User guide

Assignment 2: Auralisation

Student: Sören Schreiber

Student-ID: K1549360

* Step 1: Power the DSP StarterKit1
  + If green LED shows the program is ready to run ->continue with Step 8.
  + If the LEDs stay dark the program is not loaded on the chip ->continue with Step 2
* Step 2: Open the Development environment for the DSP StarterKit1 (MPLAB IDE)
* Step 3: Open the project file “Audio\_Auralisation.mcp” using the IDE
* Step 4: Connect the DSP StarterKit to the computer
* Step 5: Compile the program in realease mode (STRG+F5)
* Step 6: Select Programmer->Select Programmer->Starter Kits
* Step 7: Select Programmer->Program
* Step 8: Set the jumper located on the Starter kit between the input and the output port to
  + LINE IN if the source of the signal is a phone or a signal generator
  + MIC if the source is a microphone
* Step 9: connect an audio output device to the chip
* Step 9: The program starts of in “READY” (Green LED). Press S1 to start the recording
* Step 10: Input the signal (i.e. using a frequency/signal generator on a phone).
* Step 11: Aster the program reads a frame it goes into analysing mode
  + Red LED shows: The program is currently running the FFT function on the input signal
  + Red/Yellow LED shows: The program is currently running the auralisation
  + Red/Yellow/Green LED shows: the program is running the inverse FFT function on the auralisation
  + Yellow LED shows: Ready for playback (Press S2 to continue)
* Step 12: The program will play the generated auralisation via speaker(all 3 LEDs cycling)
* In case of all 3 LEDs flashing: An error has occurred reset to ready state by pressing S1 and S2