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Cypress Programmer Release Notes

Version 2.0, Production

Thank you for your interest in Cypress Programmer. This document lists the installation requirements, software and hardware updates, limitations, and known issues with the tool.

Product Description

Cypress Programmer is a flexible, cross-platform, integrated application to allow programming Cypress devices. It can perform Program, Erase, Verify, and Read operations on the flash of the target device.

Cypress Programmer is both a command-line tool and a GUI tool. It is based on OpenOCD v0.10.0 software with several Cypress enhancements. This release delivers the following:

- Cypress Programmer GUI 2.0: provides programming functionality for target devices
- Cypress OpenOCD 1.0: provides debugging and in-system programming functionality for target devices in Cypress Programmer and ModusToolbox IDE.
- KitProg3 1.01: provides communication firmware that supports CMSIS-DAP programming and debugging via HID and bulk interfaces. This version of KitProg3 supports I2C, SPI and UART bridge functionality in both CMSIS-DAP HID and bulk modes.

Supported Operating Systems

- Windows 7 (x86)
- Windows 8.1 (x64)
- Windows 10 (x64)
- MAC OS X 10.13
- Ubuntu 16.04 LTS (x64)

Supported Kits/Platforms

- BCM943362WCD4
- BCM943438WCD1
- BCM943364WCD1
- CYW943340WCD1
- BCM94343WWCD1
- BCM94343WWCD2
- NEB1DX_01
- CYW943907AEVAL1F
- CYW954907AEVAL1F
- CYW943907WAE4
- CY8CKIT-062-WiFi-BT
- CY8CKIT-062-BLE



- CY8CPROTO-062-4343W
- CYW943455EVB-02
- CYW943012EVB-04
- CYW920735Q60EVB-01
- CYW920719Q40EVB-01
- CYW920706WCDEVAL01
- CYW9MCU7x9N364

Supported Product Families

- PSoC 60xx/61xx/62xx/63xx
- Traveo II CYT2Bx
- STM32xx + 4343x/4334x/43362/43364
- STM32H7xx + 43455
- STM32L4xx + 43012
- PSoC6 + 43012
- 4390x
- WICED BT (207xx)

Supported Programming Hardware

- SEGGER J-Link probe
- MiniProg4 stand-alone programmer/debugger
- KitProg3 onboard programmer/debugger
- FTDI FT2232H

Installation

For Windows, use the exe installer.

For macOS, use the PKG installer. Approve the system software from developer "Cypress Semiconductor" in **System Preferences > Security & Privacy > General > Allow**.

For Linux, unzip the tar.gz file and run the "udev_rules\install_rules.sh" script before the first tool launch. Script location:

```
<install_dir>\openocd\udev_rules
```

Known Problems and Solutions

The following problems are known in this release.

Defect ID	Defect Description	Impact / Workaround
CYP-15	Not able to detect KitProg3/MiniProg4 probe when the OpenOCD process has been killed previously. Killing OpenOCD process leaves KP3/MP4 in unpredictable/invalid state.	KP3/MP4 must be unplugged from USB port and plugged back in to restore normal operation.
CYP-74	Not able to reliably program the following: CYW920735Q60EVB-01 CYW920719Q40EVB-01 CYW920706WCDEVAL01 CYW9MCU7X9N364	Put the device into recovery mode 1. Press and hold the Recovery button 2. Press and hold the Reset button for 1 second 3. Release Reset button 4. Release Recovery 5. Re-program the board as normal.
CYP-87	OpenOCD is not able to automatically detect Flash Size on CY8CKIT-062-BLE devices in DEAD protection state. Flash Size is assumed to be 1 MB by default. This issue does not affect flash programming and debugging, but flash read and erase will fail on 512 KB parts.	Manually specify size of the Main Flash in openocd-1.0/scripts/target/psoc6.cfg file: line 171: flash bank \${_CHIPNAME}_main_cm0 psoc6 0x10000000 0x100000 0 0 \${TARGET}.cm0 line 191: flash bank \${_CHIPNAME}_main_cm4 virtual 0x10000000 0x100000 0 0 \${TARGET}.cm4 \${_CHIPNAME}_main_cm0 line 196: flash bank \${_CHIPNAME}_main_cm4 psoc6 0x10000000 0x100000 0 0 \${TARGET}.cm4
CYP-120	Cypress Programmer GUI loses connection with CYW943907AEVAL1F, CYW943907WAE4 kits in case they are programmed with invalid image.	The messages regarding lost connection can be safely ignored. Connection with target is restored during next operation (program, erase etc.).
CYP-157	Unable to access PSoC 6 device via JTAG if DAP has been switched to SWD mode previously	Hardware Reset or power cycle is required in order to switch the DAP back to JTAG mode
CYP-247	Cypress Programmer GUI/OpenOCD does not report error on WICED devices during external flash programming when 'Offset' parameter is close to UINT32_MAX	Addresses close to UINT32_MAX are invalid, so they will not be used in real use cases.
CYP-260, CYP-261	Debugger connection is unstable when SWD/JTAG clock is higher than 2 MHz on PSoC6-A-2M ** silicon, CY8CPROTO-062-4343W kit	Decrease SWD/JTAG clock to 1.5MHz

Known Limitations:

Limitation ID	Description
CYP-55	Unable to Verify hex file on BCM943362WCD4 BCM943438WCD1, BCM943364WCD1, CYW943340WCD1, NEB1DX_01, CYW943907AEVAL1F, CYW943907WAE4 CYW954907AEVAL1F, CYW943455EVB-02 CYW943012EVB-04

Limitation ID	Description
CYP-74, CYP-80	Read operation does not work on CYW943907AEVAL1F, CYW920735Q60EVB-01, CYW920719Q40EVB-01, CYW920706WCDEVAL01, CYW9MCU7X9N364 kits.
CYP-108	Unable to program external flash on the CYW943012EVB-04 kit.
CYP-122	Programs only bin files in the external memory for WICED Wi-Fi devices.
CYP-364	No support Traveo II CYT2Bx in the Cypress Programmer GUI.
KP-15	<p>KitProg3 WinUSB driver for CMSIS-DAP bulk device is bound as 'HP Printer (BIDI)' on Windows 7 OS with internet connection:</p> <ul style="list-style-type: none"> - If Windows 7 machine is not connected to internet, then this issue is not seen. - This issue is not seen on Windows 10 machine <p>This is a Microsoft known issue which should be fixed in Windows Update.</p> <p>Workaround:</p> <p>If the HP Printer (BIDI) driver is already installed by the device manager, then do the following:</p> <ul style="list-style-type: none"> ○ Uninstall the driver from device manager ○ Disconnect internet on the machine ○ Rescan the device in device manager

Documentation and links

Original OpenOCD sources v0.10.0:

<https://sourceforge.net/projects/openocd/files/openocd/0.10.0/>

OpenOCD v0.10.0 release notes:

<http://openocd.org/2017/01/openocd-0-10-0-release-is-out/>

OpenOCD v0.10.0 user guide:

<http://openocd.org/doc-release/pdf/openocd.pdf>

OpenOCD ES100 sources, GitHub location:

<https://github.com/Cypress-OpenOCD/OpenOCD>



Cypress Semiconductor
198 Champion Ct.
San Jose, CA 95134-1709 USA
Tel: 408.943.2600
Fax: 408.943.4730
Application Support Hotline: 425.787.4814
www.cypress.com

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