



# PSoC® Programmer Release Notes

Version 3.16

**Release Date:** September 12, 2012

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 or the CY3240 USB-I2C Bridge. 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 5 and the TrueTouch devices.

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## New Features for PSoC Programmer

This PSoC Programmer release supports new devices, adds new GUI features, and provides utilities which make Cypress HEX files compatible with other device programming tools.

### New Device Support

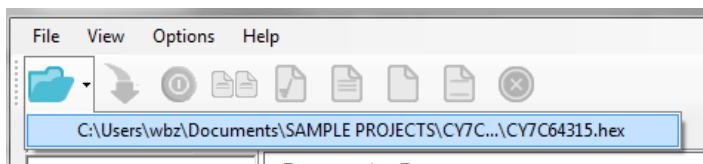
For a complete list of new devices supported in this release of PSoC Programmer, please see the device support section. This release is adding new devices to support the PSoC Designer and TrueTouch releases.

### Support for PSoC 5 LP Devices

PSoC Programmer now supports programming of the new PSoC 5 LP devices. Programming is supported via the Minipro3 and TrueTouch Bridge.

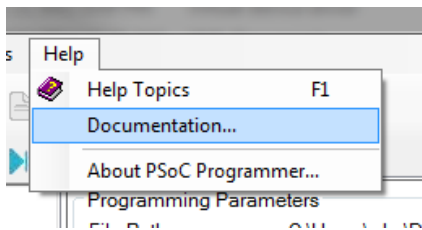
### Recently Used Hex File Feature

PSoC Programmer now supports a new drop down menu in the toolbar that allows the user to rapidly select between multiple HEX files.



### Documentation Link in Help Menu

PSoC Programmer has added a quick launch documentation link to the Help menu. Users can select the Help drop down menu and select the documentation link. After selecting the Documentation button Programmer will automatically open the documentation folder in the root install directory.



### New TrueTouch Bridge Firmware

An update to the TrueTouch Bridge has been made for this release that adds programming support for the PSoC 5 LP device.

### JTAG BSDL Files for PSoC 3 and PSoC 5 LP Devices

PSoC Programmer now delivers all BSDL files for PSoC 3 and PSoC 5 LP devices. These files are used by customers to perform JTAG boundary scan testing.

### SVF File Generation for PSoC 5 LP Devices

PSoC Programmer now delivers a small utility that can generate SVF programming files for PSoC 5 LP devices. Users can convert their generated HEX file into an SVF programming file for generic JTAG programmers. The utility and Help file can be found in the root installation directory:



C:\Program Files\Cypress\Programmer\3.16\HexToSvf

### uVision/uLink IDE Support for PSoC 5 LP Devices

PSoC Programmer will distribute configuration files for integrating PSoC 5 LP devices with the uVision and uLink development tools. The configuration files are located in the following installation directory:

C:\Program Files\Cypress\Programmer\3.16\3rd\_party\_configuration\_files\CY8C5xxLP

Accompanying the configuration files are help documents that include instructions on installing the configuration files in uVision.

### Improved USB and I2C Bootloader Host Application Examples

For this release of PSoC Programmer we have added improved PC host application examples for both USB and I2C bootloading of PSoC 1 devices. Included in the 'Bootloader' folder in the root installation directory are the code examples, executables, source code, and PSoC 1 project examples. For more information please see the 'Readme' and Help files in the 'Bootloader' sub directories.

## New Supported Devices for PSoC Programmer

The following table lists the new device support for PSoC Programmer.

Device Family	Devices
CYRF89x35	CYRF89535-68LTXC
	CYRF89435-40LTXC
	CYRF89235-40LTXC
	CYRF89335-68LTXC
	CYRF89135-40LTXC
CY8C20xx6AS	CY8C20646AS-24LQXI
	CY8C20666AS-24LQXI
CY8C20xx6AN	CY8C20636AN-24LQXI
CY8C20x34	CY8C20434-12LQXI
CY8C21x12	CY8C21312-12PVXE
	CY8C21512-12PVXE
CY8C21x34	CY8C21434-24LTXI
	CY8C21434-24LQXI

Device Family	Devices
CY8C24x23A	CY8C24423A-24LTXI
CY8C24x94	CY8C24994-24LTXI
CY8C6xx	CY8CTMA616AA-22
	CY8CTMA616AA-23
	CY8CTMA616AE-22
	CY8CTMA616AE-23
CY8C8xx	CY8CTMA884AA-22
	CY8CTMA884AA-23
	CY8CTMA884AE-22
	CY8CTMA884AE-23
CY8CTMA120	CY8CTMA120-56LWXA,
CY8CTMA4xx	CY8CTMA441-44LQI
	CY8CTMA442-44LQI
	CY8CTMA442-48LQI
	CY8CTMA445-44LQI
	CY8CTMA445-48LQI
	CY8CTMA446-44LQI
	CY8CTMA446-48LQI
	CY8CTMA440-48LQI
CY8CTMA5xx	CY8CTMA500-44LQIES
	CY8CTMA500-48LQIES
CY8CTMA5xx	CY8CTMA542-44LQI
	CY8CTMA542-48LQI
	CY8CTMA545-44LQI

Device Family	Devices
	CY8CTMA545-48LQI
	CY8CTMA546-44LQI
	CY8CTMA546-48LQI
	CY8CTMA547-48LQI
	CY8CTMA548-48LQI
	CY8CTMA500-48LQI
CY8C5xxxLP	CY8C5466AXI-LP002
	CY8C5467LTI-LP003
	CY8C5687LTI-LP007
	CY8C5688AXI-LP016
	CY8C5886LTI-LP017
	CY8C5887AXI-LP018
	CY8C5887AXI-LP019
	CY8C5266AXI-LP033
	CY8C5688LTI-LP037
	CY8C5265LTI-LP050
	CY8C5267AXI-LP051
	CY8C5265AXI-LP056
	CY8C5686AXI-LP064
	CY8C5886AXI-LP065
	CY8C5466LTI-LP072
	CY8C5265AXI-LP082
	CY8C5466LTI-LP085
	CY8C5267LTI-LP089

Device Family	Devices
	CY8C5465LTI-LP104
	CY8C5888LTI-LP113
	CY8C5888LTI-LP114
	CY8C5888LTI-LP115
	CY8C5888LTI-LP115ES
	CY8C5266AXI-LP132
	CY8C5266LTI-LP150
	CY8C5687AXI-LP011
	CY8C5687LTI-LP012
	CY8C5688AXI-LP015
	CY8C5468LTI-LP026
	CY8C5686LTI-LP027
	CY8C5266LTI-LP029
	CY8C5268LTI-LP030
	CY8C5465AXI-LP043
	CY8C5268AXI-LP047
	CY8C5265LTI-LP058
	CY8C5888AXI-LP059
	CY8C5888AXI-LP060
	CY8C5888AXI-LP061
	CY8C5888AXI-LP061ES
	CY8C5886AXI-LP062
	CY8C5686AXI-LP063
	CY8C5887LTI-LP078

Device Family	Devices
	CY8C5887LTI-LP079
	CY8C5468AXI-LP106
	CY8C5466AXI-LP107
	CY8C5467AXI-LP108
	CY8C5666AXI-LP001
	CY8C5666AXI-LP004
	CY8C5666LTI-LP005
	CY8C5667AXI-LP006
	CY8C5667LTI-LP008
	CY8C5667LTI-LP009
	CY8C5668AXI-LP010
	CY8C5668AXI-LP013
	CY8C5668LTI-LP014
	CY8C5866AXI-LP020
	CY8C5866AXI-LP021
	CY8C5866LTI-LP022
	CY8C5867AXI-LP023
	CY8C5867AXI-LP024
	CY8C5867LTI-LP025
	CY8C5867LTI-LP028
	CY8C5868AXI-LP031
	CY8C5868AXI-LP032
	CY8C5868AXI-LP035
	CY8C5868LTI-LP036

Device Family	Devices
	CY8C5868LTI-LP038
	CY8C5868LTI-LP039
	CY8C5868AXI-LP035ES
	CY8C5868LTI-LP039ES
CY8C4xxx	CY8C4244PVI-013
	CY8C4244PVI-015
	CY8C4244PVI-004
	CY8C4244LQI-008
	CY8C4244LQI-007
	CY8C4244AXI-021
	CY8C4244AXI-034
	CY8C4245PVI-011
	CY8C4245PVI-009
	CY8C4245LQI-017
	CY8C4245LQI-005
	CY8C4245AXI-028
	CY8C4245AXI-025
	CY8C4245AXI-018

## 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>		
Host Application for I2C Bootloader does not run.	Both USB and I2C PSoC 1 Bootloader example applications have been updated and improved.	125460
<b>Hardware</b>		
N/A	N/A	N/A
<b>Installer</b>		
Installing PSoC Programmer presents confusing Command Window	Command Window is required but the confusing messaging displayed on the command window has been fixed	107910
<b>Documentation</b>		
DOC: 's' missing in API (HEX_ReadImageSizes) in COM Interface Guide	Updated documentation to fix typo	133214
<b>Bridge Control Panel</b>		
BCP does not send slave address if there is no data with it.	Disabled execution of I2C commands if no any data byte set after address.	115159

### Known Issues

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

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 Minipro3.	The Minipro3 does not support power detect programming for Encore II due to its Pull-Down interface on Data line. The Minipro3 does support power cycle and reset modes for the Encore II devices.	119896
Cancelling Uninstall Corrupts COM object	If the user cancels a PSoC Programmer uninstallation after the Black DOS windows appears, uninstallation may fail, leaving Programmer in an unusable but still installed state. If cancel is pressed before that window then there will be no issue. This issue will be addressed in the PSoC Programmer 3.16 release. To workaround this issue, users can re-run the uninstaller.	116544

#### 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 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	✓	✓
<b>Software Prerequisites **</b>	<b>Minimum/Recommended Version</b>	
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 CylnStaller 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

### Updates

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

PSoC Software Tool	Link
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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

We recommend that customers, who experience any issues with the software or the PSoC devices, please contact customer support at the following phone numbers 1-800-541-4736 (ext. 8) or 1-425-787-4814.

Customers may also file a Tech Support Case at the following web page:

[www.cypress.com/go/support](http://www.cypress.com/go/support)

### 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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