



PSoC® Programmer Release Notes

Version 3.20

Release Date: December 6, 2013

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

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

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

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New Features for PSoC Programmer

This PSoC Programmer release supports TrueTouch and Development Kit releases and includes new device support.

Update to KitProg Firmware for Pioneer Board

We have released an update to the PSoC 5LP source code to add ISSP programming support for PSoC 1 devices. This programming support will enable future development kits based on PSoC 1 devices.

Update to Address Driver Issues Seen on Windows 8.1 Systems

As part of this update we have provided a fix to our installer to correctly install drivers on Windows 8.1 machines. This update will fix missing driver files and unregister drivers caused by Windows 8.1 updates.

Update to Address Programming Errors Seen on CY8C41xx Devices

As part of the previous release of PSoC Programmer 3.19.1 there was an error in programming the 16k flash size CY8C41xx devices. In this release we have included a fix to that error seen by CY8C41xx users.

Support for new PSoC 1 and PSoC 4 Devices

PSoC Programmer will add new device support for new PSoC 1 and PSoC 4 devices.

Update to PSoC Programmer Install Path

PSoC Programmer installations will no longer be placed in folders with version numbers. We will instead be install PSoC Programmer into the following directory path:

[Installation Path]/Cypress/PSoC Programmer/

Support for new TrueTouch GEN4 and GEN5 Devices

PSoC Programmer will add new device support for new GEN4 and GEN5 devices.

Updated PSoC 3 BSDL Files

For this release we have included the latest set of BSDL files for JTAG programming of PSoC 3 devices. The new files are located at the following path:

\\Cypress\Programmer\3rd_Party_Configuration_Files

New Supported Devices for PSoC Programmer

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

Family	Device
CY8CTMA44x	CYTMA445-44LQI33ZZA
	CYTMA445-48LQI36AAA
	CYTMA445-48LQI36ABA
	CYTMA445-48LQI36ZZA
	CYTMA445-48LQI36ACA

Family	Device
	CYTMA445-48LQI36AEA
	CYTMA445-44LQI28AAA
	CYTMA445-44LQI33AAA
	CYTMA445-44LQI33ABA
	CYTMA445-44LQI24ACA
	CYTMA445-44LQI33ACA
	CYTMA445-44LQI33AEA
	CYTMA448-56LQI44AA
	CYTMA448-70BUI58AA
	CYTMA448-56LQI44AW
	CYTMA448-70BUI48AW
	CYTMA448-70BUI54AW
	CYTMA448-70BUI58AW
	CYTMA448-56LQI44AE
	CYTMA448-70BUI54AE
	CYTMA448-70BUI58AE
	CYTMA448-56LQI44ZX
	CYTMA448-70BUI58ZX
CY8CTMA5xx	CYTMA545-48LQI36ZZA
	CYTMA545-48LQI36AAA
	CYTMA545-48LQI36ABA
	CYTMA545-48LQI36ACA
	CYTMA545-48LQI36BAA
	CYTMA545-48LQI36BBA
	CYTMA545-48LQI36BDA
	CYTMA545-44LQI33AAA
	CYTMA545-44LQI33ABA
	CYTMA545-44LQI33ACA
	CYTMA568-56LQI44AW
	CYTMA568-70BUI48AW
	CYTMA568-70BUI54AW
	CYTMA568-70BUI58AW
	CYTMA568-56LQI44BB
	CYTMA568-70BUI54BB
	CYTMA568-70BUI58BB
	CYTMA568-56LQI44CB
	CYTMA568-70BUI54CB
	CYTMA568-70BUI58CB
	CYTMA568-56LQI44ZX
	CYTMA568-70BUI58ZX
CY8C4xxx	CY8C4013SXI-400
	CY8C4013SXI-410
	CY8C4013SXI-411
	CY8C4013LQI-411
	CY8C4014SXI-421
	CY8C4014LQI-421
	CY8C4014LQI-412
	CY8C4014LQI-422
CY8C24xxx	CY8C24223A-24PVXI

Family	Device
CY8C20xxx	CY8C20235
	CY8C20335

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.

PSoC 3 ES2 vs. ES3 Support

PSoC Programmer allows Hex files targeting the specific silicon to be programmed into that silicon only. For example, if you generate a Hex file for ES2 revision silicon, you will not be able to program that file into ES3 devices. The warning messages are displayed if you attempt to program a Hex file into the wrong silicon revision. Make sure the tools that you are using support the silicon revision.

Coexistence with Older PSoC Programmer Releases

Uninstall all releases of the PSoC Programmer 3.06 before you install or update to the latest PSoC Programmer.

Defects Fixed

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

Defect	Fix and Impact	Defect
Programmer Application		
Version string should be removed from the install path	We will no longer have separate install folders for each version of programmer. Programmer will reside under the Cypress/Programmer subdirectory	161822
Programming Errors seen with CY8C41xx devices.	The algorithm for calculating the flash size for the device has been updated to support the 16k CY8C41xx devices.	169247
Hardware		
N/A	N/A	N/A
Installer		
The drivers folder does not get installed on windows 8.1 OS Platform	Enabled drivers installation for Win8.1 32/64 in PSoC Programmer MSI	168159
Documentation		
Python examples fail with new Python interpreters	We have now added a specification in the recommended setup to require Python interpreter 2.6 for all Python examples	169474
Bridge Control Panel		
N/A	N/A	N/A

Known Issues

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

Defect	Fix and Impact	Defect
Python examples fail with new Python interpreters	Due to changes in Python from version 2.6 to 3.0, Python code examples fail. One such thing is the print statement being replaced by print() function. A syntax error is thrown when I attempt to run the examples with Python 3.0+. We are currently requesting users to use Python 2.6 for our code examples	169474
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. The MiniProg1 now supports devices that have active low reset line states. To account for this, the 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 state.	69058
Power Cycle Mode for PSoC 3 and PSoC 5 using the revision *A MiniProg3 is implemented with reset toggling.	The Power Cycle mode for the 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 tight link support case with Cypress.	69694
CyInstaller Live Update is not supported for Windows 2000 systems.	Customers will be able to install the PSoC Programmer using the CyInstaller. To update to a new version, you must completely uninstall the existing version of the PSoC Programmer using the CyInstaller and then download the latest CyInstaller from the PSoC Programmer web page.	75099
Uninstall of PSoC Programmer does not uninstall drivers.	The PSoC Programmer installer does not uninstall the device drivers by design. Many Cypress software tools utilize the drivers.	96542
Programming Encore II devices using Power Detect programming mode is not working with the Miniprogram3.	The Miniprogram3 does not support power detect programming for Encore II due to its Pull-Down interface on Data line. The Miniprogram3 does support power cycle and reset modes for the Encore II devices.	119896
PRoC UI devices cannot be programmed above 3.3V	The Miniprogram3 and Miniprogram1 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	N/A

	configuration.	
Intermittent errors in P4/SWD EnumerateDevices API	Some customers may see intermittent issues when creating custom programming/testing GUIs and using the EnumerateDevices API for PSoC 4 devices. This issue is primarily seen when using old Minipro3 programmers (Revision 5 and *A). These users are encouraged to update to the latest revision of the Minipro3 (*B) via the Minipro3 kit web page which does not have this issue: www.cypress.com/go/cy8ckit-002	148470
Programmer does not work if installed in other 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 the PSoC Programmer.
- When using the ICE-Cube or MiniProg1 for programming, the 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.
- A very infrequent USB connection issue notifies you that an unknown device was detected when a MiniProg is plugged in. Unplugging the MiniProg1 and then reconnecting it solves this issue.
- PSoC Programmer may experience "Can't Acquire Device" errors for CYRF69103-40LFXC. There have been intermittent reports of "Can't Acquire Device" errors, which may be individually chip dependent. Programming another device clears the problem.

- 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. You are urged to purchase a MiniProg3 programmer and bridge, which supports USB-I2C functionality and supports field upgrades.

Installation

Minimum and Recommended Requirements

Hardware/Operation System Requirements	Minimum	Recommended
Processor Speed	2 GHz	2 GHz Dual Core
MB of RAM	2 GB	3 GB
MB 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 (SP2 or higher), Vista, or Windows 7	✓	✓
Software Prerequisites **	Minimum/Recommended Version	
Microsoft Internet Explorer (not IE8 beta)	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.

Applications Dependent on a PSoC Programmer Installation

The following applications require PSoC Programmer to be preinstalled. Both PSoC Designer and PSoC Creator installers will deliver the correct version of PSoC Programmer.

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

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

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 the 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 the PSoC Programmer. The CyInstaller for the PSoC Programmer opens and displays a series of steps to install the 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 administration privileges. Please contact your IT individual 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 the 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 Software for PSoC...** button to launch the PSoC Creator InstallShield Wizard.
3. Follow the prompts on the wizard. The first step prompts to install the PSoC Programmer.
The CyInstaller for PSoC Programmer opens and displays a series of steps to install the 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 the PSoC Programmer, and additional applications, such as PSoC Creator or the 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 the 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

During installation of PSoC Programmer you are prompted to install the device drivers for the PSoC Programmer. If you clicked "Cancel" originally, and now you want to re-install the drivers, please do the following:

Navigate to the PSoC Programmer root installation directory.

Open the *Drivers* folder and run the *driver.bat* file. This installs the PSoC Programmer drivers.

Further Reading

Documentation

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

- Programmer User Guide
- 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 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

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. 8) or 1-425-787-4814.



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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