Release Notes SRN073

PSoC Programmer Version 3.06 Release
Clock Programmer Version 1.3 Release
Bridge Control Panel 1.0 Release (Beta)
Release Date: September 1, 2009

Thank you for your interest in PSoC Programmer version 3.06. This document lists installation requirements and describes software updates and changes. This programmer release incorporates PSoC Device support for CY8C20x34, CY7C643xx, CY7C604xx, CYONS2xxx, CY8C20x36, CY8C20x46, CY8C20x96, CY8C20xx6, CY8CLED0xxxx, CY8CTMA300D, CY8CTMA301D, and CY8C28xxx devices.

Also included in this release are updates to the Clock Programmer and the new Beta release of the Bridge Control Panel.

System Requirements and Recommendations

System Requirements	Minimum	Recommended
• Processor Speed	500 MHz	1 GHz
• MB of RAM	64 MB	512 MB
• MB of Free Hard Drive Space	200 MB	512 MB
• Screen Resolution	1024x768	1280x1024
• CD-ROM Drive		✓
• USB Port, preferably Open Host Controller or Universal	✓	✓
• Windows® 2000, XP 2.0 (SP 1 or 2), or Vista 32-bit and 64-bit	✓	✓
• Windows .NET Framework 2.0	✓	
• Windows .NET Framework 3.5		✓
• Microsoft Internet Explorer 6.0 (SP1)	✓	✓
• Adobe Reader (For Viewing of .PDF Documentation)	✓	✓

Updates

PSoC Programmer is updated frequently, adding support for new devices as they appear.

Check http://www.cypress.com/psocprogrammer for the latest downloads of software and documentation.

New Devices for PSoC Programmer 3.06

The following table is a list of new devices for PSoC Programmer 3.06

Device Family	Device
CY7C604xx	CY7C60413-16LKXC
CY7C643xx	CY7C64343-32LQXC
CY8C20x34	CY8C20234-12LKXA
	CY8C20634-12FDXI
CY8C20x36	CY8C20536-24PVXI
	CY8C20636-24LTXI
CY8C20x46	CY8C20646-24LTXI

Device Family	Device
CY8C20x96	CY8C20496-24LQXI
CY8C20xx6(A)	CY8C20236A-24LKXI
	CY8C20336A-24LQXI
	CY8C20436A-24LQXI
	CY8C20536A-24PVXI
	CY8C20636A-24PTXI
	CY8C20246A-24LKXI
	CY8C20346A-24LQXI
	CY8C20446A-24LQXI
	CY8C20546A-24PVXI
	CY8C20646A-24PTXI
	CY8C20266A-24LKXI
	CY8C20366A-24LQXI
	CY8C20466A-24LQXI
	CY8C20566A-24PVXI
	CY8C20666A-24PTXI
	CY8C20296A-24LQXI
	CY8C20396A-24LQXI
	CY8C20496A-24LQXI
CY8C21x34	CY8C21334-12PVXE
	CY8C21334-24PVXA
	CY8C21534-12PVXE
	CY8C21534-24PVXA
CY8C24x23A	CY8C24223A-12PVXE
	CY8C24423A-12PVXE
	CY8C24423A-12PVXA
CY8C24x94	CY8C24894-24LFXA
CY8C29x66	CY8C29466-12PVXE
	CY8C29466-12PVXA
CY8CLED0xxxx	CY8CLED01D01-56LTXI
	CY8CLED02D01-56LTXI
	CY8CLED03G01-56LTXI
	CY8CLED04G01-56LTXI
CY8CTxT20x	CY8CTST200A-16LGXI
	CY8CTST200A-24LQXI
	CY8CTST200A-32LQXI
	CY8CTST200A-48LTXI
	CY8CTST200A-48PVXI
	CY8CTST201A-16LGXI
	CY8CTST201A-24LQXI
	CY8CTST201A-32LQXI
	CY8CTST201A-48LTXI
	CY8CTST201A-48PVXI
	CY8CTMG200A-16LGXI
	CY8CTMG200A-24LQXI
	CY8CTMG200A-32LQXI
	CY8CTMG200A-48LTXI
	CY8CTMG200A-48PVXI
	CY8CTMG201A-16LGXI

Device Family	Device
	CY8CTMG201A-24LQXI
	CY8CTMG201A-32LQXI
	CY8CTMG201A-48LTXI
	CY8CTMG201A-48PVXI
CY8CTMA1xx	CY8CTMA120-56LFXA
CY8CTMG1xx	CY8CTMA120-56LFXA
CY8CTMA300D	CY8CTMA300D-36LQXI
	CY8CTMA300D-48LTXI
	CY8CTMA300D-49FNXI
CY8CTMA301xx	CY8CTMA301D-36LQXI
	CY8CTMA301D-48LQXI
	CY8CTMA301-36LQXI
	CY8CTMA301-48LTXI
CY8C28xxx	CY8C28243-24PVXI
	CY8C28403-24PVXI
	CY8C28413-24PVXI
	CY8C28452-24PVXI
	CY8C28513-24AXI
	CY8C28643-24LTXI
	CY8C28243-12PVXQ
	CY8C28403-12PVXQ
	CY8C28413-12PVXQ
	CY8C28433-12PVXQ
	CY8C28445-12PVXQ
	CY8C28452-12PVXQ
	CY8C28513-12AXQ
	CY8C28533-12AXQ
	CY8C28545-12AXQ
CYONS2xxx	CYONS2010-LBXC
	CYONS2011-LBXC
CYONSFN2xxx	CYONSFN2051-LBXC
	CYONSFN2061-LBXC
	CYONSFN2151-LBXC
	CYONSFN2161-LBXC
	CYONSFN2162-LBXC
	CYONSFN2053-LBXC

New for PSoC Programmer

There are no GUI or function changes to PSoC Programmer 3.06. The updates to PSoC Programmer include expanded device support and an update to the Miniprog1 firmware.

PSoC Programmer 3.05 included the initial release of the Clock Programmer v1.2. PSoC Programmer 3.06 now supports the Clock Programmer v1.3. Defect fixes have been made to the Clock Programmer v1.3. No functional changes have been made.

Also included in the PSoC Programmer 3.06 installation is the Beta release of the Bridge Control Panel. Please see the next section for more detail on the Bridge Control Panel.

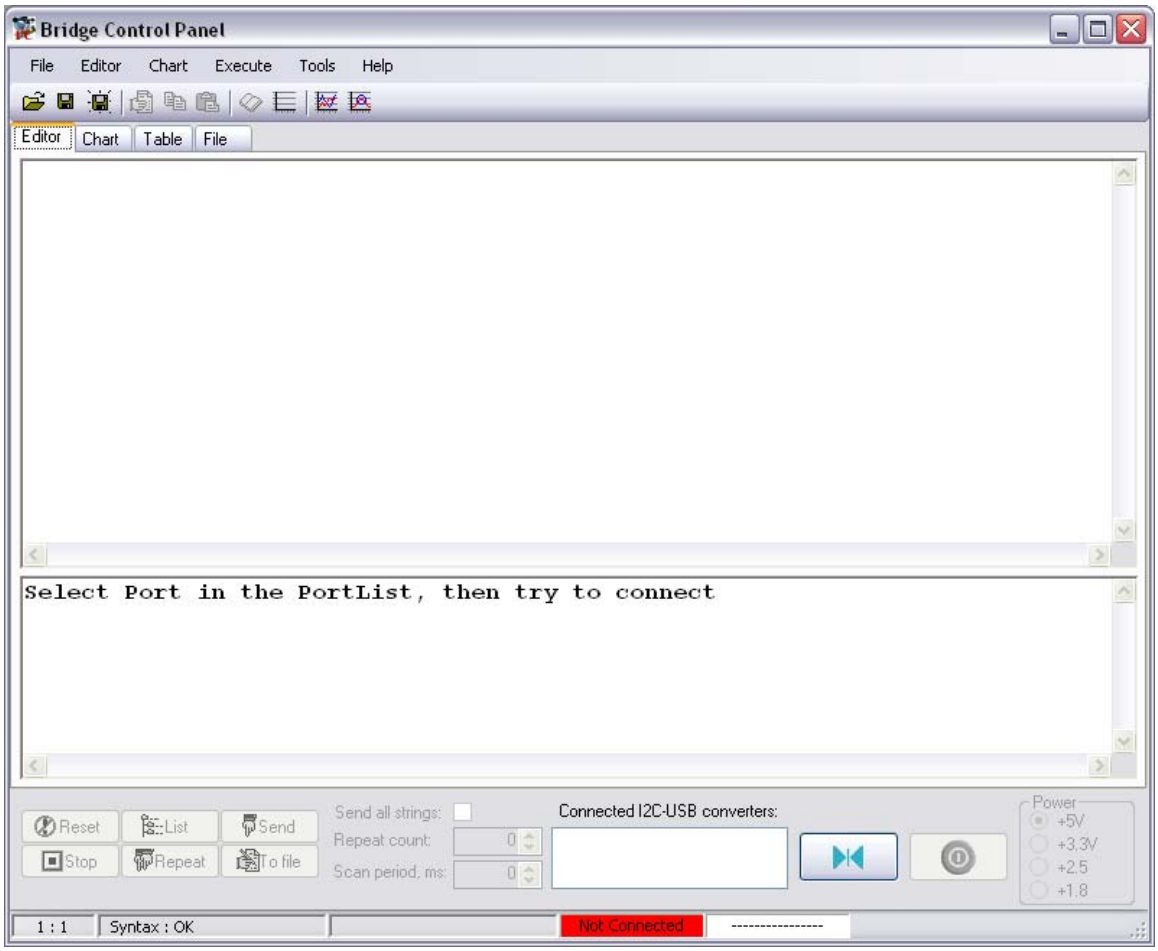
Bridge Control Panel v1.0 (Beta)

Included in PSoC Programmer 3.06 installation is the Beta release of the Bridge Control Panel. The Bridge Control Panel is a migration of the existing USB-I2C Bridge software features. The USB-I2C Bridge software was designed for and shipped with every CY3240 USB-I2C Bridge kit. The old USB-I2C Bridge software was redesigned to work with PSoC Programmer's hardware layer and support the CY3240 USB-I2C Bridge kit. The USB-I2C Bridge software has been re-named to the *Bridge Control Panel*.

You can access the Bridge Control Panel from the Start menu:

Start>All Programs>Cypress>Bridge Control Panel.

The Bridge Control Panel now utilizes the PSoC Programmer hardware layer which has shown an 80% improvement, in performance of the CY3240 kit, over the old USB-I2C Bridge Software.



New for the Bridge Control Panel GUI:

- New power button (lower right hand corner)
- New Connect/Disconnect port button.
- New Bootloader support tool (Tools>I2C Bootloader)

  This tool allows you to select the *.dld* Bootloader file and reflash a target device.

Miniprog1 Firmware Update

PSoC Programmer 3.06 supports the Miniprog1 firmware revision 1.76. This revision fixes programming issue seen with CY8C20xx6, CY8CTxx200/1, CY8CTxx300/1, CYONS2xxx devices.

PSoC Programmer 3.06 Defects

The following list of defects is currently open for PSoC Programmer 3.06:

Defect #	Problem	Solution	Expected Fix
23474	If PSoC Programmer is open when the computer is put into Hibernation mode, upon returning to normal operations PSoC Programmer displays a programming error when trying to program a part.	Exit and re-enter PSoC Programmer to solve the problem.	None
26435	When more than 5-7 instances of PSoC Programmer are open and you stack like devices in the taskbar, the stacked entries read “COM Surrogate” instead of PSoC Programmer.	Do not group similar windows. This defect is believed to be a Windows issue.	None
31346	When Autodetect is enabled and you are programming a POD device, PSoC Programmer can auto select the wrong device. This only occurs when programming a POD device.	When programming a POD device, have Autodetect set to ‘Off’ and manually select the target device.	Future Programmer release.
37637	Windows failures have been seen with the CY3240 USB-I2C Bridge. Failures are seen when connecting a second instance of the Bridge and then disconnecting the second instance.	Keep no more than one USB-I2C Bridge connected at any given time.	None
45411	Uninstallation issues are seen with XP 64bit where the Add/Remove program window ‘hangs’ at the end of the uninstallation.	Located in the Start menu under PSoC Programmer 3.06 shortcut folder, is a shortcut to uninstall PSoC Programmer. Use this shortcut uninstallation link to uninstall PSoC Programmer.	Future Programmer release.
50438	PSoC Programmer 3.06 fails to open after uninstalling PSoC Programmer 3.10 Beta 2 release	If you are using both PSoC Programmer 3.06 and PSoC Programmer 3.10 (Beta 2) you must install PSoC Programmer 3.06 before PSoC Programmer 3.10. When uninstalling either PSoC Programmer 3.06 or PSoC Programmer 3.10, uninstall both Programmer 3.06 and 3.10 and then reinstall the desired release.	Future Programmer release.

Defect #	Problem	Solution	Expected Fix
50432	During installation the Bridge Control Panel installs in a default location: C:/All Programs/Cypress/Bridge Control Panel	Currently no workaround for this issue.	Future Programmer release.
51044	Customer gets a syntax error if a variable is under the active column of the variable settings window.	Currently no workaround. To access a variable from the Command Window, the variable must be in the active state.	Future Programmer release.
51072	The Excel export function in the Bridge Control Panel takes a long time to complete the export.	This is a Windows issue. When you export a large amount of data, use the text selection and set the delimiter to comma. The resulting text file can then be imported into Excel as a .csv file.	Future Programmer release.
51146	Stop bit is not generated when sending the command R 07 or W 07 through I2C - USB bridge. SCL line is also held low after sending this instruction.	Complete the entire command and add the 'p' character to initiate a stop bit.	Future Programmer release.

Microsoft .NET Framework Installation

PSoC Programmer no longer bundles the Microsoft .NET framework for both 32 and 64-bit XP and machines. During installation the installer tests the Windows XP version and prompts you to install the correct version of Windows .NET framework. Windows Vista contains the correct Windows .NET Framework with the operating system.

Use a USB2.0 Hub for Optimal Programming with MiniProg1

MiniProg1 programmer hardware has a low-speed USB interface. If you use a USB2.0 Hub between the computer running PSoC Programmer and the MiniProg1, the overhead in USB transactions is greatly reduced and actual programming time for the PSoC device is reduce by 30%. Dlink and Belkin USB2.0 Hubs were used to verify this behavior.

PSoC Programmer 3.06 allows you to turn off the verification procedure of the programming algorithm. If you turn off verification and use a high-speed USB hub you may see overall reductions of 40-50% in programming time. The programming algorithm uses a checksum calculation for verification. This feature is intended to shorten programming times in an engineering setting and not intended for use in manufacturing.

Device Driver Re-Installation

During installation of PSoC Programmer you are prompted to install the device drivers for PSoC Programmer. If you click "Cancel" and then want to install the drivers later, please perform the following steps to install the PSoC Programmer drivers:

- Navigate to the PSoC Programmer root installation directory.
- Open the *Drivers* folder.

- Run the *driver.bat* file. This installs the PSoC Programmer drivers.

Programmer Limitations

1. You must change the programming mode manually (Power cycle or Reset mode).
2. After one Programmer instance is opened on a USB port, it holds the original port even if it is unplugged and moved to another port. This prevents another instance from using the original port. Closing and reopening the first instance resolves this.
3. There is no programming support for wafer sale parts.
4. When programming verification fails, the specific failing location(s) are not indicated.
5. ICE4000 is no longer supported in PSoC Programmer.
6. When using the ICE-Cube or MiniProg1 for programming, PSoC Programmer applies 3.3V to the XRES pin during connection. This may cause power to be applied to the target system. During programming, 3.3V is applied to the target system's SCLK(P1-1), SDATA (P1-0), and XRES pins.
7. The MiniProg1 programming device does not support CY8C25/26xxx parts.
8. 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.
9. PSoC Programmer may experiences “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.
10. The port selection window does not display port information if the port string is wider than the text window.
11. 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.

Documentation

Documentation is available in the PSoC Programmer Root Directory under Documents. The documents include *PSoC Designer Programmer Guide*, *PSoC Programmer COM Interface Guide* and *PSoC Programmer Command Line Interface Guide*.

For additional assistance go to http://www.cypress.com or contact our Application Team at 425.787.4814.

Silicon Errata

The most up-to-date versions of the silicon errata are available on the web site at http://www.cypress.com/psoc at **Browse Documentation → Errata**.

For assistance go to http://www.cypress.com or contact our Applications Team at 425.787.4814.

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