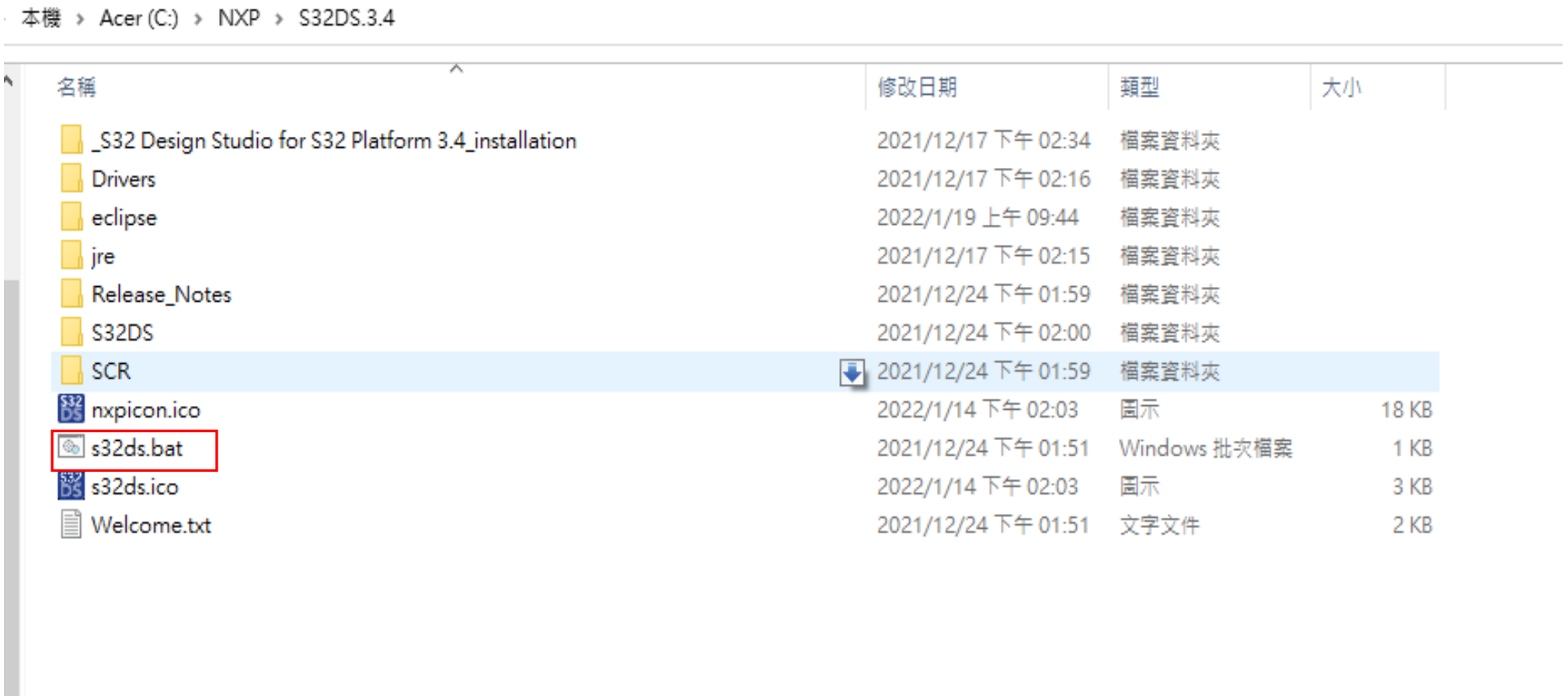
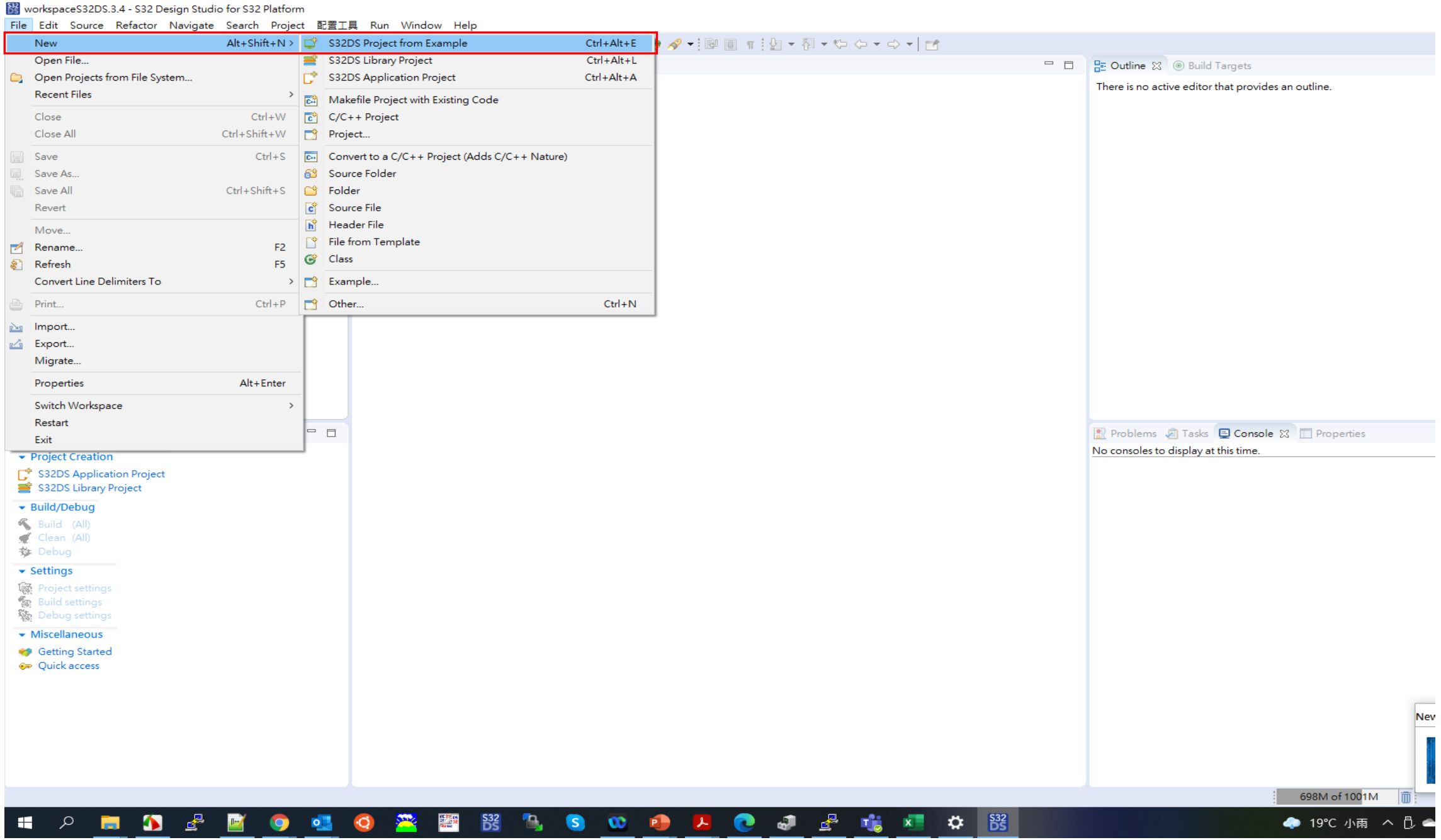
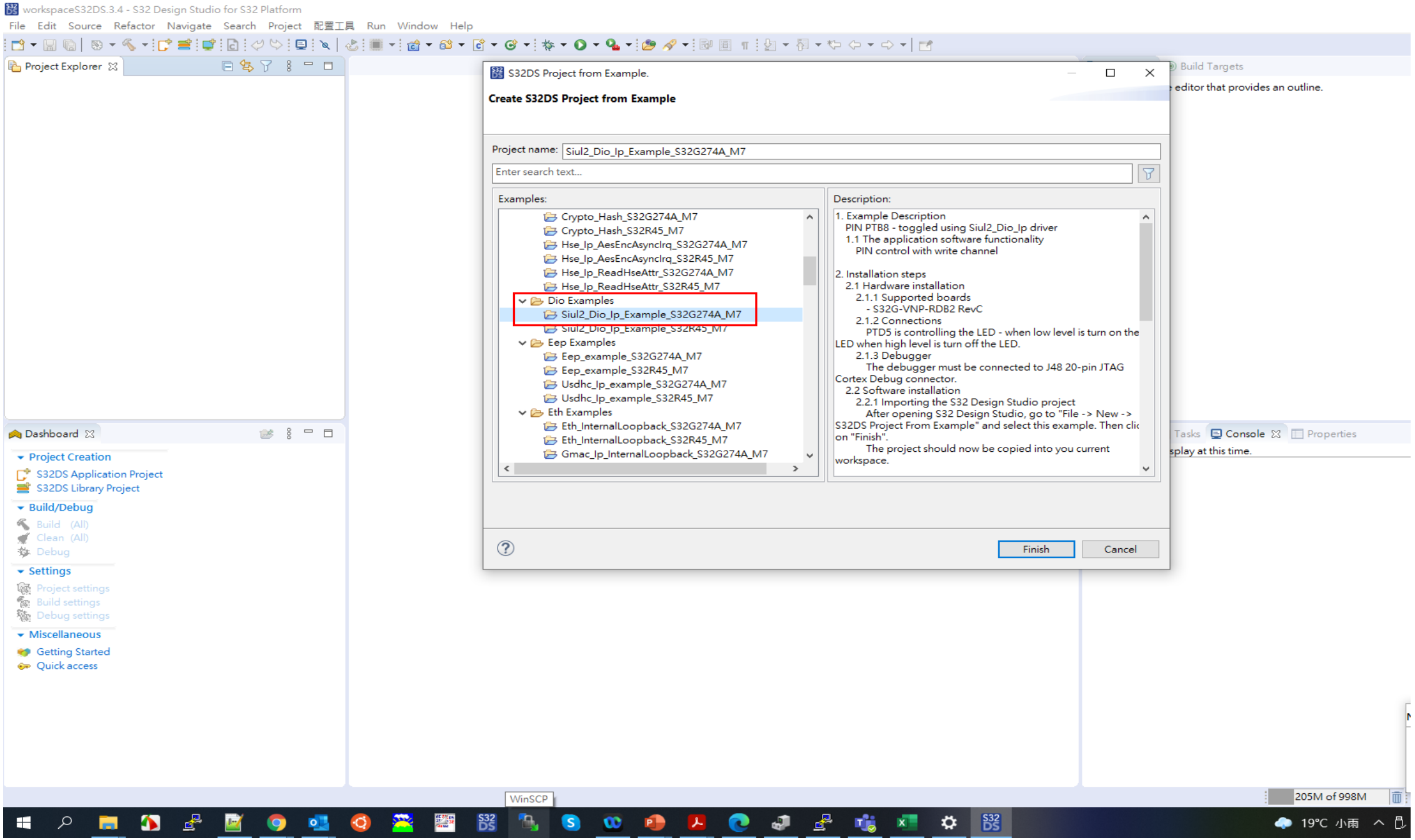
M7 Build code and Flash tool download

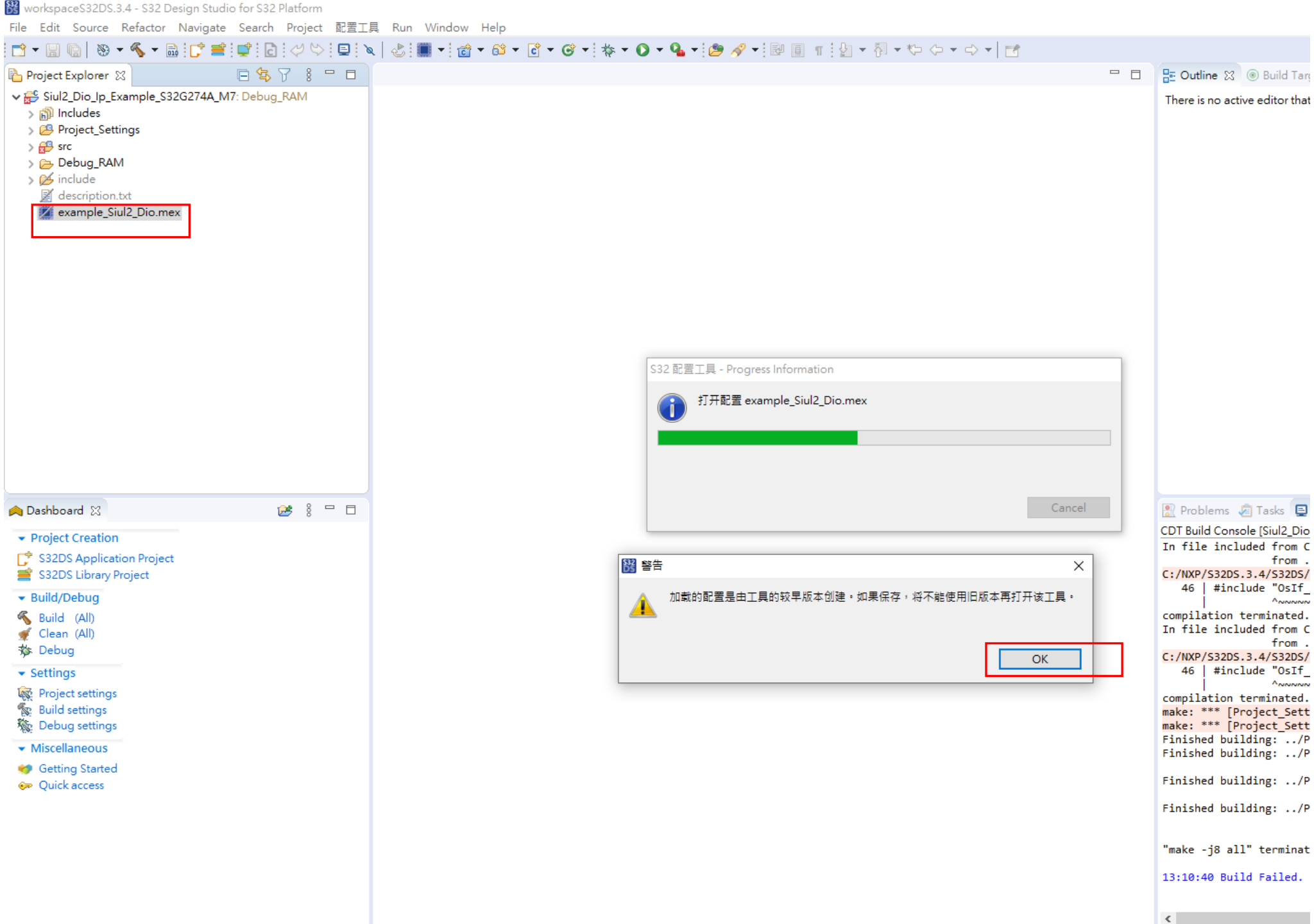
- S32DS 3.4 sample build method
- JTAG download OK sample
- Flash- tool download (Fail)

S32DS 3.4 sample build method




workspaceS32DS.3.4 - S32 Design Studio for S32 Platform
File Edit Source Refactor Navigate Search Project 配置工具 Run Window Help
New Alt+Shift+N
Open File...
Open Projects from File System...
Recent Files
Close Ctrl+W
Close All Ctrl+Shift+W
Save Ctrl+S
Save As...
Save All Ctrl+Shift+S
Revert
Move...
Rename... F2
Refresh F5
Convert Line Delimiters To
Print... Ctrl+P
Import...
Export...
Migrate...
Properties Alt+Enter
Switch Workspace
Restart
Exit
S32DS Project from Example Ctrl+Alt+E
S32DS Library Project Ctrl+Alt+L
S32DS Application Project Ctrl+Alt+A
Makefile Project with Existing Code
C/C++ Project
Project...
Convert to a C/C++ Project (Adds C/C++ Nature)
Source Folder
Folder
Source File
Header File
File from Template
Class
Example...
Other... Ctrl+N
Project Creation
S32DS Application Project
S32DS Library Project
Build/Debug
Build (All)
Clean (All)
Debug
Settings
Project settings
Build settings
Debug settings
Miscellaneous
Getting Started
Quick access
Outline
Build Targets
There is no active editor that provides an outline.
Problems Tasks Console Properties
No consoles to display at this time.
698M of 1001M
19°C 小雨


workspaceS32DS.3.4 - S32 Design Studio for S32 Platform
File Edit Source Refactor Navigate Search Project 配置工具 Run Window Help
Project Explorer
Dashboard
Project Creation
S32DS Application Project
S32DS Library Project
Build/Debug
Build (All)
Clean (All)
Debug
Settings
Project settings
Build settings
Debug settings
Miscellaneous
Getting Started
Quick access
S32DS Project from Example.
Create S32DS Project from Example
Project name: Siul2_Dio_Ip_Example_S32G274A_M7
Enter search text...
Examples:
Crypto_Hash_S32G274A_M7
Crypto_Hash_S32R45_M7
Hse_Ip_AesEncAsyncIrq_S32G274A_M7
Hse_Ip_AesEncAsyncIrq_S32R45_M7
Hse_Ip_ReadHseAttr_S32G274A_M7
Hse_Ip_ReadHseAttr_S32R45_M7
Dio Examples
Siul2_Dio_Ip_Example_S32G274A_M7
Siul2_Dio_Ip_Example_S32R45_M7
Eep Examples
Eep_example_S32G274A_M7
Eep_example_S32R45_M7
Usdhc_Ip_example_S32G274A_M7
Usdhc_Ip_example_S32R45_M7
Eth Examples
Eth_InternalLoopback_S32G274A_M7
Eth_InternalLoopback_S32R45_M7
Gmac_Ip_InternalLoopback_S32G274A_M7
Description:
1. Example Description
PIN PTB8 - toggled using Siul2_Dio_Ip driver
1.1 The application software functionality
PIN control with write channel
2. Installation steps
2.1 Hardware installation
2.1.1 Supported boards
- S32G-VNP-RDB2 RevC
2.1.2 Connections
PTD5 is controlling the LED - when low level is turn on the LED when high level is turn off the LED.
2.1.3 Debugger
The debugger must be connected to J48 20-pin JTAG Cortex Debug connector.
2.2 Software installation
2.2.1 Importing the S32 Design Studio project
After opening S32 Design Studio, go to "File -> New -> S32DS Project From Example" and select this example. Then cli on "Finish".
The project should now be copied into you current workspace.
Finish
Cancel
Build Targets
editor that provides an outline.
Tasks
Console
Properties
splay at this time.
WinSCP
205M of 998M
19°C 小雨


workspaceS32DS.3.4 - S32 Design Studio for S32 Platform
File Edit Source Refactor Navigate Search Project 配置工具 Run Window Help
Project Explorer
Siul2_Dio_Ip_Example_S32G274A_M7: Debug_RAM
Includes
Project_Settings
src
Debug_RAM
include
description.txt
example_Siul2_Dio.mex
Dashboard
Project Creation
S32DS Application Project
S32DS Library Project
Build/Debug
Build (All)
Clean (All)
Debug
Settings
Project settings
Build settings
Debug settings
Miscellaneous
Getting Started
Quick access
Outline
There is no active editor that
S32 配置工具 - Progress Information
打开配置 example_Siul2_Dio.mex
Cancel
警告
加載的配置是由工具的較早版本创建。如果保存，将不能使用旧版本再打开该工具。
OK
Problems
Tasks
CDT Build Console [Siul2_Dio
In file included from C
from .
C:/NXP/S32DS.3.4/S32DS/
46 | #include "OsIf_
compilation terminated.
In file included from C
from .
C:/NXP/S32DS.3.4/S32DS/
46 | #include "OsIf_
compilation terminated.
make: *** [Project_Sett
make: *** [Project_Sett
Finished building: ../P
Finished building: ../P
Finished building: ../P
Finished building: ../P
"make -j8 all" terminat
13:10:40 Build Failed.

workspaceS32DS.3.4 - S32 Design Studio for S32 Platform

File Edit Navigate Search Project 配置工具 引脚 Run Window Help

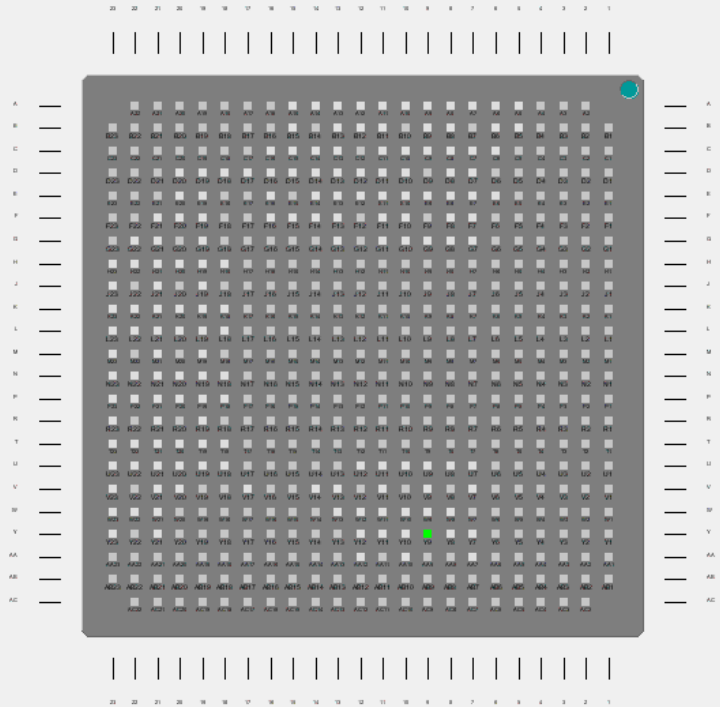
Siul2_Dio_Ip_Example_S32G27 | 更新源代码 | 功能组 | VS_0

引脚 | 外设信号 | 电源组

类型筛选文本

引脚	引脚名称	标签	标识符	PowerAndGrou...	SIUL2	DDR	PFE_MA
B1	VSS_309			PowerAndGrou...			
C1	DDR0_D_08					DDR_GPR,d_ch,8	
D1	DDR0_D_07					DDR_GPR,d_ch,7	
E1	DDR0_D_02					DDR_GPR,d_ch,2	
F1	DDR0_A_03					DDR_GPR,a_ch,3	
G1	DDR0_A_02					DDR_GPR,a_ch,2	
H1	DDR0_A_07					DDR_GPR,a_ch,7	
J1	DDR0_A_04					DDR_GPR,a_ch,4	
K1	DDR0_A_14					DDR_GPR,a_ch,...	
L1	DDR0_A_16					DDR_GPR,a_ch,...	
M1	DDR0_A_12					DDR_GPR,a_ch,...	
N1	DDR0_A_20					DDR_GPR,a_ch,...	
P1	DDR0_A_23					DDR_GPR,a_ch,...	
R1	DDR0_A_24					DDR_GPR,a_ch,...	
T1	DDR0_A_34					DDR_GPR,a_ch,...	
U1	DDR0_A_32					DDR_GPR,a_ch,...	
V1	DDR0_A_33					DDR_GPR,a_ch,...	
W1	DDR0_D_41					DDR_GPR,d_ch,...	
Y1	DDR0_D_42					DDR_GPR,d_ch,...	
AA1	DDR0_D_46					DDR_GPR,d_ch,...	
AB1	VSS_310			PowerAndGrou...			
A2	VSS_311			PowerAndGrou...			
B2	DDR0_D_09					DDR_GPR,d_ch,9	
C2	DDR0_D_10					DDR_GPR,d_ch,...	
D2	VSS_312			PowerAndGrou...			
E2	DDR0_D_00					DDR_GPR,d_ch,0	
F2	VSS_313			PowerAndGrou...			

封装 [引脚底部]



S32G274A_Rev2_525bga - MAPBGA 525 封装

概述 | 代码预览 | 寄存器

配置 - 通用信息

配置 - 硬件信息

处理器: S32G274A_Rev2
部件编号: S32G274A_Rev2_525bga
内核: Cortex-M7 (Core #0)
SDK 版本: PlatformSDK_S32XX_2021_05

工程

引脚

配置引脚路由，包括功能和电气引脚特性，电压/电源轨，以及运行时引脚配置。

生成代码

更新代码已启用

board\Siul2_Port_Ip_Cfg.c

board\Siul2_Port_Ip_Cfg.h

功能组

VS_0

其它工具

路由详情

引脚 | 信号 | 类型筛选文本

VS_0 的 路由详情 1

#	外设	信号	箭头	已路由的引脚/信号	标签	标识符	电源组	方向	Output Buffer	Open Drain	Input Buffer	Slew Rate Control
Y9	SIUL2_0	gpio, 6	->	[Y9] PA_06	LED	LED	VDD_IO_A (0V)	Output	Enabled	Disabled	Enabled	SIUL2_0: FAST pad: 166MHz(1.8V), 150MHz(3.3V) - GPIO pad: 166MHz(1.8V), 50

问题

类型筛选文本

级别	资源	问题

Siul2_Dio_Ip_Example_S32G274A_M7

381M of 1108M

workspaceS32DS.3.4 - S32 Design Studio for S32 Platform

File Edit Source Refactor Navigate Search Project 配置工具 Run Window Help

Project Explorer

- Siul2_Dio_Ip_Example_S32G274A_M7: Debug_RAM
  - Binaries
  - Includes
  - Project_Settings
  - RTD
  - board
  - generate
  - generate/include
  - generate/src
  - src
  - Debug_RAM
  - include
  - description.txt
  - example_Siul2_Dio.mex

Outline | Build Targets

There is no active editor that provides an outline.

Dashboard

Project Creation
- S32DS Application Project
- S32DS Library Project

Build/Debug
- Build (All)
- Clean (All)
- Debug

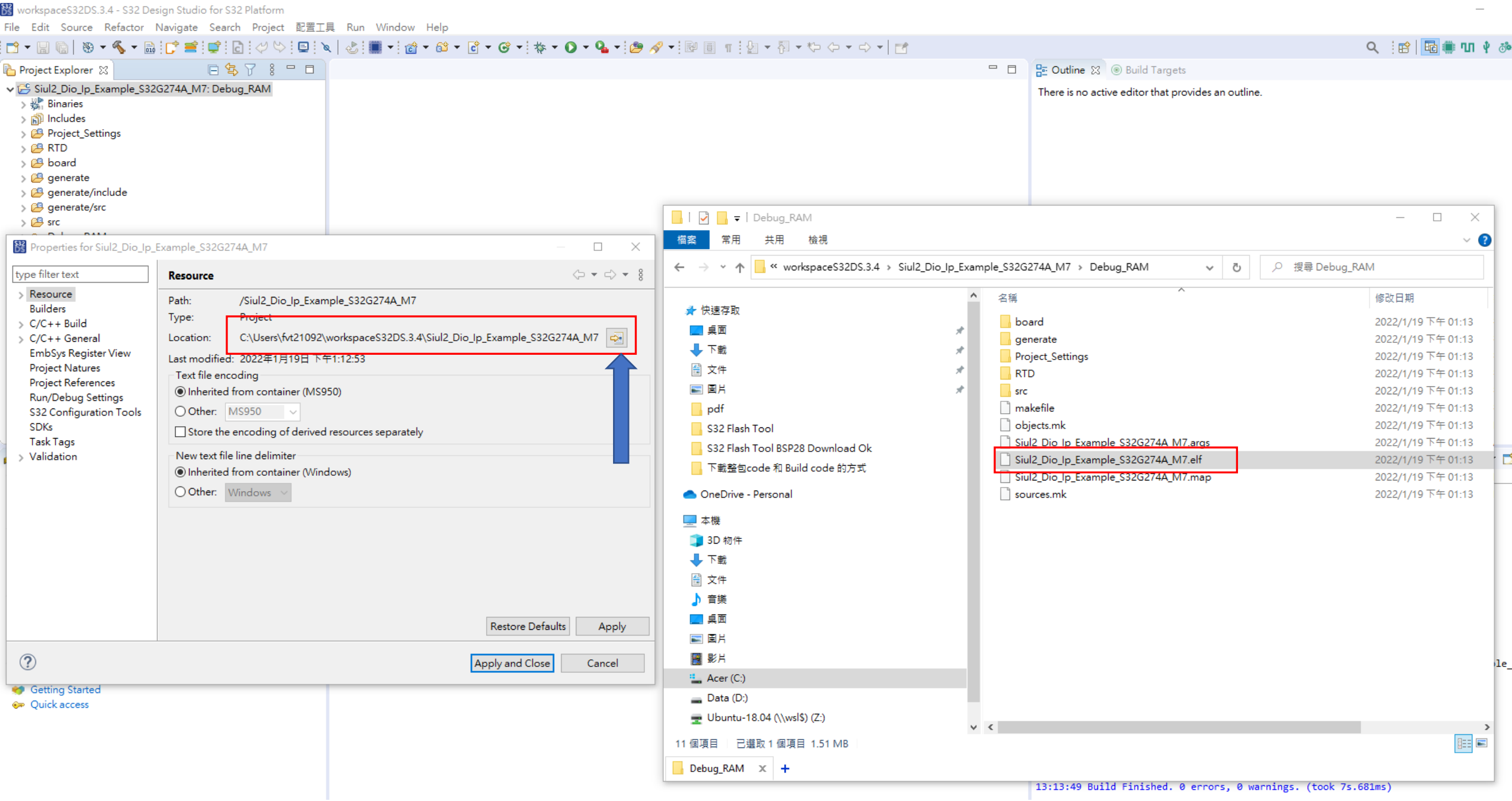
Settings
- Project settings
- Build settings
- Debug settings

Miscellaneous
- Getting Started
- Quick access

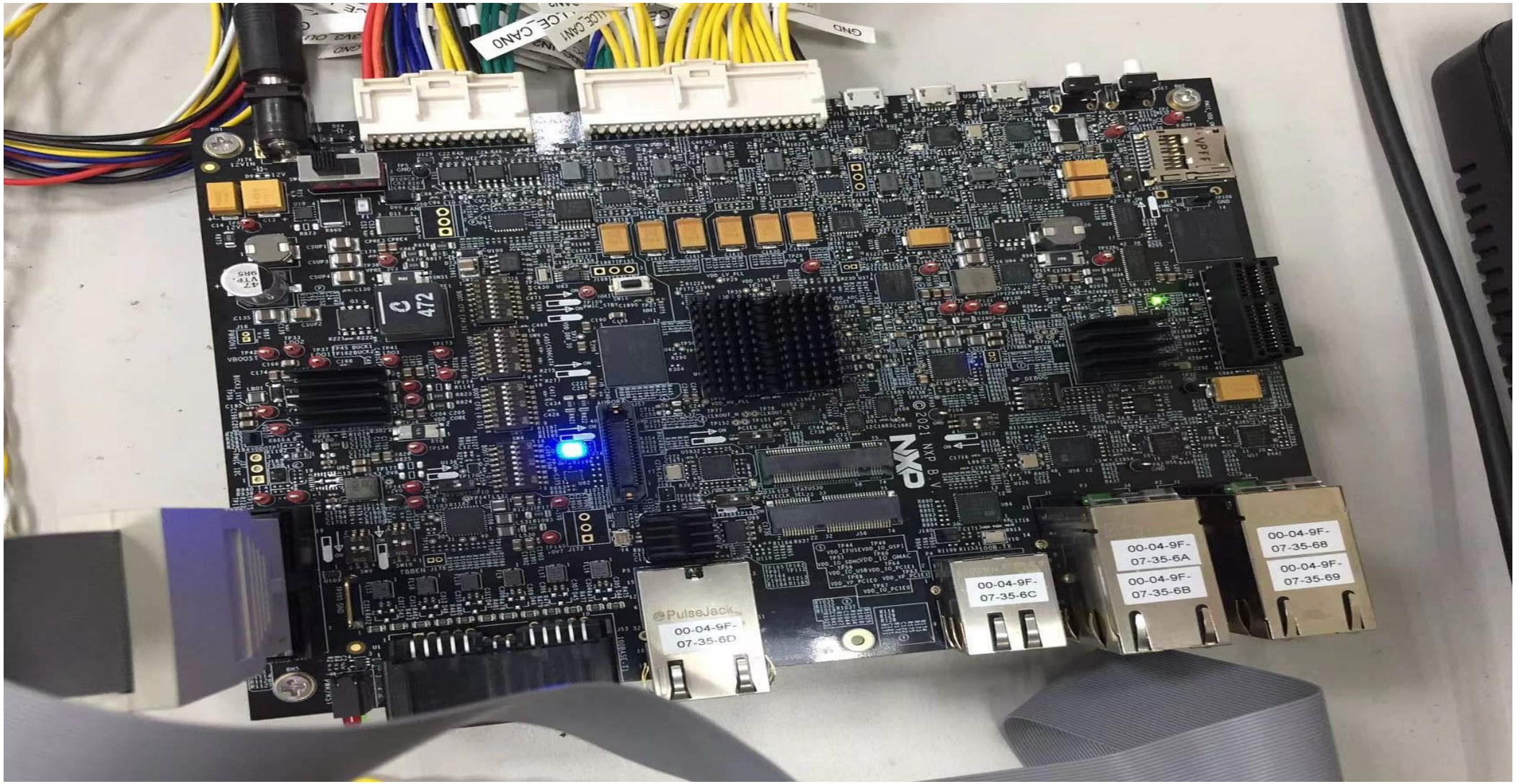
Problems | Tasks | Console | Properties

CDT Build Console [Siul2_Dio_Ip_Example_S32G274A_M7]

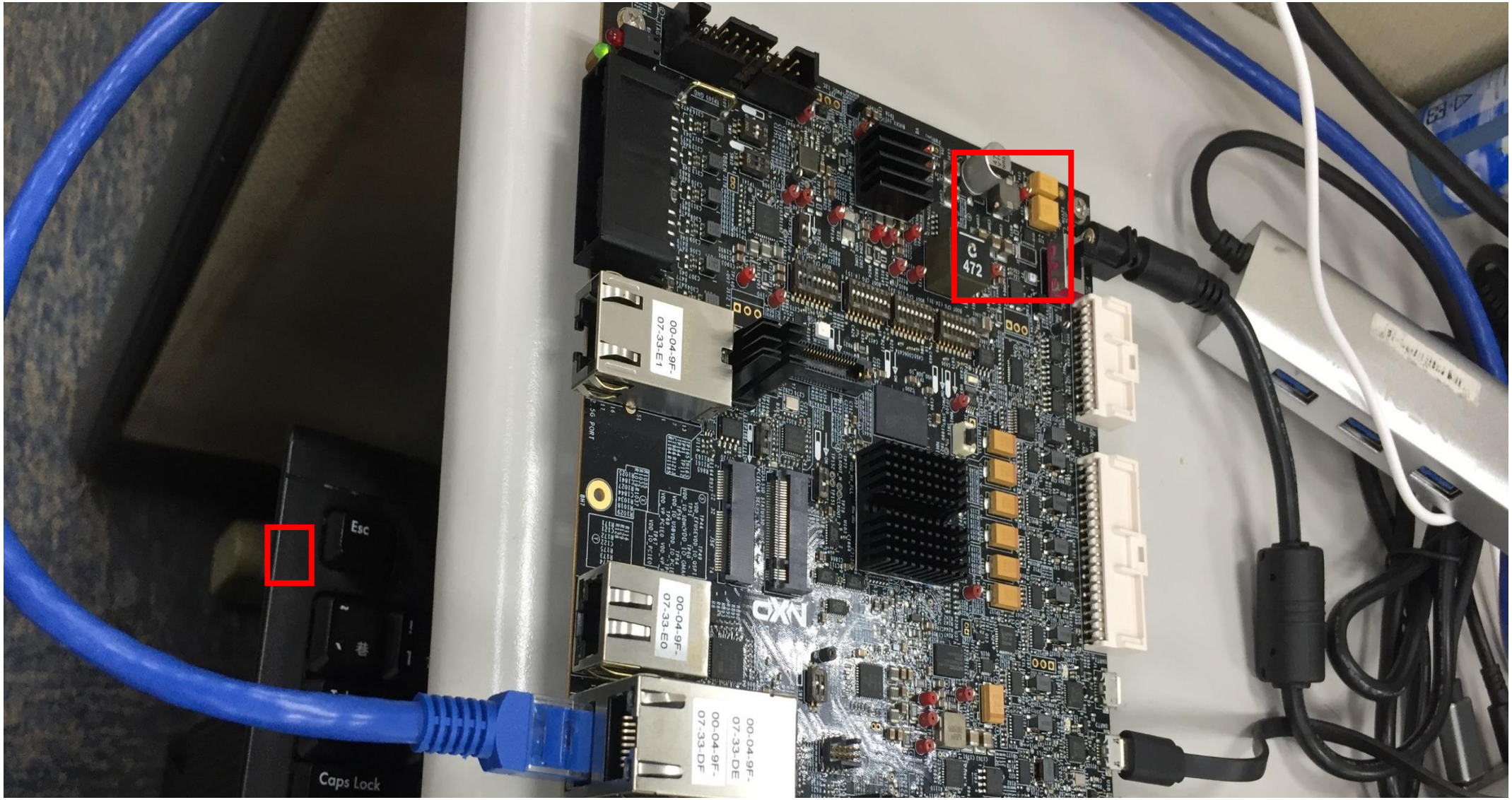
```
Finished building: ../Project_Settings/Startup_Code/startup_cm7.s
Finished building: ../Project_Settings/Startup_Code/exceptions.c

Finished building: ../RTD/src/Siul2_Port_Ip.c
Finished building: ../Project_Settings/Startup_Code/startup.c
Finished building: ../Project_Settings/Startup_Code/nvic.c



Finished building: ../Project_Settings/Startup_Code/system.c

Building target: Siul2_Dio_Ip_Example_S32G274A_M7.elf
Invoking: Standard S32DS C Linker
arm-none-eabi-gcc -o "Siul2_Dio_Ip_Example_S32G274A_M7.elf" "@Siul2_Dio_Ip_Example_S32G274A
Finished building target: Siul2_Dio_Ip_Example_S32G274A_M7.elf

Invoking: Standard S32DS Print Size
arm-none-eabi-size --format=berkeley Siul2_Dio_Ip_Example_S32G274A_M7.elf
   text    data     bss     dec     hex filename
 277028       0   12288  289316   46a24 Siul2_Dio_Ip_Example_S32G274A_M7.elf
Finished building: Siul2_Dio_Ip_Example_S32G274A_M7.siz


13:13:49 Build Finished. 0 errors, 0 warnings. (took 7s.681ms)
```


workspaceS32DS.3.4 - S32 Design Studio for S32 Platform
File Edit Source Refactor Navigate Search Project 配置工具 Run Window Help
Project Explorer
Siul2_Dio_Ip_Example_S32G274A_M7: Debug_RAM
Binaries
Includes
Project_Settings
RTD
board
generate
generate/include
generate/src
src
Outline
Build Targets
There is no active editor that provides an outline.
Properties for Siul2_Dio_Ip_Example_S32G274A_M7
type filter text
Resource
Builders
C/C++ Build
C/C++ General
EmbSys Register View
Project Natures
Project References
Run/Debug Settings
S32 Configuration Tools
SDKs
Task Tags
Validation
Resource
Path: /Siul2_Dio_Ip_Example_S32G274A_M7
Type: Project
Location: C:\Users\fvt21092\workspaceS32DS.3.4\Siul2_Dio_Ip_Example_S32G274A_M7
Last modified: 2022年1月19日 下午1:12:53
Text file encoding
Inherited from container (MS950)
Other: MS950
Store the encoding of derived resources separately
New text file line delimiter
Inherited from container (Windows)
Other: Windows
Restore Defaults
Apply
Apply and Close
Cancel
Getting Started
Quick access
Debug_RAM
檔案 常用 共用 檢視
workspaceS32DS.3.4 › Siul2_Dio_Ip_Example_S32G274A_M7 › Debug_RAM
搜尋 Debug_RAM
快速存取
桌面
下載
文件
圖片
pdf
S32 Flash Tool
S32 Flash Tool BSP28 Download Ok
下載整包code 和 Build code 的方式
OneDrive - Personal
本機
3D 物件
下載
文件
音樂
桌面
圖片
影片
Acer (C:)
Data (D:)
Ubuntu-18.04 (\\wsl$) (Z:)
名稱
修改日期
board 2022/1/19 下午 01:13
generate 2022/1/19 下午 01:13
Project_Settings 2022/1/19 下午 01:13
RTD 2022/1/19 下午 01:13
src 2022/1/19 下午 01:13
makefile 2022/1/19 下午 01:13
objects.mk 2022/1/19 下午 01:13
Siul2_Dio_Ip_Example_S32G274A_M7.args 2022/1/19 下午 01:13
Siul2_Dio_Ip_Example_S32G274A_M7.elf 2022/1/19 下午 01:13
Siul2_Dio_Ip_Example_S32G274A_M7.map 2022/1/19 下午 01:13
sources.mk 2022/1/19 下午 01:13
11 個項目 已選取 1 個項目 1.51 MB
Debug_RAM
13:13:49 Build Finished. 0 errors, 0 warnings. (took 7s.681ms)

JTAG download OK sample



Flash- tool download (Fail)

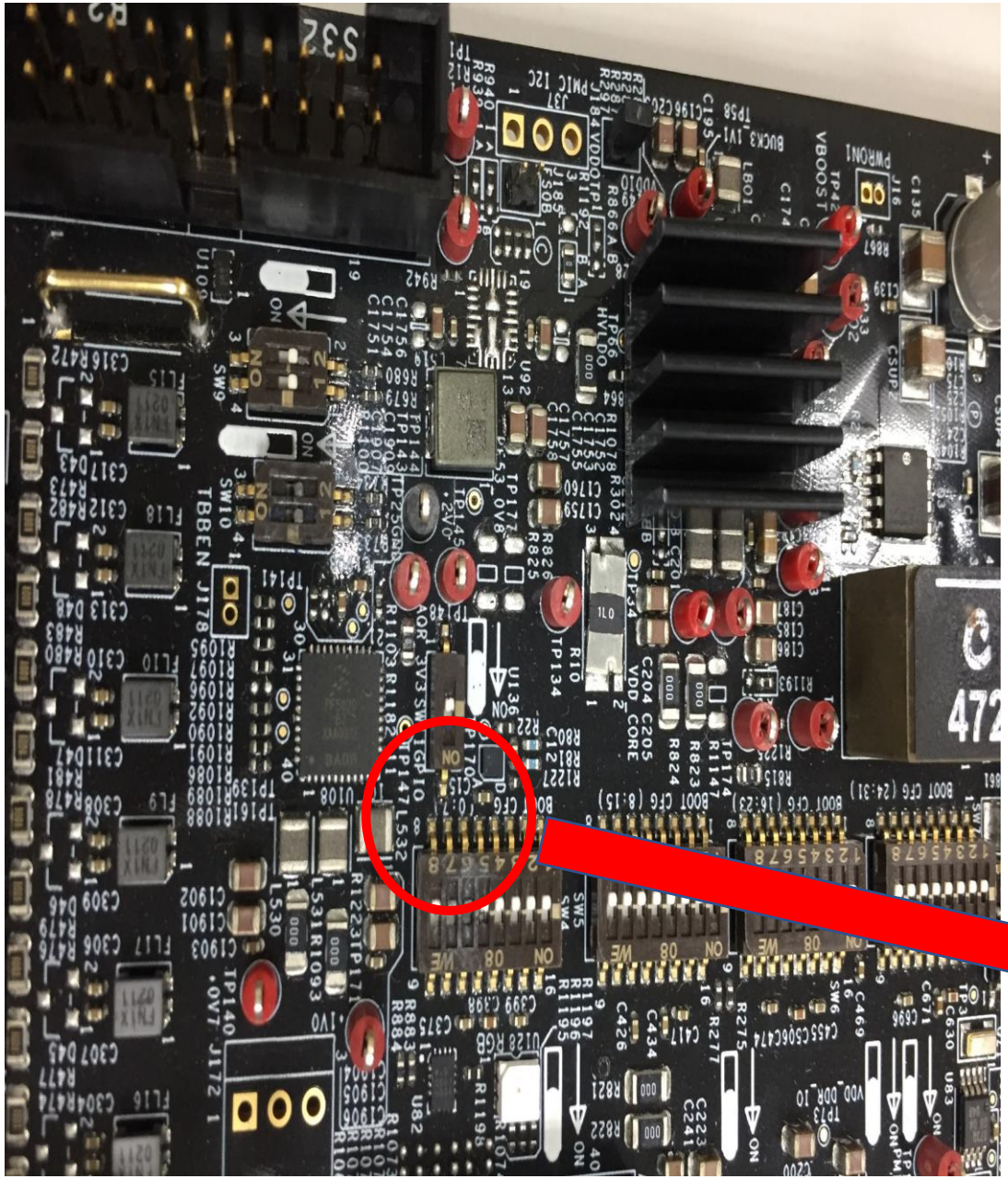


4. References

Table1. The configuration of boot mode.

Switch	SD Boot Setting (default)	eMMC Boot Setting	NOR Flashing Boot Setting	Serial Boot Setting
SW3	ON	OFF	-	-
SW4	7-ON, REST-OFF	6,7-ON, REST-OFF	ALL-OFF	ALL-OFF
SW5	ALL-OFF	ALL-OFF	ALL-OFF	ALL-OFF
SW6	ALL-OFF	ALL-OFF	ALL-OFF	ALL-OFF
SW7	ALL-OFF	ALL-OFF	ALL-OFF	ALL-OFF
SW9	1-OFF, 2-OFF	1-OFF, 2-OFF	1-OFF, 2-OFF	1-OFF, 2-OFF
SW10	1-ON, 2-OFF	1-ON, 2-OFF	1-ON, 2-OFF	1-OFF, 2-OFF

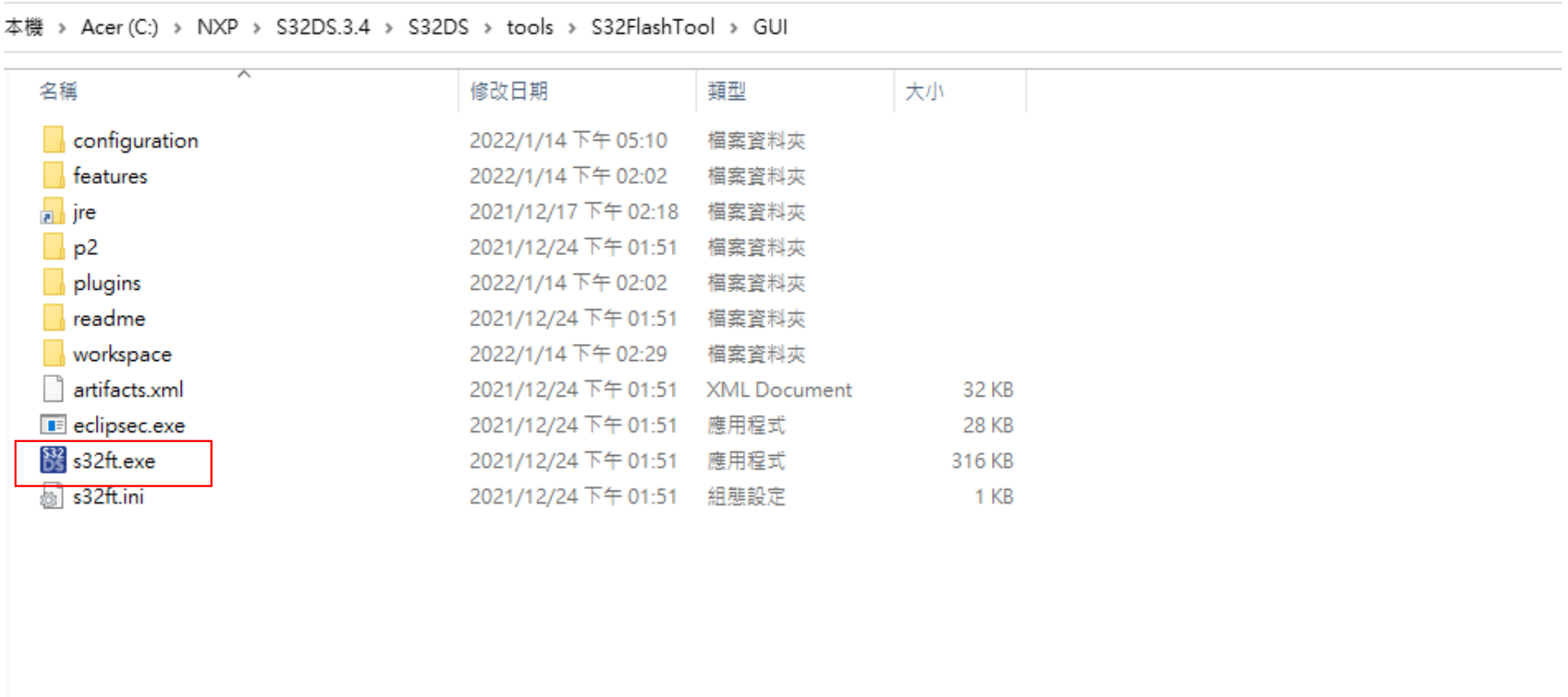
serial port download

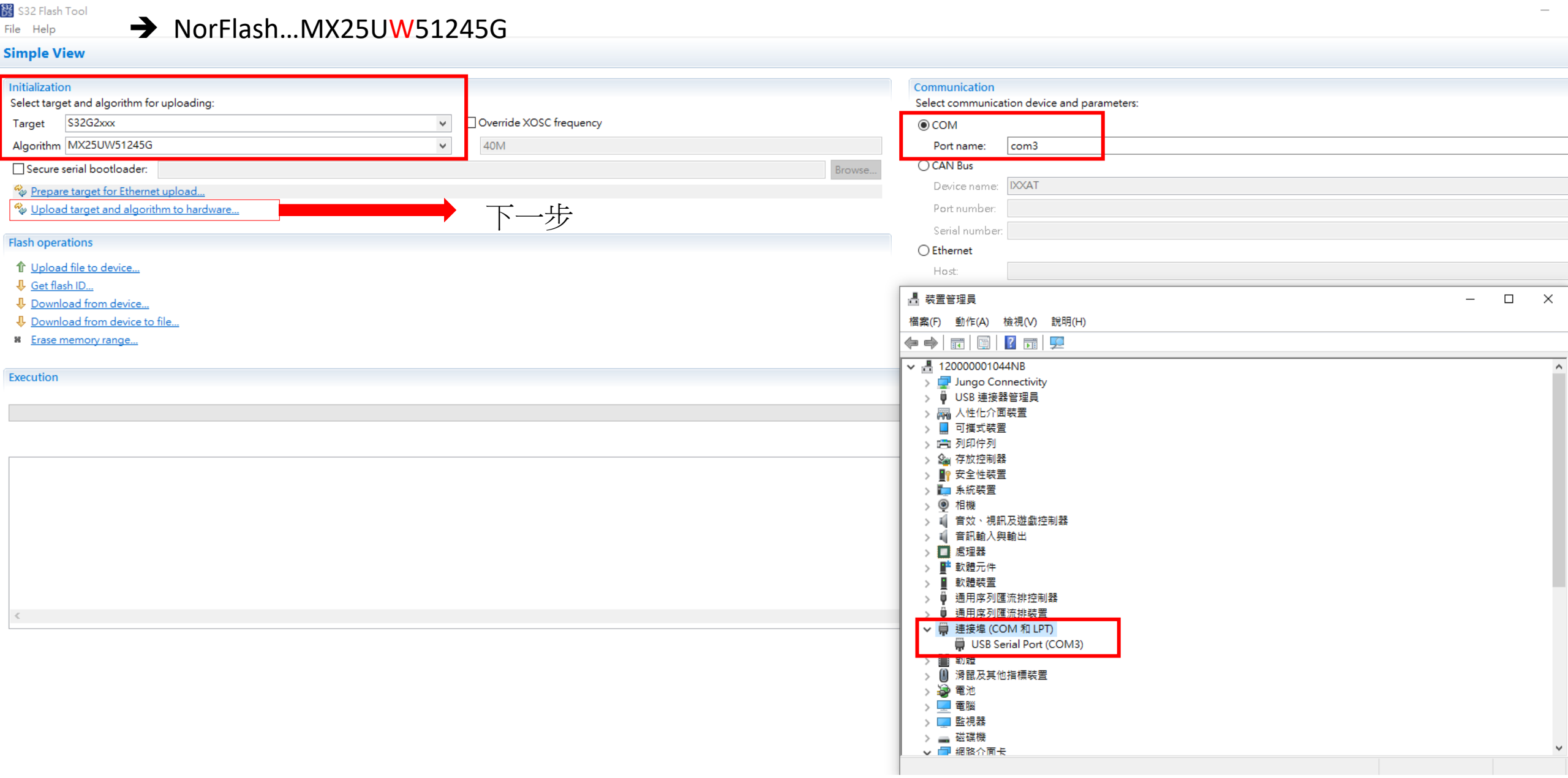


serial port download

Switch	Serial Boot Setting
SW3	-
SW4	ALL-OFF
SW5	ALL-OFF
SW6	ALL-OFF
SW7	ALL-OFF
SW9	1-OFF, 2-OFF
SW10	1-OFF, 2-OFF

Start here


本機 › Acer (C:) › NXP › S32DS.3.4 › S32DS › tools › S32FlashTool › GUI
名稱
修改日期
類型
大小
configuration 2022/1/14 下午 05:10 檔案資料夾
features 2022/1/14 下午 02:02 檔案資料夾
jre 2021/12/17 下午 02:18 檔案資料夾
p2 2021/12/24 下午 01:51 檔案資料夾
plugins 2022/1/14 下午 02:02 檔案資料夾
readme 2021/12/24 下午 01:51 檔案資料夾
workspace 2022/1/14 下午 02:29 檔案資料夾
artifacts.xml 2021/12/24 下午 01:51 XML Document 32 KB
eclipsec.exe 2021/12/24 下午 01:51 應用程式 28 KB
s32ft.exe 2021/12/24 下午 01:51 應用程式 316 KB
s32ft.ini 2021/12/24 下午 01:51 組態設定 1 KB


S32 Flash Tool
File Help
➔ NorFlash…MX25UW51245G
Simple View
Initialization
Select target and algorithm for uploading:
Target S32G2xxx
Override XOSC frequency
Algorithm MX25UW51245G
40M
Secure serial bootloader:
Browse...
Prepare target for Ethernet upload...
Upload target and algorithm to hardware...
下一步
Flash operations
Upload file to device...
Get flash ID...
Download from device...
Download from device to file...
Erase memory range...
Execution
Communication
Select communication device and parameters:
COM
Port name: com3
CAN Bus
Device name: IXXAT
Port number:
Serial number:
Ethernet
Host:
裝置管理員
檔案(F) 動作(A) 檢視(V) 說明(H)
120000001044NB
Jungo Connectivity
USB 連接器管理員
人性化介面裝置
可攜式裝置
列印佇列
存放控制器
安全性裝置
系統裝置
相機
音效、視訊及遊戲控制器
音訊輸入與輸出
處理器
軟體元件
軟體裝置
通用序列匯流排控制器
通用序列匯流排裝置
連接埠 (COM 和 LPT)
USB Serial Port (COM3)
滑鼠及其他指標裝置
電池
電腦
監視器
磁碟機

S32 Flash Tool

File Help

Simple View

Initialization

Select target and algorithm for uploading:

Target: S32G2xxx — Override XOSC frequency

Algorithm: MX25UW51245G — 40M

Secure serial bootloader: — Browse...

Prepare target for Ethernet upload...

Upload target and algorithm to hardware...

Flash operations

Upload file to device...

Get flash ID...

Download from device...

Download from device to file...

Erase memory range...

Communication

Select communication device and parameters:

COM

Port name: com3

CAN Bus

Device name: IXXAT

Port number:

Serial number:

Ethernet

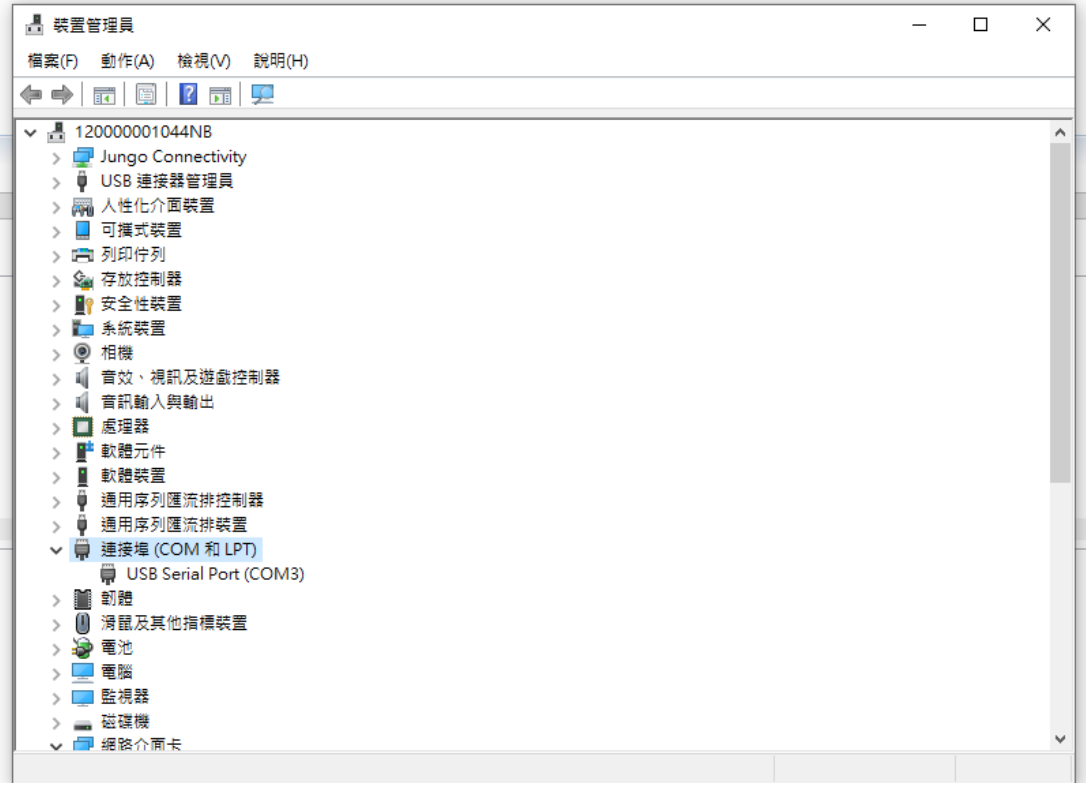
Host:

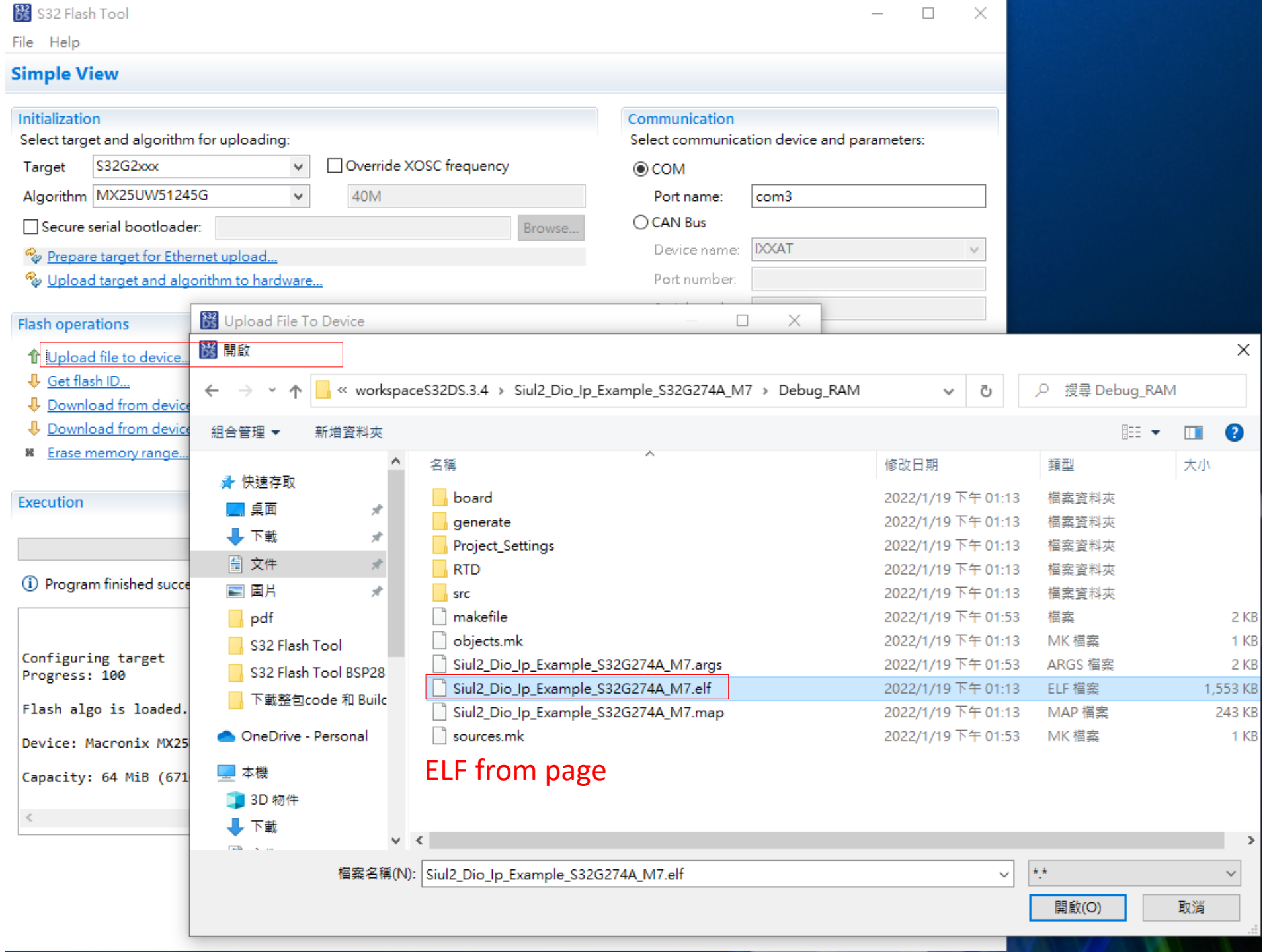
Execution

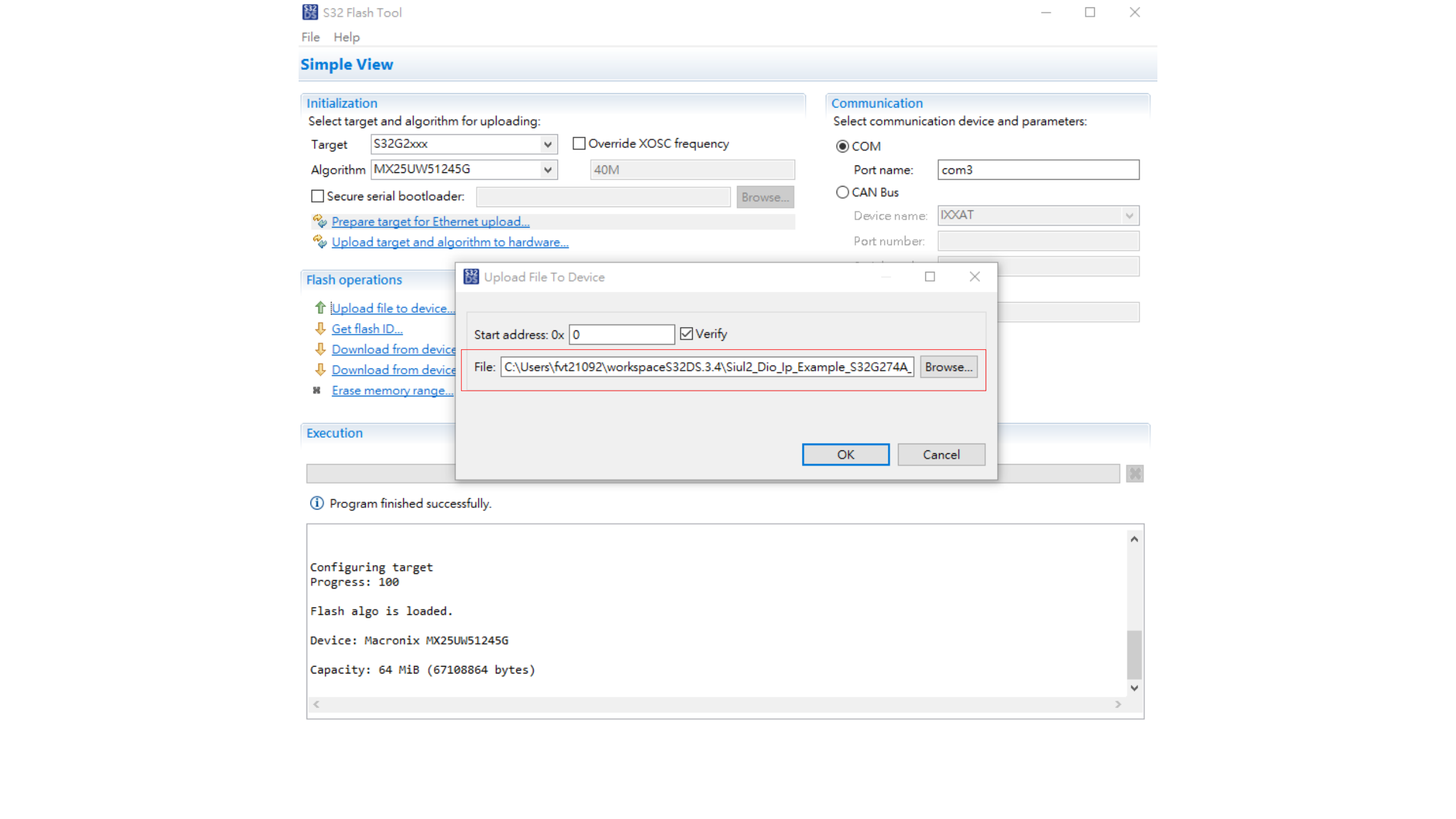
Program finished successfully.

```
Configuring target
Progress: 100

Flash algo is loaded.

Device: Macronix MX25UW51245G

Capacity: 64 MiB (67108864 bytes)
```

Next one




S32 Flash Tool
File Help
Simple View
Initialization
Select target and algorithm for uploading:
Target S32G2xxx
Override XOSC frequency
Algorithm MX25UW51245G
40M
Secure serial bootloader:
Browse...
Prepare target for Ethernet upload...
Upload target and algorithm to hardware...
Communication
Select communication device and parameters:
COM
Port name: com3
CAN Bus
Device name: IXXAT
Port number:
Flash operations
Upload file to device...
Get flash ID...
Download from device
Download from device
Erase memory range...
Execution
Program finished succe
Configuring target
Progress: 100
Flash algo is loaded.
Device: Macronix MX25
Capacity: 64 MiB (671
Upload File To Device
開啟
« workspaceS32DS.3.4 › Siul2_Dio_Ip_Example_S32G274A_M7 › Debug_RAM
搜尋 Debug_RAM
組合管理
新增資料夾
快速存取
桌面
下載
文件
圖片
pdf
S32 Flash Tool
S32 Flash Tool BSP28
下載整包code 和 Builc
OneDrive - Personal
本機
3D 物件
下載
名稱
修改日期
類型
大小
board 2022/1/19 下午 01:13 檔案資料夾
generate 2022/1/19 下午 01:13 檔案資料夾
Project_Settings 2022/1/19 下午 01:13 檔案資料夾
RTD 2022/1/19 下午 01:13 檔案資料夾
src 2022/1/19 下午 01:13 檔案資料夾
makefile 2022/1/19 下午 01:53 檔案 2 KB
objects.mk 2022/1/19 下午 01:13 MK 檔案 1 KB
Siul2_Dio_Ip_Example_S32G274A_M7.args 2022/1/19 下午 01:53 ARGS 檔案 2 KB
Siul2_Dio_Ip_Example_S32G274A_M7.elf 2022/1/19 下午 01:13 ELF 檔案 1,553 KB
Siul2_Dio_Ip_Example_S32G274A_M7.map 2022/1/19 下午 01:13 MAP 檔案 243 KB
sources.mk 2022/1/19 下午 01:53 MK 檔案 1 KB
ELF from page
檔案名稱(N): Siul2_Dio_Ip_Example_S32G274A_M7.elf
.
開啟(O)
取消


S32 Flash Tool
File Help
Simple View
Initialization
Select target and algorithm for uploading:
Target S32G2xxx
Override XOSC frequency
Algorithm MX25UW51245G
40M
Secure serial bootloader:
Browse...
Prepare target for Ethernet upload...
Upload target and algorithm to hardware...
Communication
Select communication device and parameters:
COM
Port name: com3
CAN Bus
Device name: IXXAT
Port number:
Flash operations
Upload file to device...
Get flash ID...
Download from device
Download from device
Erase memory range...
Upload File To Device
Start address: 0x 0
Verify
File: C:\Users\fvt21092\workspaceS32DS.3.4\Siul2_Dio_Ip_Example_S32G274A_
Browse...
OK
Cancel
Execution
Program finished successfully.
Configuring target
Progress: 100
Flash algo is loaded.
Device: Macronix MX25UW51245G
Capacity: 64 MiB (67108864 bytes)

S32 Flash Tool

File Help

Simple View

Initialization

Select target and algorithm for uploading:

Target: S32G2xxx — Override XOSC frequency

Algorithm: MX25UW51245G — 40M

Secure serial bootloader: Browse...

Prepare target for Ethernet upload...

Upload target and algorithm to hardware...

Communication

Select communication device and parameters:

COM

Port name: com3

CAN Bus

Device name: IXXAT

Port number:

Serial number:

Ethernet

Host:

Flash operations

Upload file to device...

Get flash ID...

Download from device...

Download from device to file...

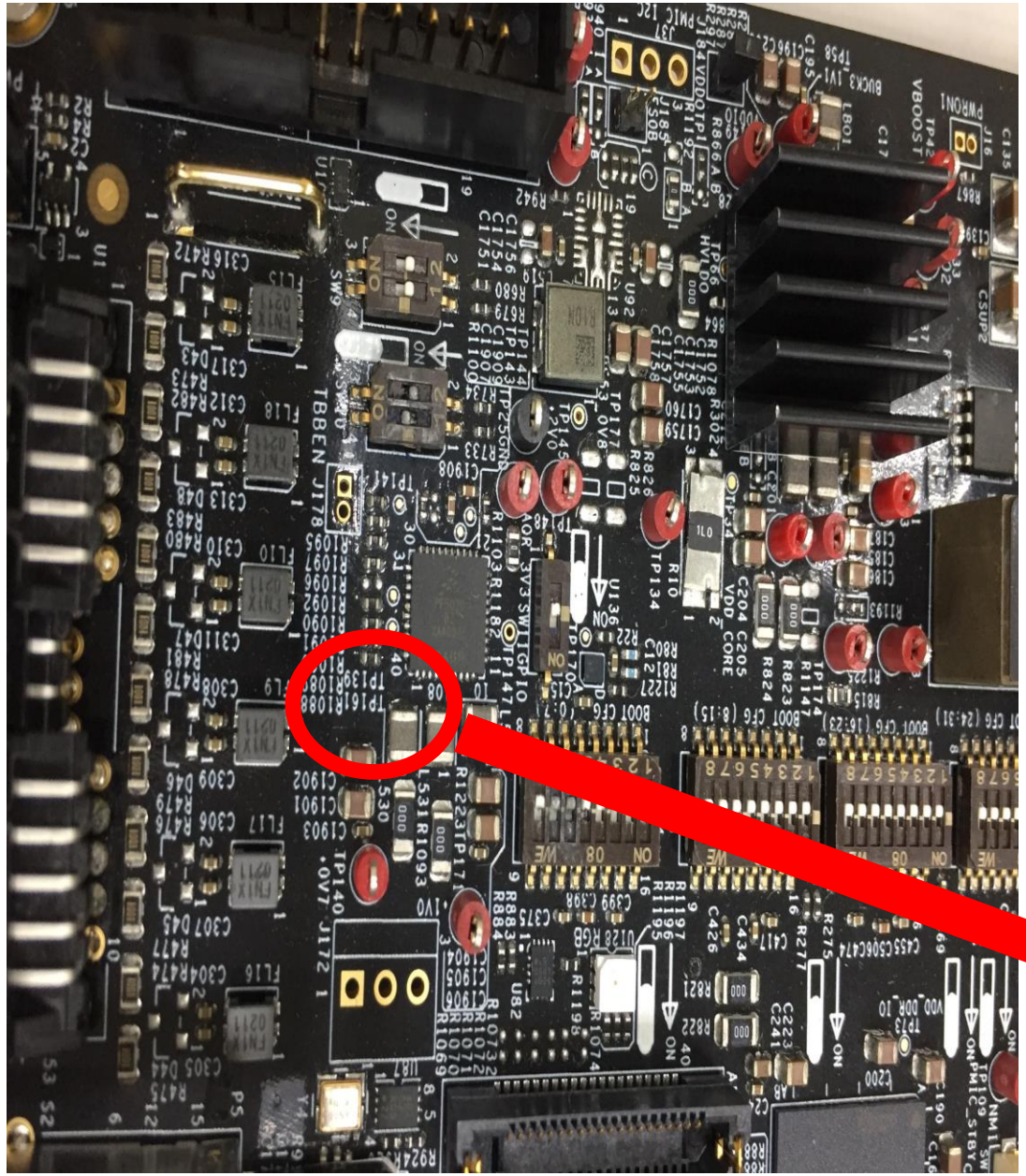
Erase memory range...

Execution

Program finished successfully.

```
Progress: 99
Progress: 100

Verification successful.

Data file is loaded.

Time spent: 18.11 sec.
```

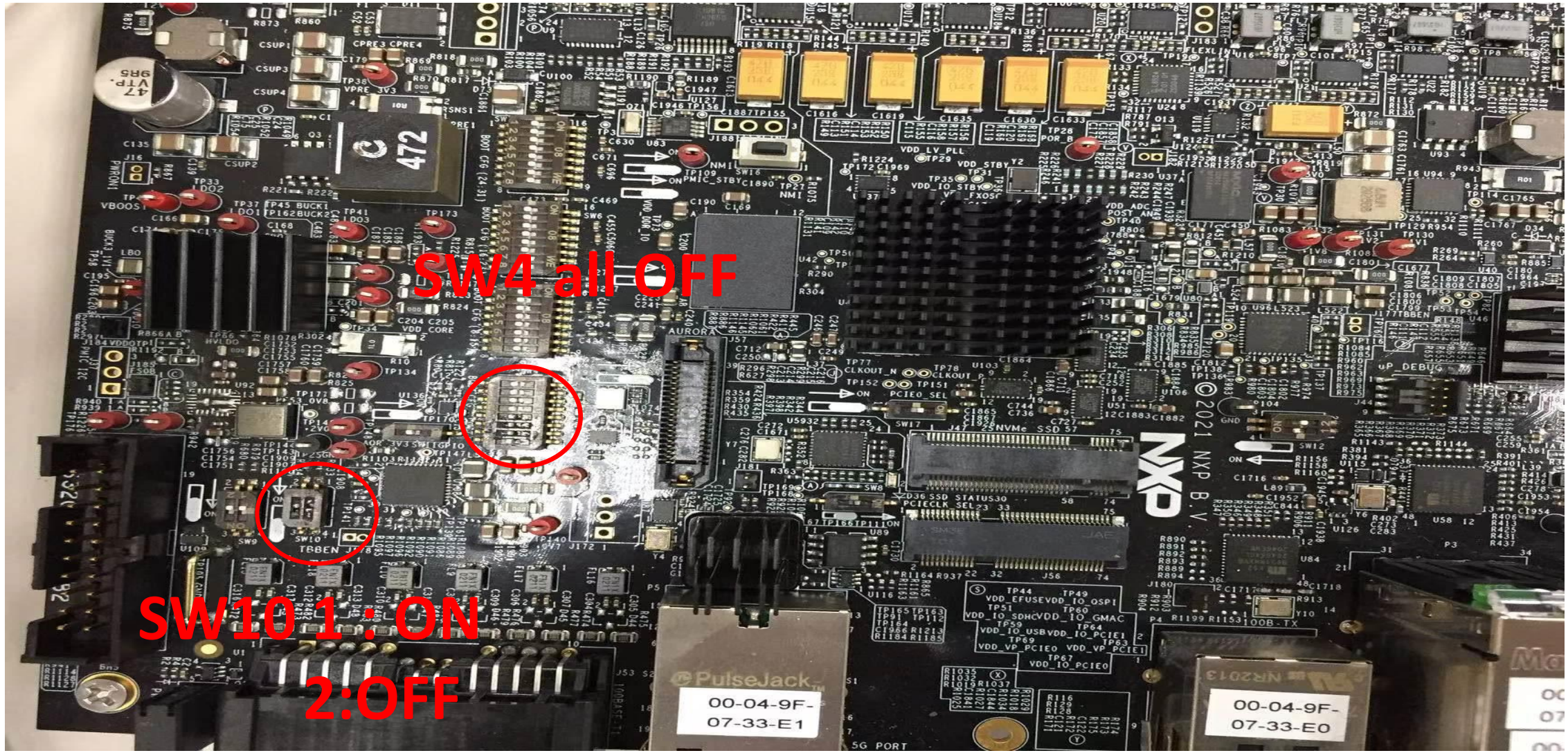
Elf download to nor flash OK

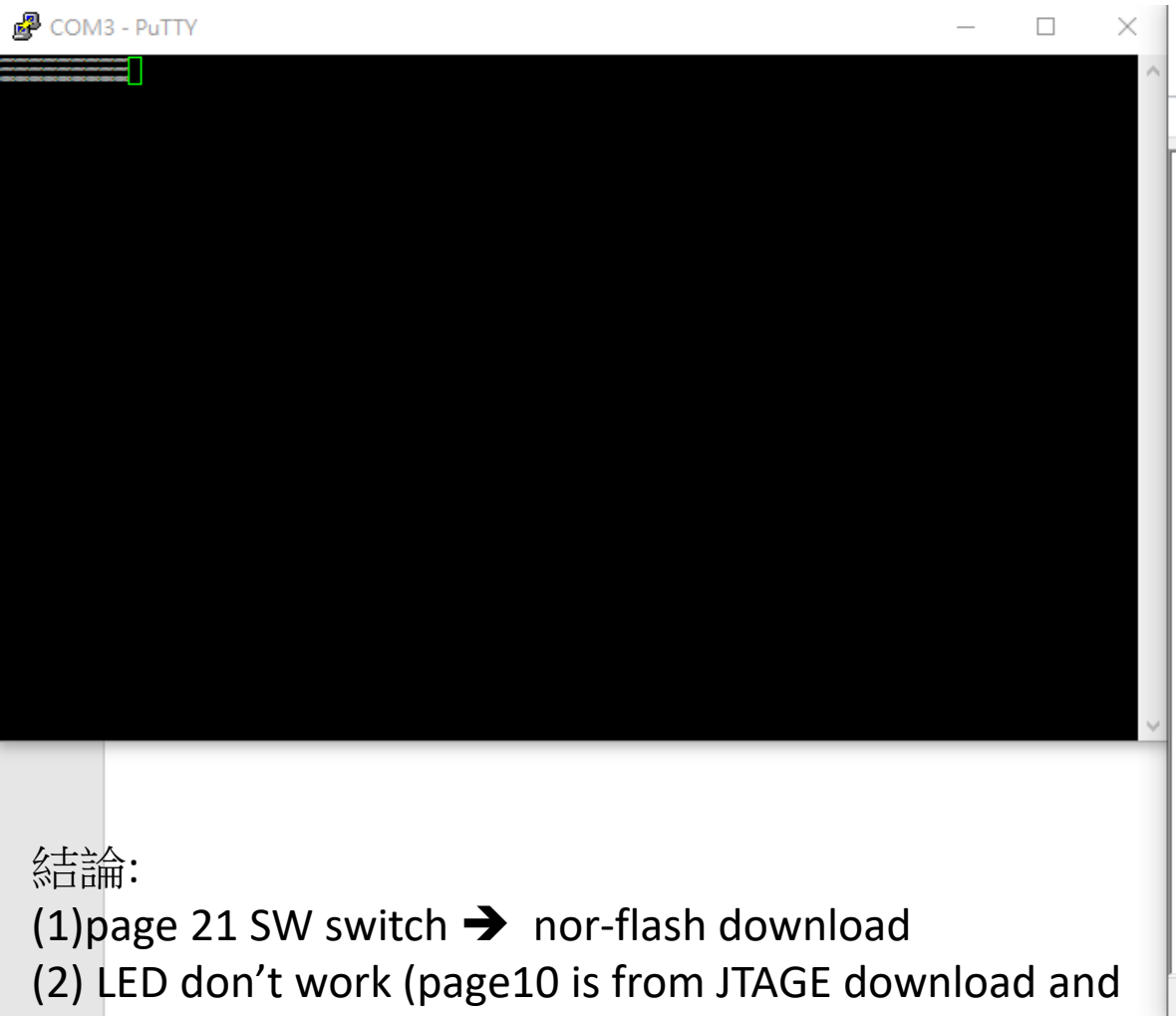


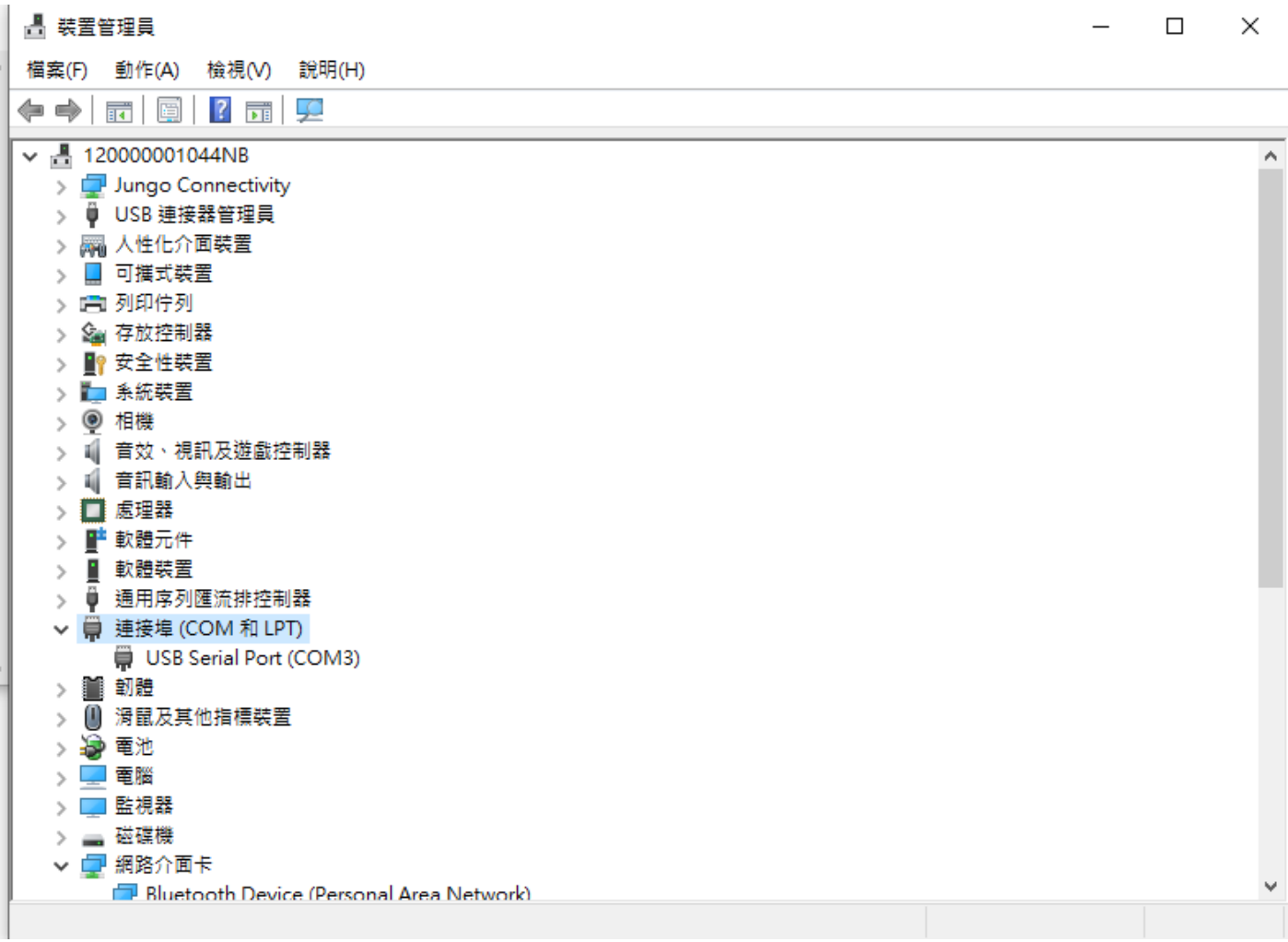
Nor Flash boot

Switch	NOR Flashing Boot Setting
SW3	-
SW4	ALL-OFF
SW5	ALL-OFF
SW6	ALL-OFF
SW7	ALL-OFF
SW9	1-OFF, 2-OFF
SW10	1-ON, 2-OFF

Nor Flash boot







結論:

(1)page 21 SW switch ➔ nor-flash download

(2) LED don’t work (page10 is from JTAGE download and it is OK), console doesn’t any message