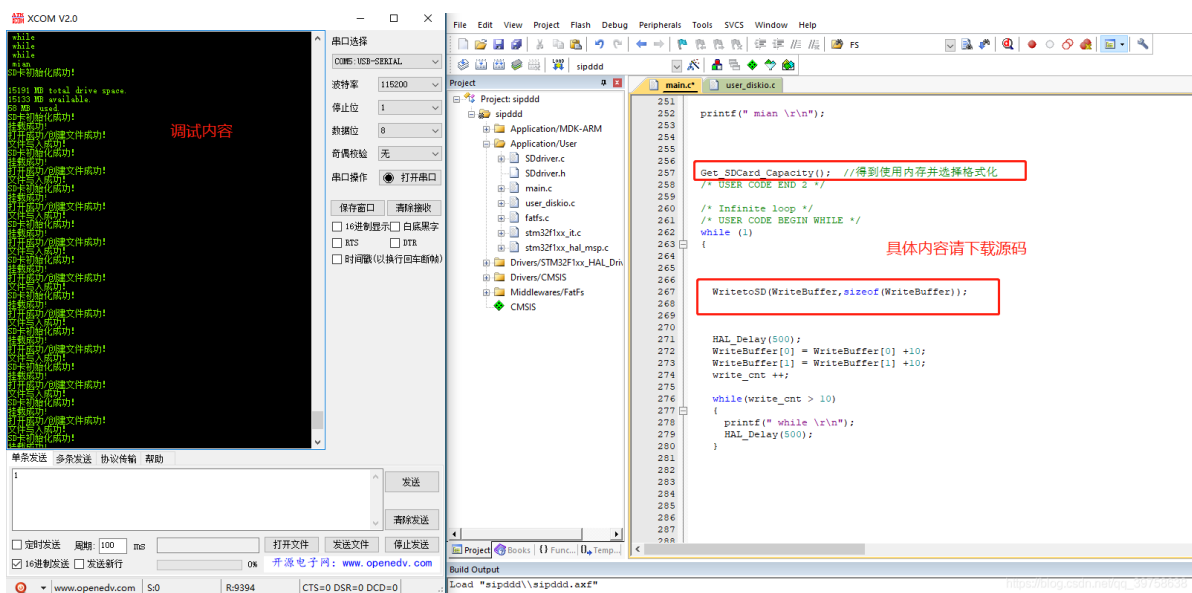
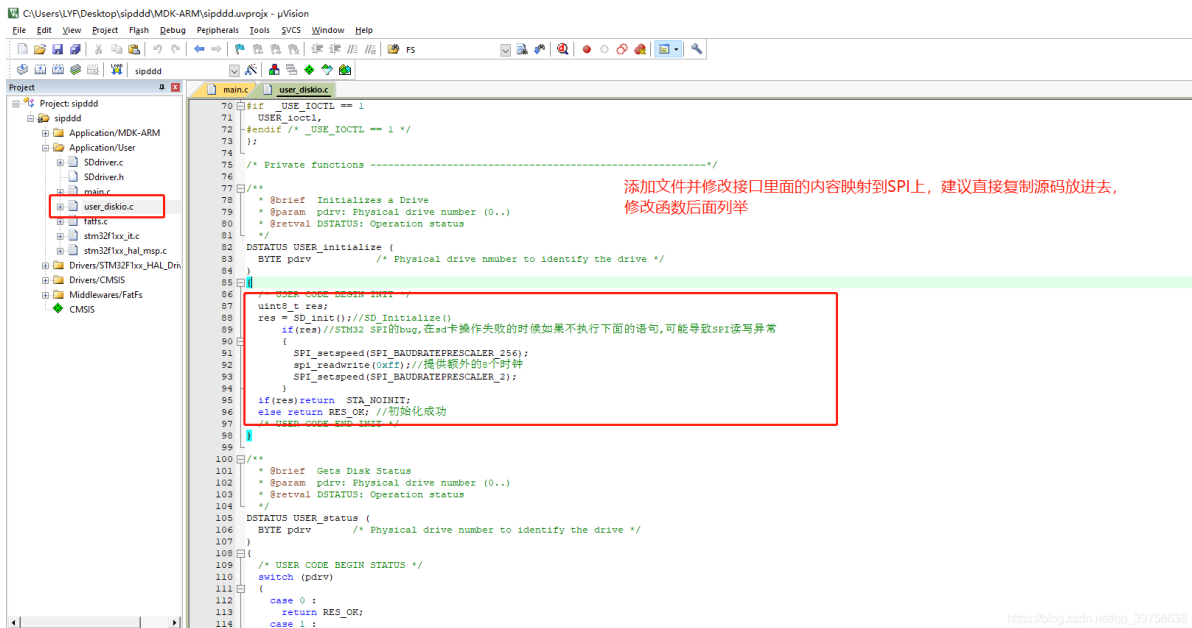
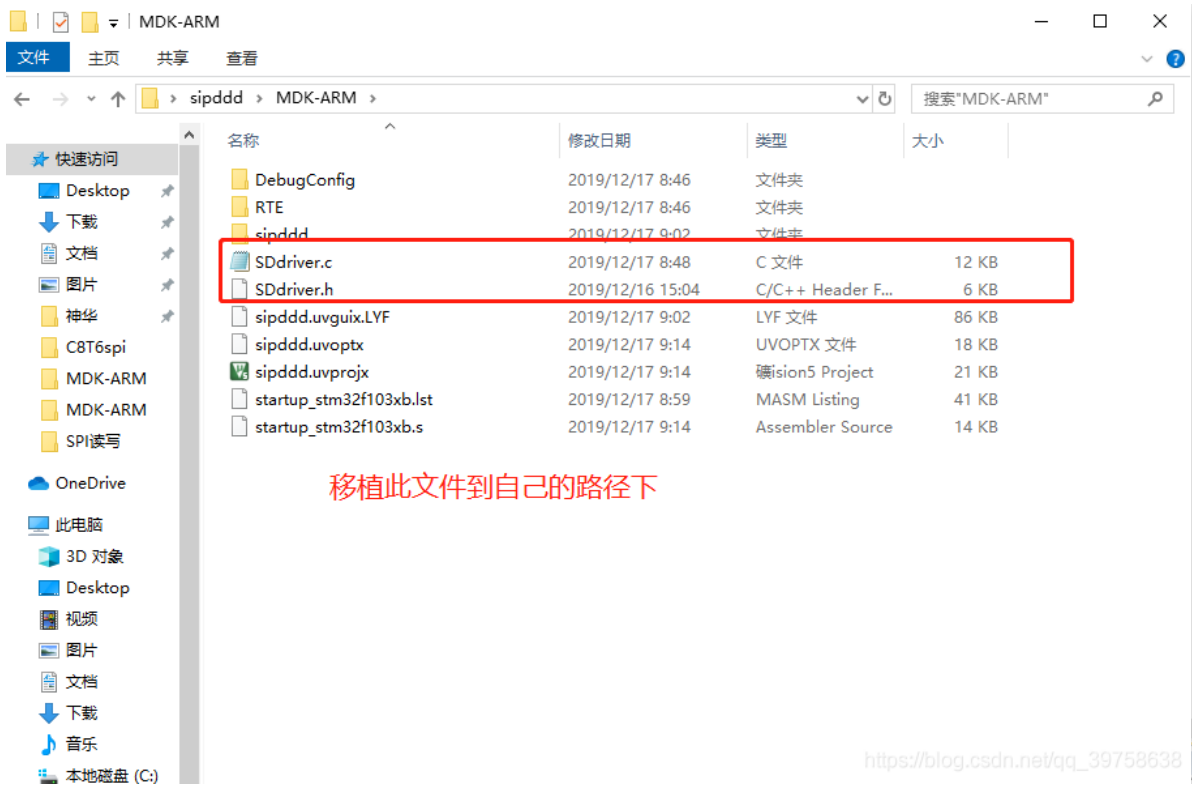
Middleware

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Project	Project Settings		
	Project Name		ispddd
	Project Location		C:\Users\LYF\Desktop
	Application Structure		Basic <input type="checkbox"/> Do not generate the main()
Code Generator	Toolchain Folder Location		C:\Users\LYF\Desktop\ispddd\
	Toolchain / IDE		MDK-ARM V5 <input type="checkbox"/> Generate Under Root
Advanced Settings	Linker Settings		
	Minimum Heap Size	0x200	注意：一定要修改堆栈大小否则调测亲测是这样，
Minimum Stack Size	0x1400		
	Mcu and Firmware Package		
	Mcu Reference		
	STM32F103C8Tx		
	Firmware Package Name and Version		
	STM32Cube_FW_F1 V1.7.0		
	<input checked="" type="checkbox"/> Use Default Firmware Location		
	C:/Users/LYF/STM32Cube/Repository/STM32Cube_FW_F1_V1.7.0		Browse

注意：一定要修改堆栈大小否则调试直接死机，亲测是这样，



下面：修改user_diskio.c文件

1.添加头文件

```
#include "diskio.h"    /* Declarations of disk functions */  
#include "SDdriver.h"
```

2.修改函数内容:USER_initialize、USER_status、USER_read、USER_write、USER_ioctl

3.具体修改内容请下载源码对比;

如有问题请留言，希望和大家一起交流，开源互赢！

链接：<https://pan.baidu.com/s/1L5E4BG8cqvpvtDxOdUUXoQ>

提取码：e63q