PICKit5 Program-to-Go Guide

S&A Systems

PICKit5 Support Documentation

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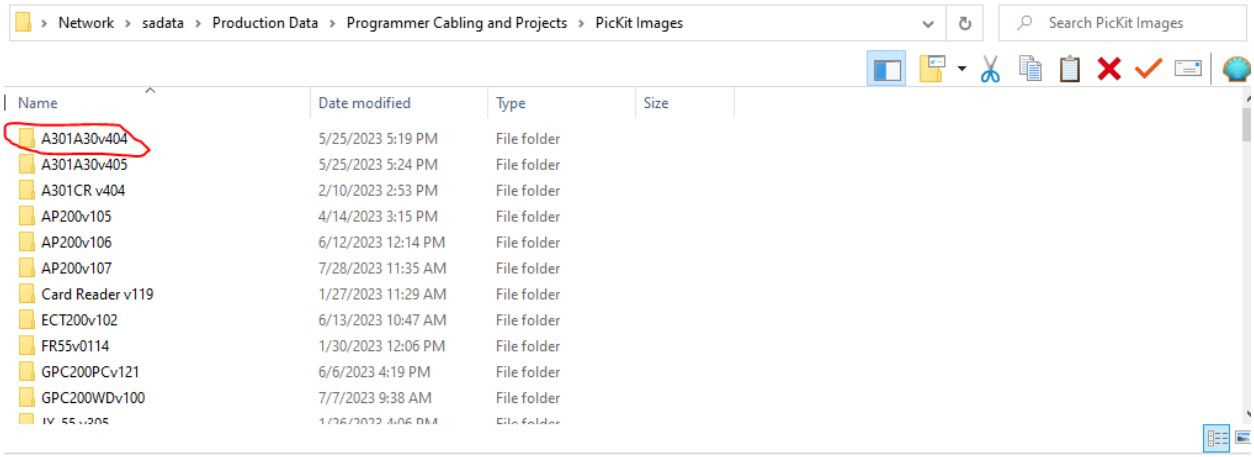
Notes:

It is recommended that the user use the PICKit5 program-to-go functionality through the mobile application, as outlined below. In addition, the PICKit5 can function identically to how the PICKit4 functioned, as outlined in the PICKit4 user guide documentation, although it requires MPLAB X Version 6.xx to be set to program to go mode if this method is used. All LED codes on the PICKit5 are the same as they were on the PICKit4.

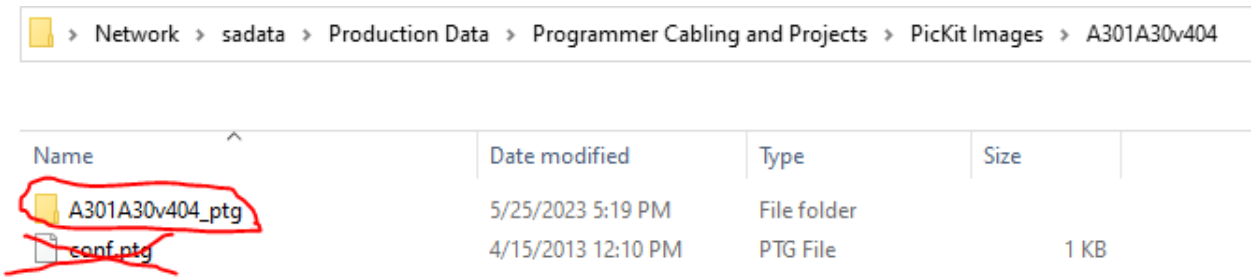
Program-to-Go From the Mobile Application:

1. Go to \\sadata\Production Data\Programmer Cabling and Projects\PicKit Images and open the folder corresponding to the image you want on the SD card. Copy ONLY the folder ending in _ptg and copy it to your SD Card. DO NOT COPY THE conf.ptg FILES. The images below show an example of loading the A301A30 version 4.04 image onto an SD card for the PICKit5. The PICKit5 can store multiple images on a single SD card so you may repeat this step multiple times.

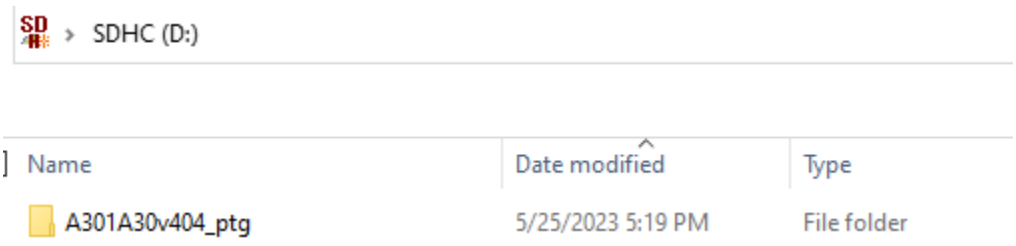
Select Image Folder:



Copy _ptg Folder:

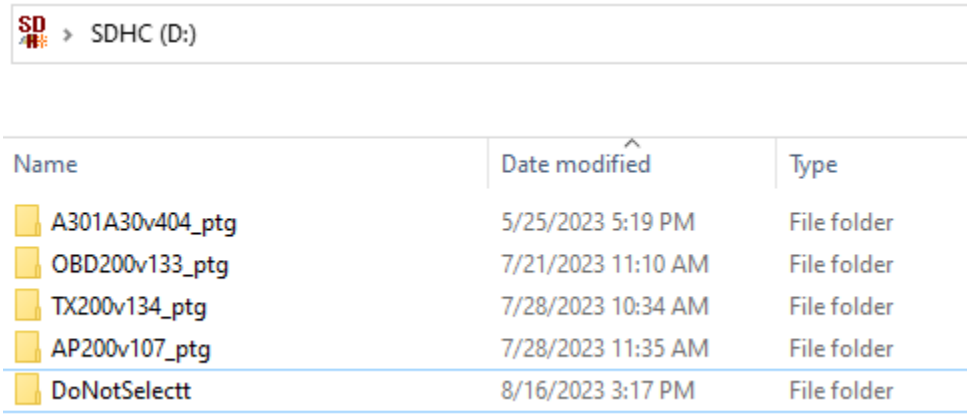


Paste to SD Card:

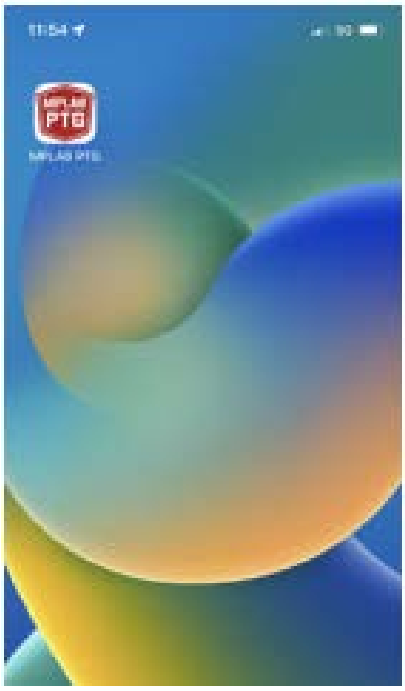


Repeat For Any Other Desired Images.

2. Add a new folder and label it “DoNotSelectt”. The mobile app will never work with the last folder you add do to deleting the last character of its name, so you need to make sure that the last folder added is always a dummy folder. **If you add more images in the future remember to delete and re-add this dummy folder again.** Below is an example of an SD card after a few images and a dummy folder have been added.



3. Install the “MPLAB PTG” app on your mobile device via whatever your app store equivalent is. The logo is as shown below. All sample images in this guide will be from an Apple mobile device.



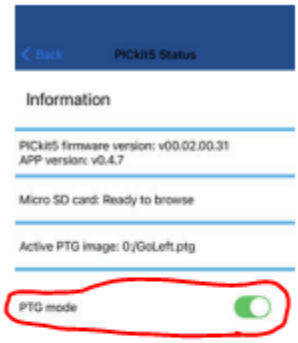
4. Ensure that Bluetooth is enabled on your mobile device and power on the PICKit5. The PICKit5 can be powered from either a PC with a USB-C cable, by connecting it to its target device via ICSP while that device has power, or by connecting both. If the device is not in program-to-go mode already, a solid blue line should indicate that it is powered on, otherwise it should either flash green slowly, indicating it is ready to program, or flash red rapidly, indicating that it does not have an image selected to program.

   Programming the device in future steps will only work when the device is connected to its target device via the ICSP connector.

5. Open the mobile application. You should see a shield logo as shown below.

6. If the screen does not automatically change within a few seconds, press the shield logo to show the "Available Devices" screen, as shown below. **The range is very small, so hold your phone within a foot or two of the PICKit5.** If you are unsure if it is your device on the list, you can compare the serial number on the device listed with the serial number on the back of the PICKit5. Select your device.

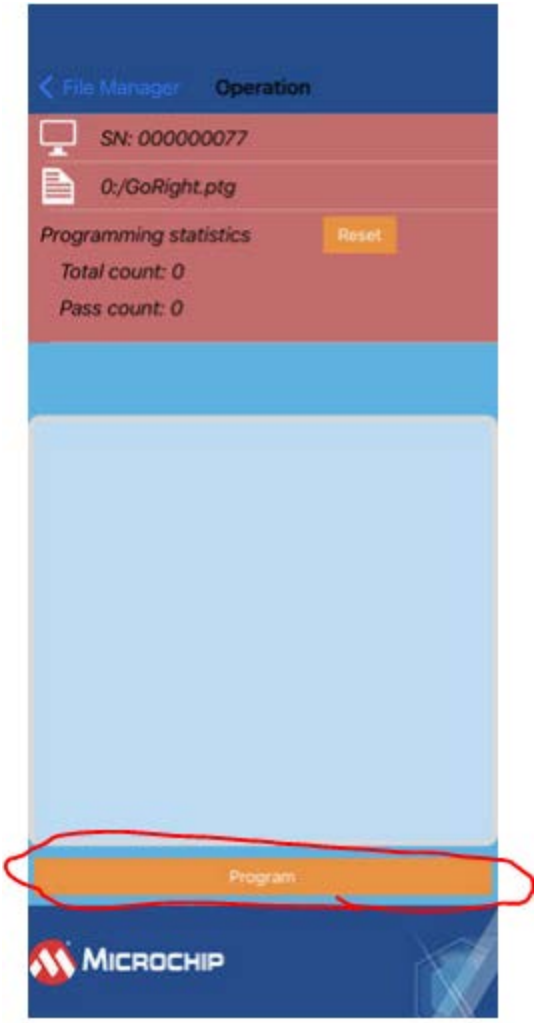
7. The screen below has a lot of useful information, including the image currently set to program and a toggle switch for program-to-go mode for the PICKit5. If the “PTG mode” toggle switch is off (gray), then click the switch to toggle it on.



8. To select an image to flash, select the “Browse SD card” button in the bottom left as shown below:

9. You should see the screen shown below, except with your own images instead of the example ones shown. Note that there is a search bar at the top, so you don't have to worry about searching through your images as long as you know their folder names. Select any image, in this example, we will choose "GoLeft.ptg".

10. Upon selecting an image, the app will open the screen below. Select program. **Make sure that you are connected to your target device via ICSP and that the device has power.**



11. A notification should alert you that the PICKit5 has begun to program the device. The PICKit5 LED should turn to a blinking purple after a short delay, indicating that it is programming the target device.

12. Once the device has finished programming, the notification should disappear and allow you to navigate the mobile application normally again, and the LED on your PICKit5 should return to a slow flashing green, indicating it is ready to flash again. **If the LED flashes red rapidly, that means that the image flash failed.** Repeat this process for any other devices you wish to update. Any attempts to program any device without selecting a new image will now use the image you selected in step 9, and this selection will persist through power resets. You can change the image by selecting a different image in the same way that you selected your initial image in steps 5-9.

Additional Documentation:

Additional documentation for the PICKit5 can be found on Microchip's website, or at the links below:

User's Guide:

https://ww1.microchip.com/downloads/aemDocuments/documents/DEV/ProductDocuments/UserGuides/MPLAB-PICkit-5-In-Circuit-Debugger-Users-Guide-50003525.pdf

Quick Start Guide:

https://ww1.microchip.com/downloads/aemDocuments/documents/DEV/ProductDocuments/Brochures/MPLAB-PICkit-5-In-Circuit-Debugger-Quick-Start-Guide-50003478.pdf