W A R N I N G !

The USB Adapter should only be plugged in after PSoC Designer 4.1 is installed. Follow the directions in this document for proper installation.
The USB Adapter requires PSoC Designer 4.1 or later.

PSoC™ Designer:
PSoC ICE USB Adapter
Installation Guide

Revision *A
Spec.# 38-xxxxx
Last Revised: January 28, 2004
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Section 1. Introduction

The purpose of this document is to facilitate the installation and use of the PSoC ICE USB Adapter (USB Adapter). The USB Adapter provides increased flexibility to debugging in PSoC Designer by making it possible to connect the ICE to a USB port as an alternative to the parallel port.

This guide presents installation and troubleshooting concepts that pertain exclusively to the USB Adapter.

This document will also assist you in troubleshooting problems with the USB Adapter. If the information in this user guide is not sufficient to resolve any issues, please use the following resources:

TightLink Technical Support System
You can enter a support request in this system and receive fast feedback:

http://www.cypress.com/support/login.cfm

Support Forums
View and participate in discussion threads about a wide variety for PSoC device topics:

http://www.cypress.com/forums/

Application Hotline
Call 1.425.787.4814 for technical support.

Section 2. Installation

The USB Adapter allows an ICE unit to connect to your computer's USB port. Follow the directions below in order to correctly install the USB Adapter.

2.1 Uninstalling Previous Version of PSoC Designer

If you have already uninstalled the previous version of PSoC Designer and installed 4.1, skip ahead to 2.3 Installing the USB Adapter.

1. Open Control Panel under Windows Start Menu >> Settings.
2. Choose Add or Remove Programs.
3. From the list, select PSoC Designer and click Change/Remove. If you have no previous instance of PSoC Designer installed on your computer, please skip ahead to 2.2 Installing PSoC Designer 4.1.

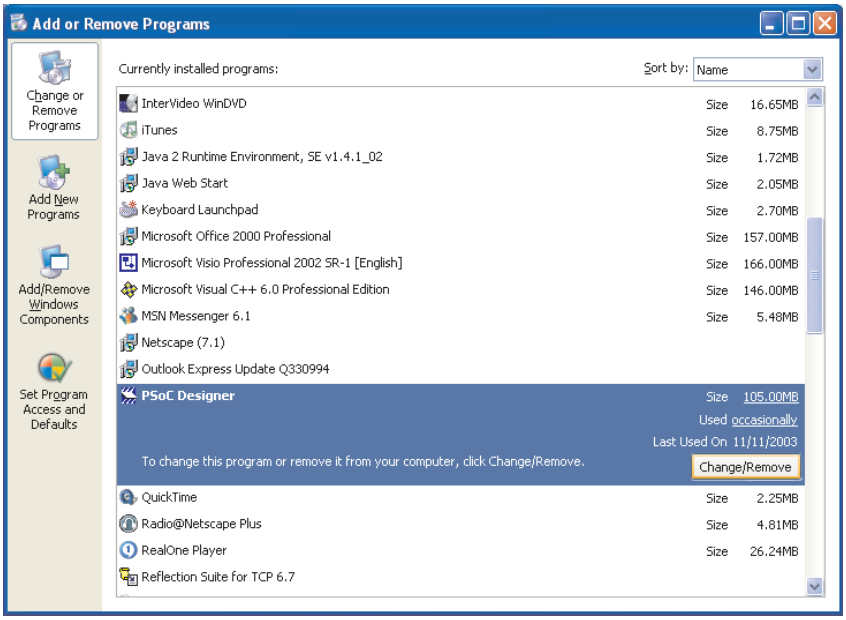


Figure 1: Add or Remove Programs

4. From the two options available in PSoC Designer Setup (Repair/Remove), choose Remove and click **Next**.

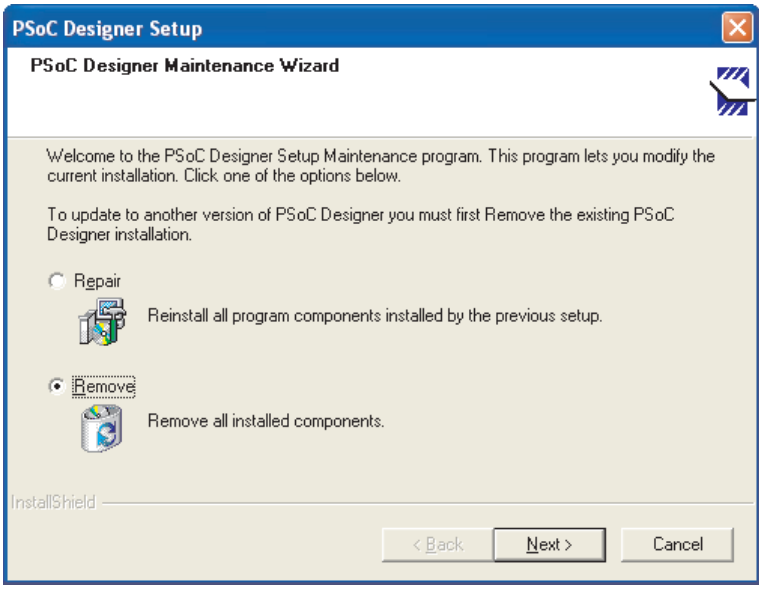


Figure 2: PSoC Designer Setup

5. Click **OK** on the prompt that confirms your intention to remove installed components.

6. Click **Finish** when the uninstall/remove is complete.

Some operating systems might require you to restart your PC at this point. If that is true, do so now.

2.2 Installing PSoC Designer 4.1

1. Download PSoC Designer 4.1 at:

   http://www.cypress.com/support/link.cfm?sd=41

2. After the download and zip extraction is complete, launch the installation executable.

3. Click **Next** to begin the installation.

4. Follow the installation instructions given by the installation wizard, choosing the default installation options.

5. After the installation utility completes copying the files, the following window will appear on Windows XP machines:

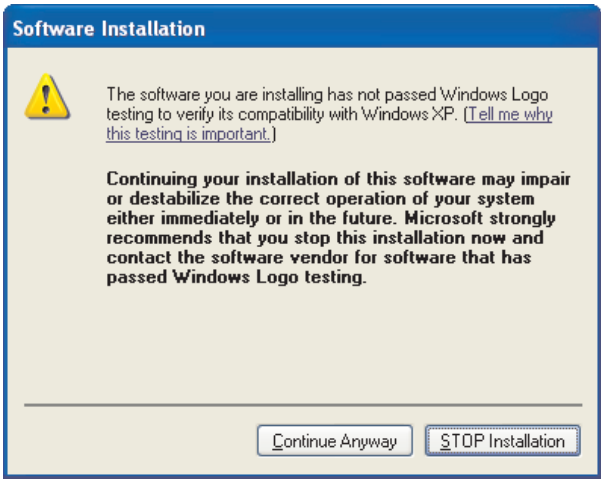


Figure 3: Windows XP Message

6. On the Window XP machines, click **Continue Anyway** on the window shown above.

7. The installation should now be complete.

2.3 Installing the USB Adapter

1. **Only after you install PSoC Designer 4.1**, plug the USB cable into the adapter on one end and the computer on the other.

2. On Windows XP machines, the Found New Hardware Wizard will appear. Choose Automatic Installation and click Next. On Windows 2000 machines, the driver is automatically installed (skip to step 6).

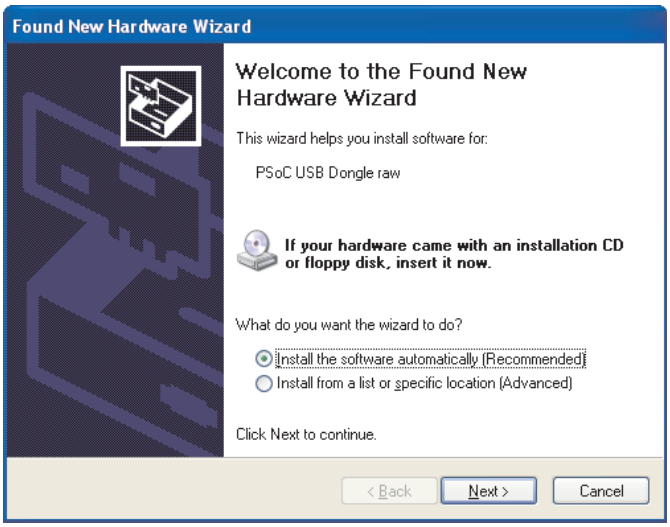


Figure 4: XP Found New Hardware Wizard

3. On Windows XP machines, the driver signing warning will appear for a second time so click **Continue Anyway** once again.

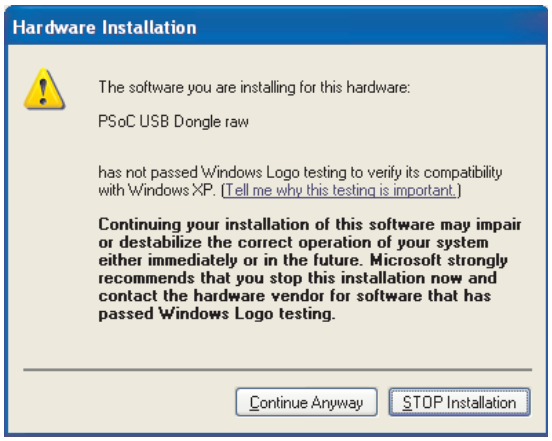


Figure 5: Windows XP Message

4. The files will be copied and the wizard will then prompt you to “Click the **Finish** button,“ which you should do.

5. The Found New Hardware Wizard will reappear. Please repeat steps 2 through 4.

The reason it looks like two drivers are installed is because the USB Adapter is using re-numeration. A first driver is loaded that downloads the USB chip firmware to the adapter. The adapter then disconnects and re-connects itself to the USB bus, connecting as the USB Adapter. This facilitates field updates of the USB chip firmware.

6. Connect the USB Adapter to the ICE unit.

2.4 Change Debugging Port Setting

The following process must be performed on every project that has not previously used the adapter. This includes first time use of new and old projects.

1. Open PSoC Designer 4.1.
2. Open an existing project or create a new project.
3. Go to Project >> Settings…
4. In the Project Settings dialog box, click the Debugger tab.
5. Change Debugging Port Setting by choosing the USB connection from the pull down menu next to the words "ICE connected to:"

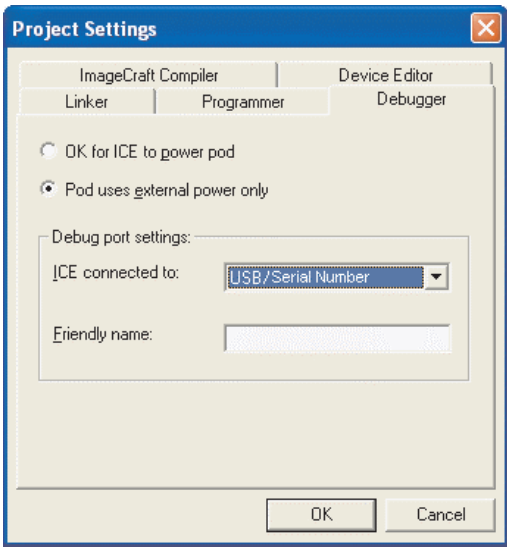


Figure 6: Project Settings Dialog Box

6. Click **OK**.

Notice that the status bar now reflects the USB selection.



Figure 7: Status Bar Showing USB Selection

An alternative means of changing your port settings can be done so that they apply universally across all projects, as opposed to setting the desired port individually for each project.

1. Go to Tools >> Options…
2. In the Options dialog box, click the Debugger tab.
3. Check the 'Use default ICE connection for all projects' check box.
4. Under the Default debug port settings choose the ICE connection you prefer.
5. Click **OK**.

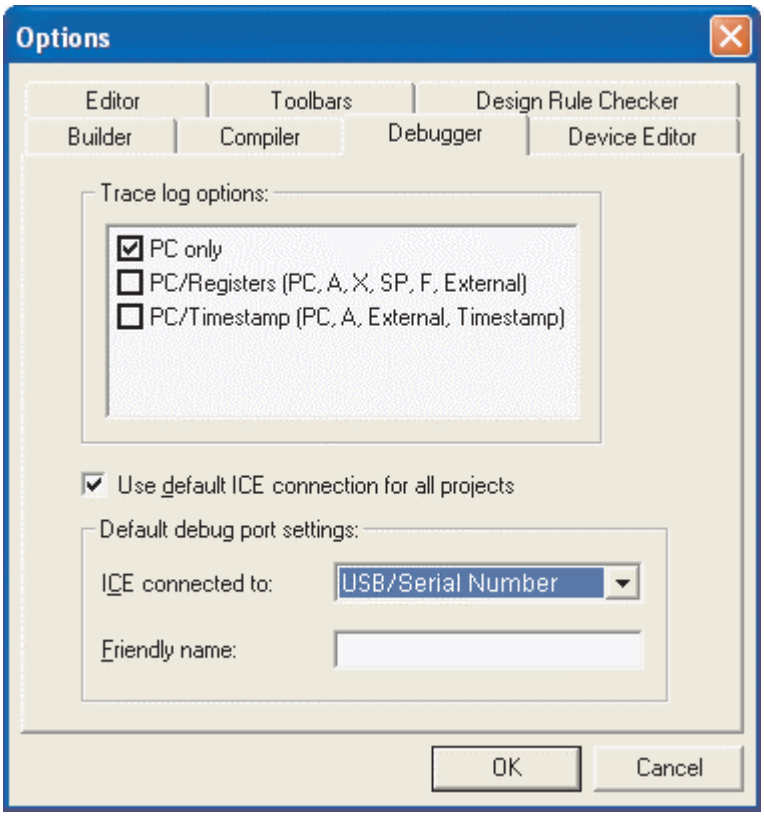


Figure 8: Options Dialog Box

Section 3. Troubleshooting

3.1 Start Here First

Does your computer meet the System Requirements and Recommendations listed in the PSoC Designer 4.1 Release Notes?

Did you install PSoC Designer 4.1?

- See section 2.2 Installing PSoC Designer 4.1.

Are all hardware connections in place?

- Is the USB cable connected to your computer's USB port?
- Is the USB cable connected to the PSoC ICE USB Adapter?
- Is the PSoc ICE USB Adapter connected to the ICE?
- Is the ICE connected to the blue 12” CAT-5 cable?
- Is the blue 12” CAT-5 cable connected to the Pod?
- Is the power cord plugged into the ICE?

Have you changed the debugging port setting?

- See section 2.4 Change Debugging Port Setting.

3.2 Problems

In Windows XP and Windows Me if you attach the USB Adapter prior to installing PSoC Designer 4.1 you must manually install the USB Adapter drivers.

Solution 1 (Windows XP): In Windows XP, if you plug in the USB Adapter before you install PSoC Designer 4.1 you will be prompted by the Found New Hardware Wizard to install the unknown USB device. Click

Next and you will arrive at the following window:



Figure 9: Windows XP Hardware Install Message

The Found New Hardware Wizard is unable to install the new hardware. Unplug the USB Adapter and then install PSoC Designer 4.1. See section 2.2 Installing PSoC Designer 4.1.

After installing PSoC Designer 4.1, you will need to manually install the PSoC adapter drivers. You can do this via the Device Manager.

1. Go to Windows Start Menu >> Settings >> Control Panel >> System >> Hardware >> Device Manager.

2. In the Device Manager window, double-click on the USB Device with the question mark:

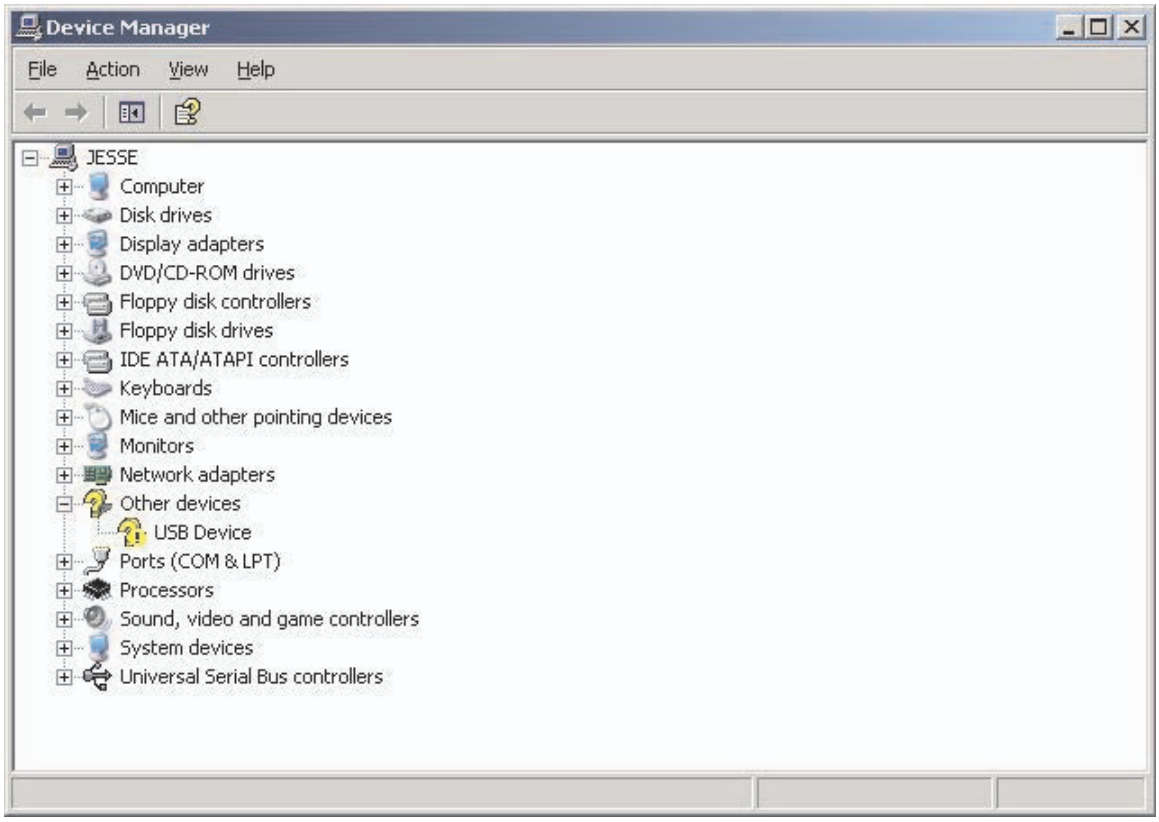


Figure 10: Device Manager/?USB Device

The following window will appear:

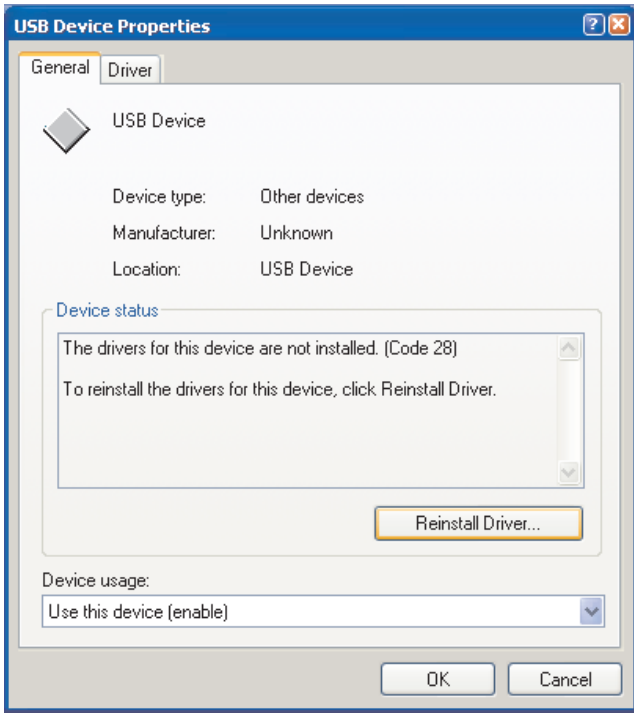


Figure 11: USB Device Properties

3. Click on Reinstall Driver. The raw driver will reinstall and the computer will automatically restart. After your computer restarts, you will see the following:

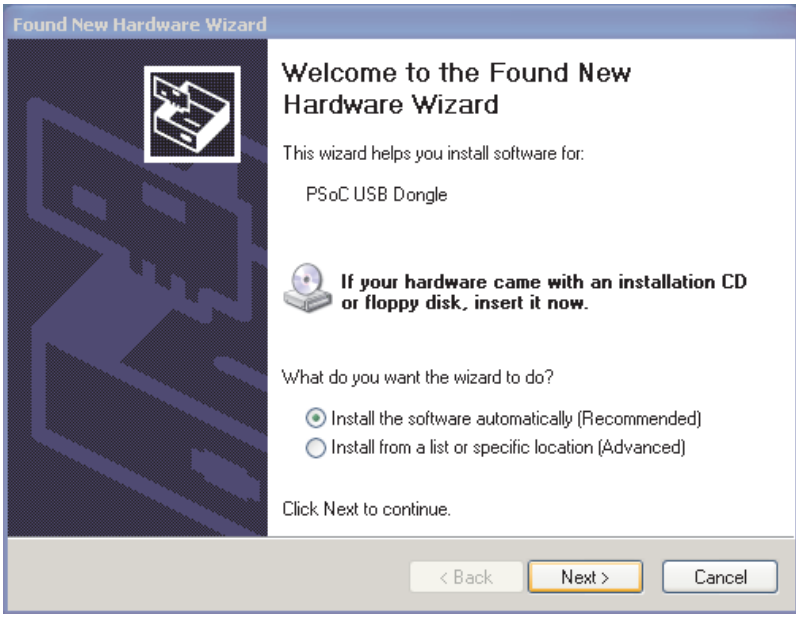


Figure 12: Windows XP Message

4. Click **Next**. The following screen will appear:

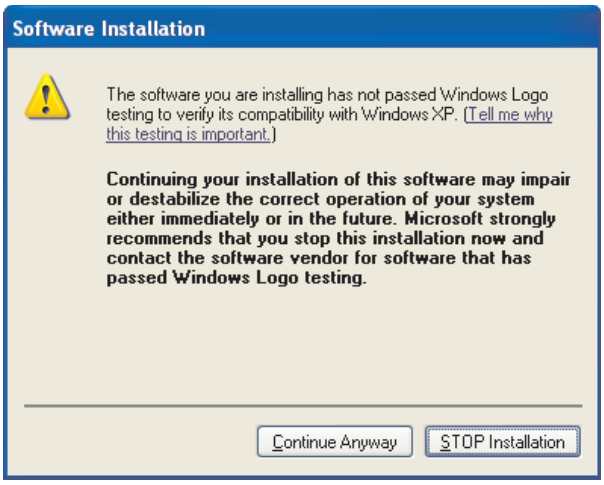


Figure 13: Windows XP Message

5. Click **Continue Anyway**.

6. When prompted, click **Finish** to complete the manual installation of the PSoC USB Adapter driver.

Solution 2 (Windows Me): In Windows Me, if you plug in the USB Adapter before you install PSoC Designer 4.1 you will be prompted by the Found New Hardware Wizard to install the unknown USB device. Click **Next** and you will arrive at the following window:

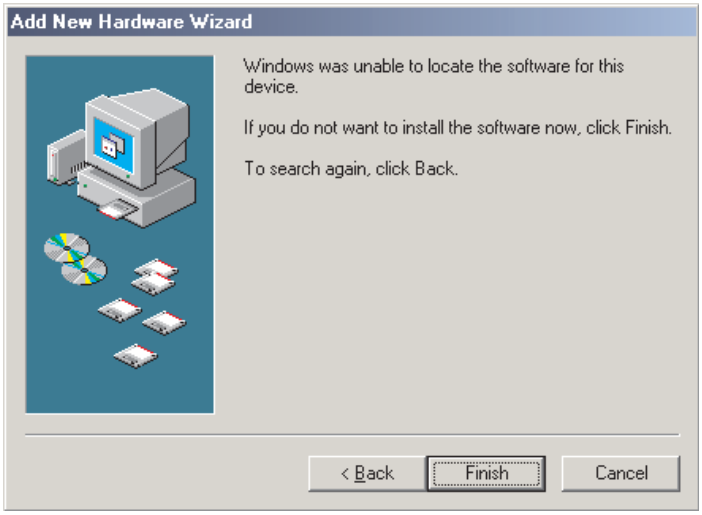


Figure 14: Windows Me Hardware Install Message

The Found New Hardware Wizard is unable to install the new hardware. Unplug the USB Adapter and then install PSoC Designer 4.1. See section 2.2 Installing PSoC Designer 4.1.

If you try to install PSoC Designer 4.1 with the adapter plugged in, you will need to exit installation, restart, and re-install PSoC Designer 4.1.

After installing PSoC Designer 4.1, you will need to manually install the PSoC adapter drivers. You can do this via the Device Manager.

1. Go to Windows Start Menu >> Settings >> Control Panel >> System >> Hardware >> Device Manager.

2. In the following window, double-click on the USB Device with the question mark:

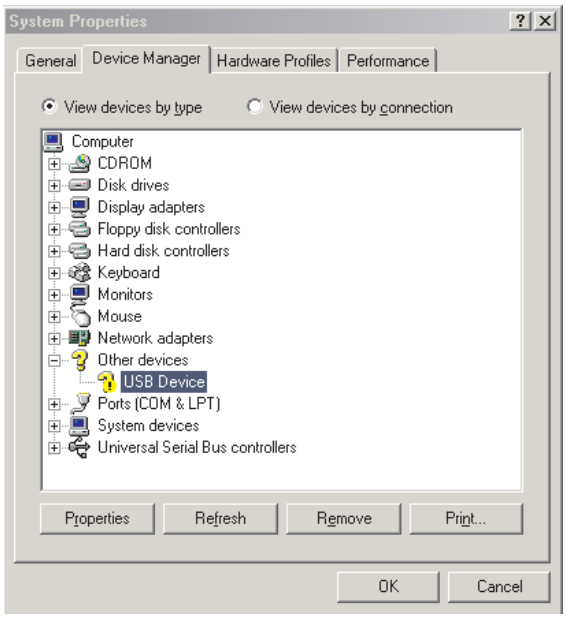


Figure 15: Device Manager/?USB Device

The following window will appear:



Figure 16: USB Device Properties

3. Click on Reinstall Driver. The raw driver will reinstall and the computer will automatically restart. After your computer restarts, you will see the following:



Figure 17: Update Device Driver

4. Select Specify the location of the driver (Advanced) and click **Next**.

In the following series of screens, browse to select the location of the driver's folder that is within the :\Program Files\Cypress MicroSystems\PSoC Designer\drivers folder. Click **OK** then click **Next**.

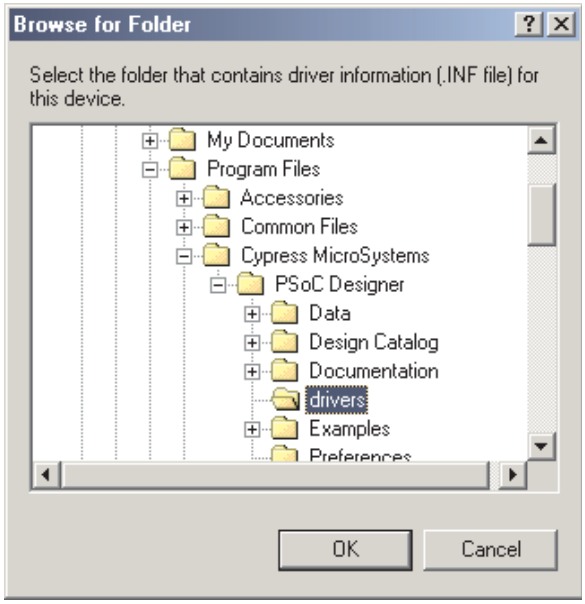


Figure 18: Browse for Folder

5. In the following screen click **Next**:



Figure 19: Update Device Driver

6. Click **Finish** to complete the manual installation of the USB Adapter driver.

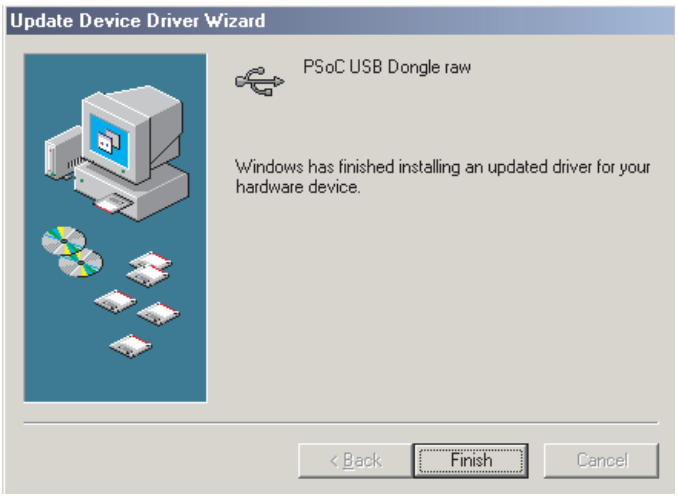


Figure 20: Update Device Driver

3.3 PSoC Designer Errors

Problem: The following error message appears, “The selected ICE port cannot be found.”

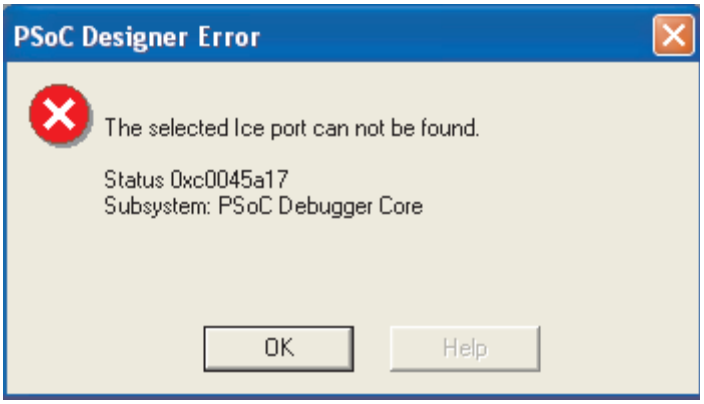


Figure 21: The selected ICE port cannot be found

Solution: The USB cable is detached from either the USB Adapter or the computer. Plug the cable in and wait a few seconds, then press the Connect ICE icon in the Debugger subsystem.

Problem: The following error message appears, “Could not configure ICE.”

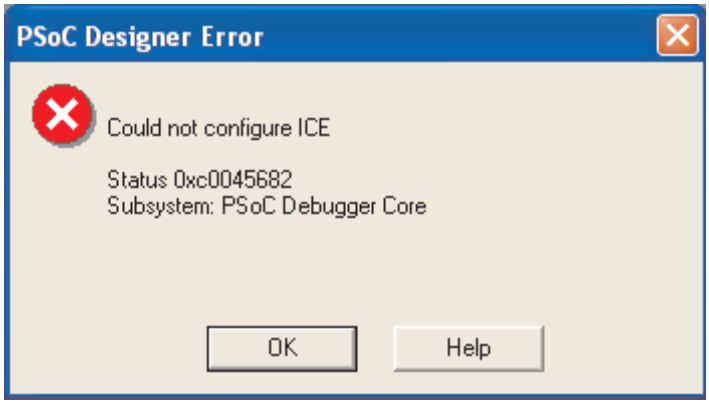


Figure 22: Could not configure ICE

Solution: Either the Debugging Port Setting is incorrectly configured; see section 2.4 Change Debugging Port Setting. OR, the power cord is not plugged into the ICE; plug it in. OR, the USB Adapter is not connected to the ICE; attach it.

Problem: The following error message appears, "Could not detect pod."

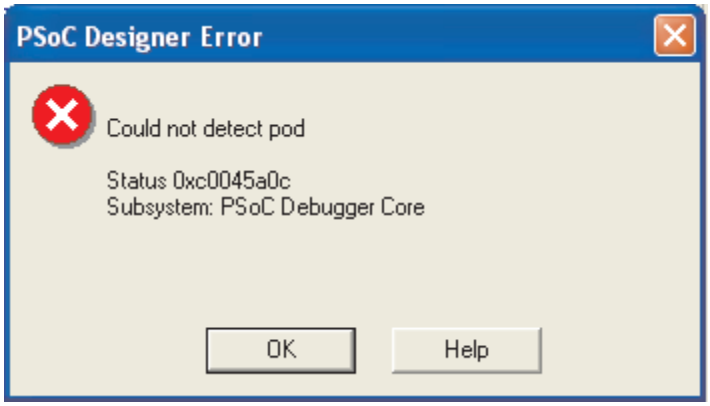


Figure 23: Could not detect pod

Any one of the following four solutions might solve this error message problem.

Solution: Connect the pod to the ICE.

Problem: Cable connecting pod to ICE is seated loosely at either pod or ICE.

Solution: Disconnect and reconnect the cable.

Problem: A device programming board is connected to the ICE instead of

the pod.

Solution: Disconnect the device programming board and connect the pod.

Problem: The pod or cable is defective.

Solution: Replace the pod or replace the CAT5 cable. Note that replacements should be obtained from Cypress MicroSystems, and must have 8 connectors and be no more than 1 foot in length.

If you have a device programming board, using it to program parts can test the cable and ICE base unit. If parts can be programmed, the cable and ICE base unit are good.

Problem: The following error message appears, “An ICE port is enumerating. Please try again.”

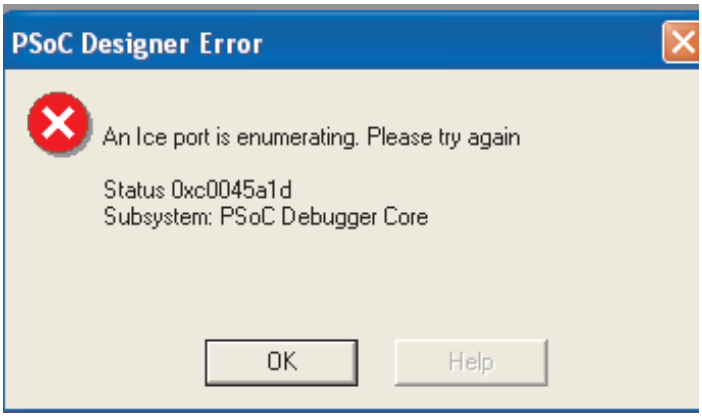


Figure 24: An ICE port is enumerating. Please try again

Solution: Wait a few seconds and try to connect again (via the Connect ICE icon in the Debugger subsystem).

Problem: If you receive the error message "This project is incompatible

with the Pod/Chip," then resolve the following problem:

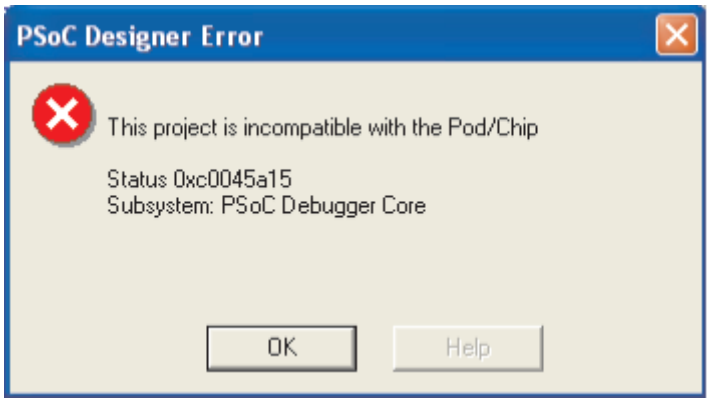


Figure 25: This project is incompatible with the Pod/Chip

An obsolete pod is connected to the ICE (CY8C25/26xxx part family Rev. E or earlier).

Solution: Upgrade to a current revision pod (Rev. G for the CY8C25/26xxx part family, Rev. AA for the CY8C27xxx part family).

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Document Revision History

Document Title: PSoC Designer: PSoC USB Adapter Installation Guide **Document Number**: 38-xxxxx				
Revision	**ECN #**	**Issue Date**	**Origin of Change**	**Description of Change**
**			New.	New.
*A			BMZ.	Name change. New help.
Distribution: External/Public **Posting**: None				