How to use the SPI/ADC1 Analogue-to-Digital Converter Module

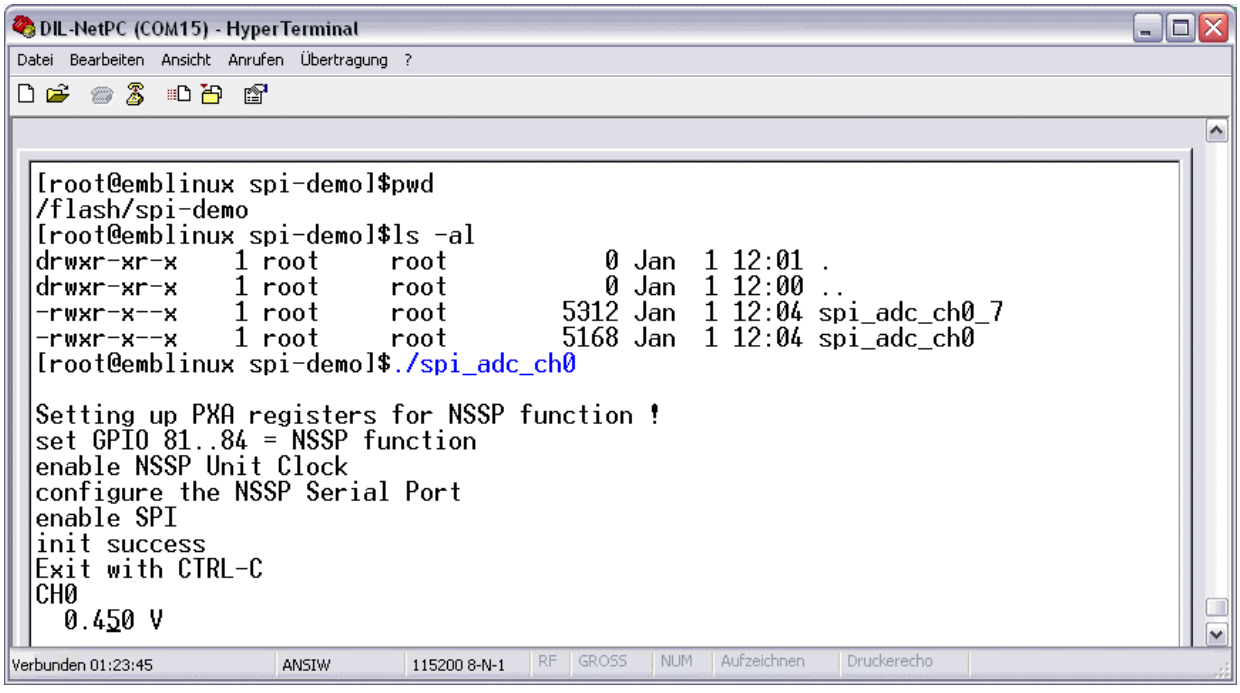
The DIL/NetPC DNP/2110 starter kit DNP/SK21 contains a small 10-bit SPI/ADC1 analogue-to-digital converter (ADC) module with 8-channel single-ended or 4-channel differential inputs. This module allows you to sample analog data sources with the DNP/2110.

- **1. Step**: Connect the SPI/ADC1 module to J8 (PIO Signals 2) of the evaluation board DNP/EVA6. This connector offers the SPI signals of your DNP/2110. The SPI/ADC1 hardware reference manual offers more details about this connection.

- **2. Step**: Please use a DNP/2110 starter kit CD-ROM (version 1.01 or newer). This CD-ROMs contains within the directory */linux/demos/spi-adc1-dnp2110* some sample files (executables and C source codes).

- **3. Step**: Create a new subdirectory */flash/spi-demo* on your DNP/2110 and transfer the two executables *spi_adc_ch0* and *spi_adc_ch0_7* with the help of a FTP session from the starter kit CD-ROM to this new DNP/2110 directory. Don't forget the *"chmod +x"* command for the files *spi_adc_ch0* and *spi_adc_ch0_7*.

- **4. Step**: Please run *./spi_adc_ch0* on your DNP/2110. This program runs within a endless loop and displays the current input of the SPI/ASC1 channel 0.



Please note: For a successful test please supply a voltage between 0 and 3.3 VDC to channel 0 of the SPI/ADC1 module. The SPI/ADC1 hardware reference manual describes a simple test environment. Please see this document for more details.

That's all.