

# ST-Link SWD Programming for STM32F01

Friday, December 09, 2016 6:35 PM

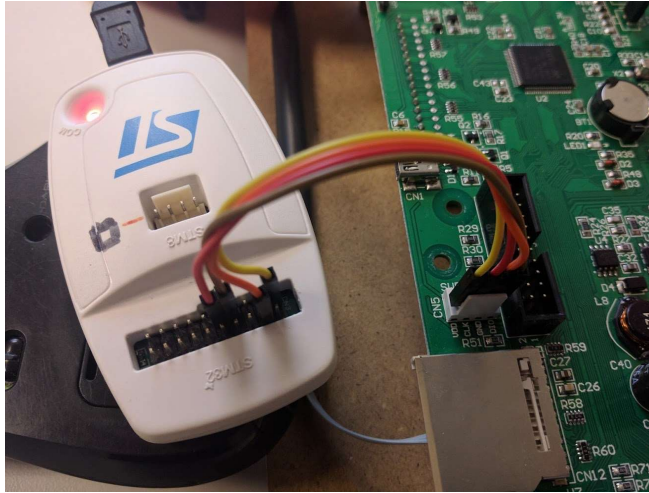
- Needed:
  - ST-Link Software Utility
  - ST-Link - V2 Programmer for STM32 Processors
  - Jumper wires
  - Source file in intel hex format
- These screens were created from the successful programming of 1051.00020.00 using cbs2030\_3015\_w\_bl.hex
  - Resultant programmed checksum is

Pinout for the cable is as follows:

Fetco Board	ST-Link v2
Pin CN5	Pin JTAG 20pin
1 SWDIO	7 SWDIO
2 GND	8 GND
3 SWCLK	9 SWCLK
4 VDD	1 VCC

### ARM 20-Pin Connector

VCC 1	<input type="checkbox"/>	2 VCC (optional)	<input type="checkbox"/>
N/U 3	<input type="checkbox"/>	4 GND	<input type="checkbox"/>
N/U 5	<input type="checkbox"/>	6 GND	<input type="checkbox"/>
SWDIO 7	<input type="checkbox"/>	8 GND	<input type="checkbox"/>
SWCLK 9	<input type="checkbox"/>	10 GND	<input type="checkbox"/>
N/U 11	<input type="checkbox"/>	12 GND	<input type="checkbox"/>
SWO 13	<input type="checkbox"/>	14 GND	<input type="checkbox"/>
RESET 15	<input type="checkbox"/>	16 GND	<input type="checkbox"/>
N/C 17	<input type="checkbox"/>	18 GND	<input type="checkbox"/>
N/C 19	<input type="checkbox"/>	20 GND	<input type="checkbox"/>



## Target/Settings

**Settings** ✕

**ST-LINK**

Serial Number: 57FF6B064889494925241487 Refresh

Firmware Version: V2J2756

**STM32 Target Information**

Target: STM32F10xx XL-density

Target Voltage: 3.3V

**Connection settings**

Port:  JTAG  SWD Frequency: 4.0 MHz

Access Port: Access Port 0

Mode: Normal  Enable debug in Low power mode

Reset Mode: Software System Reset

Log File:  Generate Trace LOG File Open Containing Folder

OK Cancel

**STM32 ST-LINK Utility** \_ □ ✕

File Edit View Target ST-LINK External Loader Help

Memory display

Address: 0x08000000 Size: 0x1000 Data Width: 32 bits

Device: STM32F10xx XL-density  
Device ID: 0x430  
Revision ID: Rev A  
Flash size: 1MBytes  LiveUpdate

Device Memory @ 0x08000000 : Binary File

Target memory, Address range: [0x08000000 0x08001000]

Address	0	4	8	C	ASCII
0x08000000	20010000	08003E99	08001383	080002AD	...™ > .. f... ..
0x08000010	08001385	08001387	08001389	00000000	.....#...%o.....
0x08000020	00000000	00000000	00000000	0800138B	.....
0x08000030	0800138D	00000000	0800138F	08001391	.....'
0x08000040	08003EE5	08003EE5	08003EE5	08003EE5	â > .. â > .. â > ..
0x08000050	08003EE5	08003EE5	08003EE5	08003EE5	â > .. â > .. â > ..
0x08000060	08003EE5	08001399	08003EE5	08003EE5	â > ..™ ... â > ..
0x08000070	08003EE5	08003EE5	08003EE5	08003EE5	â > .. â > .. â > ..
0x08000080	08003EE5	08003EE5	0800139D	08003EE5	â > .. â > .. â > ..

10:45:41 : ST-LINK SN : 57FF6B064889494925241487  
 10:45:41 : ST-LINK Firmware version : V2J2756  
 10:45:41 : Connected via SWD.  
 10:45:41 : SWD Frequency = 4,0 MHz.  
 10:45:41 : Connection mode : Normal.  
 10:45:41 : Device ID:0x430  
 10:45:41 : Device flash Size : 1MBytes  
 10:45:41 : Device family :STM32F10xx XL-density

Connection mode : Normal. Device ID:0x430 Core State : Live Update Disabled

### Target/Program and Verify

Download [ cbs2030\_3015\_w\_bl.hex ]

Start address:

File path:

Extra options:

Skip Flash Erase       Skip Flash Protection verification

Verification:

Verify while programming       Verify after programming

Click "Start" to program target.

Alter programming:

Reset after programming       Full Flash memory Checksum

### Results after a successful program

STM32 ST-LINK Utility

File Edit View Target ST-LINK External Loader Help

Memory display

Address:  Size:  Data Width:

Device: STM32F10xx XL-density  
 Device ID: 0x430  
 Revision ID: Rev A  
 Flash size: 1MBytes  LiveUpdate

Device Memory @ 0x08000000 : File : cbs2030\_3015\_w\_bl.hex  
 Target memory, Address range: [0x08000000 0x08078D00]

Address	0	4	8	C	ASCII
0x080004E0	100AF814	200AF810	D1094291	020CEB0A	.ø...ø. 'B.Ñ.ë..
0x080004F0	3B0118BA	5CE6D3AD	1D01F812	D0F8428E	ø.;- Öæ\..ø..ŽBøĐ
0x08000500	44949A01	D8A345DC	000CEB07	F8595D43	.š" D U E £ Ø . ë . . C ] Y ø
0x08000510	2B003023	449CD0C8	9A00E7F4	449C4494	# 0. + È Đ œ D ô ç . š " D œ D
0x08000520	9B00E7F0	42983001	4650D98C	BF00E791	ð ç . . . 0 " B Œ Û P F ' ç . ž

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10:43:41 : Connection mode : Normal.
10:45:41 : Device ID:0x430
10:45:41 : Device flash Size : 1MBytes
10:45:41 : Device family :STM32F10xx XL-density
10:49:02 : [cbs2030_3015_w_bl.hex] opened successfully.
10:49:02 : [cbs2030_3015_w_bl.hex] checksum : 0x04165744
10:52:26 : Memory programmed in 27s and 969ms.
10:52:26 : Verification...OK
10:52:26 : Programmed memory Checksum: 0x04165744
10:52:28 : Flash memory [0x08000000:0x08100000] Checksum: 0x0C80E444
  
```

Connection mode : Normal.      Device ID:0x430      Core State : Live Update Disabled