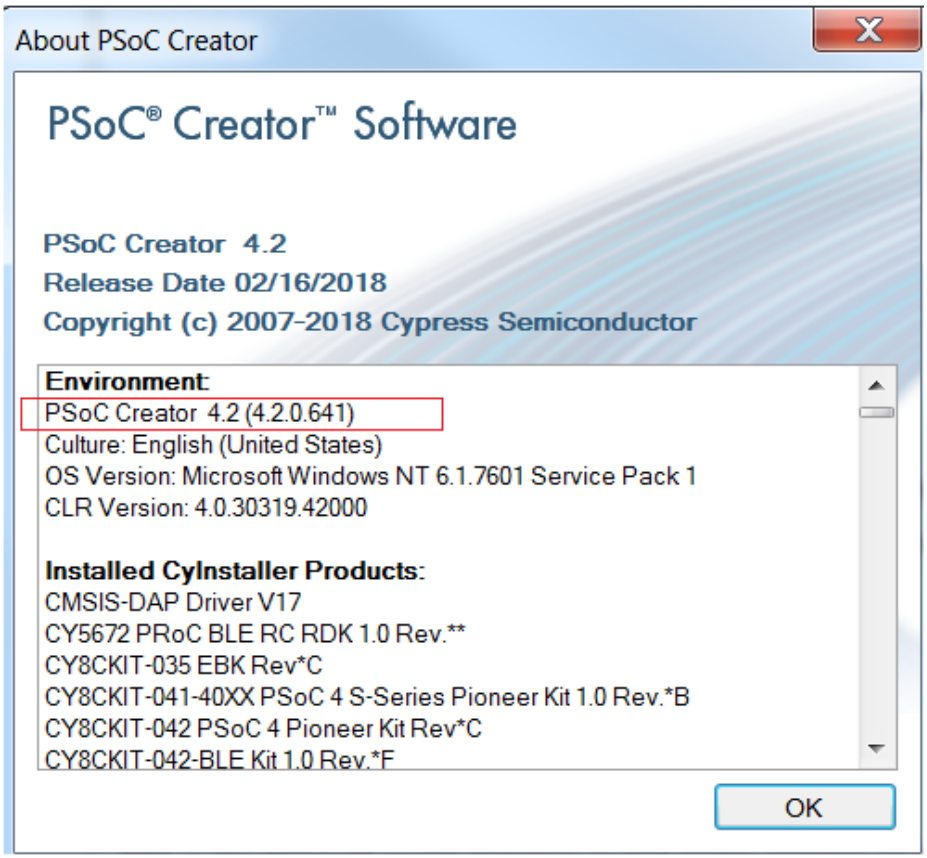
User Guide for PSoC® 4 MCUs with AliOS Things SDK

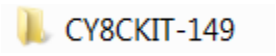
1. Please visit the following link to download the IDE tool PSoC® Creator™ 4.2 for Cypress PSoC MCUs:
   www.cypress.com/psoccreator

2. Install PSoC Creator 4.2 IDE tool, please check and make sure the version is **4.2.0.641**



3. Get the PSoC AliOS-Things SDK file "**alios-v1.3.0.zip**", and uncompress it.
(Note: The SDK file alios-v1.3.0.zip is based on AliOS-Things 1.3.0 version)
https://github.com/alibaba/AliOS-Things/releases/tag/v1.3.0

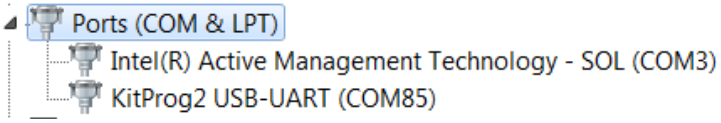
4. Open the folder "**alios-v1.3.0**" and go to the path **projects/Creator**, you can find a folder "CY8CKIT-149" which is a development kit of Cypress' PSoC 4 MCUs.

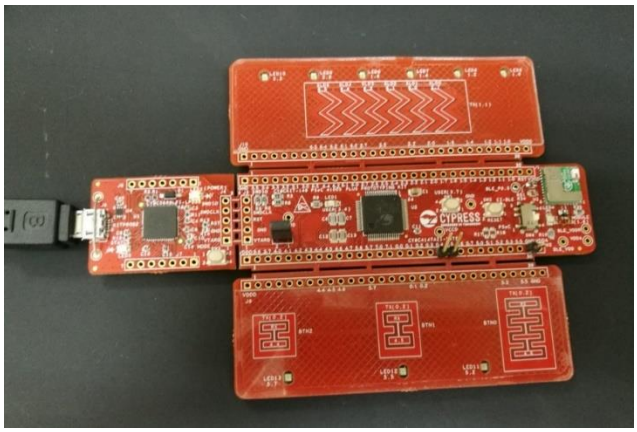


To find more information on this kit, such as hardware design files schematic, PCB layout and software installation package for the development kits, please check CY8CKIT-149

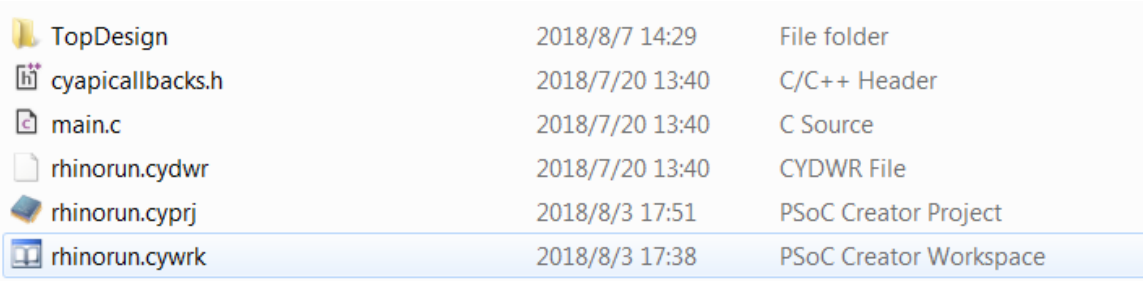
Reminder: Please download and install the software package of dev kit before setting up the hardware system.

5. Connect MicroUSB cable from PC to the dev kit CY8CKIT-149 as below, it needs a couple minutes for the driver install on Windows system, and then you can find the **KitProg2 USB-UART** COM port information as below in DEVICE MANAGER of your Windows OS.





6. Double click to open the file **rhinorun.cywrk** in the path projects\Creator\CY8CKIT-149\rhinorun.cydsn

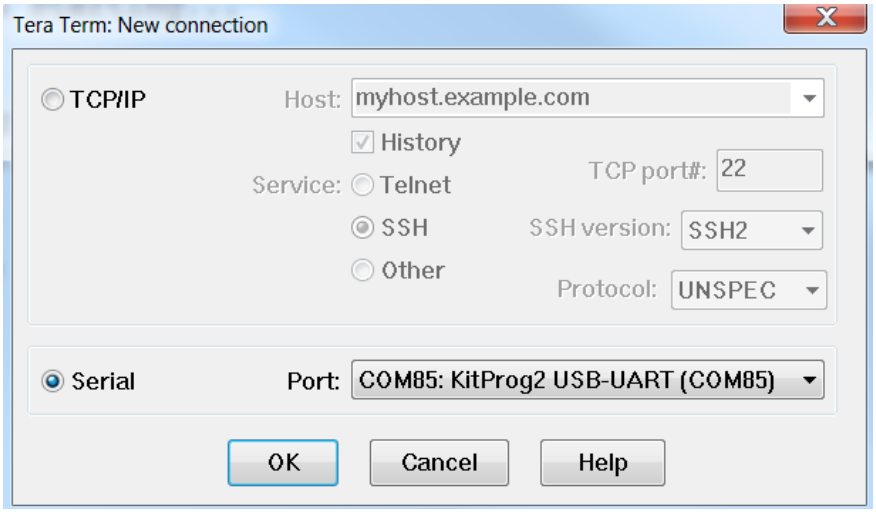


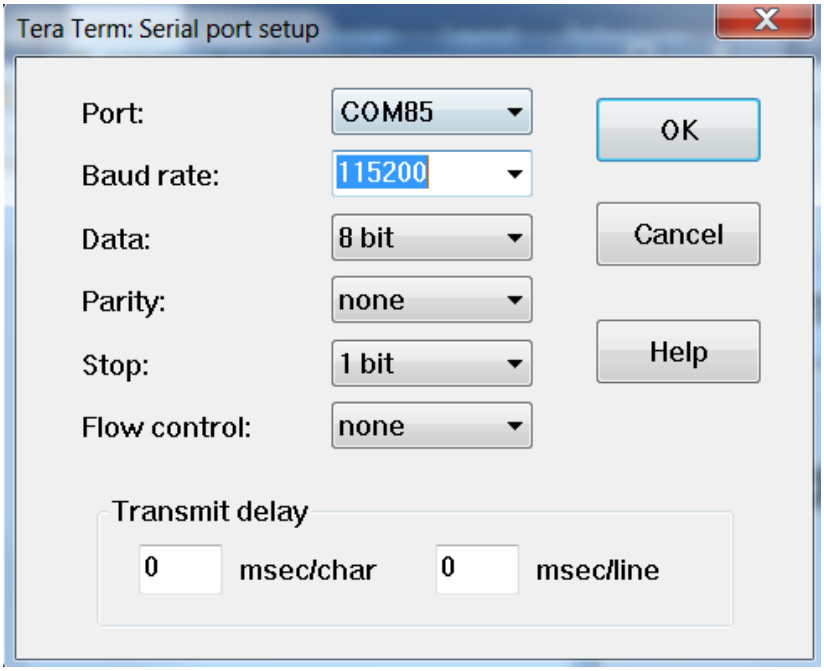
This is the project file that runs AliOS-Things RTOS kernel rhino.

7. In the PSoC Creator IDE tool, find the “Program” button as below to compile and download the program HEX file.

```
Flash used: 35908 of 131072 bytes (27.4%).
SRAM used: 5952 of 16384 bytes (36.3%). Stack: 1024 bytes. Heap: 1024 bytes.
--------------- Build Succeeded: 08/07/2018 15:19:46 ---------------
Programming device 'PSoC 4100S Plus CY8C4147AZI-S475' with file 'C:\wh\PSoC6\alios-v1.3.0\proj
Device ID Check
Erasing...
Programming of Flash Starting...
Protecting...
Verify Checksum...
Finished Programming
Device 'PSoC 4100S Plus CY8C4147AZI-S475' was successfully programmed at 08/07/2018 15:19:52.
```

8. Open one Serial port terminal tool like **Tera Term**, set the baud rate to 115200, Data 8bit, Parity None and Stop 1bit.
   Here is one Tera Term tool download link： http://ttssh2.osdn.jp/





9. The result of the program for Rhino kernel is shown as below:

Reference Files and Links

1. http://www.cypress.com/products/32-bit-arm-cortex-m0-psoc-4
2. http://www.cypress.com/products/psoc-creator-integrated-design-environment-ide
3. http://www.cypress.com/documentation/other-resources/psoc-creator-user-guide