Programming Flash on a Target

A very manual process

4.9.38 FLASH register map and reset values

Table 28. Register map and reset value table

Offset	Register name reset	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
0x000	FLASH_ACR	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	WRHIGHFREQ		LATENCY			
	0x00000037																											1	1	0	1	1	1
0x004	FLASH_KEYR1	KEY1R																															
	0x00000000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0x008	FLASH_ OPTKEYR	OPTKEYR																															
	0x00000000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0x00C	FLASH_CR1	Res.	Res.	Res.	CRCRDERRIE1	CRCENDIE1	DBECCERRIE1	SNECCERRIE1	RDSERRIE1	RDPERRIE1	OPERRIE1	INCERRIE1	Res.	STRBERRIE1	PGSERRIE1	WRPERRIE1	EOPIE1	CRC_EN	Res.	Res.	Res.	Res.	SNB1			START1	FW1	PSIZE1		BER1	SER1	PG1	LOCK1
	0x00000031				0	0	0	0	0	0	0	0		0	0	0	0	0					0	0	0	0	0	1	1	0	0	0	1
	FLASH_SR1	Res.	Res.	Res.	Res.	END1	DERR1	DERR1	ERR1	ERR1	RIE1	RR1	Res.	ERR1	ERR1	ERR1	P1	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	BUSY1			
	0x00000000																													0	0	0	0

From: ST Micro RM0433 “STM32H742, STM32H743/753 and STM32H750 Value line advanced Arm®-based 32-bit MCUs

Programming Flash on a Target

“Flash algorithms” provide canned alternatives

```
struct FlashDevice const FlashDevice  =  {
   FLASH_DRV_VERS,             // Driver Version, do not modify!
   "New Device 256kB Flash",   // Device Name
   ONCHIP,                     // Device Type
   0x00000000,                 // Device Start Address
   0x00040000,                 // Device Size in Bytes (256kB)
   1024,                       // Programming Page Size
   0,                          // Reserved, must be 0
   0xFF,                       // Initial Content of Erased Memory
   100,                        // Program Page Timeout 100 mSec
   3000,                       // Erase Sector Timeout 3000 mSec

// Specify Size and Address of Sectors
   0x002000, 0x000000,         // Sector Size  8kB (8 Sectors)
   0x010000, 0x010000,         // Sector Size 64kB (2 Sectors)
   0x002000, 0x030000,         // Sector Size  8kB (8 Sectors)
   SECTOR_END
};
```

From: https://open-cmsis-pack.github.io/Open-CMSIS-Pack-Spec/main/html/flashAlgorithm.html