



DisplayPort Expansion Card Power Saving Firmware Update

This guide allows owners of 1st Generation DisplayPort Expansion Cards to update to the 2nd Generation Firmware.

Written By: Sandy Qualey-Dobson



INTRODUCTION

This guide allows owners of 1st Generation DisplayPort Expansion Cards to update to the 2nd Generation Firmware.

After over a year of prototyping and experiments, we've been able to come up with a way to reduce system power consumption when a DisplayPort Expansion Card is present, by making the card pretend that it is not a display output when there is no monitor connected.

The tools provided by our vendor for this update process are Windows only.

Step 1 — Download Executables



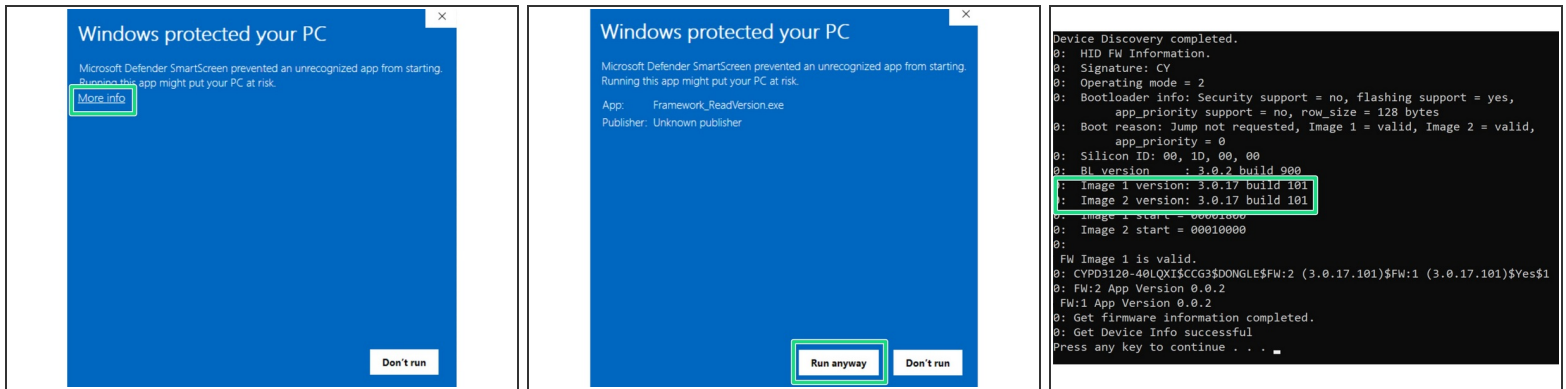
- First you will need to download the Windows Executables from [here](#) and unzip them.
- There should be two files Framework_ReadVersion.exe and Framework_DP_Card_3.0.17.101.exe

Step 2 — Plug in your DisplayPort Expansion Card



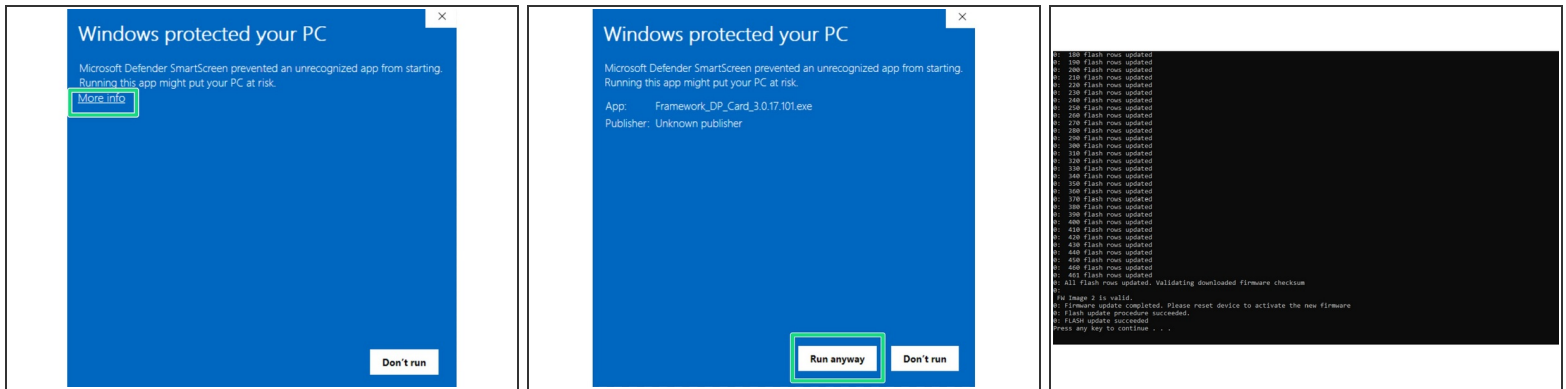
- In order to run the updater the Expansion Card must be installed in your Framework Laptop

Step 3 — Check the current Firmware



- Run **Framework_ReadVersion.exe** to check that is not already on the 101 firmware.
 - ① If you receive an error about VCRUNTIME140.dll, make sure you have both the X86 and X64 versions of [Microsoft Visual C++ Redistributable](#) installed.
- ⚠ When trying to run the executable you will likely be prompted by Windows Defender. Simply click **More Info** and then **Run Anyway**.
- Once this runs you can check the **Image 1 Version** and **Image 2 Version**. In this image the build version is 101.

Step 4 — Run the Update executable



- Run **Framework_DP_Card_3.0.17.101.exe**

⚠ When trying to run the executable you will likely be prompted by Windows Defender. Simply click **More Info** and then **Run Anyway**.

- The Flash process will be started automatically.
- Hit any key after it tells you to.

Step 5 — Check Firmware version after Update

```
C:\Users\nrp\AppData\Local\ x + v
0: Image 2 start = 00010000
0:
Entered flashing mode successfully.
0: 1 HID devices found.
0: 0 USB-Serial Bridge devices found.
0: Communication interface initialized.
0: ?Control Interface (0)$Port(0)-UFP:1$
0:
Device Discovery completed.
0: HID FW Information.
0: Signature: CY
0: Operating mode = 2
0: Bootloader info: Security support = no, flashing support = yes,
  app_priority support = no, row_size = 128 bytes
0: Boot reason: Jump not requested, Image 1 = valid, Image 2 = valid,
  app_priority = 0
0: Silicon ID: 00, 1D, 00, 00
0:
0: Image 1 version: 3.0.17 build 101
0: Image 2 version: 3.0.17 build 101
0:
0: Image 2 start = 00010000
0:
FW Image 1 is valid.
0: CYPD3120-40LQXI$CCG3$DONGLE$FW:2 (3.0.17.101)$FW:1 (3.0.17.101)$Yes$1
0: FW:2 App Version 0.0.2
FW:1 App Version 0.0.2
0: Get firmware information completed.
0: Get Device Info successful
Press any key to continue . . .
```

- Run **Framework_ReadVersion.exe** again to confirm that both flash regions state 101.
- ⓘ If you find you need to downgrade to the Gen 1 Firmware, you can do so by downloading the files from [this link](#), and repeating steps 3-5 using these files instead.

