FIRMWARE AND SOFTWARE VERSION 2.0 rc1 release notes:

What's new:

- speed improvements, data is transferred to the emulator in binary format, so it now takes only around 11s for 64Kb (27512 EPROM) - around 15s when "-spi" option is enabled.
- The "-spi" option now works correctly for any range of data (SPI EEPROM save option).
- Support for both binary files (.bin) and iHEX files (.hex). For binary files you can provide the start address to load the data in with "–address" option (defaults to 0x0000h).
- GUI now saves previously used parameters (you must run pysimplegui 4.30.0 or newer).
- "Data Map" shows where the information is loaded.

Before you run the new python script upgrade the "pysimplegui" package, must be 4.30.0 or newer, you can check what you are running and upgrade using "pip" commands:

#pip show pysimplegui
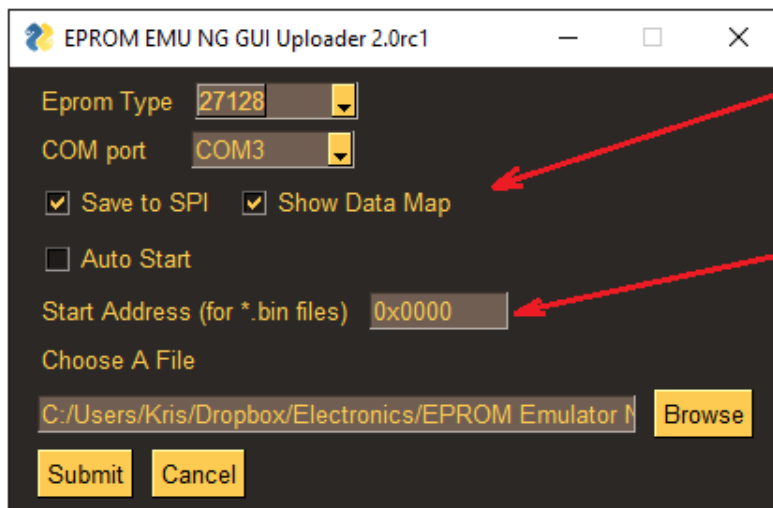
Name: PySimpleGUI

Version: 4.30.0

If version shows anything below 4.30.0 run the upgrade:
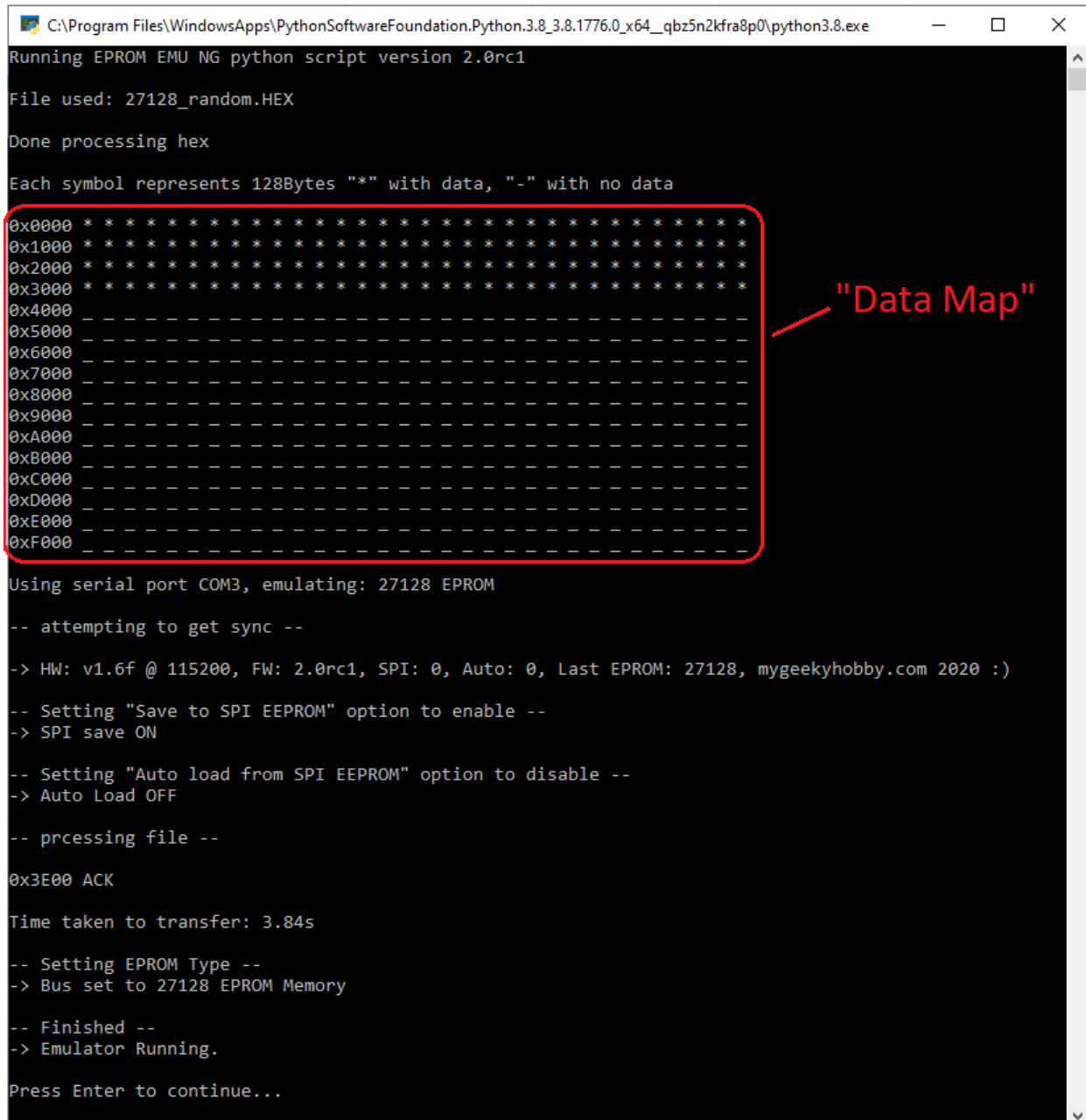
#pip install pysimplegui -U

Some additional information. The software / firmware has been largely changed, in the past most of the "logic" in processing the file was done on the Arduino, now it's all done in the python code on the computer. The script maintains a local "buffer" where all the data gets loaded first. The buffer is split into 128Bytes "blocks" and any block that has been used is marked for upload to the emulator. Data gets uploaded to the emulator in packets of between 1 and 4, 128Byte blocks.

The control script now shows a data map, representing the blocks of data that will be sent to the emulator, it's a nice way to "see" where your file will be placed in the address space. Each "*" or "_" represents 128 Bytes of data sectors, "*" is a sector with data and "_" is a sector with no data (the bin or hex file had no data for that area of the memory space). Only the sectors with data ("*") are transferred to the emulator.

```
C:\Program Files\WindowsApps\PythonSoftwareFoundation.Python.3.8_3.8.1776.0_x64__qbz5n2kfra8p0\python3.8.exe         —    □    ×
Running EPROM EMU NG python script version 2.0rc1

File used: 27128_random.HEX

Done processing hex

Each symbol represents 128Bytes "*" with data, "-" with no data

0x0000 * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
0x1000 * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
0x2000 * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
0x3000 * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
0x4000 _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
0x5000 _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
0x6000 _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
0x7000 _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
0x8000 _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
0x9000 _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
0xA000 _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
0xB000 _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
0xC000 _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
0xD000 _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
0xE000 _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
0xF000 _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

Using serial port COM3, emulating: 27128 EPROM

-- attempting to get sync --

-> HW: v1.6f @ 115200, FW: 2.0rc1, SPI: 0, Auto: 0, Last EPROM: 27128, mygeekyhobby.com 2020 :)

-- Setting "Save to SPI EEPROM" option to enable --
-> SPI save ON

-- Setting "Auto load from SPI EEPROM" option to disable --
-> Auto Load OFF

-- prcessing file --

0x3E00 ACK

Time taken to transfer: 3.84s

-- Setting EPROM Type --
-> Bus set to 27128 EPROM Memory

-- Finished --
-> Emulator Running.

Press Enter to continue...
```

"Data Map"

This is an a "Release Candidate" version of the software and is likely to still contain bugs, use with caution, please report any bugs if found.

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