PSoC Designer Release Notes

Version 5.1 Service Pack 2.1

Release Date: August 30, 2011

Thank you for your interest in PSoC® Designer™ 5.1 Service Pack 2.1. PSoC Designer is a complete Integrated Development Environment (IDE) for designing with PSoC1 devices. This release is the production release of version 5.1 Service Pack 2.1. It is also a complete release for new users.

This document describes new features and changes since the previous release.

Contents

New Features, User Modules, and Device Support 2
  Project Update Defect Fix 2
Supported Tool Chains 2
  ImageCraft Compiler (Standard and Pro versions) 2
User Module Versioning 2
PSoC Designer Compatibility Matrix 2
Open Source 3
Installation 3
  Minimum and Recommended Requirements 3
  Update Instructions 3
  Installation Notes 3
  Note to HI-TECH Compiler Users 5
Known Problems and Limitations for PSoC Designer 5.1 Service Pack 2.1 5
Further Reading 5
Customer Filed Defects Fixed 6
For More Information Regarding PSoC Development Tools 6

New Features, User Modules, and Device Support

The following section details the new features released with PSoC Designer 5.1 Service Pack 2.1.

Project Update Defect Fix

PSoC Designer 5.1 SP2.1 has released an update to support a defect found when updating projects using the Project Update mechanism. The defect is seen when one or more user modules are updated in a project and one of the project's user modules consumes an updated user module's default pin settings. The affected user module will have its pinout parameters reset to the default settings.

Update to the CSD2X User Module v2.50

A defect was found in the CSD2X user module when configured with a Dual Channel DAC. Errors may be seen if this configuration is used. The PSoC Designer 5.1 SP2.1 release includes an update to this user module to address this issue. Users will need to update to the latest revision (v2.50) to gain access to this defect fix.

Windows 7 Installation Errors

Due to a known bug in the Windows Installer 4.5 and higher, the PSoC Designer CyInstaller may hang during installation. This issue has been seen to affect Windows XP, Windows Vista and Windows 7 machines. Only a small number of customers will experience problems due to this defect. This release of PSoC Designer includes an update to address this Microsoft defect. For more information on the Windows Installer defect please see the following Microsoft web page:

http://support.microsoft.com/kb/981669

Supported Tool Chains

ImageCraft Compiler (Standard and Pro versions)

ICCV7 for M8C STD version 7.04.

ICCV8 for M8C PRO version 8.04.01

User Module Versioning

The PSoC Designer 5.1 SP2.1 User Module Versioning List:

User Module	Version
CSD2X	2.50

PSoC Designer Compatibility Matrix

PSoC Designer provides backwards compatibility for projects created between PSoC Designer 4.4 and PSoC Designer 5.1 SP2.1 through the project update mechanisms. The following table shows the project compatibility matrix:

Designer Release	4.2	4.3	4.4	5.0	5.1
4.2	Yes	Yes	Yes	No	No
4.3	-	Yes	Yes	No	No
4.4	-	-	Yes	Yes	Yes

5.0	-	-	-	Yes	Yes
5.1	-	-	-	-	Yes

"Yes" = Projects can open or be updated to.

"No" = Project is not supported.

"-" = Not applicable.

Open Source

Portions of this software package are licensed under free and/or open source licenses. Such free and/or open source software is subject to the applicable license agreement and not the Cypress license agreement covering this software package. The applicable license terms will accompany each source code package. You may obtain the source code of such free and/or open source software at no charge from this web site: www.cypress.com/go/opensource.

Installation

Minimum and Recommended Requirements

Hardware/Operation System Requirements	**Minimum**	**Recommended**
Processor Speed	2 GHz	2 GHz Dual Core
RAM	2 GB	3 GB
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**
Microsoft Internet Explorer	7	
.NET Framework	2.0 SP1	
Adobe Reader (for viewing PDF Documentation)	6	9+
Windows Installer	3.1	
PSoC Programmer	3.13	

* CD/DVD drive is only required for installation with no web access.

** Software Prerequisites – In order to install and run the PSoC Designer, you may also need to install additional software. The Cypress Installer guides you through the process if the additional programs are not already installed.

Update Instructions

As part of the installation process, the Cypress Update Manager utility is also installed and located on the **Start** menu. You can use this utility to update all programs you have installed when updates for them become available.

Follow the instructions provided with the tool, as needed.

Installation Notes

The Installation process has changed from PSoC Designer 5.0. This was done to accommodate a Live Update capability and decrease download size. The installation process is a set of wizards that walk you through the installation process. You can install PSoC Designer and various prerequisites from the web. If

you have issues with installing behind a firewall or on a machine with no internet connection, an ISO file is provided on the web for creation of your own CD. There are slight differences in the process, based on the medium used to install the software.

In order to install PSoC Designer, you need to first install PSoC Programmer. 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 connect your Cypress Programmers (Miniprog1, Miniprog3, etc) until all software installation is complete AND the PSoC Designer application is open.

How to Install PD5.1 Service Pack 2.1 from the Web:

1. Download PSoCDesignerSetup.exe from the Cypress website.
2. PSoCDesignerSetup.exe will install CyInstaller for PSoC Designer.
3. CyInstaller will do a pre-requisite test, leading the user through the install process for missing prerequisites such as PSoC Programmer.
4. When the pre-requisite tests are passed, CyInstaller provides the user with the option to do a “Typical”, “Complete” or “Custom” install.
    a. Typical or Complete Install: Will install the latest available PSoC Designer 5.1 Service Pack 2.1 release.
    b. Custom Install: Will show the user all releases of PSoC Designer 5.1 Service Pack 2.1 and install the selected release (for now there is just one).
5. Once the PD5.1 Service Pack 2.1 release is downloaded, CyInstaller displays the EULA and other applicable licenses.
6. Once the install is complete, CyInstaller displays the finish screen with options to view the “Release Notes” and “Add Desktop Shortcut”.

How to Install Using an ISO Image (Two Methods):

1. Create a CDROM using the ISO image:
    a. Drag the ISO image onto the CD/DVD drive containing the CD/DVD. Right click on the CD/DVD drive and select “Burn” to create a CD/DVD for PD5.1 Service Pack 2.1 installations.
    b. Download MagicISO (http://www.magiciso.com/download.htm) and follow the tutorial to create a CD/DVD from ISO http://www.magiciso.com/tutorials/miso-burnwin.htm.
        Note – To burn a CD with MagicISO, you need to pay $30 for the full version. There are also Freeware versions and tools that allow you to mount the ISO file without burning a CD. This is described in step 2.
    c. The installer, cyautorun.exe, launches once the CD/DVD is inserted in the CD/DVD drive. If not, double click cyautorun.
2. Install directly from an ISO image:
    a. Download MagicISO (http://www.magiciso.com/download.htm) or other Virtual Drive creators (these are typically freeware) and create a virtual drive. Mount the ISO image on the drive from the “Mount” option in MagicISO.
    - For help on mounting and unmounting ISO images see http://www.magiciso.com/tutorials/tutorials.htm.
    b. When you have mounted the ISO file, the installer should start.
        - if it does not start, double click on cyautorun.
    c. An alternative to using Virtual Drive creators is to download winrar (http://www.rarlab.com/download.htm) and open the ISO file in it. Then, extract and run “cyautorun.exe”.
3. cyautorun.exe prompts you to install PSoC Designer 5.1 Service Pack 2.1. Then follow steps 3-6 from the Web Installation instructions.

System Level Design Users:

Customers who wish to continue developing system level projects will need to install PSoC Designer 5.0 SP6. System level development has been removed from PSoC Designer 5.1 Service Pack 2.1. PSoC Designer 5.0 SP6 will be provided on the PSoC Designer web page or PSoC Designer archives page for any users interested in developing System Level projects. PSoC Designer 5.0 SP6 and PSoC Designer 5.1 Service Pack 2.1 will coexist on the same machine allowing customers to continue developing System Level designs and continue designing new chip level designs with PSoC Designer.

Note to HI-TECH Compiler Users

You must manually update the *psoc.ini* file to add device support before you can compile projects that use the new devices. The HI-TECH *psoc.ini* file is found in the HI-Tech installation folder. The default location of the *psoc.ini* is here:

C:\Program Files\HI-TECH Software\HCPSOC\PRO\9.61\dat\psoc.ini

The default location of the replacement *psoc.ini* file that adds support for the new devices is here:

C:\Program Files\Cypress\PSoC Designer\5.1\Common\CypressSemiDeviceEditor\Devices\psoc.ini

Known Problems and Limitations for PSoC Designer 5.1 Service Pack 2.1

In PSoC Designer 5.1 Service Pack 2.1, the Known Problems and Solutions (KPS) are included in a separate file. Please download it from the appropriate PSoC Designer directory, http://www.cypress.com/?rID=41083.

Further Reading

Documentation for PSoC Designer is provided with on-line Help, which you can open from the **Help** menu or by pressing [**F1**]. There are numerous other documents under the Help->Documentation menu, including:

- IDE User Guide
- PSoC Designer Release Notes
- PSoC Device Selector
- Updating the boot.tpl file (*update of BOOT.pdf*)
- Project Update help (*Version Update.pdf*)
- ICE User Guide
- C Language Compiler User Guide
- Math Libraries User Guide
- ImageCraft Release Notes
- Assembly Language Users Guide
- Hi-Tech to ImageCraft Migration guide
- User Module and device datasheets

Customer Filed Defects Fixed

The following table lists the customer filed defects that were fixed between the PSoC Designer 5.1 SP2 and PSoC Designer 5.1 Service Pack 2.1 releases:

CY CDT #	Category	Title	Fix and Impact
98627	PSoC Designer	CSD and EzI2C UM backwards compatibility issue	Fixed the project update engine to handle the user's custom pin-out settings.
105516	PSoC Designer	Problem with updating project - I2C SCL pin gets reverted	Fixed the project update engine to handle the user's custom pin-out settings.
108001	PSoC Designer	CY3280_22x45 Kits project fails to work after updating the UMs	Updated the CSD2X User Module to version 2.50 to support configuration with a dual channel DAC.

For More Information Regarding PSoC Development Tools

For more information regarding PSoC Designer functionality and releases please review the user guide and release notes on the PSoC Designer web page:

www.cypess.com/go/psocdesigner

For more information regarding PSoC Programmer, supported hardware and COM layer please go to the PSoC Programmer web page:

www.cypress.com/go/psocprogrammer

For more information regarding Cypress's new and exciting PSoC3 and PSoC5 products and the new PSoC Creator development environment please go to the PSoC Creator web page:

www.cypress.com/go/psoccreator

For a list of PSoC Designer-related trainings, please see

http://www.cypress.com/?rID=40543

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