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. AVR32 UC3B JRE - AVR32 Control Panel UC3B Control ■ If you don't have a JRE, launch the «JRE - AVR32 PC Demo Panel PC UC3B Control Panel PC Demo Installer.exe». This will Installer.exe Demo Installer.exe also install a JRE 5.0 Update 6. AVR32 Control Panel Setup AVR32 Control Panel Setur AMEL Welcome to the AVR32 Control Panel Setup Wizard

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

computer. Click Next to continue.

This witzerd will guide you through the installation of AVR32 Control Panel. It is recommended that you close all other applications before starting Setup. This will have it possible to update relevant, system files without having to reboot your

<u>N</u>ext >

Cancel

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

AVR32



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 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': Found New Hardware Wizard Welcome to the Found New I Found New Hardware Hardware Wizard AVR32 UC3 EVK1101 Demo Windows will search for current and updated software by looking on your computer, on the hardware installation CD, or on the Windows Update Web site (with your permission). Read our privacy policy Ξ, Can Windows connect to Windows Update to search for software? Yes, this time only Yes, now and every time I connect a device. No, not this time Click Next to continue. < Back Next > Cancel



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':

und	New Hardware Wizard
Plea	se choose your search and installation options.
0	Search for the best driver in these locations.
	Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.
	Search removable media (floppy, CD-ROM)
	Include this location in the search:
	s\Atmel\AVR32UC3B Control Panel PC Demo\USB 🐱 🛛 🛛 🛛 🛛 🛛 🛛 🛛 🛛 🖉
(Don't search. I will choose the driver to install.
	Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.
	< <u>B</u> ack Next > Cancel

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.

Targe	t Selection	
?	Select a target EVK1101 OK Cancel)



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

👙 AVR32 Control Panel						
File Help						
Sensors Actuators						
Temperature (°C) 30) 💿					
Light (%)) 🧿					
Button 1 Button 2						
Accelerometer						
Angle X: 30 Angle Y: 0						

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

©2007 Atmel Corporation. All rights reserved. Atmel[®], logo and combinations thereof, are the trademarks or registered trademarks, of Atmel Corporation or its subsidiaries. Other terms and product names may be trademarks of others.



4