Tutorial – Setting up the HW and SW

Hardware: Evaluation board: EVK1100

Debugger: JTAG ICEmkII

Software: AVR32 Studio, version 2.5.0

GNU toolchain, version 2.4.2

Software Framework, version 1.6.1

Synopsis: Software installation, hardware configuration (EVK1100, JTAG ICEmkII, run an example program)

Software installation
If the software is not installed on your computer, download from www.atmel.com and install.

Hardware configuration
The EVK1100 board can be powered by the power cable or by the USB-cable (recommended). The easiest way to program the EVK1100 board is to use the with the JTAGICE mkII debugger, which are available at every computer in the laboratory. If you want to connect to the hyper terminal you can e.g. use the UART_0 port on the EVK1100 board.

USB-connection

UART

POWER
SUPPLY
SWITCH

JTAGICE mk2

MCP2515
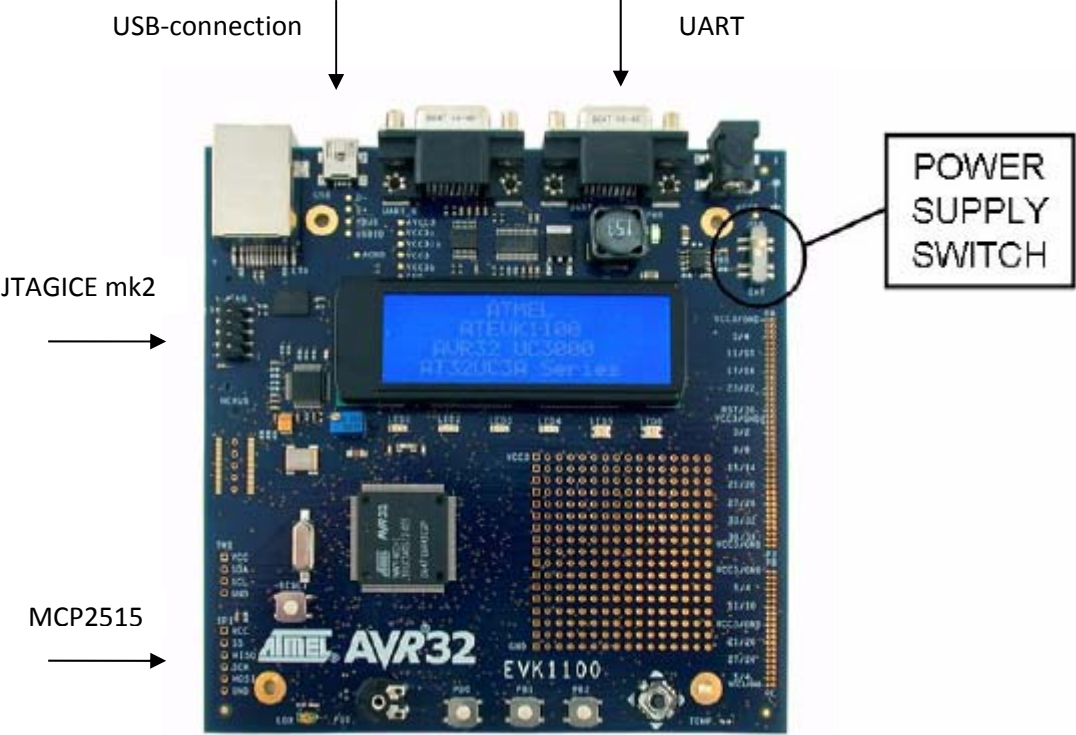
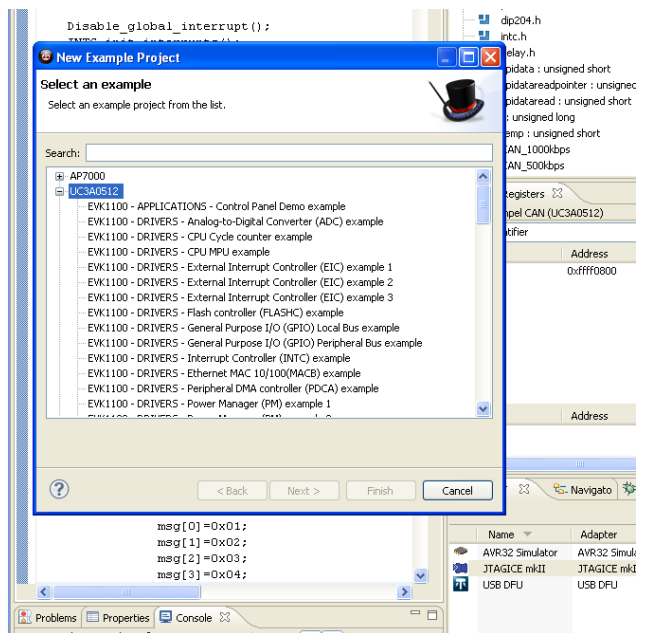## Getting started with AVR32 Studio

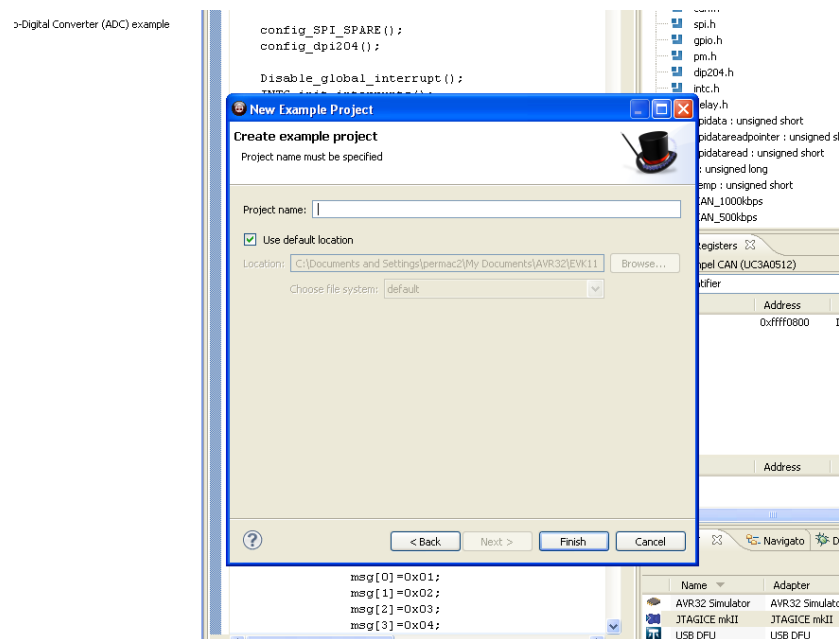To get familiar with AVR32 Studio first open a AVR32 example project.

Step 1
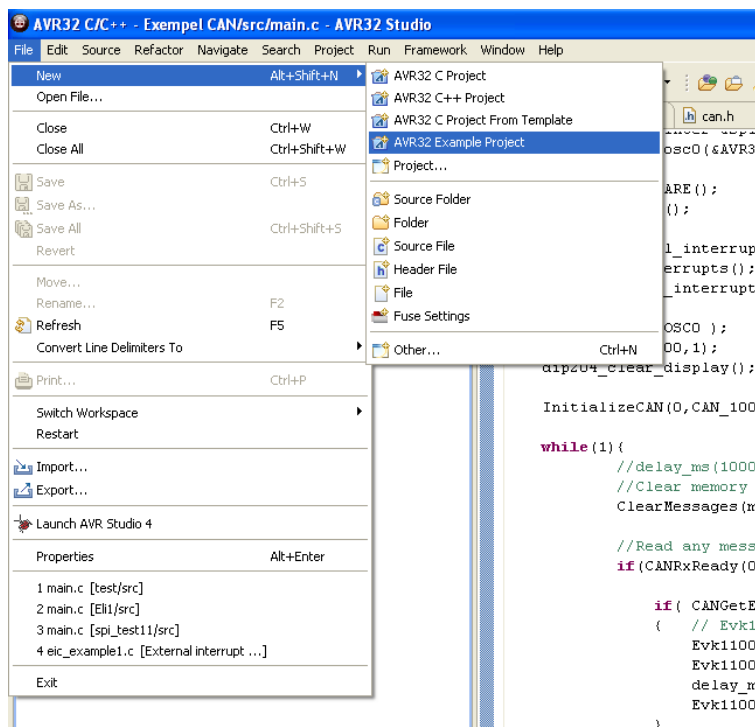
Step 2

Choose an example program for the UC3A0512 processor. Choose for an example EVK1100-DRIVERS-Analog to Digital Converter (ADC) example.

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Step 3
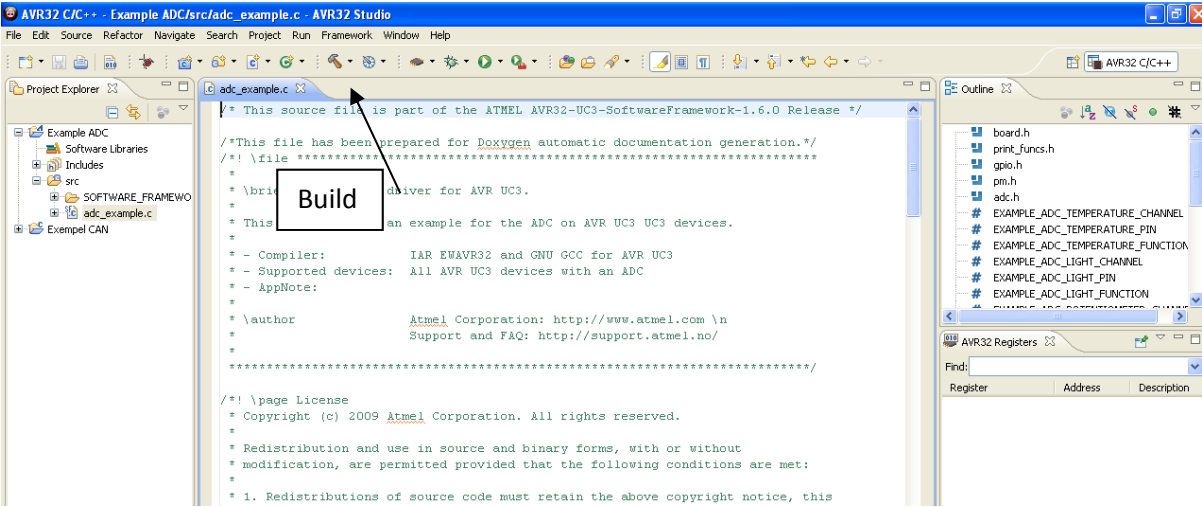
Choose project name. In this case "Example ADC".

Step 4

Here you can see "Example ADC" in the Project Explorer. To be able to build the program click on the "hammer".

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Step 5

To be able to run the program on the EVK1100 board, some settings on the JTAGICE mk2 board has to be done. Right click on JTAGICE mk2 in the right corner and choose properties. Under "Details" you choose the correct device (UC3A0512) and the correct board (EVK1100). Right click again on the JTAGICE mk2 and choose "Set as default".
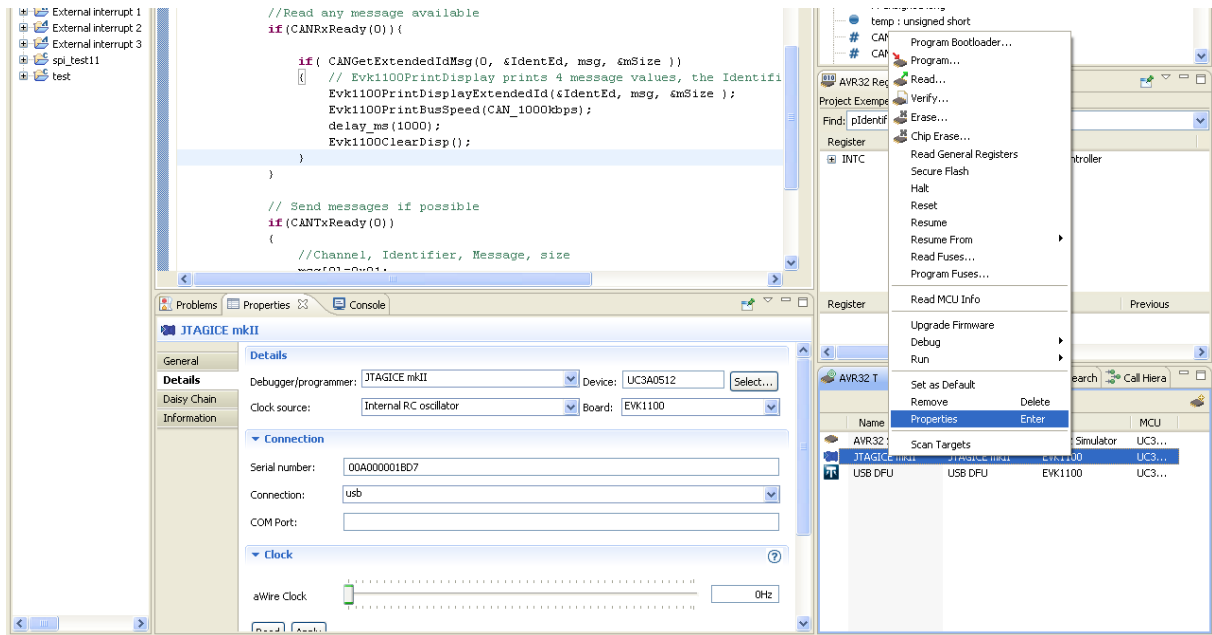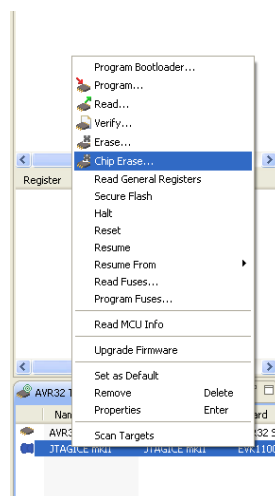

Step 6

If you have not programmed your EVK1100 before you might be required to update the JTAG firmware and to erase the memory content on the EVK1100 to be able to reprogram it. This is done in the following way. Right-click on the JTAG icon and choose Upgrade Firmware and after that right-click again and choose Chip Erase.
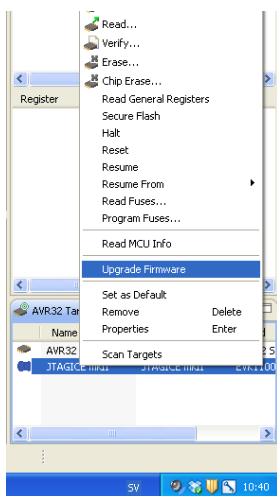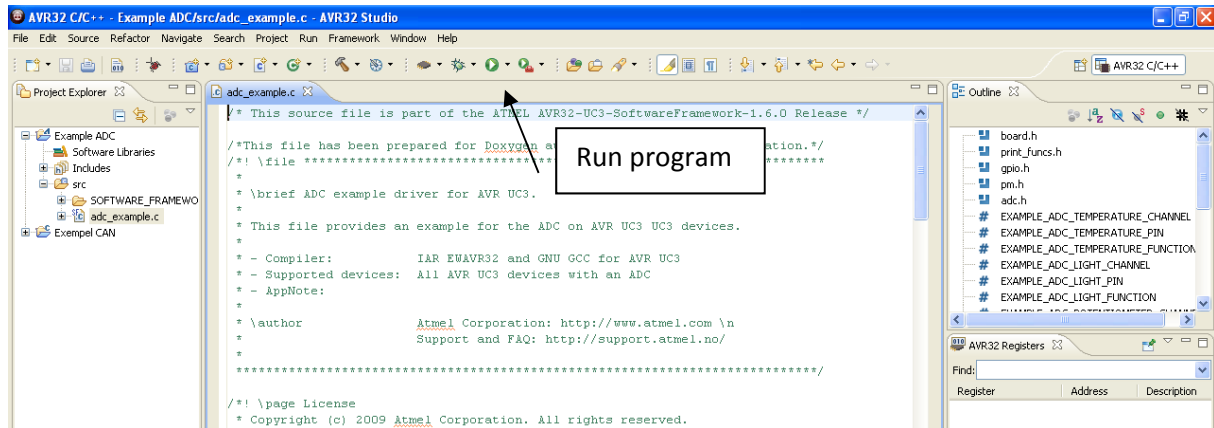

Upgrade Firmware   *Chip Erase*

Step 7

Now we can finally run the example program. Choose run as AVR 32 application.

Step 8 (advanced step, for future use)

Verify that the program is running on the AVR32 by connecting a serial cable between UART_1 on the EVK1100 and the serial port on a PC. Start a terminal program in the PC such as the Hyperterminal (Win XP only, not Vista or 7) or RealTerm (free download).

The output from the AVR32 will be shown in a terminal window. Use the following settings in Hyperterminal or RealTerm:

- Baudrate 57600
- Data bits 8
- Parity None
- Stop bit 1
- Flow control None