ST-Link SWD Programming for STM32F01

Friday, December 09, 2016   6:35 PM
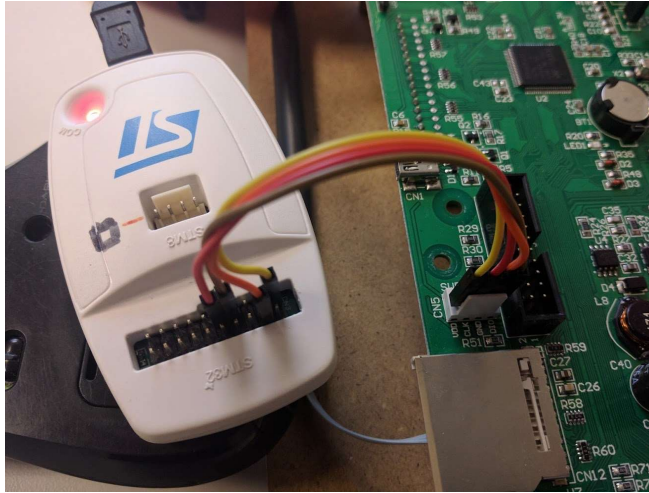
- Needed:
  - ST-Link Software Utility
  - ST-Link - V2 Programmer for STMF1 Processors
  - Jumper wires
  - Source file in intel hex format
- These screens were created from the successful programming of 1051.00020.00 using cbs2030_3015_w_bl.hex
  - Resultant programmed checksum is

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  □  □  2  VCC (optional)
N/U    3  □  □  4  GND
N/U    5  □  □  6  GND
SWDIO  7  □  □  8  GND
SWCLK  9  □  □  10 GND
N/U   11  □  □  12 GND
SWO   13  □  □  14 GND
RESET 15  □  □  16 GND
N/C   17  □  □  18 GND
N/C   19  □  □  20 GND
```

Target/Settings

Target/Program and Verify

Download [cbs2030_3015_w_bl.hex]   ×

Start address   0x08000000

File path   U:\Software\CBS Firmware\v3.0.15_Release\cbs2030_3(Browse

Extra options
                     ☐ Skip Flash Erase   ☐ Skip Flash Protection verification

Verification
                     ◉ Verify while programming   ○ Verify after programming

Click "Start" to program target.

After programming
                     ☑ Reset after programming   ☐ Full Flash memory Checksum

                          Start   Cancel

Results after a successful program

STM32 ST-LINK Utility   —   □   ×

File Edit View Target ST-LINK External Loader Help

Memory display   Device   STM32F10xx XL-density
                                                        Device ID   0x430
  Address: 0x08000000 ▼ Size: 0x78D00 Data Width: 32 bits ▼   Revision ID   Rev A
                                                        Flash size   1MBytes

Device Memory @ 0x08000000 : File : cbs2030_3015_w_bl.hex   ☐ LiveUpdate
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	°..;-Ó æ\.ø..ŽBøÐ
0x08000500	44949A01	D8A345DC	000CEB07	F8595D43	.š"DÜE£Ø.ë..C]Yø
0x08000510	2B003023	449CD0C8	9A00E7F4	449C4494	#0.+ÈÐ œ D ö ç.š"D œ D
0x08000520	9B00E7F0	42983001	4650D98C	BF00E791	ð ç.›.0˜B Œ Ù P F 'ç.¿

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
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