



PSoC® Programmer Release Notes

Version 3.22.2

Release Date: February 16, 2015

Thank you for your interest in PSoC® Programmer. These release notes list all the new features, installation requirements, supported devices and defects fixed from the previous release.

PSoC Programmer supports the PSoC Creator™, PSoC Designer™, MTK, TrueTouch Host Emulator, and Ez-Click applications. PSoC Programmer also installs secondary applications such as Bridge Control Panel and Clock Programmer. PSoC Programmer supports all Cypress programming hardware such as MiniProg1, MiniProg3, TrueTouch Bridge, KitProg, ICE-Cube, CY3240 USB-I2C Bridge, and many more devices. PSoC Programmer provides all users a COM layer that can be used to create custom applications.

PSoC Programmer supports all PSoC architectures including PSoC® 1, PSoC 3, PSoC 4, PSoC 5LP, TrueTouch, CapSense, and Clock devices.

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New Features for PSoC Programmer

This PSoC Programmer release provides support for new PSoC, TrueTouch, and CapSense devices support. Also, this release delivers Firmware updates for Cypress Programmers, Bridges and Kits.

Alpha Support of CY8CKIT-044 and CY8CKIT-059 kits

New kits will be based on KitProg platform Firmware and possess same set of communication features: SWD, UART, I2C. The “-044” kit will demonstrate new PSoC 4 M family, and “-059” kit will target PSoC5 LP device (it is cheapest PSoC5 LP programmer).

MiniProg3 FPGA Update

Several customers reported the problems with JTAG programming on their particular MiniProg3s. Failure Analysis shown that it was issue in Xilinx FPGA – one of its registers could not be set properly. So we avoided to use this register in new FPGA bit file (rev 2.08). It is delivered with this Programmer release.

Support for new PSoC 4, PSoC5LP, TrueTouch, and CapSense Devices

PSoC Programmer will add new device support for new PSoC 4, TrueTouch, and CapSense devices. This release supports Alpha customers of PSoC 4 M family.

New Supported Devices for PSoC Programmer

The following new devices have been added to this PSoC Programmer release.

Family	Device
CYTT2xx, CYTT3xx	CYTT21100-56LQI48
	CYTT21401-56LQI48
	CYTT21402-56LQI48
	CYTT21403-56LQI48
	CYTT21100-56LQI44
	CYTT21401-56LQI44
	CYTT21402-56LQI44
	CYTT21403-56LQI44
	CYTT21100-56LQI40
	CYTT21401-56LQI40
	CYTT21402-56LQI40
	CYTT21403-56LQI40
	CYTT31401-56LQI48
	CYTT31702-56LQI48
	CYTT31802-56LQI48
	CYTT32302-56LQI48
CYTT2xxxx	CYTT21403-44LQI35
	CYTT21403-44LQI35ES
	CYTT21100-44LQI28
	CYTT21401-44LQI28
	CYTT21402-44LQI28
	CYTT21100-44LQI33
	CYTT21401-44LQI33
	CYTT21402-44LQI33
	CYTT21100-44LQI35
	CYTT21401-44LQI35
	CYTT21402-44LQI35
	CYTT21403-48LQI36
	CYTT21403-48LQI36ES
	CYTT21100-48LQI36

Family	Device
	CYTT21401-48LQI36
	CYTT21402-48LQI36
CYTMA45x	CYTMA450EFR-48LQIES
CYTMA4xxA	CY8CTMA461AA-13
	CY8CTMA461AS-13
	CY8CTMA461AA-23
	CY8CTMA461AS-23
	CY8CTMA461AA-33
	CY8CTMA461AS-33
	CY8CTMA461LWA-13
	CY8CTMA461LWS-13
	CY8CTMA461LWA-23
	CY8CTMA461LWS-23
	CY8CTMA461LWA-33
	CY8CTMA461LWS-33
CYTMA5xx	CYTMA525-49FNI25AB
	CYTMA525-49FNI25ZZ
CYTMA5xxL	CYTMA568-100AA54AB
	CYTMA568-100AA54AD
	CYTMA568-100AA54AI
	CYTMA568-100AA54BB
	CYTMA568-100AA54CB
	CYTMA568-100AS54AB
	CYTMA568-100AS54AD
	CYTMA568-100AS54AI
	CYTMA568-100AS54BB
	CYTMA568-100AS54CB
	CYTMA568-100AS54ZX
	CYTMA568-100AA54ZXES
CYTMA5xxA	CYTMA560-48LQI36AA
	CYTMA525A-28LQI18ZZ
	CYTMA525A-34FNI24ZZ
CY8CMBR3xx	CY8CMBR3116-LQXA
	CY8CMBR3106S-LQXA
	CY8CMBR3110-SX2A
	CY8CMBR3116-LQXS
	CY8CMBR3106S-LQXS
	CY8CMBR3110-SX2S
CY8C40xx	CY8C4014SXA-421
	CY8C4014LQA-422
	CY8C4014SXS-421
	CY8C4014LQS-422
CY8C41xx/42xx	CY8C4124AZI-443
	CY8C4125AZI-473
	CY8C4125AZI-483

Family	Device
	CY8C4244AZI-443
	CY8C4245AZI-473
	CY8C4245AZI-483
	CY8C4124PVA-442
	CY8C4125PVA-482
	CY8C4244PVA-442
	CY8C4245PVA-482
	CY8C4124PVS-442
	CY8C4125PVS-482
	CY8C4244PVS-442
	CY8C4245PVS-482
	CY8C4124FNI-443
	CY8C4125FNI-483
	CY8C4244FNI-443
	CY8C4245FNI-483
CY8CEBIKE	CY8CEBIKEAZI-111
CYBL10x6x	CYBL10161-68FNXI
	CYBL10461-56LQXI
	CYBL10462-56LQXI
	CYBL10561-56LQXI
	CYBL10561-56LQXIES
	CYBL10562-56LQXI
	CYBL10162-56LQXI
	CYBL10162-56LQXIES
	CYBL10163-56LQXI
	CYBL10463-56LQXI
	CYBL10563-56LQXI
	CYBL10563-56LQXIES
	CYBL10161-68FNXI
	CYBL10461-68FNXI
	CYBL10462-68FNXI
	CYBL10561-68FNXI
	CYBL10562-68FNXI
	CYBL10162-68FNXI
	CYBL10163-68FNXI
	CYBL10463-68FNXI
	CYBL10563-68FNXI
	CYBL10563-68FNXIES
CY8C4127_BL	CY8C4127LQI-BL473
	CY8C4127LQI-BL453
	CY8C4127LQI-BL483
	CY8C4127LQI-BL483ES
	CY8C4127LQI-BL493
	CY8C4127FNI-BL483
	CY8C4127FNI-BL483ES
	CY8C4127FNI-BL493
CY8C4247_BL	CY8C4247LQI-BL473
	CY8C4247LQI-BL453
	CY8C4247LQI-BL463
	CY8C4247LQI-BL483
	CY8C4247LQI-BL483ES
	CY8C4247LQI-BL493
	CY8C4247FNI-BL483
	CY8C4247FNI-BL483ES

Family	Device
	CY8C4247FNI-BL493
CY8C5xxxLP	CY8C5666AXQ-LP004 CY8C5888AXQ-LP096

Update / Upgrade Notes

Upgrade Using Cypress Update Manager

All users who currently have PSoC Programmer 3.10 or later installed should use the CyInstaller Update Manager to upgrade their programmer release.

Revision ID Check in PSoC Programmer GUI

As of PSoC Programmer 3.19 release the silicon revision ID check was removed from the programming flow. This was done to simplify integration of new silicon revisions, which in most cases are compatible with previous revisions of the same family (from a programming standpoint). If a new silicon revision is released you can keep using the current version of Programmer for it.

Coexistence with Older PSoC Programmer Releases

Only one version of PSoC Programmer can be installed in the system. So, when new release is being installed it removes first currently installed version and then installs new one. Only older versions of PSoC Programmer could coexist (3.06 or below). If you have such installed then uninstall it first and only then proceed with installation of the latest release.

Defects Fixed

The following defects were fixed in this release of the PSoC Programmer.

Defect	Fix and Impact	Defect
Programmer Application		
PSoC 1 programming fails on USB 3.0 ports of some machines	It was a timing issue in Software, which was fixed for MiniProg1, TrueTouchBridge and DVKProg1.	190538
PSoC Programmer 3.22 breaks backwards compatibility for MTK/TSTE	MTK 1.6 fails to work with PSoC Programmer 3.22 due to compatibility issue with new CyUSB3 driver. Programmer 3.22.2 updated TTBridge FW to report USB descriptors in the way compatible with MTK 1.6.	202462
Hardware		
N/A	N/A	N/A
Installer		
N/A	N/A	N/A
Documentation		
N/A	N/A	N/A
Bridge Control Panel		
CY3240 Bridge fails to work on Windows 8.1.	Firmware upgrade is required to make it compatible with Windows 8.1. See "Limitation" section for Bridge's Upgrade Instructions.	184941
KitProg (-040) kit fails to work in	The issue in kit's firmware was found	179308

Bridge Control Panel after Sleep.	and fixed.	
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Known Issues

The following is a list of known issues for PSoC Programmer.

Defect	Fix and Impact	Defect
Erase Block doesn't always save changes after hitting Enter	When using "Erase Block" function in Programmer GUI, you can notice that Block ID and Bank ID fields may not be saved between dialog sessions. That's a known problem of MaskedTextBox component of WinForms .NET library. If it's important for you to save these values between dialog sessions then please take following step: <ol style="list-style-type: none"> 1) Delete existing value in Block ID/Bank ID field; 2) Enter new value; 3) Press Enter or press Erase Block Button. 	183455
Firmware upgrade of KitProg kits (CY8CKIT-040/042)	When starting KitProg's Firmware upgrade in PSoC Programmer GUI, please make sure that Bootloader Host (Creator's) tool is not running. Otherwise upgrade may fail due to attempts of Host tool to access KitProg's bootloader.	178919
Abort button doesn't work for MiniProg3 in Power Cycle mode (SWD protocol)	Abort does not work for MiniProg3 in Power Cycle mode for SWD protocol. Workaround here is just to re-plug MiniProg3 from USB-port during this lengthy operation.	193660
Python examples fail with new Python interpreters	Due to changes in Python from version 2.6 to 3.0, Python code examples fail. One case is the print statement being replaced by the print() function. A syntax error is thrown when attempting to run the examples with Python 3.0+. We are currently requesting users to use Python 2.6 for our code examples.	169474
CY3240 Bridge always keeps INT line in the low state	That causes a problem if Bridge's INT line is connected to the target's XRES line with active LOW polarity. Due to HW limitation the INT line can't be moved to High-Z state from FW. Please design your boards respectively for compatibility with CY3240 bridge.	187785
Miniprogram1 firmware v1.77 causes an acquire failure.	In the previous releases of the MiniProg1 firmware, the reset line was pulled low during the power cycle programming. MiniProg1 now supports devices that have active low reset line states. To account for this, MiniProg1 now leaves the reset line in a high-z state. Be aware of any pull up or pull down resistor circuitry that could hold the chip in a reset	69058

	state.	
Power Cycle Mode for PSoC 3 and PSoC 5 using the revision *A MiniProg3 is implemented with reset toggling.	Power Cycle mode for MiniProg3 is currently using the reset line to acquire the target device using both the SWD and the JTAG protocols. A firmware solution is available for future revisions of silicon. If development is blocked, please file a support case on the cypress website at the following link .	69694
Programming Encore II devices using Power Detect programming mode is not working with the Minipro3.	Minipro3 does not support power detect programming for Encore II due to its Pull-Down interface on Data line. Minipro3 does support power cycle and reset modes for the Encore II devices.	119896
PRoC UI devices cannot be programmed above 3.3V	The Minipro3 and Minipro1 programmers can supply power to the target device in excess of 3.3V. The PRoC UI devices can only be programmed in the 1.7-3.3V range. Customers must take care when programming the PRoC-UI devices. Programming above 3.3 Volts may cause damage to the device or the radio chip. Warnings have been added to PSoC Programmer if the user were to select the PRoC-UI devices in a hazardous configuration.	N/A
Programmer does not work if installed another disk	Customers who install Programmer into a customer directory must not use '-' characters in the file path name.	138786

Device Reorganization and Consequences:

An update was made to the PSoC Programmer database organization that impacts customers programming certain devices using PSoC Programmer 3.12 Beta (or older) with PSoC Designer 5.0 SP6 and earlier. Please see the following knowledge base article that details the issue and solution.

<http://www.cypress.com/?rid=45688>

Limitations

The following are the known limitations with PSoC Programmer:

- You must change the programming mode manually using the provided buttons.
- The supported programming and bridging hardware can only be used by one application at a time. Closing the port in one application releases the hardware for other client applications.
- There is no programming support for wafer sale parts.
- When programming verification fails, the specific failing location(s) are not indicated.
- ICE4000 is no longer supported in PSoC Programmer.

- When using the ICE-Cube or MiniProg1 for programming, PSoC Programmer applies 3.3 V to the XRES pin during connection. This may cause power to be applied to the target system. During programming, 3.3 V is applied to the target system's SCLK(P1-1), SDATA (P1-0), and XRES pins.
- The MiniProg1 programmer does not support CY8C25/26xxx parts. The ICE-LPT and ICE-4000 programmers support the CY8C25/26xxx parts. You need to use PSoC Programmer version 2.33 or earlier if needed.
- CY3210-MiniProg1 may have two capacitors soldered onto the SCL and SDA programming lines causing failures during programming. To remove these capacitors, please contact Cypress technical support for additional steps in addressing this issue.
- The CY3240 USB-I2C Bridge firmware cannot be upgraded in the field using Bootloader interface. If upgrade is required you need to reprogram its firmware completely from usbt0iic.hex located in PSoC Programmer installation folder. For reprogramming you need to use any PSoC1 programmer (e.g. MiniProg1, MiniProg3) connected to 5-pin ISSP header on the Bridge's board. Select "Power Cycle" for Bridge's programming. Cypress recommends customers to upgrade to superset MiniProg3 kit which should replace CY3240 Bridge in field.

Installation

Minimum and Recommended Requirements

Hardware/Operation System Requirements	Minimum	Recommended
Processor Speed	2 GHz	2 GHz Dual Core
GB of RAM	2 GB	3 GB
GB of Free Hard Drive Space	1 GB	1 GB
Screen Resolution	1024x768	1280x1024
CD/DVD Drive	Not Req.	✓ *
USB	Full Speed	2.0 Hi-Speed
Windows® XP (SP3 or higher), Vista, Windows 7/8/8.1	✓	✓
Software Prerequisites **	Minimum/Recommended Version	
Microsoft Internet Explorer	7	
.NET Framework	2.0 SP2	
Adobe Reader (for viewing PDF Documentation)	6	9+
Windows Installer	3.1	
Python – For Code Examples	2.6	2.6

* CD/DVD drive is only required for installation with no web access.

** Software prerequisites are checked/installed by Programmer's CyInstaller (except Python interpreters).

Applications Dependent on a PSoC Programmer Installation

The following applications require PSoC Programmer to be preinstalled. All Cypress Software and Kits products, which use PSoC Programmer, install it as well (minimum required version):

- PSoC Designer
- PSoC Creator
- TrueTouch Host Emulator
- MTK
- Ez-Click

The following applications are included in the PSoC Programmer installation:

- Bridge Control Panel is selectable from PSoC Programmer CyInstaller installation
- Clock Programmer is selectable from PSoC Programmer CyInstaller installation
- USB and I2C PSoC1 Bootloader Hosts

Update Instructions

As part of the installation process, the Cypress Update Manager utility is also installed and located on the **Start** menu under the Cypress folder. You can use this utility to update all the programs you have installed when updates for them become available.

Follow the instructions provided by the CyInstaller.

Installation Notes

The installation process is a set of wizards that walk you through installing various components. You can install PSoC Programmer and various prerequisites from the web, or from a CD. There are slight differences in the process, based on the medium used to install the software. CyInstaller is supported by both the web installation and through an ISO image that can be downloaded and burned to a CD.

The CDs provide the necessary prerequisites and the wizards to guide you through installing the appropriate software. The Web installation requires you to download and install the executables separately. The following sections contain more specific installation details.

Note Do NOT plug in any programming hardware until all the software installation is complete.

Web Installation

If you are downloading the software from the web, you should run the PSoC Programmer executable.

1. Double-click the PSoC Programmer executable file to launch the PSoC Programmer InstallShield Wizard.
2. Install all the prerequisites as needed.
3. Follow the prompts to install PSoC Programmer. The CyInstaller for PSoC Programmer opens and displays a series of steps to install PSoC Programmer and various drivers. When complete, close the installer.

Please note that you may experience installation failure using the web installation method, this is commonly due to firewall or administrator privileges. Please contact your IT support for assistance or download the ISO image provided on the Programmer web page and burn the image and install Programmer from the CD.

PSoC Programmer CD Installation

The PSoC Programmer ISO image contains PSoC Programmer, and various prerequisites.

1. Burn and Load the CD into the PC. The main installer program should run automatically. If not, double-click the *cyautorun.exe* file to launch it.
2. On the main installer, click the **Install PSoC Programmer [version]...** button to launch the PSoC Creator InstallShield Wizard.
3. Follow the prompts in the wizard. The first step prompts to install PSoC Programmer.
The CyInstaller for PSoC Programmer opens and displays a series of steps to install PSoC Programmer and various drivers.

4. Continue to follow the prompts until PSoC Programmer and the drivers are installed, and then resume with the main installer program.

Cypress PSoC Kit CD Installation

A kit CD contains PSoC Programmer, and additional applications, such as PSoC Creator or PSoC Designer, documentation, and prerequisites needed for the associated kit. The installation process is similar to the PSoC Programmer CD installation; however the overall process differs, as follows:

1. Load the CD. The kit installer program should run automatically. If not, double-click the autorun program to launch it.
2. On the kit installer, follow the prompts to begin the installation process. The first step prompts to install the PSoC Programmer.
3. The CyInstaller for PSoC Programmer opens and displays a series of steps to install PSoC Programmer and various drivers.
4. Continue to follow the prompts until PSoC Programmer and the drivers are installed, then resume with the kit installer program.
5. Continue the prompts to install the application IDE's, PSoC Creator or PSoC Designer. Please see the respective release notes for these tools for detailed instructions.

Device Driver Re-Installation

Drivers for all Cypress devices are installed along with PSoC Programmer. Drivers are removed from the system during uninstallation of PSoC Programmer.

If you need to re-install drivers manually do following:

- 1) Navigate to the PSoC Programmer root installation directory.
- 2) Open the *Drivers* folder and run *driverui.bat* to uninstall current drivers.
- 3) Run the *driver.bat* file. This will install drivers from this PSoC Programmer release.

Further Reading

Documentation

Documentation is available in the PSoC Programmer Root Directory under Documents. The documents include:

- Help files (CHM) for: PSoC Programmer GUI, PSoC-UI Programmer, HexToSvf
- PSoC Programmer COM Interface Guide
- PSoC Programmer Command Line Interface Guide
- PSoC Programmer Example Code
- Clock Programmer User Guide
- MiniProg3 User Guide

Also we provide a user guide for using Cypress silicon in 3rd party tools. This document can be found under `./3rd_party_configuration_files/Documents` folder:

- Third-Party Tools User Guide



Bridge Control Panel also delivers several documents:

- Help File (CHM)
- I2C-USB Bridge Guide
- Example User Guide

Updates

Check for the software updates to the Cypress PSoC development tools on the following web pages:

PSoC Software Tool	Link
PSoC Designer	http://www.cypress.com/go/psocdesigner
PSoC Creator	http://www.cypress.com/go/psoccreator
PSoC Programmer	http://www.cypress.com/go/psocprogrammer

Customer Issues

Customers who experience problems with either the PSoC software or PSoC devices should contact customer support at <http://www.cypress.com/support>. Alternatively call either of the following phone numbers 1-800-541-4736 (ext. 2) or 1-408-943-2600 (ext.2).

Silicon Errata

The most up-to-date versions of the silicon errata are available on the website at <http://www.cypress.com/psoc> under Related Documentation.



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