



# PSoC® Programmer Release Notes

Version 3.19.1

**Release Date:** August 26, 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.

## Contents

New Features for PSoC Programmer .....	2
Support for Windows 8 .....	2
EEPROM Programming Support .....	2
Virtual Machine Testing .....	2
Support for New PSoC 3 Devices.....	2
Support for new TrueTouch GEN4 and GEN5 Devices .....	2
Updated shortcut Menus.....	2
PSoC-UI Programmer.....	3
PSoC 5LP JTAG Verification .....	3
New Supported Devices for PSoC Programmer.....	3
Update / Upgrade Notes .....	4
Upgrade Using Cypress Update Manager.....	4
PSoC 3 ES2 vs. ES3 Support.....	4
Coexistence with Older PSoC Programmer Releases .....	4
Defects Fixed .....	4
Known Issues .....	5
Limitations .....	6
Installation .....	7
Minimum and Recommended Requirements .....	7
Applications Dependent on a PSoC Programmer Installation .....	7
Update Instructions .....	7
Installation Notes .....	8
Device Driver Re-Installation .....	9
Further Reading .....	9
Silicon Errata.....	10

## New Features for PSoC Programmer

This PSoC Programmer release supports PSoC Creator 3.0 release and includes new device support.

### Support for Windows 8

For this release of PSoC Programmer 3.19 we have added support for Windows 8 installations. We have also supported icons in the Metro video. We will not populate icons for all of the secondary software shipped with PSoC Programmer. Users will need to navigate to the root installation directory to access those tools.

### EEPROM Programming Support

For this release of PSoC Programmer we now support programming EEPROM data from within PSoC Creator and from PSoC Programmer.

### Virtual Machine Testing

PSoC Programmer 3.19 has been tested on Parallels and VMware to add support on MacOS systems. We have tested the following configurations:

#### *Parallels*

- MacOS 10.6 on Parallels Desktop 7 running Windows XP SP3
- MacOS 10.6 on Parallels Desktop 7 running Windows 7 SP1
- MacOS 10.8 on Parallels Desktop 8 running Windows 7 SP1
- MacOS 10.8 on Parallels Desktop 8 running Windows 8

#### *VMware 5*

- MacOS 10.6 on VMware Fusion 5 running Windows XP SP3
- MacOS 10.6 on VMware Fusion 5 running Windows 7 SP1
- MacOS 10.8 on VMware Fusion 5 running Windows 7 SP1
- MacOS 10.8 on VMware Fusion 5 running Windows 8

### Support for New PSoC 3 Devices

PSoC Programmer will add new device support for new PSoC 3 devices.

### Support for new TrueTouch GEN4 and GEN5 Devices

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

### Updated shortcut Menus

For this release of PSoC Programmer 3.19 we have updated the list of shortcuts installed in the Start menu during installation. This update will apply to all XP, Vista, Win7, and Win8 machines.

### PSoC-UI Programmer

For this release we have added a completely new programmer to support new PProC-UI devices. This programmer will be used to program the CYRF89xxx devices. You may use the Minipro3 to program these parts. This programmer can be found in the following directory:

[Root installation path]\Cypress\Programmer\3.19.0\PProC\_UI\_Programmer

### PSoC 5LP JTAG Verification

For this release we have tested and qualified JTAG SVF files on 3<sup>rd</sup> party tools (Xilinx). The SVF files were generated using our SVF-HEX file convertor included in the PSoC Programmer installation.

## New Supported Devices for PSoC Programmer

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

Family	Device
CY7C643xx	CY7C64355-48LTXC
CY8C21x23	CY8C21123-24SXIKA
CY8C24x93	CY8C24493-24LTXI
CY8C4xxx	CY8C4245AXI-483ES
CY8CTMA4xx	CY8CTMA440-44LQI
	CY8CTMA4415-44LQI
	CY8CTMA4405-48LQI
	CY8CTMA4455-48LQI
	CY8CTMA4455-48LQIKA
	CY8CTMA4415-44LQIKA
	CY8CTMA4405-48LQIKA
	CY8CTMA441-44LQIKA
	CY8CTMA440-48LQIKA
	CY8CTMA445-48LQIKA
	CY8CTMA445-48LQI36OC
CY8CTMA5xx	CY8CTMA5455-48LQI
	CY8CTMA5455-48LQIKA
	CY8CTMA545-48LQIKA
	CY8CTMA568-56LQI
	CYTMA568-56LQI44XA
	CYTMA568-56LQI44AA
	CYTMA568-56LQI44XB
	CYTMA568-56LQI44AB
	CYTMA568-56LQI44AD
	CY8CTMA568-70BUI
	CYTMA568-70BUI58XA
	CYTMA568-70BUI58AA
	CYTMA568-70BUI48XB
	CYTMA568-70BUI54XB
	CYTMA568-70BUI58XB
	CYTMA568-70BUI48AB
	CYTMA568-70BUI54AB
	CYTMA568-70BUI58AB
	CYTMA568-70BUI58AD
	CYTMA568-70BUI58SA

Family	Device
	CYTMA568-70BUI58AI
	CYTMA568-70BUI58ZZ
	CY8CTMA560EFR-48LQI
CY8C20075	CY8C20075-24LKXI
CYTMA5xx	CYTMA568-70BUI-58ZZ

## 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
<b>Programmer Application</b>		
Win8: Couldn't connect FirstTouch with Windows 8 using PSoC Programmer	KB Article Generated on Cypress Web page and attached at the bottom of the <a href="#">PSoC Programmer</a> web page.	149630
Unhandled Exception in PP3.18 b1536 when trying to access HEX files on remote server	Disable looking for Hex files located on remote network if network connection is disabled.	157301
<b>Hardware</b>		
N/A	N/A	N/A
<b>Installer</b>		
N/A	N/A	N/A
<b>Documentation</b>		
C# PPCoM I2C example returns device list as null	Updated C#/C++/Perl/Python I2C examples	151431
PPCLI manual typo for command PSOC4_GetSiliconID	Updated documentation	153306
<b>Bridge Control Panel</b>		
BCP throws unhandled exception if data is saved over open-for-editing file	Software updated to handle the exception	154658
BCP axis labeling missing vertical ticks when window is very tall	Software was updated to fix the error	157885

## Known Issues

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

Defect	Fix and Impact	Defect
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 configuration.	N/A
Intermittent errors in P4/SWD EnumerateDevices API	Some customers may see intermittent issues when creating custom programming/testing	148470

	<p>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:</p> <p><a href="http://www.cypress.com/go/cy8ckit-002">www.cypress.com/go/cy8ckit-002</a></p>	
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	

\* 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 3<sup>rd</sup> 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	<a href="http://www.cypress.com/go/psocdesigner">http://www.cypress.com/go/psocdesigner</a>
PSoC Creator	<a href="http://www.cypress.com/go/psoccreator">http://www.cypress.com/go/psoccreator</a>
PSoC Programmer	<a href="http://www.cypress.com/go/psocprogrammer">http://www.cypress.com/go/psocprogrammer</a>

### 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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