

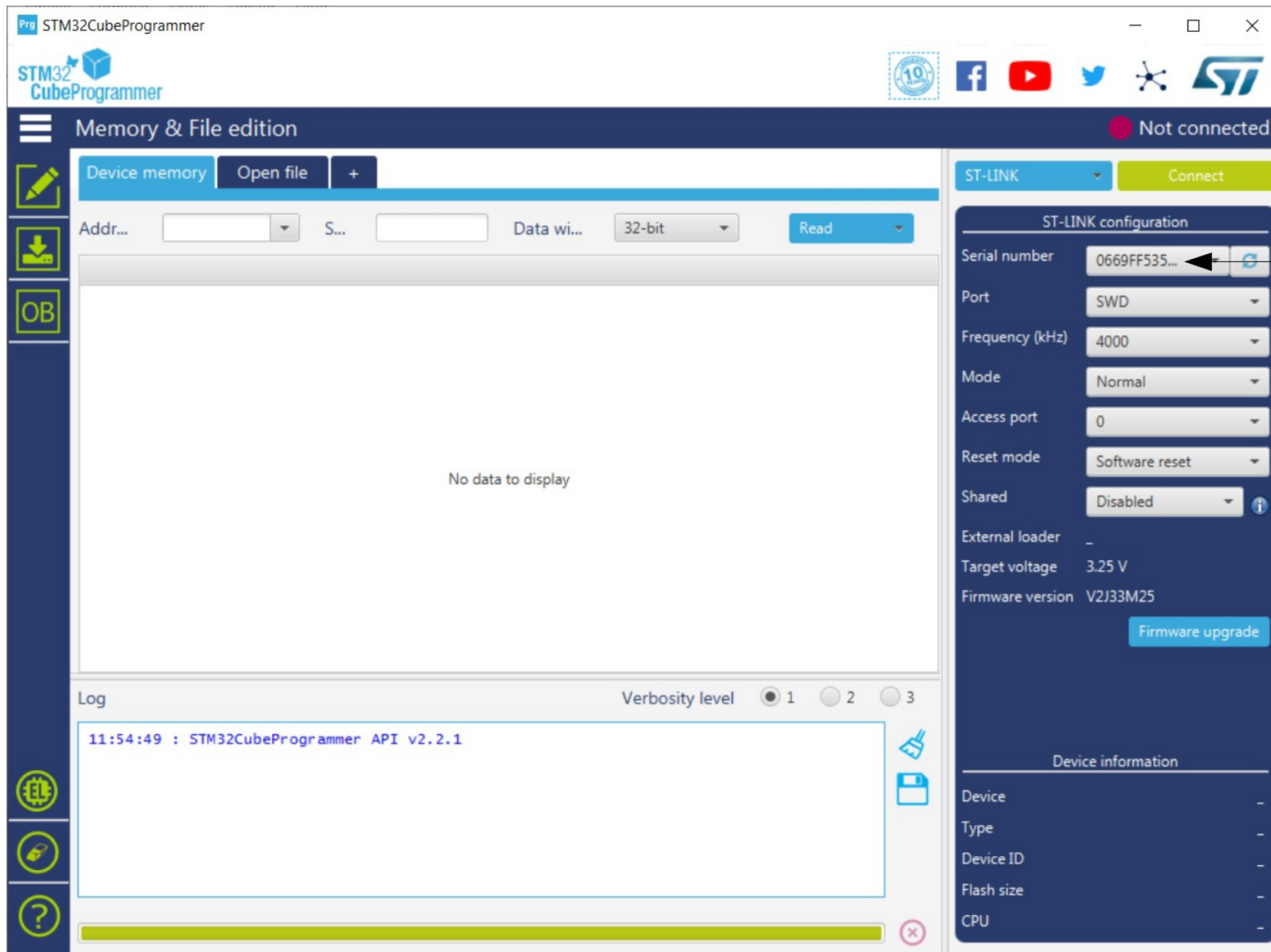
# MP3-Player Update



# Programm installieren

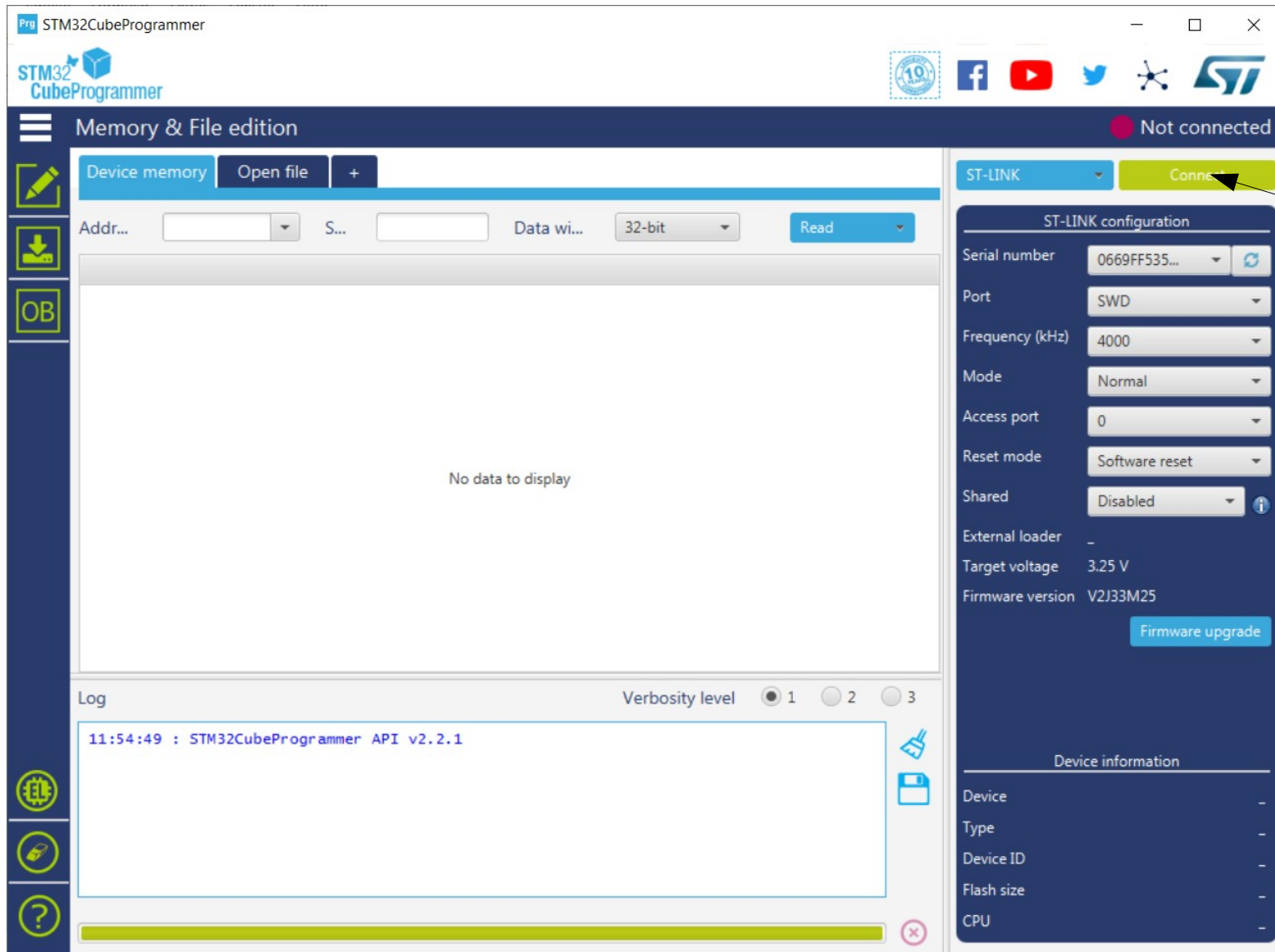
- Stm32CubeProgrammer herunterladen und installieren:
- <https://www.st.com/en/development-tools/stm32cubeprog.html#get-software>

# Programm starten



Wenn der MP3-Player mit dem PC per USB-Kabel verbunden ist, sollte hier eine Seriennummer stehen.

# Verbindung herstellen



**Den MP3-  
Player  
einschalten,  
falls er es noch  
nicht ist.  
Dann Connect  
drücken**

# Einstellungen

2. Board  
STM32F746G...  
aktivieren

1. EL  
Drücken

The screenshot shows the STM32CubeProgrammer application window. The 'External loaders' tab is active, displaying a table of available external loaders. The loader 'N25Q128A\_STM32F746G...' is selected. The 'Log' window at the bottom shows the device ID and the successful read operation. The 'ST-LINK configuration' panel on the right shows the current configuration for the selected loader.

**External loaders**

Available external loaders:

Select	Name	Board	Start Address	Memory Size	Page Size	Type
<input type="checkbox"/>	M29W128GL_STM32H743...	STM32H743I...	0x60000000	16M	0x10	NOR_FLASH
<input type="checkbox"/>	MT25TL01G_STM32H743I...	STM32H743I...	0x90000000	128M	0x100	NOR_FLASH
<input type="checkbox"/>	MT25TL01G_STM32H745I...	STM32H745I...	0x90000000	128M	0x100	NOR_FLASH
<input type="checkbox"/>	MT25TL01G_STM32H747-...	STM32H747-...	0x90000000	128M	0x100	NOR_FLASH
<input type="checkbox"/>	MT25TL01G_STM32H747I...	STM32H747I...	0x90000000	128M	0x1000	NOR_FLASH
<input type="checkbox"/>	MT25TL01G_STM32H747L...	STM32H747L...	0x90000000	128M	0x100	NOR_FLASH
<input type="checkbox"/>	MTFC4GACAJCN_STM32H...	STM32H745I...	0xA0000000	512M	0x100	NAND_FLASH
<input checked="" type="checkbox"/>	N25Q128A_STM32F746G-...	STM32F746G...	0x90000000	16M	0x10	NOR_FLASH

**Log**

Verbosity level: 1

```
12:01:12 : Device ID : 0x449
12:01:12 : UPLOADING OPTION BYTES DATA ...
12:01:12 : Bank : 0x00
12:01:12 : Address : 0x40023c14
12:01:12 : Size : 8 Bytes
12:01:12 : UPLOADING ...
12:01:12 : Size : 1024 Bytes
12:01:12 : Address : 0x8000000
12:01:12 : Read progress:
12:01:12 : Data read successfully
12:01:12 : Time elapsed during the read operation is: 00:00:00.007
```

**ST-LINK configuration**

Serial number: 0669FF535...

Port: SWD

Frequency (kHz): 4000

Mode: Normal

Access port: 0

Reset mode: Software reset

Shared: Disabled

External loader: N25Q128A\_STM32F746G-...

Target voltage: 3.25 V

Firmware version: V2J33M25

Firmware upgrade

**Device information**

Device: STM32F74x/STM32F75x

Type: MCU

Device ID: 0x449

Flash size: 1 MB

CPU: Cortex-M7

# Einstellungen

1. Fenster Wechseln „Erasing and Programming“

2. Update-Datei auswählen „stm32f746.elf“

3. Die 3 Haken setzen

STM32CubeProgrammer

Erasing & Programming

Download

File path: C:\Users\daniel\STM32Cub Browse

Start address

☐ Skip flash erase before programming

☐ Verify programming

☒ Run after programming

Start Programming

Automatic Mode

☒ Full chip erase

☒ Download file

☐ Option byt...

Start automatic mode

Erase flash memory Erase external memory

Erase selected sectors Full chip erase

Sel...	Index	Start Address	Size
<input type="checkbox"/>	0	0x08000000	32K
<input type="checkbox"/>	1	0x08008000	32K
<input type="checkbox"/>	2	0x08010000	32K
<input type="checkbox"/>	3	0x08018000	32K
<input type="checkbox"/>	4	0x08020000	128K
<input type="checkbox"/>	5	0x08040000	256K
<input type="checkbox"/>	6	0x08080000	256K
<input type="checkbox"/>	7	0x080C0000	256K

Log

Verbosity level 1 2 3

12:01:12 : Device ID : 0x449

12:01:12 : UPLOADING OPTION BYTES DATA ...

12:01:12 : Bank : 0x00

12:01:12 : Address : 0x40023c14

12:01:12 : Size : 8 Bytes

12:01:12 : UPLOADING ...

12:01:12 : Size : 1024 Bytes

12:01:12 : Address : 0x8000000

12:01:12 : Read progress:

12:01:12 : Data read successfully

12:01:12 : Time elapsed during the read operation is: 00:00:00.007

ST-LINK

Disconnect

ST-LINK configuration

Serial number 0669FF535...

Port SWD

Frequency (kHz) 4000

Mode Normal

Access port 0

Reset mode Software reset

Shared Disabled

External loader N25Q128A\_STM32F746G...

Target voltage 3.25 V

Firmware version V2J33M25

Firmware upgrade

Device information

Device STM32F74x/STM32F75x

Type MCU

Device ID 0x449

Flash size 1 MB

CPU Cortex-M7



# Update durchführen

Update Starten

**STM32CubeProgrammer**

**Erasing & Programming**

**Download**

File path: !.f746\Debug\stm32f746.elf **Browse**

Start address:

☐ Skip flash erase before programming

☐ Verify programming

☒ Run after programming

**Start Programming**

**Automatic Mode**

☒ Full chip erase

☒ Download file

☐ Option byt...

**Start automatic mode**

**Erase flash memory** **Erase external memory**

**Erase selected sectors** **Full chip erase**

<input type="checkbox"/>	Sel...	Index	Start Address	Size
<input type="checkbox"/>		0	0x08000000	32K
<input type="checkbox"/>		1	0x08008000	32K
<input type="checkbox"/>		2	0x08010000	32K
<input type="checkbox"/>		3	0x08018000	32K
<input type="checkbox"/>		4	0x08020000	128K
<input type="checkbox"/>		5	0x08040000	256K
<input type="checkbox"/>		6	0x08080000	256K
<input type="checkbox"/>		7	0x080C0000	256K

**Log** Verbosity level: 1 2 3

```
12:01:12 : Device ID : 0x449
12:01:12 : UPLOADING OPTION BYTES DATA ...
12:01:12 : Bank : 0x00
12:01:12 : Address : 0x40023c14
12:01:12 : Size : 8 Bytes
12:01:12 : UPLOADING ...
12:01:12 : Size : 1024 Bytes
12:01:12 : Address : 0x8000000
12:01:12 : Read progress:
12:01:12 : Data read successfully
12:01:12 : Time elapsed during the read operation is: 00:00:00.007
```

**ST-LINK configuration**

Serial number: 0669FF535... **Disconnect**

Port: SWD

Frequency (kHz): 4000

Mode: Normal

Access port: 0

Reset mode: Software reset

Shared: Disabled

External loader: N25Q128A\_STM32F746G-...

Target voltage: 3.25 V

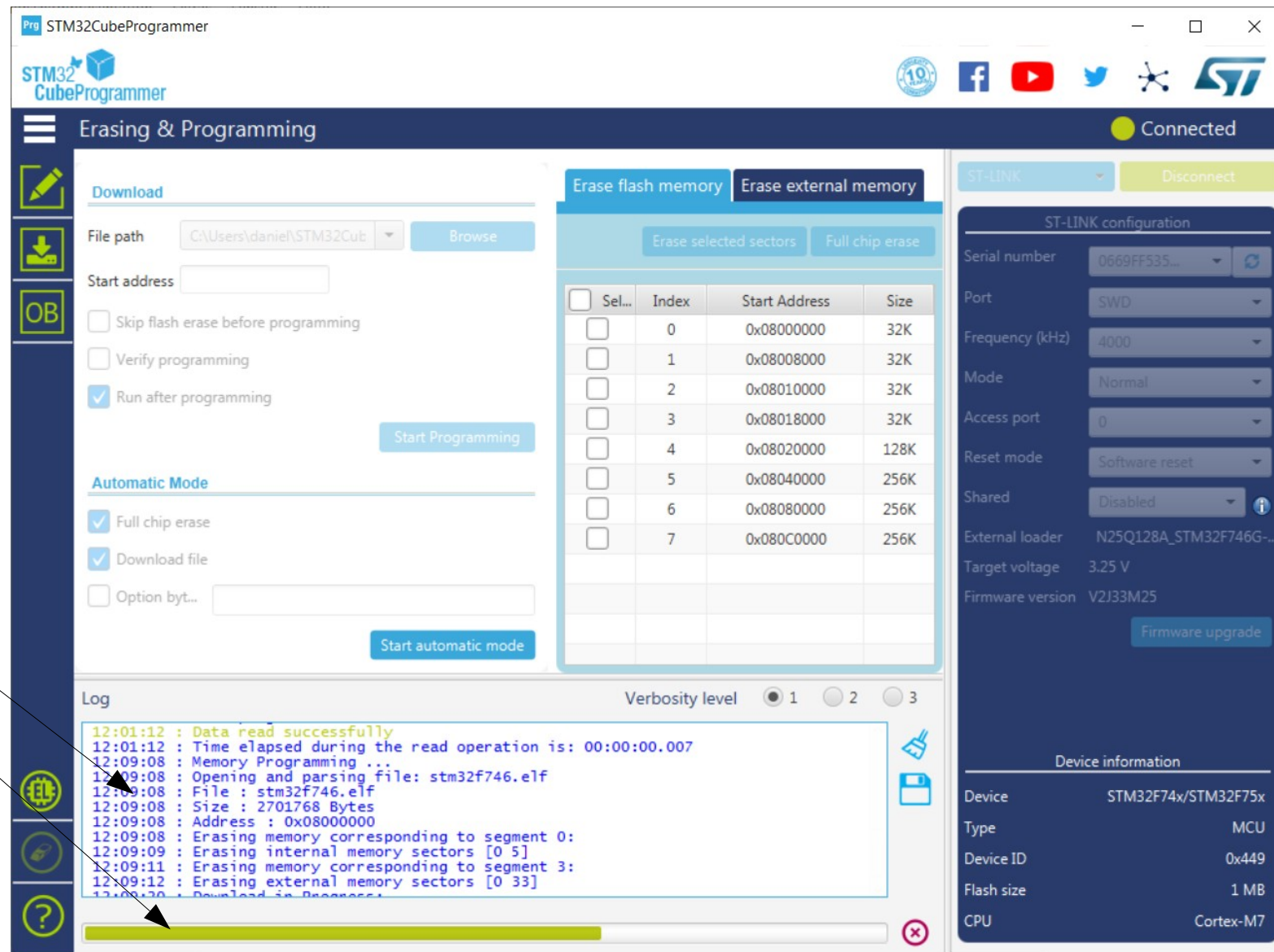
Firmware version: V2J33M25 **Firmware upgrade**

**Device information**

Device	STM32F74x/STM32F75x
Type	MCU
Device ID	0x449
Flash size	1 MB
CPU	Cortex-M7

# Warten

Im Fortschrittsbalken und Fenster tut sich was



STM32CubeProgrammer

Erasing & Programming

Download

File path: C:\Users\daniel\STM32CubeProgrammer\... Browse

Start address:

☐ Skip flash erase before programming

☐ Verify programming

☒ Run after programming

Start Programming

Automatic Mode

☒ Full chip erase

☒ Download file

☐ Option byt...

Start automatic mode

Erase flash memory | Erase external memory

Erase selected sectors | Full chip erase

Sel...	Index	Start Address	Size
<input type="checkbox"/>	0	0x08000000	32K
<input type="checkbox"/>	1	0x08008000	32K
<input type="checkbox"/>	2	0x08010000	32K
<input type="checkbox"/>	3	0x08018000	32K
<input type="checkbox"/>	4	0x08020000	128K
<input type="checkbox"/>	5	0x08040000	256K
<input type="checkbox"/>	6	0x08080000	256K
<input type="checkbox"/>	7	0x080C0000	256K

Log

Verbosity level: 1 2 3

```
12:01:12 : Data read successfully
12:01:12 : Time elapsed during the read operation is: 00:00:00.007
12:09:08 : Memory Programming ...
12:09:08 : Opening and parsing file: stm32f746.elf
12:09:08 : File : stm32f746.elf
12:09:08 : Size : 2701768 Bytes
12:09:08 : Address : 0x08000000
12:09:08 : Erasing memory corresponding to segment 0:
12:09:09 : Erasing internal memory sectors [0 5]
12:09:11 : Erasing memory corresponding to segment 3:
12:09:12 : Erasing external memory sectors [0 33]
12:09:30 : Download in Progress...
```

ST-LINK configuration

Serial number: 0669FF535...

Port: SWD

Frequency (kHz): 4000

Mode: Normal

Access port: 0

Reset mode: Software reset

Shared: Disabled

External loader: N25Q128A\_STM32F746G-...

Target voltage: 3.25 V

Firmware version: V2J33M25

Firmware upgrade

Device information

Device: STM32F74x/STM32F75x

Type: MCU

Device ID: 0x449

Flash size: 1 MB

CPU: Cortex-M7



# Fertig

Wenn diese Meldung  
erscheint, war alles  
erfolgreich.  
Die nächsten Dialoge  
einfach wegclicken und  
Programm beenden.

