



SAM-ICE를 이용한 AT91SAM7S256에 플래시 다운로드하기

류대우

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[J-flash 소프트웨어 다운로드]

- 다음 링크에서 j-flash를 소프트웨어를 다운로드한다.
 - <http://www.segger.com/cms/jflash.html>
 - 세부 링크는 아래와 같다.
 - http://www.segger.com/cms/jlink-software.html?step=1&file=JLink_428c

[다운로드 링크 화면]

SEGGER Microcontroller - Embedded Software Solutions - Download - Windows Internet Explorer

http://www.segger.com/cms/jlink-software.html

SEGGER Embedded Software Solutions

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Development Tools > J-Link > Download

J-Link downloads

Installing the software will automatically install the J-Link USB drivers. It also offers to update applications which use the J-Link DLL. Multiple versions of the J-Link software can be installed on the same PC without problems; they will co-exist in different directories.

[Link software & documentation pack V4.28c](#) [9827 kb]

 [Software and documentation pack V4.28c](#) [9827 kb]

J-Link software & documentation pack includes:

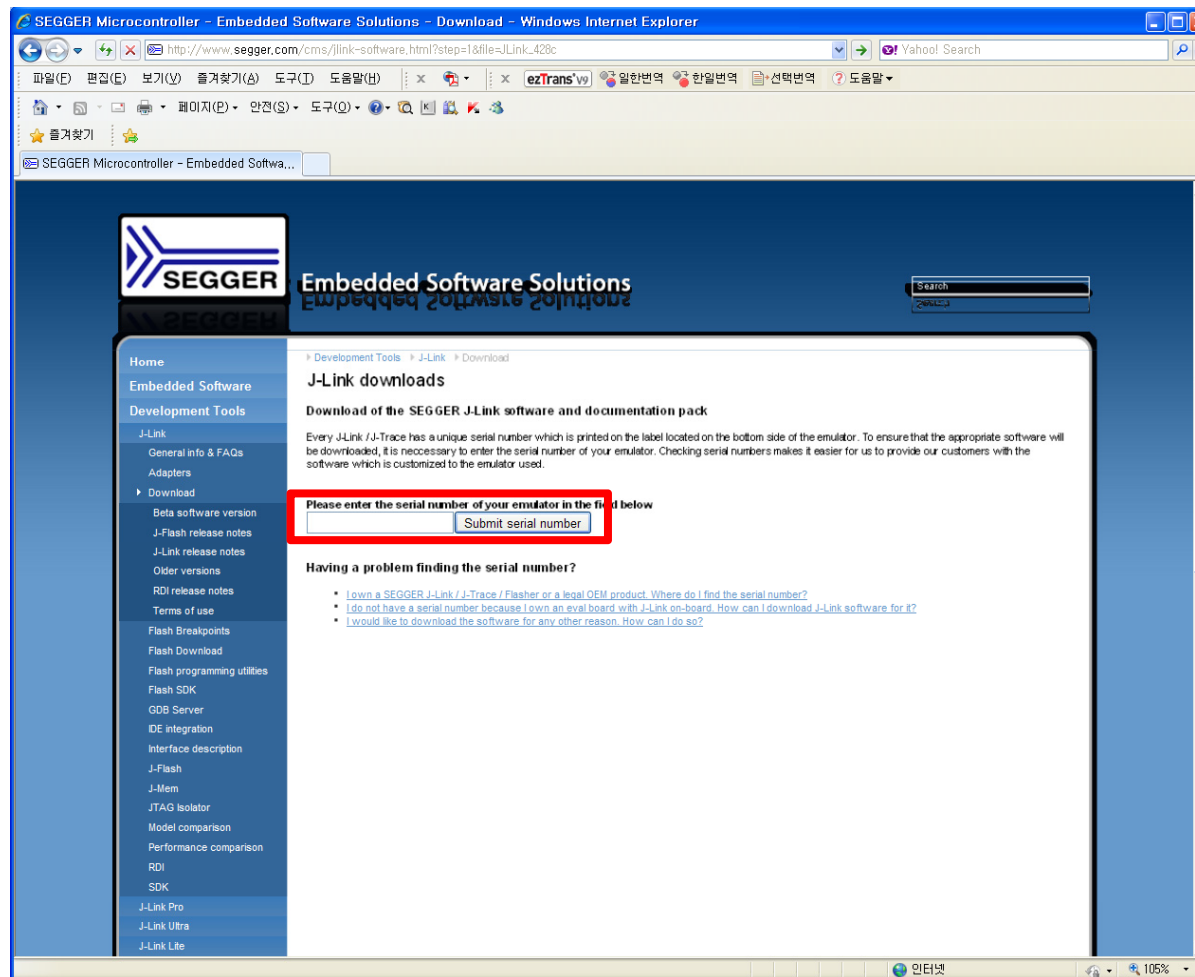
- J-Link Commander (Simple command line utility, primarily for diagnostics and trouble shooting)
- J-Flash, including sample projects for most popular eval boards
- GDB Server (extra license required) - Support for GDB and other debuggers using the same protocol. Fully usable in eval mode without time or code size limit.
- J-Mem - Simple memory viewer
- J-Link RDI (extra license required) - Support for ARM RDI standard. Makes J-Link compatible with RDI compliant debuggers
- J-Link DLL Updater - Allows to update 3rd party applications which use the J-Link DLL
- J-Link TCP/IP Server - Free utility which provides the possibility to use J-Link / J-Trace remotely via TCP/IP.
- JLinkARM.dll, used by most applications to access J-Link
- JLinkARM.dll comes with flash breakpoint capabilities (extra license required)
- Free flash programming utilities - Simple command line utilities which allow programming a bin file into the internal/external flash memory of popular eval boards
- Processor specific utilities - Small command line utilities which allow some processor specific operations (unsecure of internal flash memory, boot bank switching, ...)
- Manuals: UM08001 (J-Link User Guide), UM08003 (J-Flash User Guide), UM08004 (RDI User Guide), UM08005 (GDB Server User Guide), UM08007 (Flasher ARM User Guide)
- Release notes for J-Link DLL, J-Flash, J-Link RDI DLL
- Sample code for DCC communication
- USB driver

[Latest J-Link DLL release notes](#)
[Latest J-Flash release notes](#)
[Latest J-Link RDI DLL release notes](#)

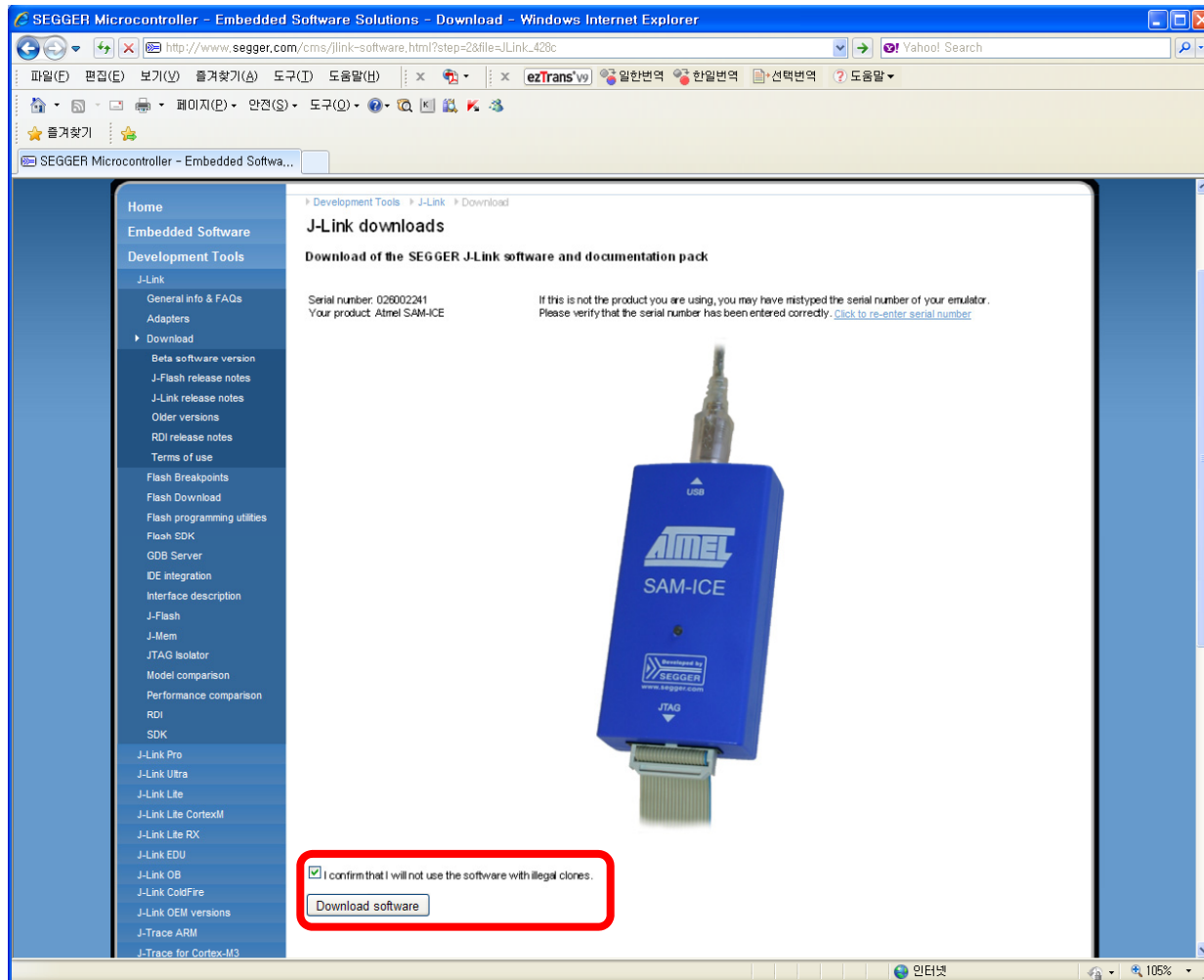
Beta software

We frequently publish new Beta versions. The Beta versions follow our current development version very closely and contain the latest features and improvements. However, the Beta versions are not thoroughly tested, but it is usually safe to assume that the Beta version can be used without risk.

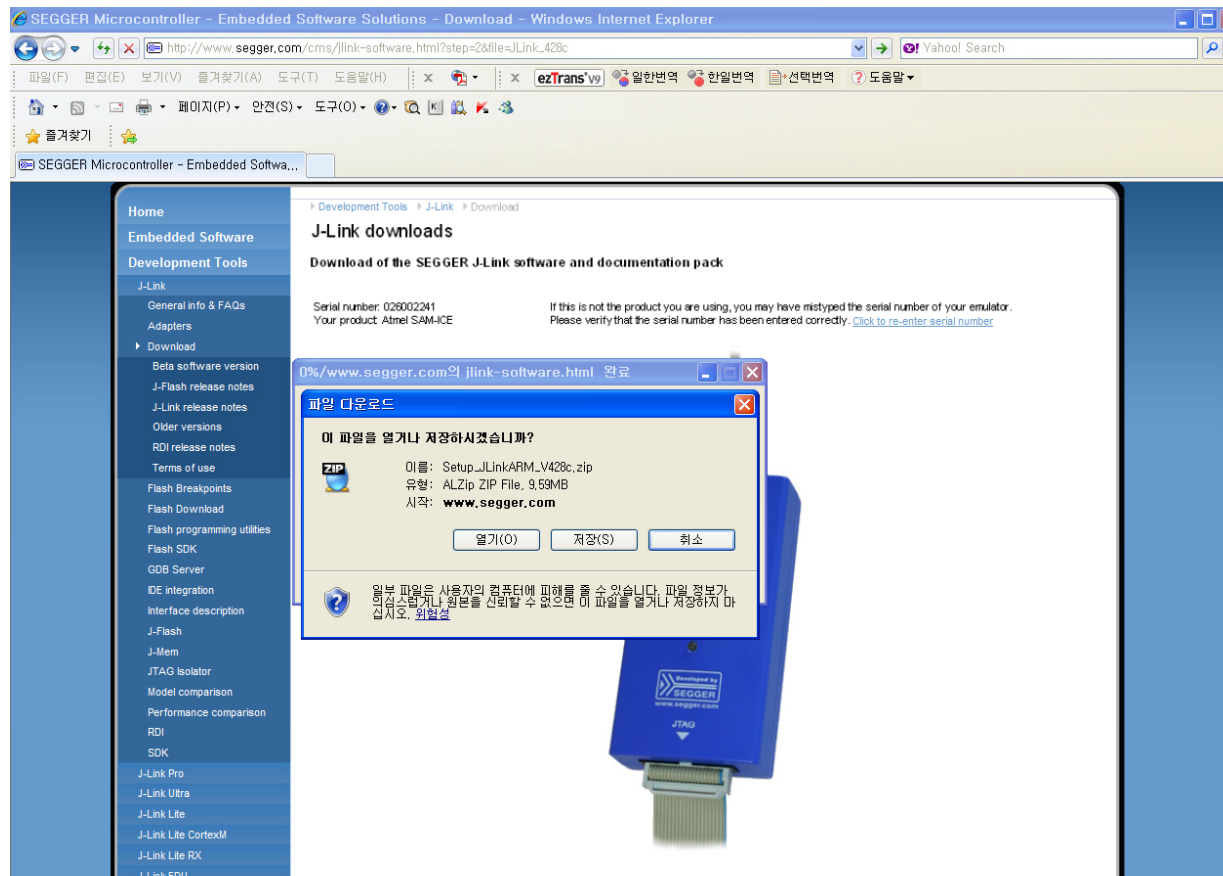
[SAM-ICE의 Serial 번호 입력]



[체크 하고 다운로드하기]

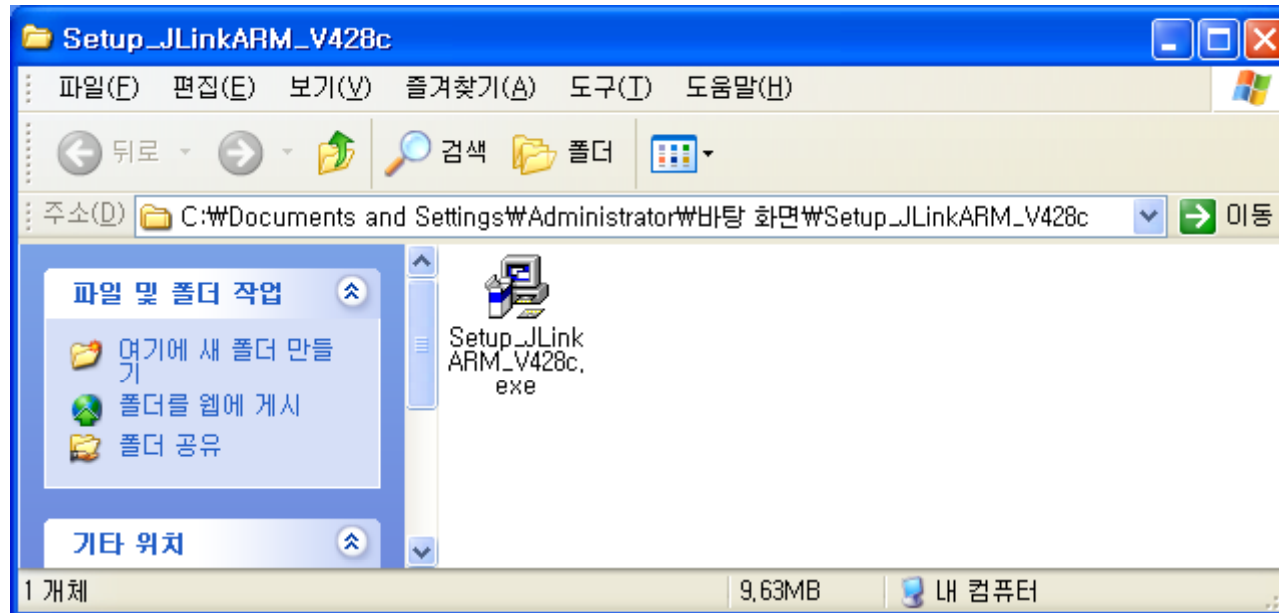


[다운로드 하기 직전의 화면]



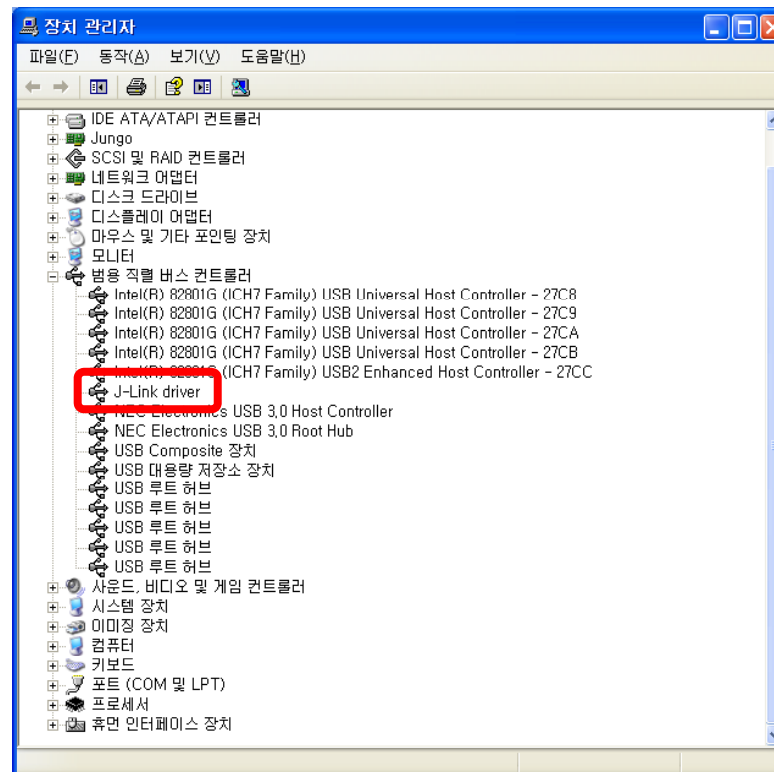
[J-FLASH를 다운로드 하여 설치]

- 다운로드한 프로그램을 실행하여 설치한다.



[프로그램 설치 후의 드라이버]

- 드라이버 설치 후, USB를 빼었다 꽂으면 SAM-ICE의 중간에 있는 LED가 초록색 깜빡임이 정지하고 켜져 있게 된다.



[드라이버 설치 확인방법(1)]

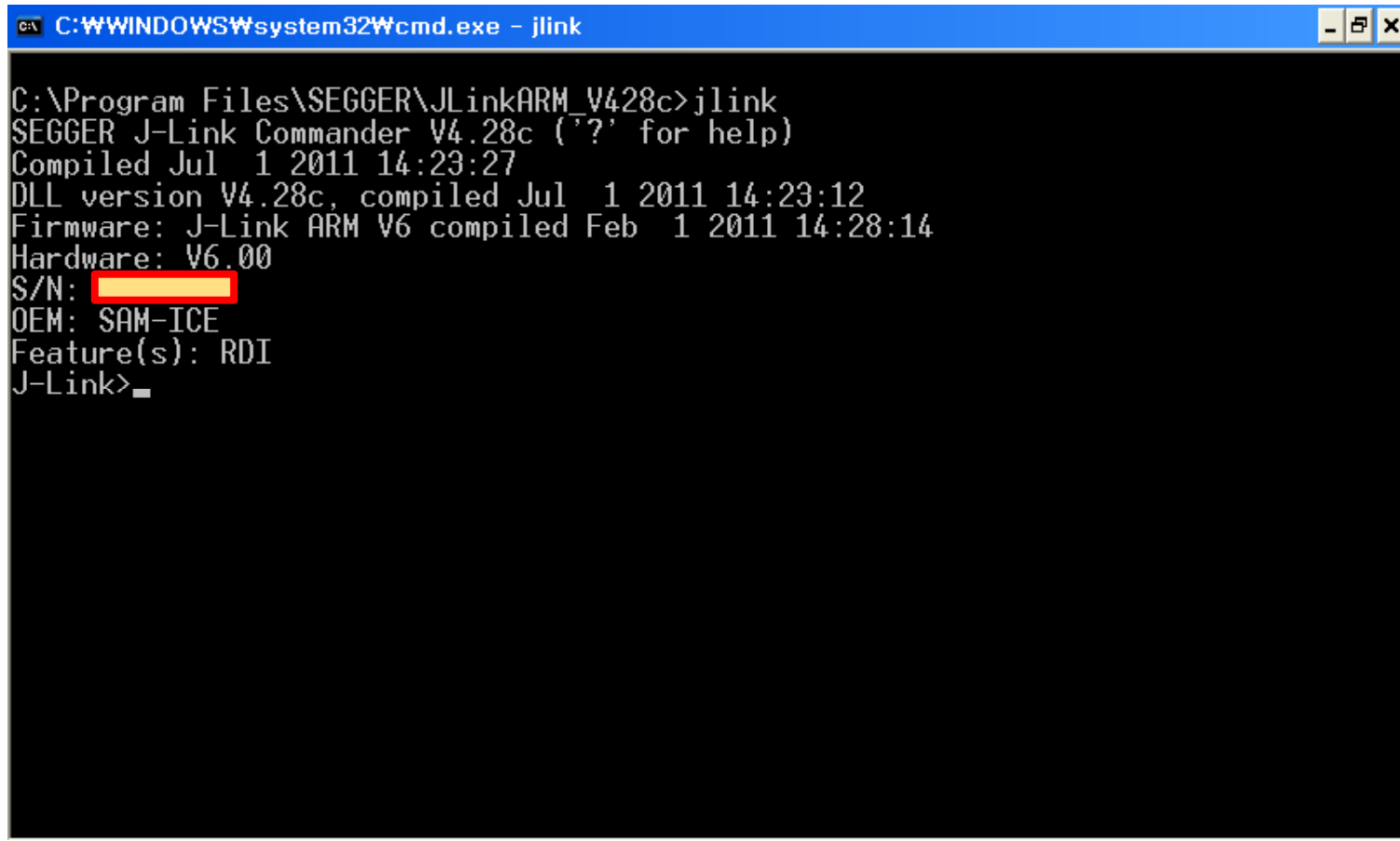
- SAM7S256 타겟보드가 연결되어 있을 때

```
C:\WINDOWS\system32\cmd.exe - jlink
2011/07/01 14:30      84,584 JLinkTCPIServer.exe
2011/07/01 14:30     117,352 JMem.exe
2011/07/15 22:49    <DIR>      Samples
2011/07/01 14:24      60,008 SWOAnalyzer.exe
2001/11/21 20:44     149,504 UNWISE.EXE
2011/07/15 22:49    <DIR>      USBDriver
                22 File(s)      6,540,167 bytes
                6 Dir(s)    1,790,189,568 bytes free

C:\Program Files\SEGGER\JLinkARM_V428c>jlink
SEGGER J-Link Commander V4.28c ('?' for help)
Compiled Jul  1 2011 14:23:27
DLL version V4.28c, compiled Jul  1 2011 14:23:12
Firmware: J-Link ARM V6 compiled Feb  1 2011 14:28:14
Hardware: V6.00
S/N: [REDACTED]
OEM: SAM-ICE
Feature(s): RDI
VTarget = 3.300V
Info: TotalIRLen = 4, IRPrint = 0x01
Found 1 JTAG device, Total IRLen = 4:
 #0 Id: 0x3F0F0F0F, IRLen: 04, IRPrint: 0x1, ARM7TDMI Core
Found ARM with core Id 0x3F0F0F0F (ARM7)
JTAG speed: 100 kHz
J-Link>
```

[드라이버 설치 확인방법(2)]

- 타겟보드가 미연결시



```
C:\WINDOWS\system32\cmd.exe - jlink

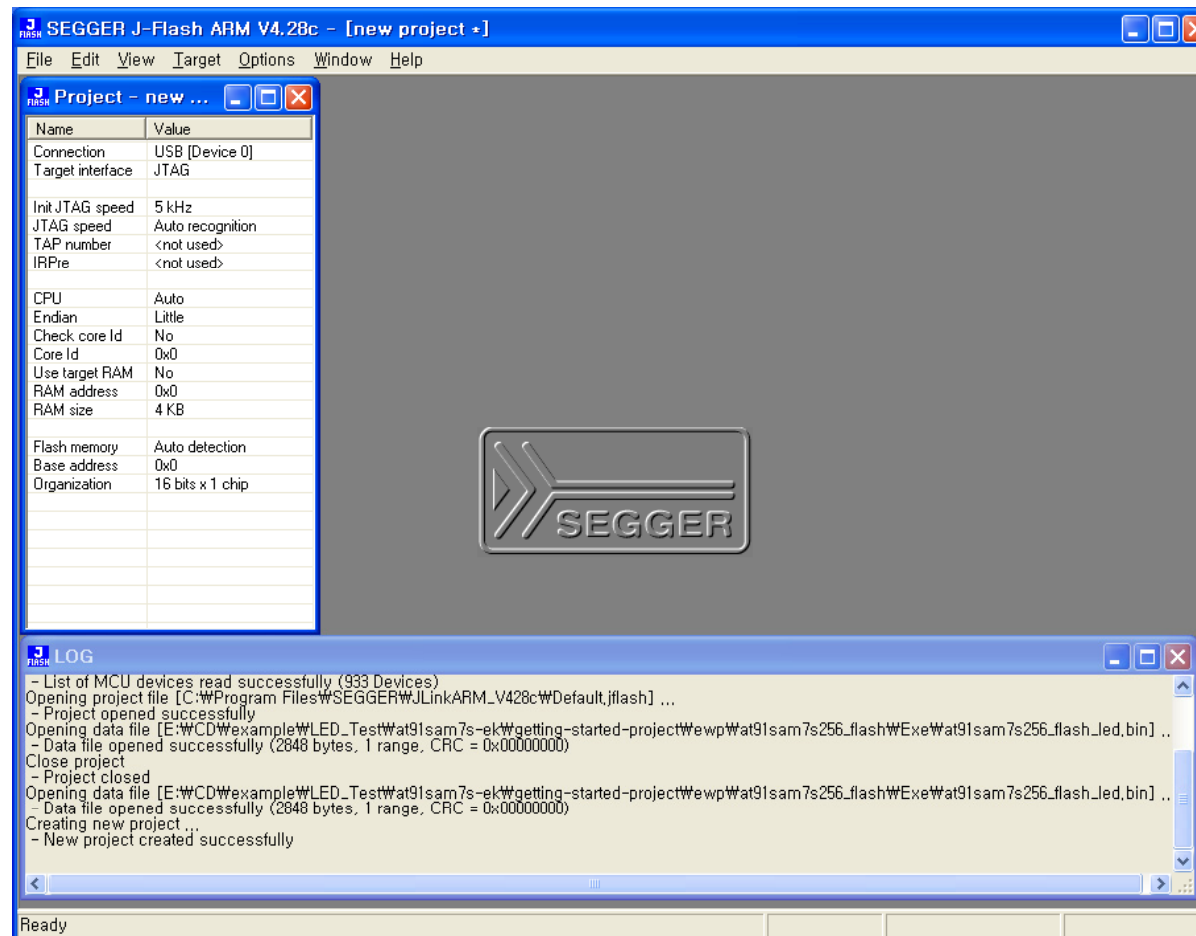
C:\Program Files\SEGGER\JLinkARM_V428c>jlink
SEGGER J-Link Commander V4.28c ('?' for help)
Compiled Jul 1 2011 14:23:27
DLL version V4.28c, compiled Jul 1 2011 14:23:12
Firmware: J-Link ARM V6 compiled Feb 1 2011 14:28:14
Hardware: V6.00
S/N: [redacted]
OEM: SAM-ICE
Feature(s): RDI
J-Link>
```

[SAM-ICE 사용시 주의할 점]

- 타겟보드 연결되기 전에 반드시 SAM-ICE가 먼저 USB에 연결되어 있어야 한다.
- www.segger.com에 가면, 무료 소프트웨어를 다운로드하여 사용할 수 있다

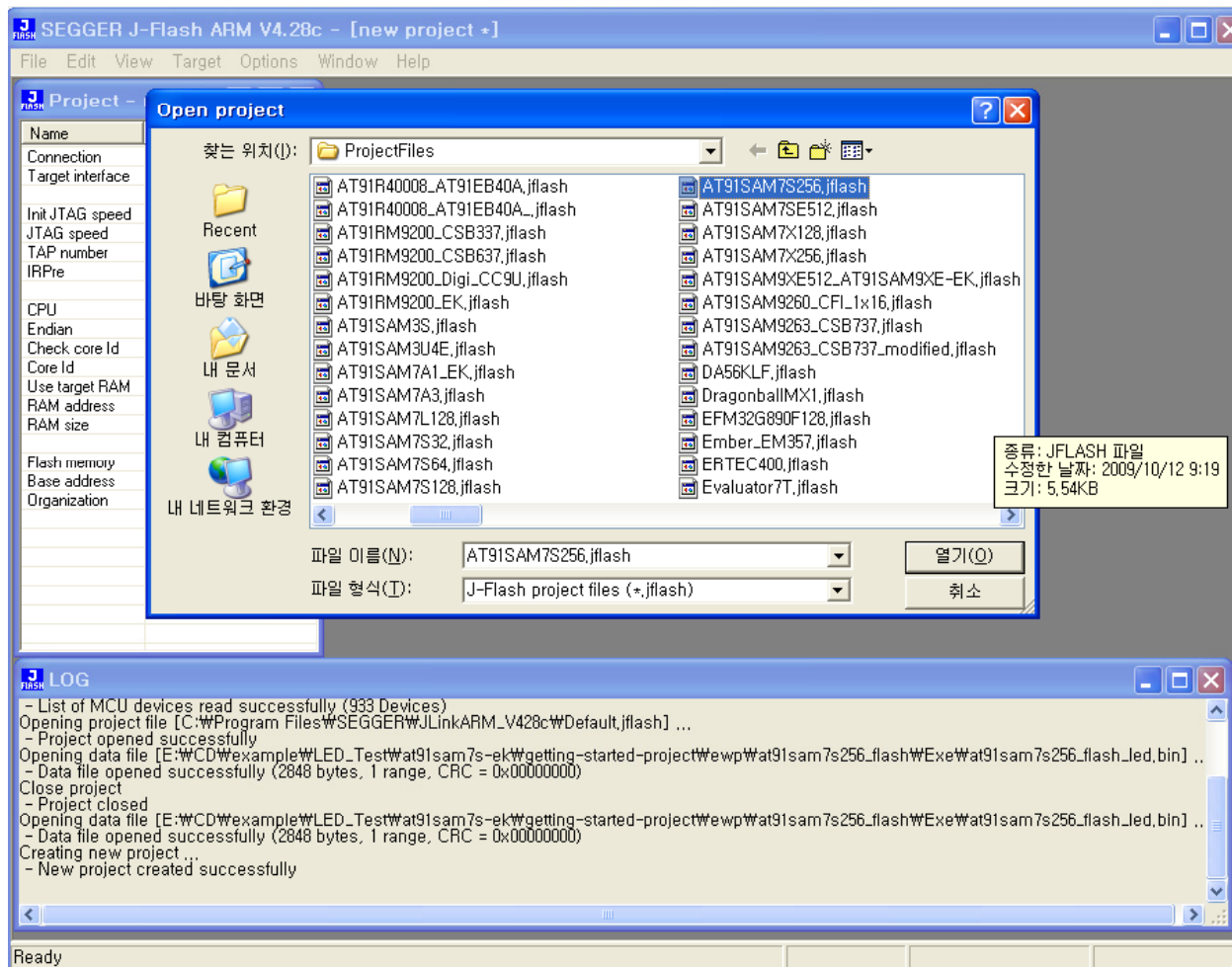
[J-flash 실행하기]

■ 첫 실행 화면



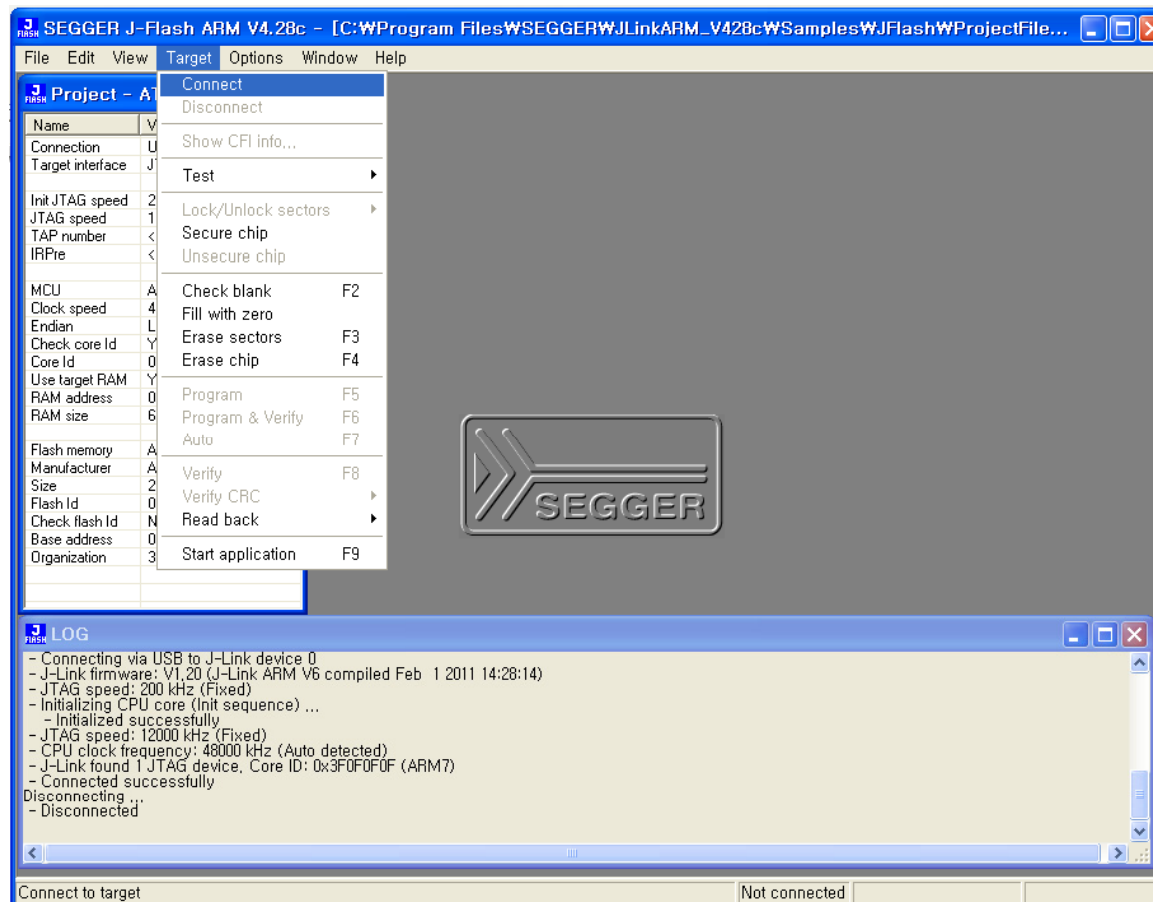
[사용할 ARM 프로젝트 선택]

- 사용하는 ARM 프로젝트를 선택한다.



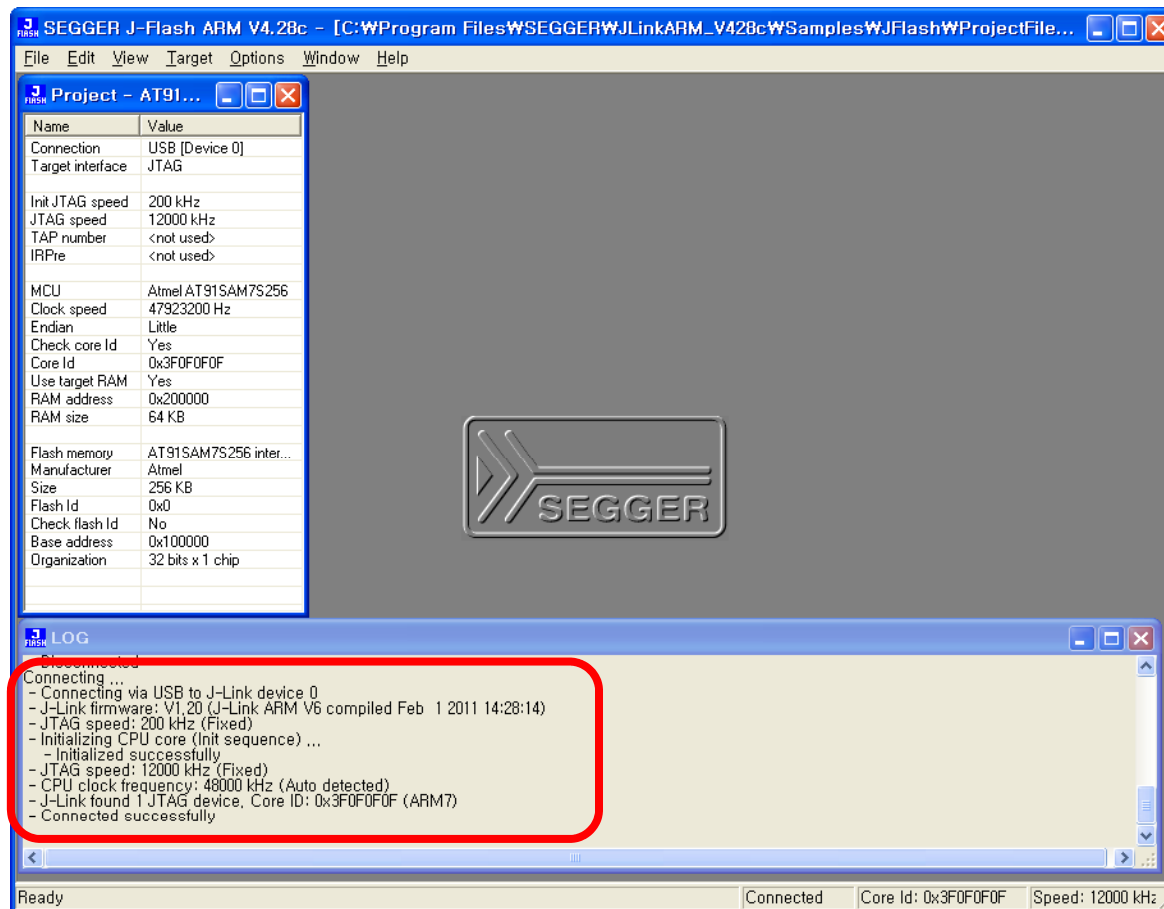
[연결하기(2/2)]

■ 보드에 Connect 하기 직전



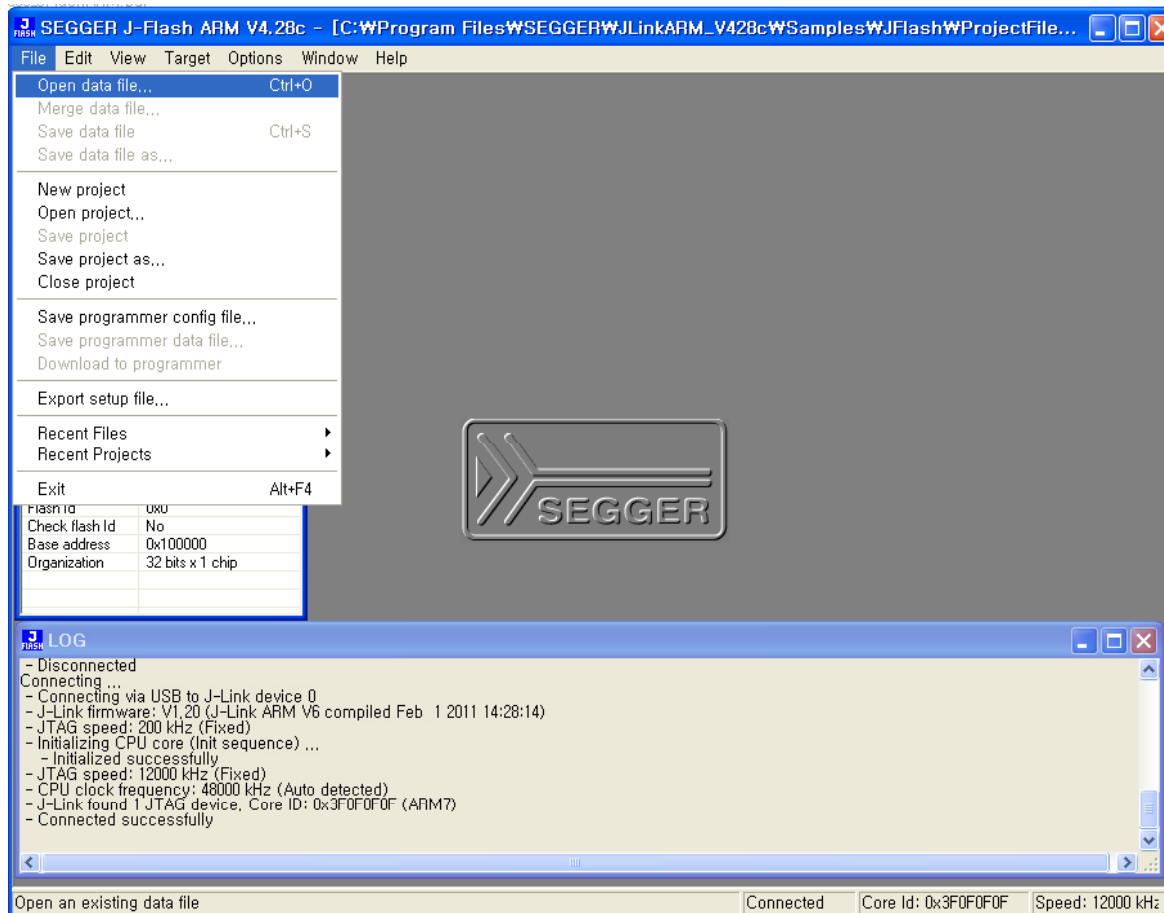
[연결하기(1/2)]

■ 연결한 직후



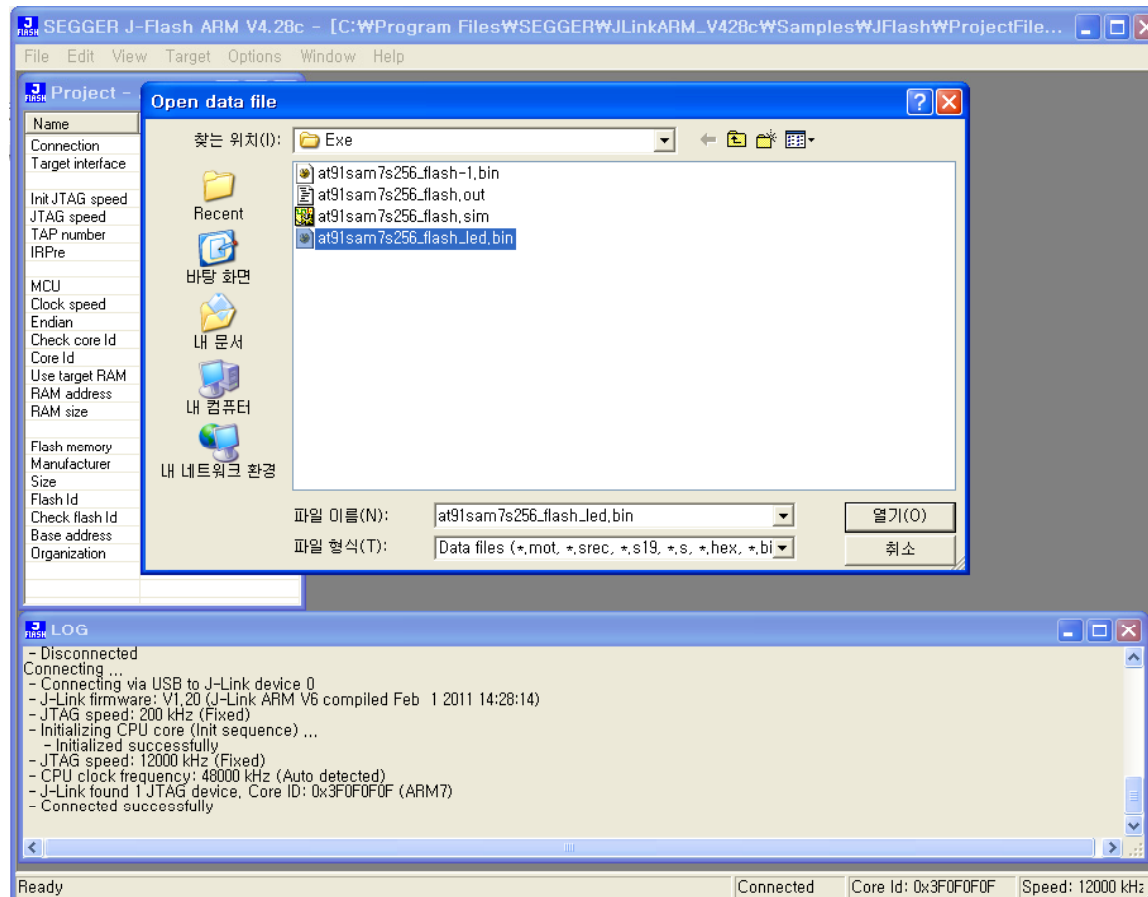
[데이터 파일 로드(1/2)]

■ 다운로드 할 데이터 파일 Load하기



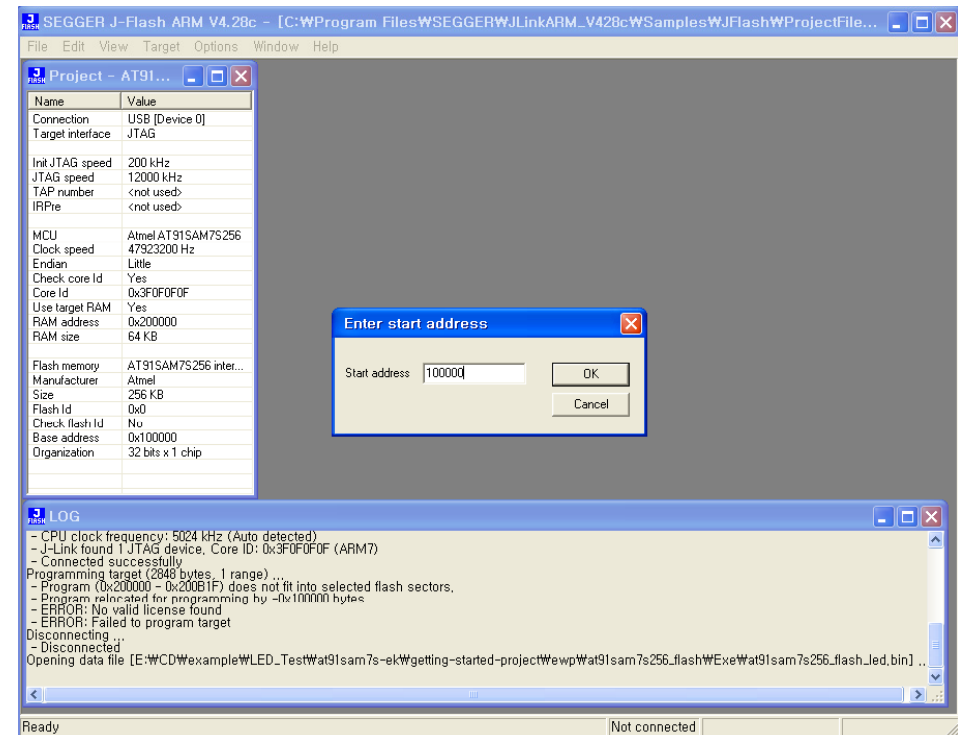
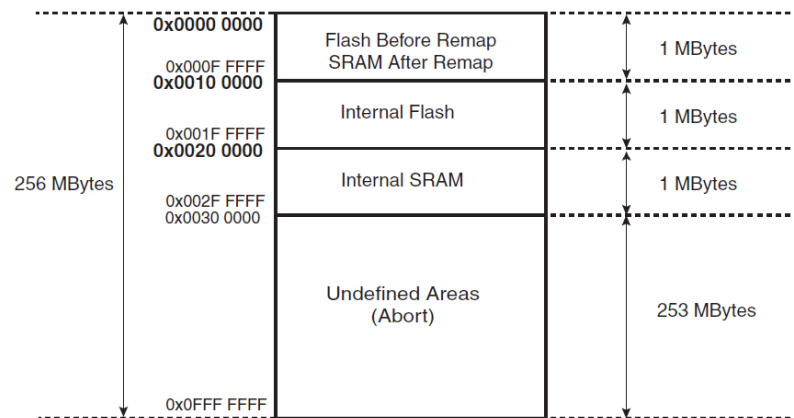
[데이터 파일 로드(2/2)]

■ 다운로드할 데이터 파일 열기



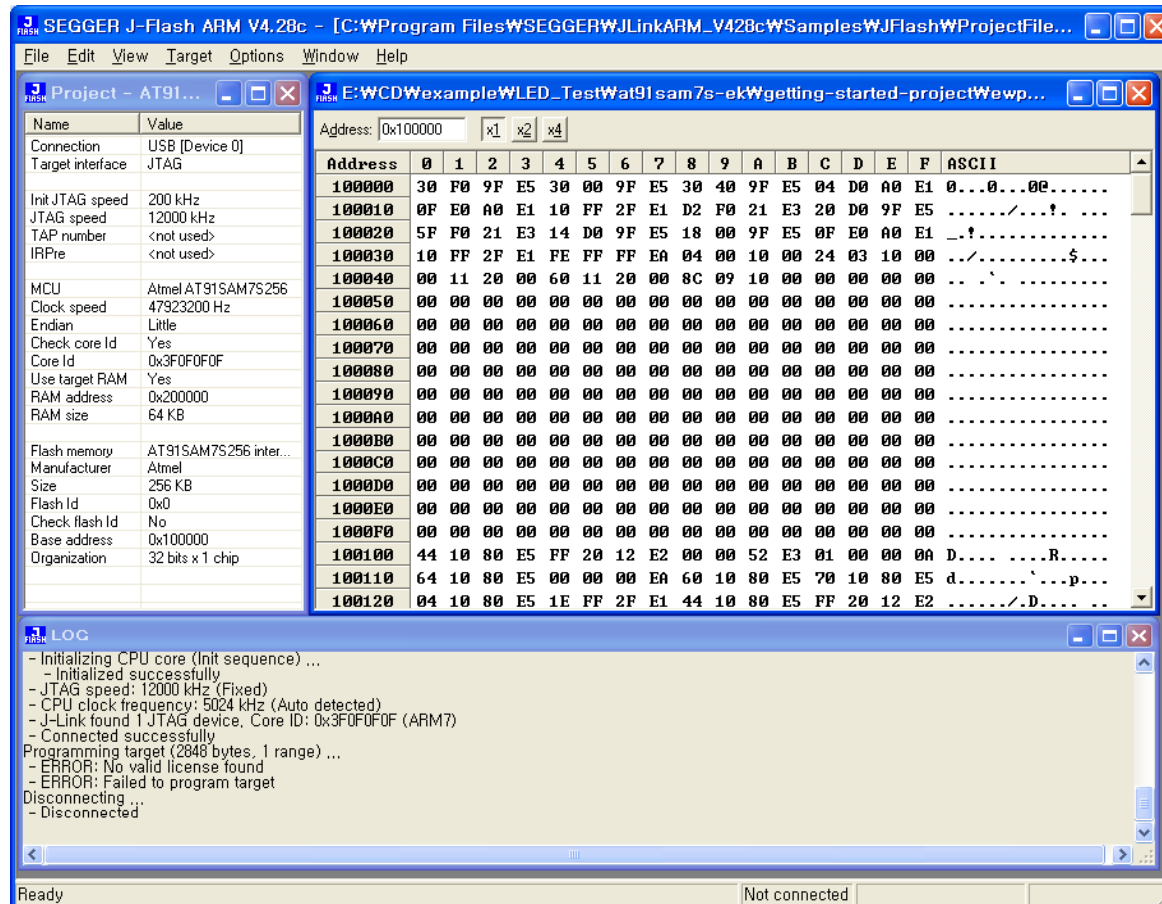
[시작 어드레스 기입하기]

- 내부 플래시 영역에 Write하기 위하여 0x0010 0000 을 시작 어드레스에 기입한다. 100000 이라고 쓰면 된다.

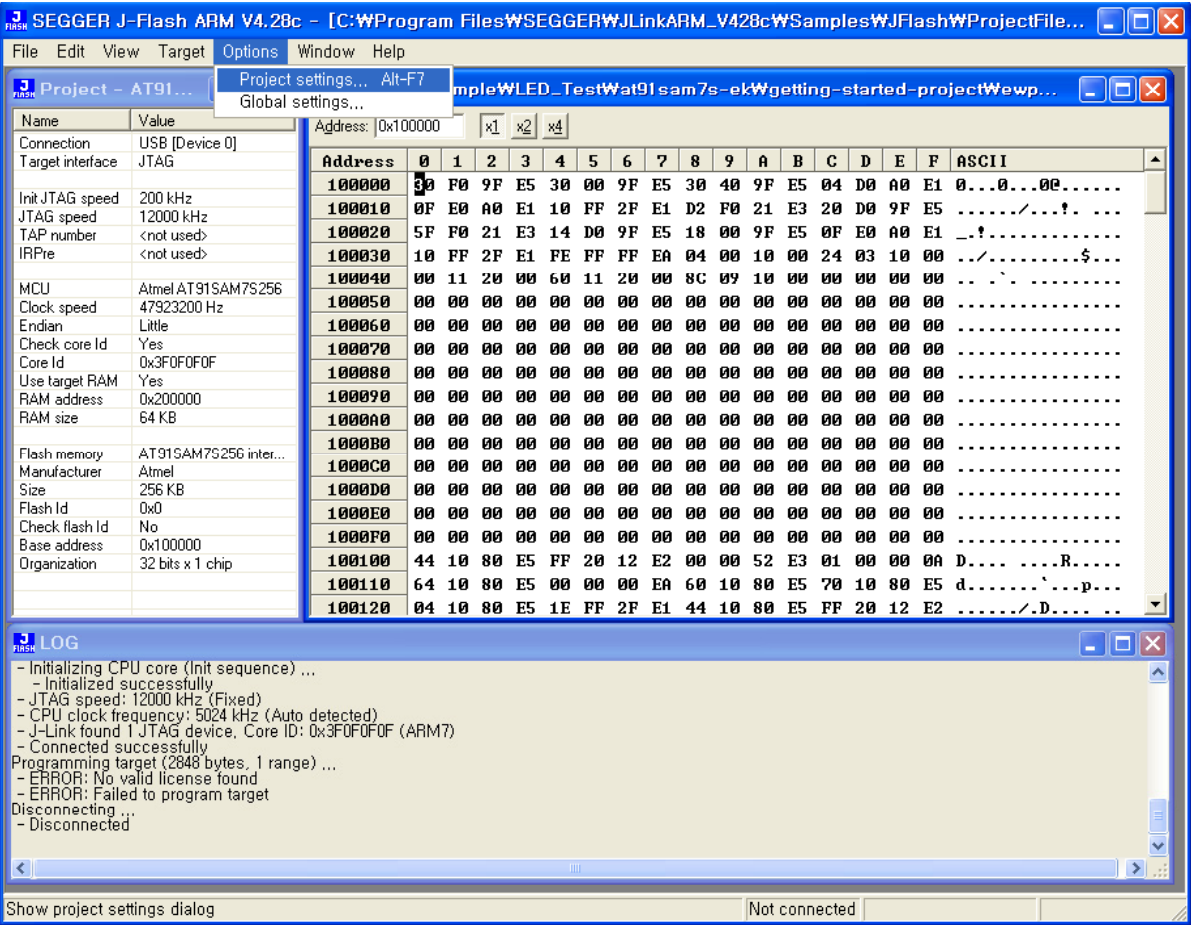


[데이터가 로드된 모습]

- 100,000번지에 데이터가 성공적으로 로드된다.

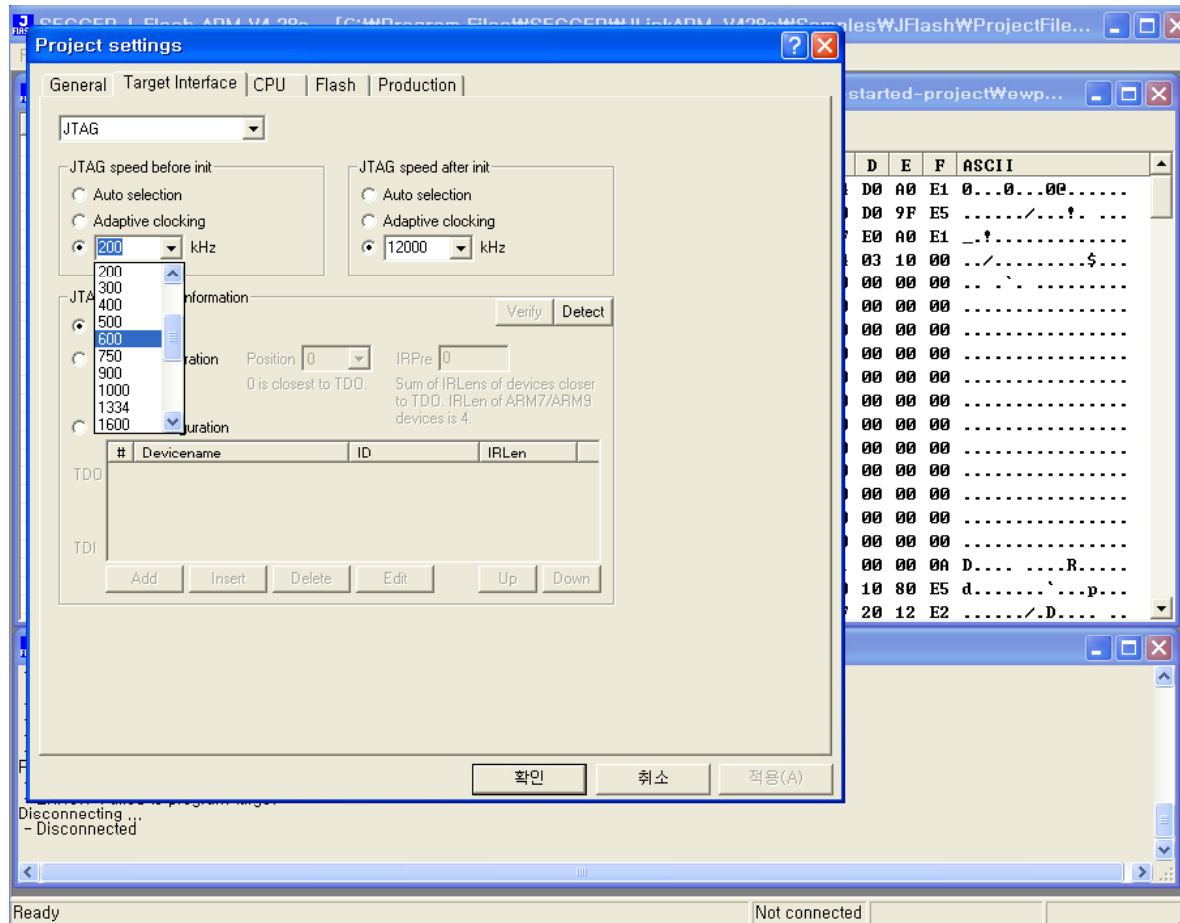


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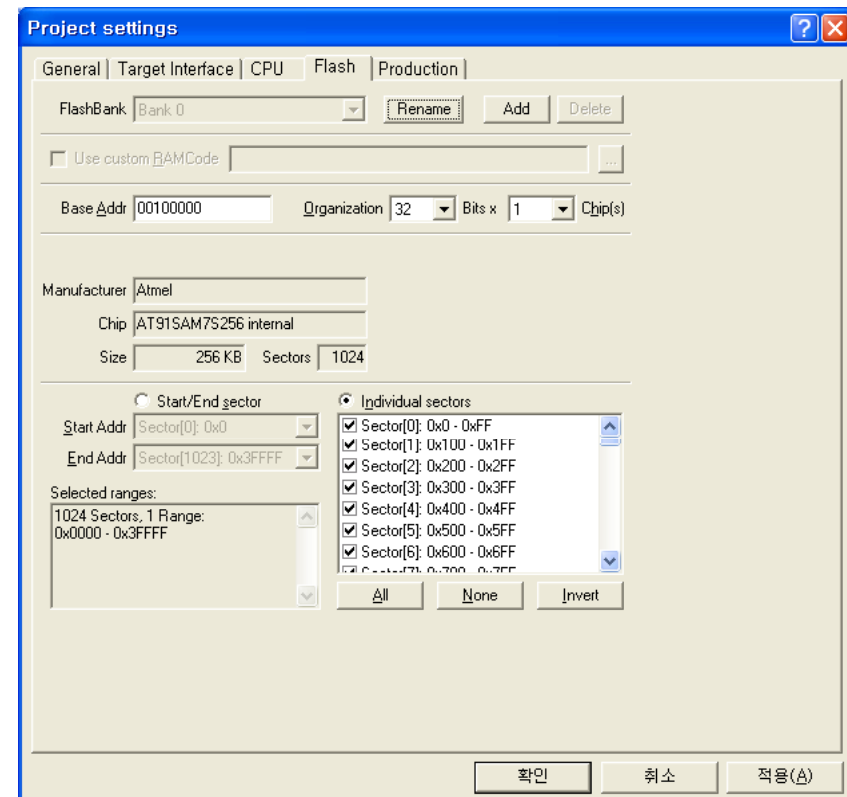
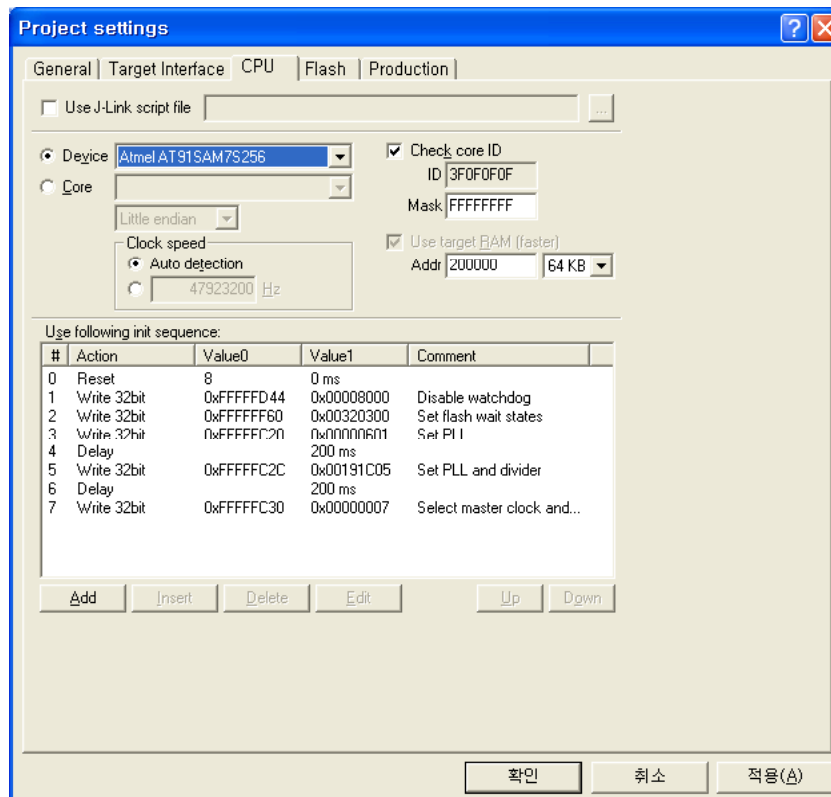
[Target Interface를 선택]

- ## ■ Target Interface의 Speed 중 600kHz를 선택

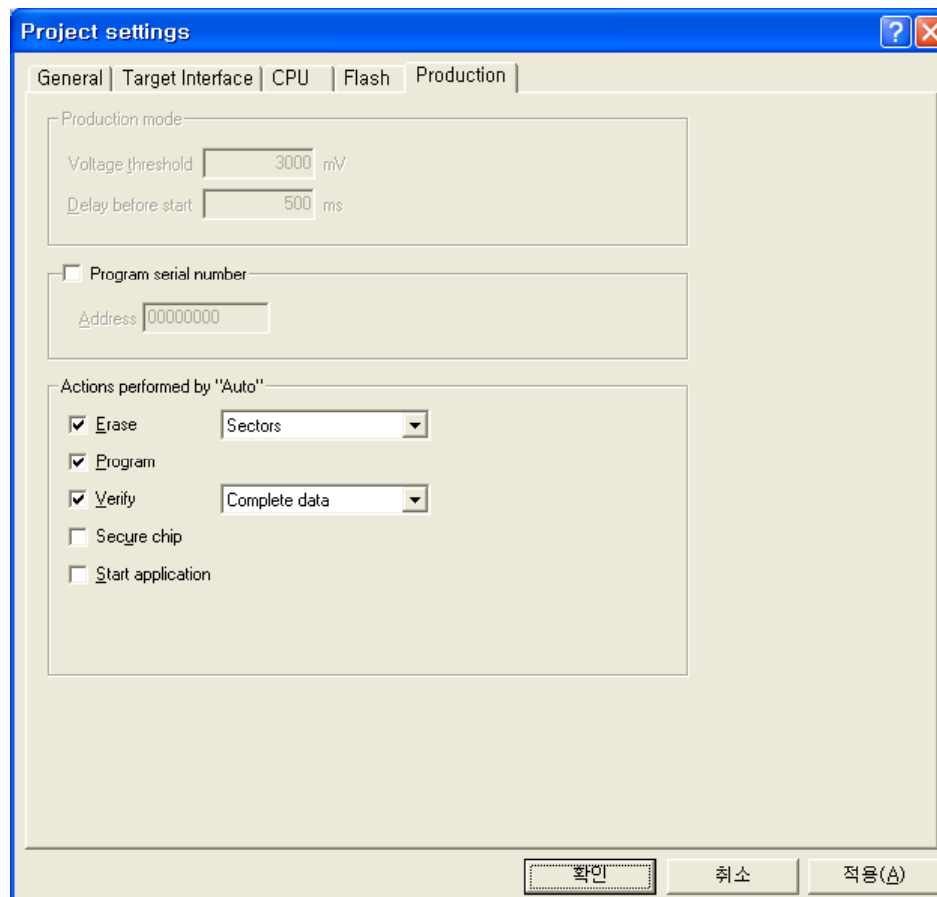


[CPU 및 Flash 설정 확인]

- 아래와 같이 설정되어 있는 지 확인한다.

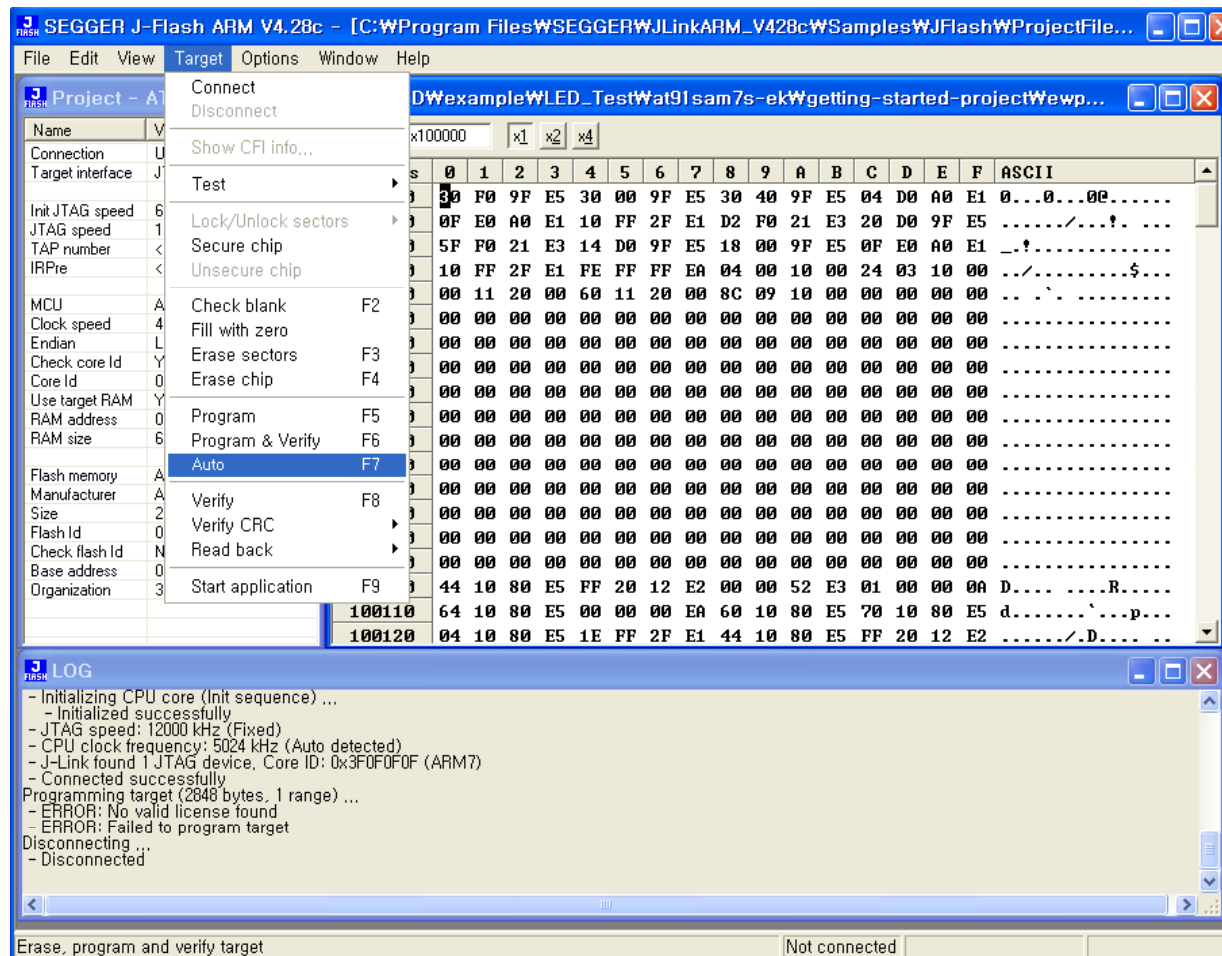


- Auto 버튼에 의해 실행할 것을 체크한다.



[Program 하기]

- Auto버튼으로 프로그램한다.



[라이선스 에러 발생시 대처]

- 아래와 같은 라이선스 에러 발생시 이메일을 보내서, 라이선스를 획득한다. 이 때, J-Link(SAM-ICE) S/N를 함께 보낸다.

