AVR32 EVK1100 Getting Started Guide

Introduction

The EVK1100 provides a complete development environment for the AT32UC3A micro-controller series from Atmel. The device is pre-loaded with an application, called the AT32UC3A Control Panel (in short Control Panel).

The Control Panel application is a demonstration application. Its purpose is to log on-board sensors and actuators data and events (data acquisition through ADC channels) and make these available through the various connectivity channels supported by the AT32UC3A microcontroller series.

The logs are accessible locally through USART or USB (Mass Storage class), and/or remotely through the Internet (Web server).

The Control Panel is locally configurable through USART or USB (Mass Storage class) or remotely configurable through the Internet (Web server).
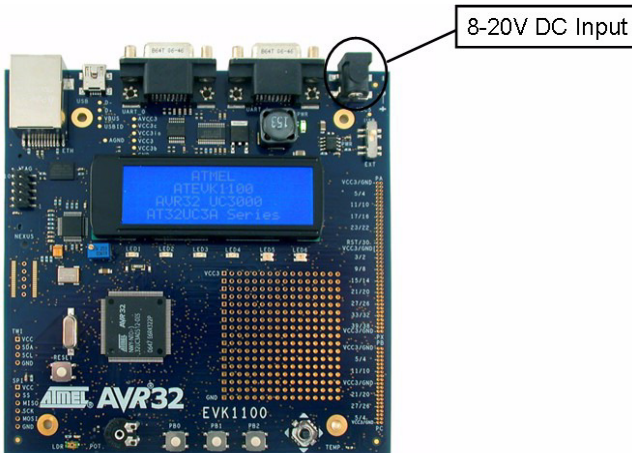
Power up

- **Step 1**: Connect the provided power cable (with 5.5/2.1mm DC plug) to a power supply. Set it to provide power from 8 to 20V. Plug it to the board's power supply jack with the following polarity:
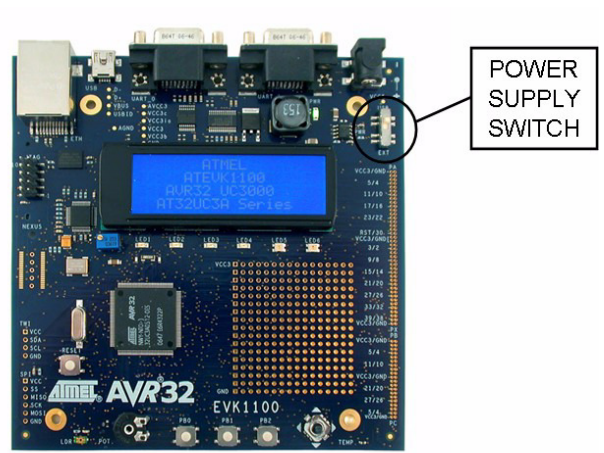
GND ——⊙—— +VCC

- **Step 2**: Set the board's power switch to EXT (i.e. power from jack rather than from USB).

Step 1   **Step 2**

8-20V DC Input

POWER SUPPLY SWITCH

- The LCD lights up : the Control Panel is up & running.

Date and time: 04/03/2007   00:00:01

Connect info(IP addr, USB icon):

Menu line: Set as USB key ▶

Message line: ATMEL AVR32 UC3

The next step is to access the Control Panel through its web server with a direct point-to-point connection between a PC and the EVK1100 board.

Configuring the PC network port to local mode (Windows XP)

Most computers are setup to use dynamic IP addresses. To directly connect the EVK1100 to a PC, the network interface of the PC must be configured to use a static IP address. The goal of this section is to perform such a configuration.

■ **Step 1:** Select Start–>Settings–>Network Connections.
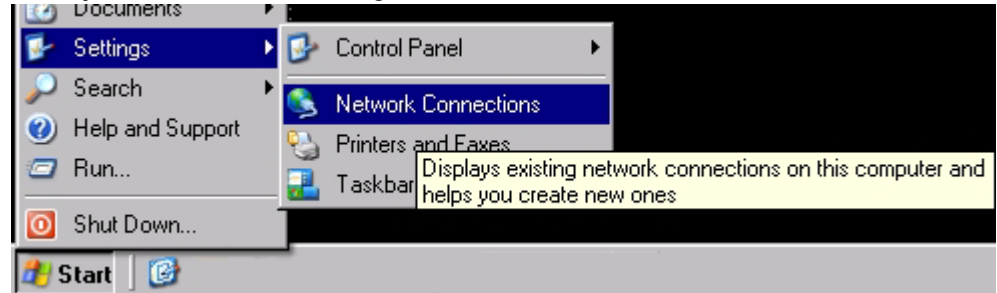
■ **Step 2:** Right-click on the network connection where the EVK1100 will be plugged to and select Properties. There may be several defined connections on the PC: the connection associated with the Ethernet port of the PC must be selected.
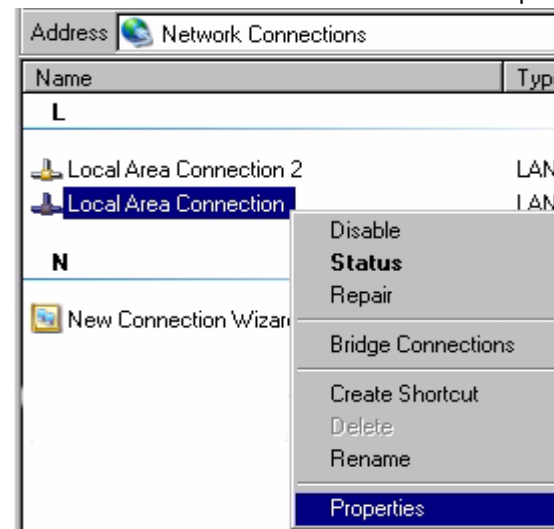
■ **Step 3:** Select the item "Internet Protocol(TCP/IP)" then click on Properties.

Warning: Be sure to note the default TCP/IP Properties, in order to restore it afterwards.

■ **Step 4:** in the *Internet Protocol(TCP/IP) Properties* window, enter the IP address and Subnet mask as shown below (the Default gateway field does not need to be filled); record the TCP/IP settings by clicking OK. In the example below, the PC now has the static IP address 192.168.0.56.

Step 3
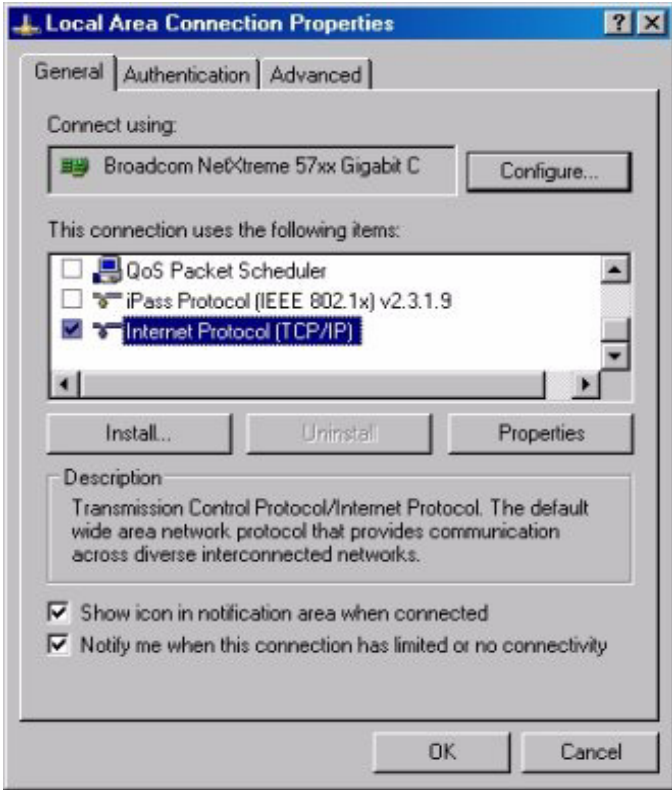
Step 4
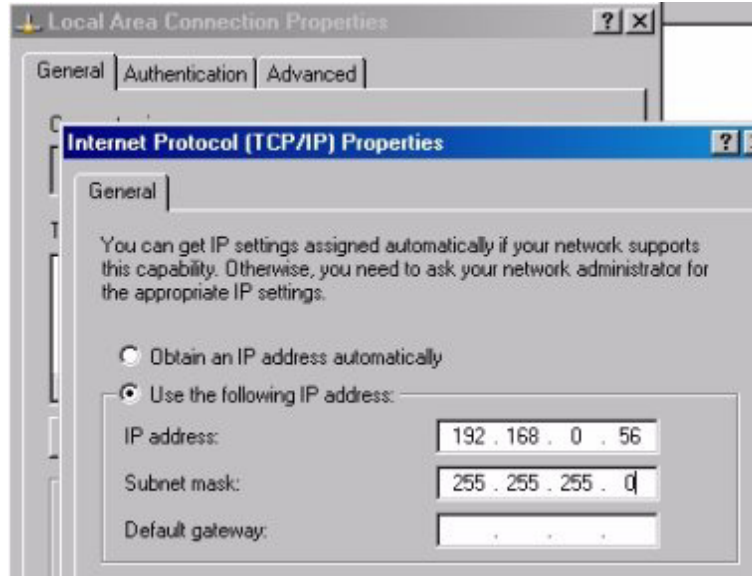
■ **Step 5:** Record the network connection settings by clicking OK in the Local Area Connection Properties Window.

Connecting the EVK1100 to the PC

■ **Step 1:** Connect one side of the network cable(UTP Patch 1.5m Cat.5E, gray) to the Ethernet connector of the EVK1100 board and the other side of the cable to the previously configured Ethernet port of the PC.

■ **Step 2:** The LCD screen now displays the EVK1100/Control Panel IP address on the connectivity line. By default, this IP address is 192.168.0.2.
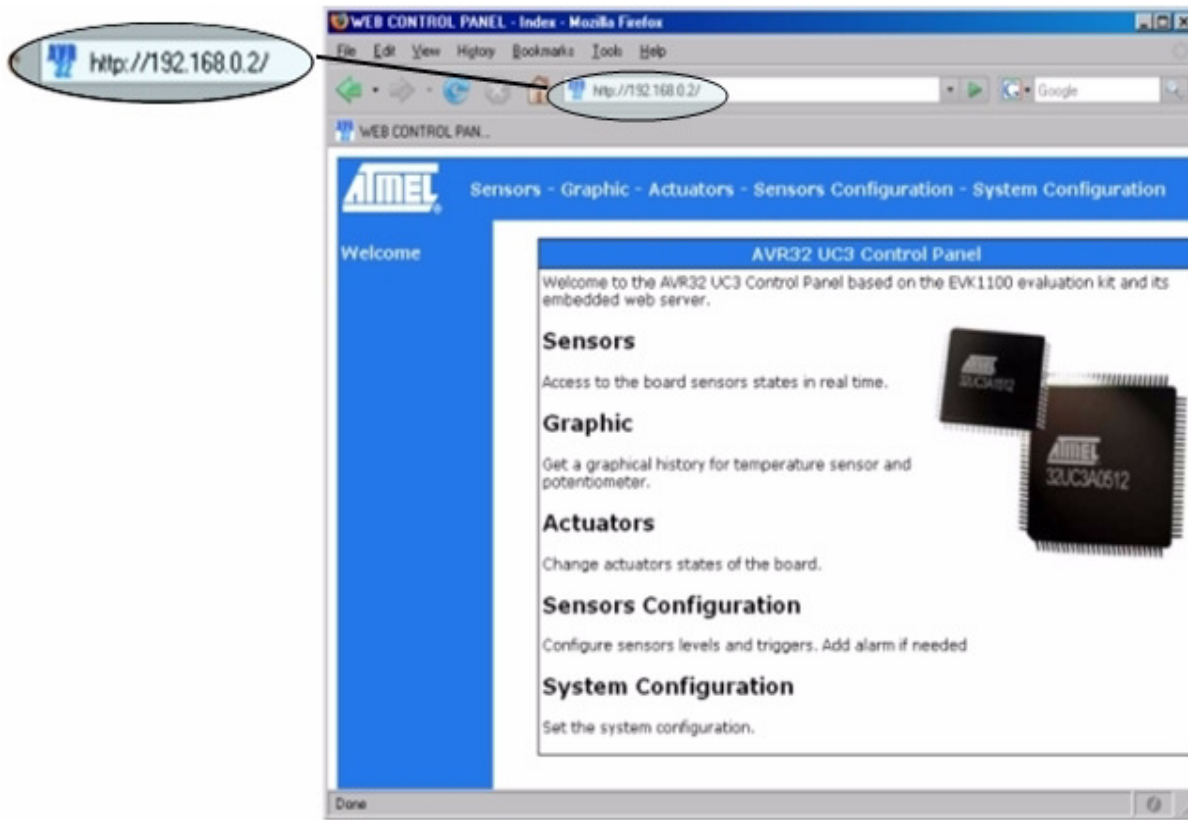
Step 1

Step 2

AVR32 EVK1100 Getting Started Guide
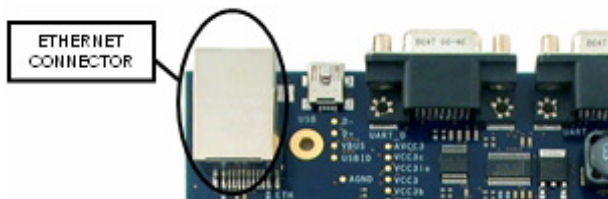
Accessing the Control Panel Web server

Launch a web browser. Type the Control Panel IP address in the browser's address bar. The Web-server entry page appears:

Further Information

The Control Panel complete source code and user guide is available in the AVR32 Technical Library CD bundled with the EVK1100 (in the AT32UC3-SoftwareFramework-x.x.x.zip package of the AVR32 AT32UC3 Software Framework, under the AT32UC3-x.x.x/APPLICATIONS/EVK1100-CONTROL-PANEL folder).

Web links:

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

- **www.avrfreaks.net - AVR32 forum homepage**