Arduino FAQ

V0.2

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Document History

Version	Completion Time	Revision Record	Author	Auditor
V0.1	2019/3/15	Create document.	Huang Leilei	Wang Min
V0.2	2019/4/12	Update pictures according 0.2.4	Huang Leilei	Wang Min

Content

1 Introdution

1.1 Purpose

This document describes some question during using W60x Arduino BSP in your work, and give some solutions on this question.

1.2 Readers

W60x developers and application project developers.

2 FAQ

2.1 Environment Configure & Compiler

2.1.1 How to handle arm-none-eabi-g++、makeimg.exe、makeimg_all.exe execute exceptions?

Start Arduino IDE as Administrator.

- Root cause

Arduino IDE use arm-none-eabi-g++, arm-none-eabi-gcc, arm-none-eabi-ar commands to compiler the source code files, and use makeimg.exe, makeimg_all.exe commands to generate img files and FLS file, which will be burn into the chip. All of them should work with the right permission to create the middle files and target files.

2.1.2 What should do before firstly developing the application on W60X chip with Arduino IDE?

1. Compile & generate the firmware using on W60X chip with Generic W600 board option;

2. Burn the FLS file, which is generated in %temp%\arduino_build_xxxx path (in windows system), into W60X chip with refer to << WM_W60X_Firmware Update Guide>>, which you can find on http://www.winnermicro.com/en/ , especially for the **0.3.0** **wmtools** and later (the version of bsp called w600-arduino is **0.2.3**).

2.1.3 What are the liminations during building python environment?

1）If you want to use python script to upload the firmware file, you should better install python3 (suggest version 3.4.4);

2）If you download the bsp' version is not under 0.2.3, which support you develeop coder in Arduino IDE on W600_EV DevBoard, you should only install pyserial library with pip command offered by python. Otherwise, you need to install an additional xmodem and pyprind library.

If you did not burn FLS to W600_EV DevBoard, the current version of wmtools will burn it automaticly, as described in chapter of **2.2.2**.

2.1.4 Can I use the bsp in Windows XP system on W600_EV DevBoard?

Because of some unexpect condistion running in Windows XP, we do NOT suggest you develeop your code. If you only want to edit and compiler your work, it will work well.

2.2 Upload/Burn firmware

2.2.1 What should I do when it appears “Second try cycle…” or “Third try cycle…” in interactive interface of Arduino IDE?

When it print “Second try cycle”, it means the burn program did not get the right response from the serial port with AT command. There may be two situations: First, the buad rate using in the board is not supported in Arduino IDE; second, the MCU in board did not response ‘at+z’ command which sent by the burn program.

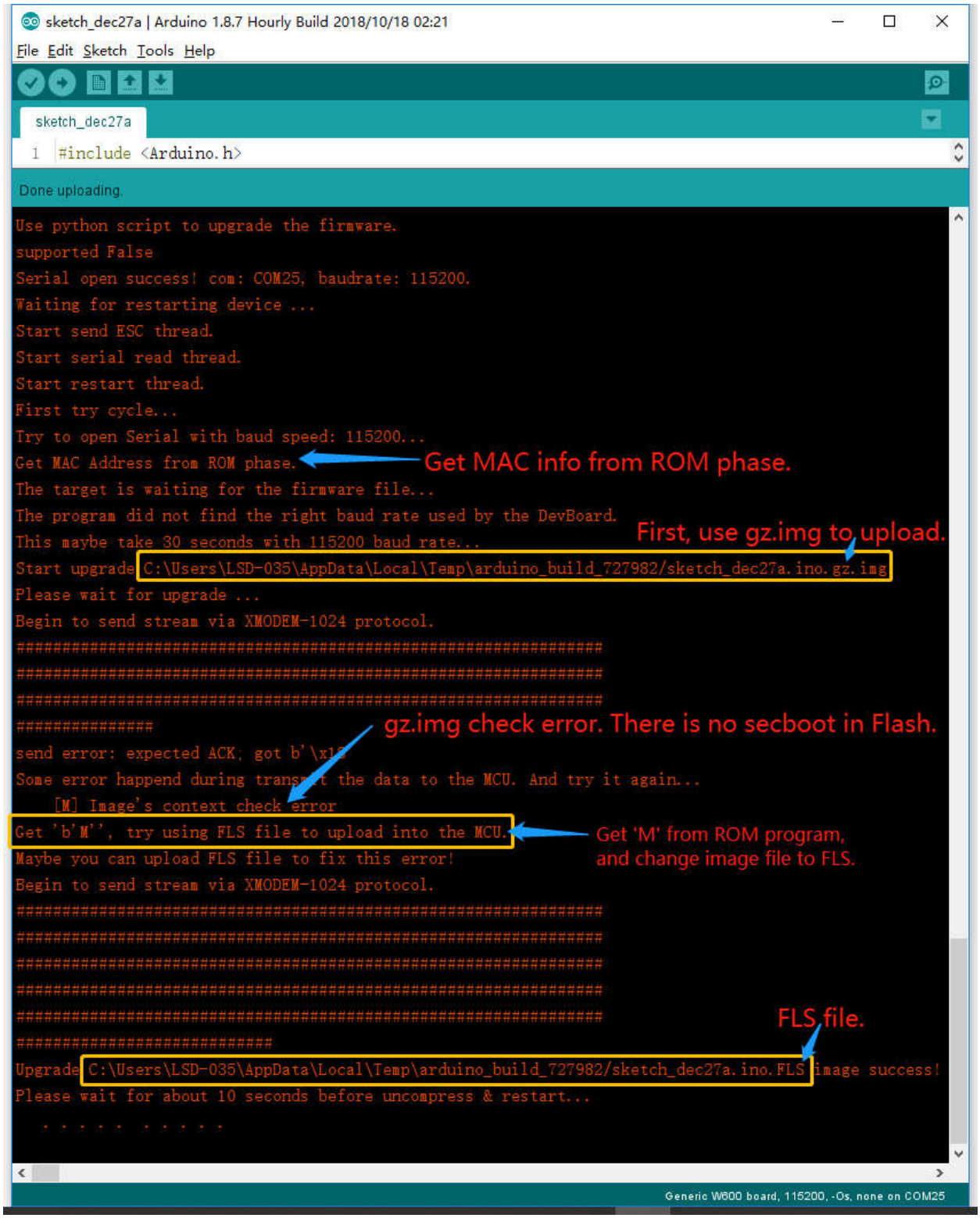
For the first situation, you need to upload manually.

For the second situation, it is very likely that the MCU cannot schedule to responsing the AT+Z command via UART. So, it’s better to press RST key at a certain interval, to let the burn program send “ESC” to the secboot phase in order to start xmodem protocol.

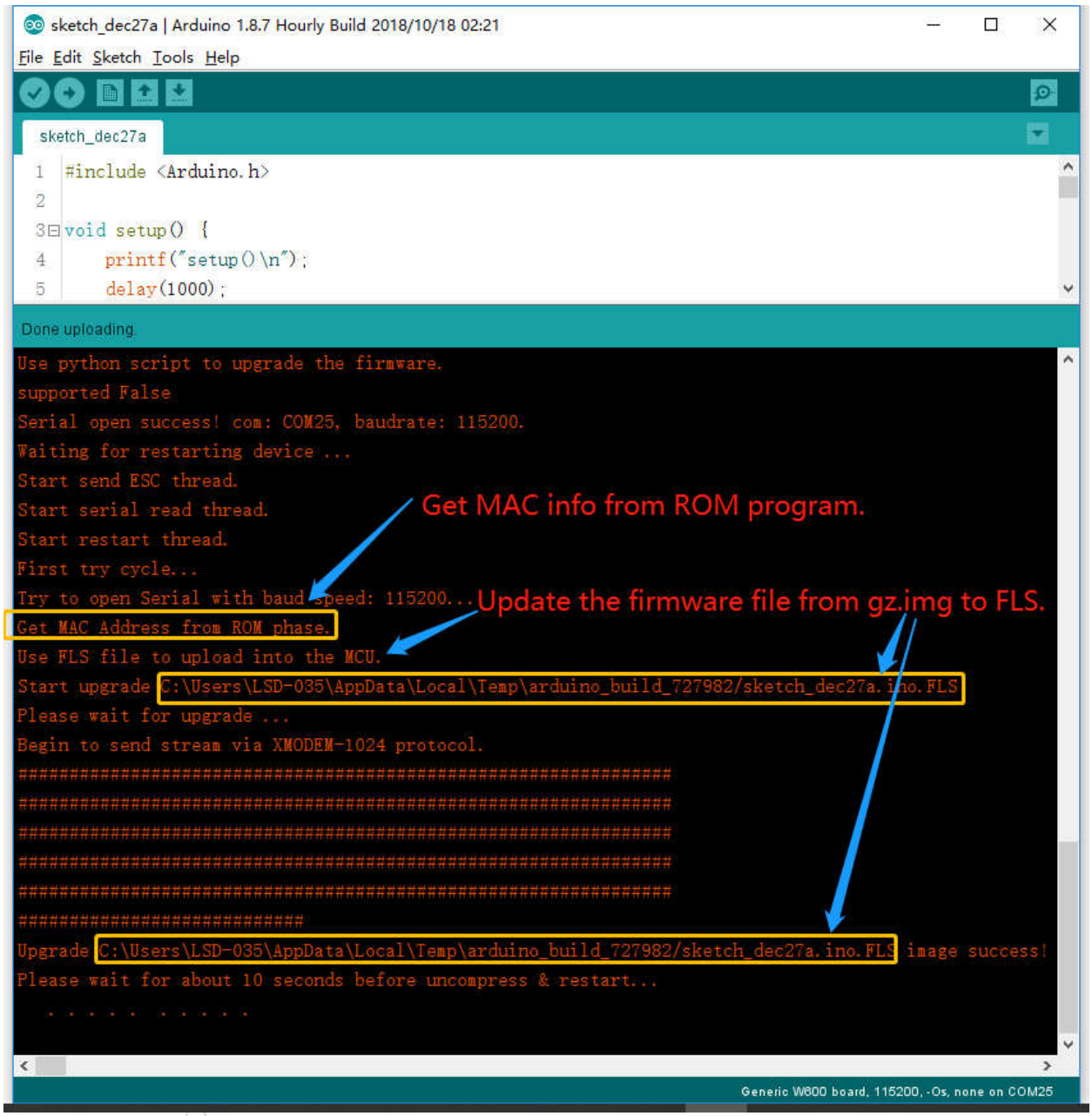
2.2.2 How can I upload FLS file into W600_EV DevBoard?

When you first get the W600_EV DevBoard, or when there is no valid firmware in Flash, you need burn FLS file once. In both cases, FLS file can be burned through Arduino IDE.

If you did not burn fls file, the upload program will upload the FLS automatically. The effect and time point are as follows:

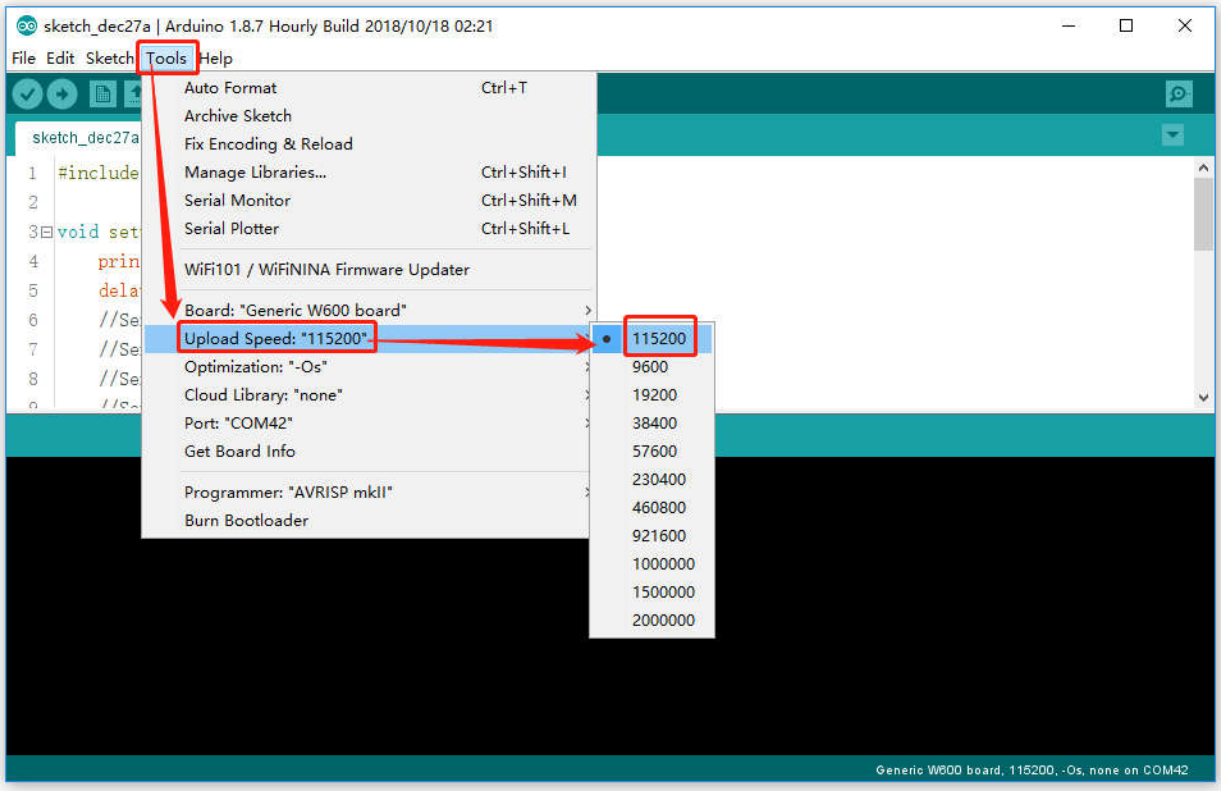

sketch_dec27a | Arduino 1.8.7 Hourly Build 2018/10/18 02:21
File Edit Sketch Tools Help
sketch_dec27a
1 #include <Arduino.h>
Done uploading.
Use python script to upgrade the firmware.
supported False
Serial open success! com: COM25, baudrate: 115200.
Waiting for restarting device ...
Start send ESC thread.
Start serial read thread.
Start restart thread.
First try cycle...
Try to open Serial with baud speed: 115200...
Get MAC Address from ROM phase.
Get MAC info from ROM phase.
The target is waiting for the firmware file...
The program did not find the right baud rate used by the DevBoard.
This maybe take 30 seconds with 115200 baud rate...
First, use gz.img to upload.
Start upgrade C:\Users\LSD-035\AppData\Local\Temp\arduino_build_727982/sketch_dec27a.ino.gz.img
Please wait for upgrade ...
Begin to send stream via XMODEM-1024 protocol.
gz.img check error. There is no secboot in Flash.
send error: expected ACK; got b'\x1
Some error happend during transmit the data to the MCU. And try it again...
[M] Image's context check error
Get 'b'M'', try using FLS file to upload into the MCU.
Get 'M' from ROM program,
and change image file to FLS.
Maybe you can upload FLS file to fix this error!
Begin to send stream via XMODEM-1024 protocol.
FLS file.
Upgrade C:\Users\LSD-035\AppData\Local\Temp\arduino_build_727982/sketch_dec27a.ino.FLS image success!
Please wait for about 10 seconds before uncompress & restart...
Generic W600 board, 115200, -Os, none on COM25

or



Finally, after upload FLS file, the DevBoard can NOT restart and use the latest firmware to work, so you need to press RST button to restart it manually.

By the way, in order to upload FLS firmware file, you should set “Upload Speed” to **115200** in Arduino IDE as follows:



Notes:

Please make sure that do NOT press RST button during upload the img into the DevBoard via Arduino IDE.