AVR32 EVK1101 Getting Started Guide

Introduction

The EVK1101 provides a complete development environment for the AT32UC3B microcontroller series from Atmel. The device is pre-loaded with an application, called the Control Panel.

The Control Panel application is a demonstration application. Its purpose is to scan onboard sensors and actuators data and events (data acquisition through ADC channels) and make these available to a PC application (known as «AVR32 Control Panel») through a simple USB cable.

In the following chapter, the term «AVR32 UC3B Control Panel PC Demo» refers to the application running on the PC, while «AVR32 UC3B Control Panel Firmware» is the application running on the EVK1101.

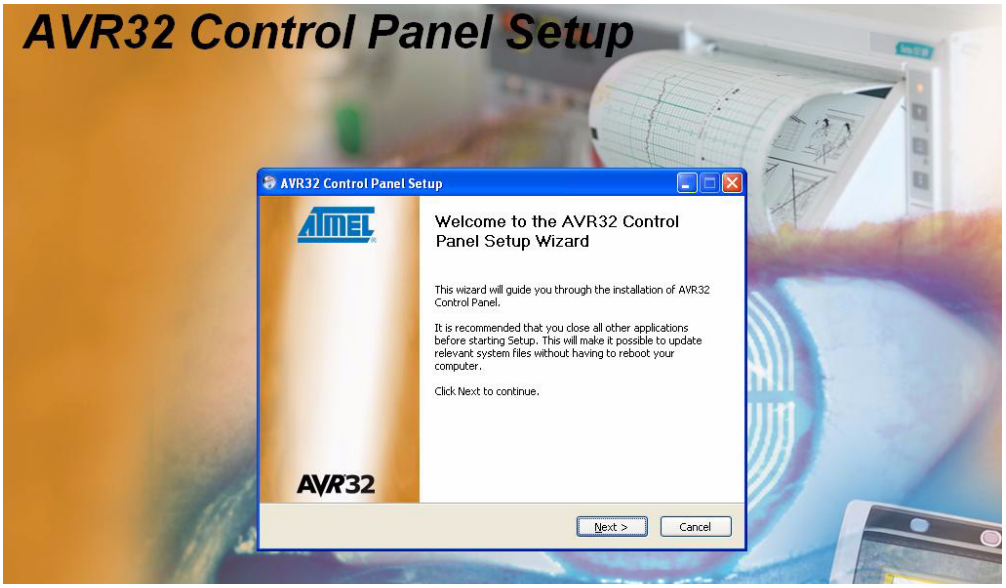
Installation

First, the PC application shall be installed prior to connecting the EVK1101.

The application needs a Java Runtime Environment (JRE 5.0 or higher)..

- If you already have installed a JRE, then launch the «AVR32 UC3B Control Panel PC Demo Installer.exe» application and follow the instruction.
- If you don't have a JRE, launch the «JRE - AVR32 UC3B Control Panel PC Demo Installer.exe». This will also install a JRE 5.0 Update 6.





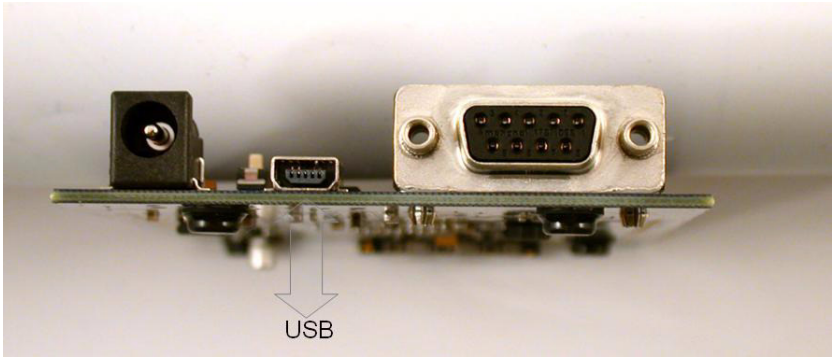
Both applications are available in the AVR32 Technical Library CD bundled with the EVK1101 and on atmel.com/avr32.

When the installation is done, the EVK1101 can be connected to the PC.

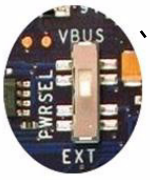
Power up

Step 1: Connect the USB cable to the PC and to the EVK1101.

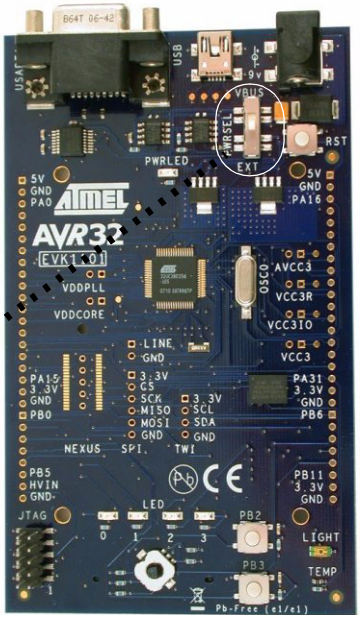
Step 2: Set the boards' power switch to VBUS (i.e. power from USB).



Step 1



Step 2 Power Switch



The 4 LEDS shall shortly blink: the Control Panel is up & running.

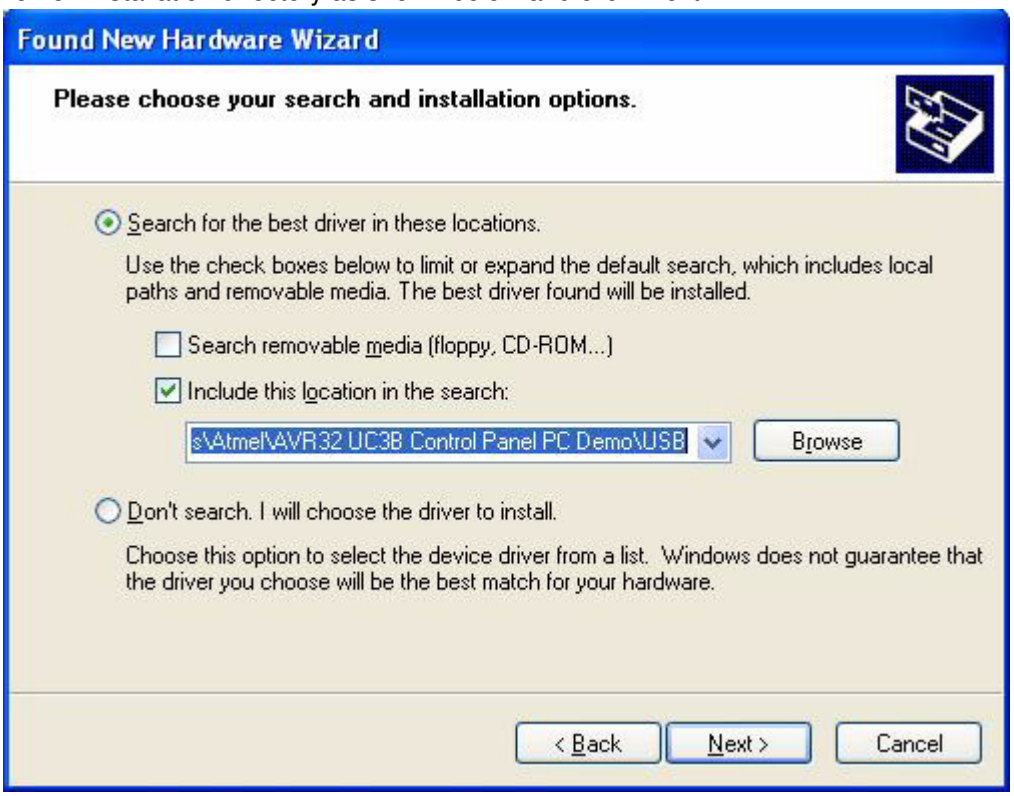
Driver installation

For the first connection of the EVK1101 on the PC, the operating system will detect a new peripheral. This will open a new hardware installation window. Choose «No, not this time" to connect to Windows Update for this installation and click 'Next':





On the next screen, select “Install from a list or specific location (Advanced)” and click ‘Next’. Then request to search in the **usb** folder of the «AVR32 UC3B Control Panel PC Demo» installation directory as shown below and click ‘Next’:



Windows will then process the installation of the driver. Once completed, click ‘Finish’.

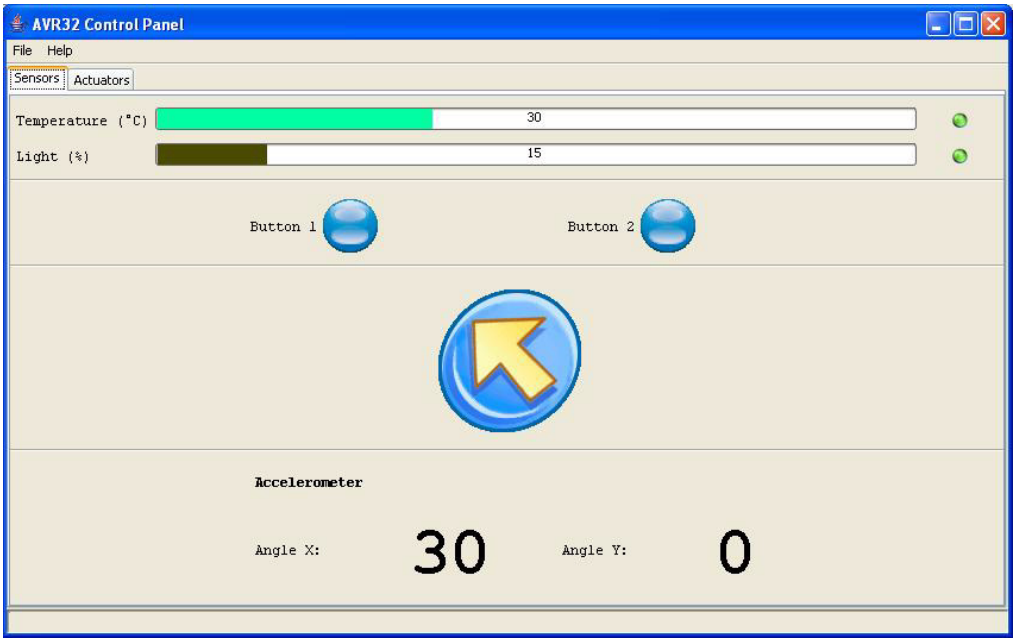
Using the Control Panel

Launch the AVR32 Control Panel PC Demo application (a shortcut is added on the desktop after the installation).

For the initial start of the application, you must select the target. Choose «EVK1101» in the list. Click «OK»: the application will connect to the EVK1101.



The application is now running and shows the status of the various sensors and actuators:



Further Information

The AVR32 Control Panel complete source (PC Demo and Firmware) code and user guide is available in the AVR32 Technical Library CD bundled with the EVK1101 (in the AT32UC3-SoftwareFramework-x.x.x.zip package of the AVR32 AT32UC3 Software Framework, under the AT32UC3-x.x.x/APPLICATIONS/EVK1101-DEMO folder).

Web links:

www.atmel.com/avr32 - The official AVR32 homepage

www.avrfreaks.net - AVR32 forum homepage

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