



PSoC® Programmer Release Notes

Version 3.27.1

February 02, 2018

PSoC Programmer is Cypress's programming toolchain used for programming various Cypress devices.

- Supports applications including: PSoC Creator™, PSoC Designer™, TrueTouch® Host Emulator and MTK, CyClockWizard, and Ez-Click.
- Supports all PSoC architectures including PSoC 1, PSoC 3, PSoC 4, PSoC 5LP, PSoC 6, TrueTouch®, CapSense, and Clock devices.
- Supports all Cypress programming hardware such as MiniProg1, MiniProg3, TrueTouch Bridge, KitProg1, KitProg2, ICE-Cube, CY3240 USB-I2C Bridge.
- Provides a COM layer that can be used to create custom applications.
- Installs secondary applications such as Bridge Control Panel and Clock Programmer.

PSoC Programmer 3.27.1 release delivers:

- Support for PSoC 60xx/61xx/62xx/63xx product lines
- Support for PSoC 4100S Plus product line
- Pre-Production support for CCG3PA2 product line
- Pre-Production support for Automotive TrueTouch® Generation 7 CYAT817X family
- Support for new part numbers in the PSoC 4200-L, PSoC 4100S, PSoC 4200DS, PSoC 4000S, CY7C65219, CCG2C, CCG4, and CCG5 device families
- KitProg2 FW with support for CY8CKIT-062-BLE PSoC 6 BLE Pioneer, and CY8CKIT-149 prototyping kits
- KitProg2 also improves behavior of mode and status LEDs on the development kits

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New Features for PSoC Programmer

PSoC Programmer 3.27.1 provides support for the PSoC 6x, PSoC 4100S Plus, CYAT817X and CCG3PA2 product lines, including programming of external memory via SMIF interface (for PSoC 6 MCU devices only).

The following products are also delivered with this PSoC Programmer 3.27.1 release:

Product	Version
Bridge Control Panel	1.18.0
Clock Programmer	1.8.0
KitProg1	2.20
KitProg2	1.05
Minipro3	2.05 [3.11/2.10]
TrueTouch Bridge	1.35

Support for PSoC 6 Family

PSoC Programmer 3.27.1 provides the programming and debugging support for Cypress's latest PSoC 6 MCU architecture via both PSoC Programmer and PSoC Creator. It supports programming and debugging of PSoC 6 MCU devices via SWD and JTAG interfaces. Additionally, it provides support for the following programming hardware: MiniProg3, KitProg2, uLink2 and CMSIS-DAP to program the PSoC 6 MCU device on the PSoC 6 BLE Pioneer kit. This release of PSoC Programmer also enables programming of external memory via SMIF interface and programming of single-core PSoC 6 MCU devices. Refer to the [Known Limitations](#) section for details about current limitations related to PSoC 6 MCU support.



Support for PSoC 4100S Plus Family

PSoC Programmer 3.27.1 provides the programming and debugging support for Cypress's latest PSoC 4100S Plus devices via both PSoC Programmer and PSoC Creator. It supports programming and debugging of PSoC 4100S Plus devices via SWD interface. Additionally, it provides support for the following programming hardware: MiniProg3, KitProg2, and CMSIS-DAP to program the PSoC 4100S Plus device on the PSoC 4100S Plus Prototyping kits.

Pre-Production support for CYAT817X Family

PSoC Programmer 3.27.1 provides the programming and debugging support for Cypress's latest CYAT817X devices via both PSoC Programmer and TrueTouch® Host Emulator. It supports programming and debugging of CYAT817X devices via SWD interface.

Pre-Production support for CCG3PA2 Family

PSoC Programmer 3.27.1 provides the programming and debugging support for Cypress's latest CCG3PA2 devices via PSoC Programmer. It supports programming and debugging of CCG3PA2 devices via SWD interface.

KitProg2 firmware update

KitProg2 1.05 firmware support for CY8CKIT-062-BLE Pioneer and CY8CKIT-149 prototyping kits. These kits may be enumerated as a mass-storage device and you can drag and drop a hex file to program the target device.

This version also includes an update for the mode and status LEDs on development kits, to be able to better communicate the programming mode and status:

Programming Mode	Mode Indicator (Amber LED)	Programming Status	Status Indicator 1 (Green LED)	Status Indicator 1 (Red LED)
Proprietary	ON	Programming	8Hz	OFF
		Success	ON	OFF
		Error	OFF	ON
CMSIS-DAP Drag-and-Drop	OFF	Programming	8Hz	OFF
		Success	ON	OFF
		Error	OFF	ON
Bootloader	1Hz	N/A	N/A	N/A
Custom Application	8Hz		User defined	User defined
Low power	N/A		N/A	N/A

Also, KitProg2 1.05 firmware enables USB-UART bridging in conjunction with CMSIS-DAP mode.

MiniProg3 firmware update

MiniProg3 firmware is updated to support PSoC 4100S Plus devices and to address various defects.

KitProg1 firmware update

KitProg1 firmware is updated to address various defects.

New Devices in PSoC Programmer

The following new devices have been added to PSoC Programmer version 3.27.1.

Family	Device
PSoC 61	CY8C6137FDI-F04
	CY8C6117FDI-F04
	CY8C6117FDI-F02
	CY8C6117FDI-F02
PSoC 62	CY8C6247FDI-D04
	CY8C6247FDI-D34
	CY8C6247FDI-D52
PSoC 63	CY8C6336BZI-BUD13
	CY8C6347BZI-BUD43
	CY8C6347BZI-BUD33
	CY8C6347BZI-BUD53
	CY8C6337BZI-BLF13
PSoC 4200-L	CY8C4247LTQ-L485
	CY8C4248LTQ-L485
	CY8C4248BZI-L469
PSoC 4100S	CY8C4126AZI-S423
	CY8C4126AZI-S433
	CY8C4145AZI-S423
PSoC 4100S Plus	CY8C4126AXI-S443
	CY8C4126AZI-S445
	CY8C4126AXI-S445
	CY8C4126AZI-S455
	CY8C4126AXI-S455
	CY8C4146AXI-S443
	CY8C4146AZI-S445
	CY8C4146AXI-S445
	CY8C4146AXI-S453
	CY8C4146AZI-S455
	CY8C4146AXI-S455
	CY8C4146AXI-S455
	CY8C4146AXI-S443
	CY8C4147AXI-S443
	CY8C4127AXI-S443
	CY8C4127AXI-S445
	CY8C4127AXI-S445
	CY8C4127AXI-S453
	CY8C4127AZI-S455
	CY8C4127AXI-S455
	CY8C4127AXI-S455
	CY8C4147AXI-S443
	CY8C4147AXI-S445
CY8C4147AXI-S445	
CY8C4147AXI-S453	
CY8C4147AZI-S455	
CY8C4147AXI-S455	
CY8C4147AZI-S465	
CY8C4147AXI-S465	
CY8C4147AZI-S475	
CY8C4147AXI-S475	
CY8C4126AZA-S455	
CY8C4146AZA-S455	



Family	Device
	CY8C4127AZA-S445
	CY8C4127AZA-S455
	CY8C4147AZA-S445
	CY8C4147AZA-S455
	CY8C4147AZA-S465
	CY8C4147AZA-S475
	CY8C4126AZS-S455
	CY8C4146AZS-S455
	CY8C4127AZS-S445
	CY8C4127AZS-S455
	CY8C4147AZS-S445
	CY8C4147AZS-S455
	CY8C4147AZS-S465
	CY8C4147AZS-S475
	CY8C4146AZA-S245
	CY8C4146AZA-S255
	CY8C4146AZA-S265
	CY8C4146AZA-S275
	CY8C4147AZA-S245
	CY8C4147AZA-S255
	CY8C4147AZA-S265
	CY8C4147AZA-S275
	CY8C4147AZA-S285
	CY8C4147AZA-S295
	CY8C4146AZS-S245
	CY8C4146AZS-S255
	CY8C4146AZS-S265
	CY8C4146AZS-S275
	CY8C4147AZS-S245
	CY8C4147AZS-S255
	CY8C4147AZS-S265
	CY8C4147AZS-S275
	CY8C4147AZS-S285
	CY8C4147AZS-S295
PSoC 4200DS	CY8C4046FNI-DS402
	CY8C4046PVI-DS402
	CY8C4045FNI-DS402
	CY8C4045PVI-DS402
	CY8C4045FNI-DS400
PSoC 4000S	CY8C4024AXI-S402
	CY8C4024AXI-S412
	CY8C4025AXI-S402
	CY8C4025AXI-S412
	CY8C4045AXI-S412
CYAT81xxx	CYAT817AZS61-3A002
	CYAT817AZS61-3A202
	CYAT817AZA72-3BFBA
	CYAT817AZS72-32002
	CYAT817AZS72-33002
	CYAT817AZS72-3B002



Family	Device
	CYAT817AZS72-3B202
	CYAT817AZS72-3BFBA
	CYAT817AZA77-5BFBA
	CYAT817AZS77-52C02
	CYAT817AZS77-5A002
	CYAT817AZS77-5A202
	CYAT817AZS77-5BFBA
	CYAT817AZS77-520DA
	CYAT817AZA88-5BFBA
	CYAT817AZA88-53002
	CYAT817AZA88-5B002
	CYAT817AZA88-5B202
	CYAT817AZS88-5BFBA
	CYAT817AZA98-42002
	CYAT817AZA98-5BFBA
	CYAT817AZA98-53002
	CYAT817AZA98-5B002
	CYAT817AZA98-5B202
	CYAT817AZS98-42002
	CYAT817AZS98-523DA
	CYAT817AZS98-5BFBA
CY7C65219	CY7C65219-40LQXIT
CCG2C	CYTC2194-24LQXA
	CYTC2194-24LQXAT
	CYTC2194-24LQXS
	CYTC2194-24LQXST
CCG4	CYPD4126-24LQXI
	CYPD4136-24LQXI
CCG5	CYPD5235-96BZXI
	CYPD5236-96BZXI
	CYPD5294-96BZXAX
	CYPD5294-96BZXAT
	CYPD5294-96BZXAS
	CYPD5294-96BZXAST
	CYPD5292-96BZXAX
	CYPD5292-96BZXAT
	CYPD5292-96BZXAS
	CYPD5292-96BZXAST
	CYPD5237-96BZXI
	CYPD5227-96BZXI
	CYPD5137-40LQXIT
CCG3PA2	CYPDC1185-32LQXQ
	CYPDC1186-30FNXIT
CY7C6521x	CY7C65212-32LTXI

Resolved Issues

This release includes the following defect fixes:

ID	Description
244588	MiniProg3 firmware upgrade may not complete successfully if MiniProg3 remains connected after reinstall of PSoC Programmer
251941	Device operation (Program/Verify/Erase/Checksum) fails for S6E1Cxx and S6E1Cxx Kits, connected via MiniProg3, if performed right after “Toggle Power” operation.
293950	Device operation (Program/Verify/ Erase/Checksum) fails for PSoC 6 devices using MiniProg3 with JTAG/SWD protocol speed 8-12 MHz

Known Issues

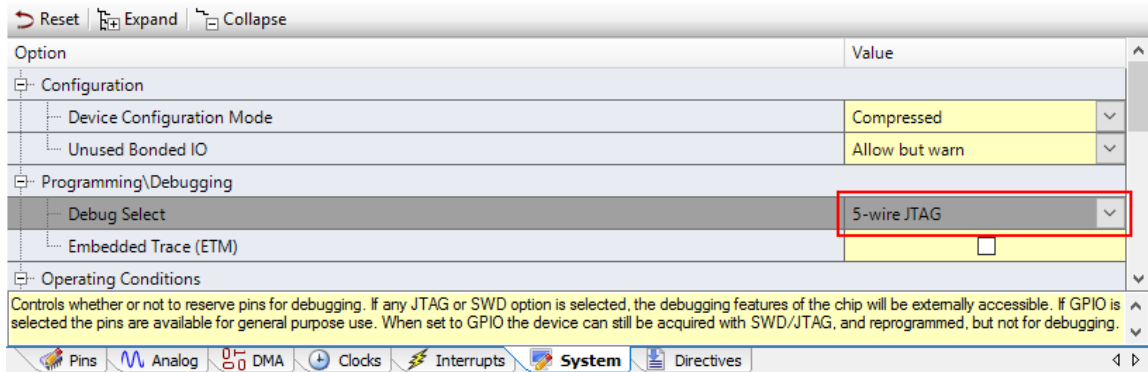
This section lists the known issues with this release:

ID	Problem	Workaround
251941	Device operation (Program/Verify/Erase /Checksum) fails for S6E1Axx Kits, connected via MiniProg3, if performed right after “Toggle Power” operation.	To avoid this, please wait for four seconds after power is toggled before doing further steps.
294022	JTAG operations may fail when PSoC 3, PSoC 5 and PSoC 6 devices are connected in JTAG chain simultaneously.	Due to differences in debug port acquisition and device initialization, avoid using different generations of PSoC devices connected simultaneously in one JTAG chain. If you cannot avoid this per design, repeat the operation in PSoC Programmer in case of failures.
298838	Device operation (Program/Verify/ Erase/Checksum) fails for PSoC 6 and FM0+ devices using MiniProg3 with SWD/JTAG protocol speed above 12 MHz.	Re-plug MiniProg3 after failure. Use up to 12 MHz SWD/JTAG protocol speed when programming or debugging PSoC 6 and FM0+ devices using MiniProg3.
297645	KitProg2 mode switch may take a long time, or may fail. This can happen with some host machines using Windows 7 OS.	Unplug the kit, then plug it back in. This problem does not occur if the latest updates for Windows 7 OS (from the Windows Update Center) are installed.

Known Limitations

The following are the known limitations in PSoC Programmer 3.27.1:

- PSoC 6 MCU support: to use the JTAG protocol, the device flash should be erased or contain an application that has JTAG selected in PSoC Creator ('Debug Select' option in System Tab):



When either SWD (default) or GPIO is selected in this option, JTAG pins are disabled in the user application start-up code. This causes PSoC Programmer or 3rd party tools to be unable to access the device using JTAG protocol.

- When using CMSIS-DAP programmer/debugger, the device flash should be erased or contain an application that has SWD or JTAG selected in PSoC Creator ('Debug Select' option in System Tab). When GPIO is selected in this option, debug pins are disabled in start-up code of user application. PSoC Programmer or 3rd party tools then cannot access the device. The only option for accessing the device, when debug pins are configured as GPIO, is to enter Cypress-specific Test Mode, which is not supported with CMSIS-DAP transport. This can be done using MiniProg3 or KitProg1 or KitProg2 programmers.
- PSoC 6 MCU support: for programming and debugging operations, the System Access Port (AP[0]) of SWJ-DP unit and either the Access Port for CM0+ core (AP[1]) or the Access Port for CM4 core (AP[2]) must be enabled in device access restrictions settings (Normal Access Restrictions in SFlash for NORMAL life-cycle stage or Secure Access Restriction in eFuse).
- PSoC 6 MCU support: PSoC Programmer software does not support Customer Data eFuse area. Blowing an eFuse is an irreversible process. Programming is recommended only in mass production programming under controlled factory conditions, and not prototyping stages.

The full list of the legacy limitations is available in [KBA210619](#).

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 7 / 8 / 8.1 / 10	✓	✓
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 CylInstaller (except Python interpreters).

Applications Dependent on a PSoC Programmer Installation

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

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

The following applications are included in the PSoC Programmer installation:

- Bridge Control Panel (mandatory)
- Clock Programmer (mandatory)
- USB and I²C PSoC 1 Bootloader Hosts (optional, by default included)
- Examples (optional, included by default)

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 installed when updates for these become available.

Follow the instructions provided by the CylInstaller.

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

Installation Notes

The installation process is a set of wizards that walks you through installing various components. You can install PSoC Programmer from the web, or from a CD (download the ISO image).

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

Web Installation

1. Double-click the PSoC Programmer executable file to launch the PSoC Programmer installer.
2. Follow the prompts to install PSoC Programmer and various drivers.
3. When complete, close the installer.

Note that installation may fail when using the web because of firewall or administrator privileges. Contact your IT support for assistance, or download the ISO image provided on the PSoC Programmer web page so you can install from a CD.

PSoC Programmer CD Installation

The PSoC Programmer ISO image contains PSoC Programmer and various prerequisites. After downloading the ISO image, perform these steps:

1. Burn the image onto a CD.
2. Load the CD into the PC. The main installer program should run automatically. If not, double-click the *cyautorun.exe* file to launch it.
3. Click **Install PSoC Programmer [version]...** to launch the PSoC Programmer installer.
4. Follow the prompts in the wizard to install PSoC Programmer and various drivers. Continue to follow the prompts until PSoC Programmer and the drivers are installed.
5. Resume the main installer program.

Cypress PSoC Kit Installation

A kit installer contains PSoC Programmer and may contain additional applications (such as PSoC Creator), documentation, and prerequisites needed for the associated kit. Both an executable installer and an ISO image are available on the kit webpage. The installation process is like that for PSoC Programmer, although the items or applications installed will vary. PSoC Programmer will be one of them.

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 the 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.

Coexistence with Older PSoC Programmer Releases

Only one version of PSoC Programmer can be installed in the system. During the installation of a new PSoC Programmer version, the previous one is removed. If you have an older version of PSoC Programmer (3.06 or below), uninstall it first and then proceed with installation of the latest release.

Further Reading

Documentation

Documentation is available in the PSoC Programmer root directory and 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
- KitProg2 User Guide
- Third-Party Tools User Guide. This user guide provides information on using the Cypress silicon in third party tools. It is located at `./3rd_party_configuration_files/Documents`

The Bridge Control Panel includes the following documents:

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

Silicon Errata

The latest versions of the silicon errata are available on the website at <http://www.cypress.com/psoc> under **Related Documentation**.



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