ALBERT-LUDWIGS-
UNIVERSITÄT FREIBURG

INSTITUT FÜR INFORMATIK

Prof. Dr. Bernd Becker
Dipl. Inf. Tobias Schubert
M. Sc. (Eng.) Matthew Lewis

Mobiles Hardware-Praktikum
Summer Term 2003

Lab 4
Microprocessor Programming

Exercise 1

The idea of this exercise is to create a pocket calculator in assembler that can add two 4-bit numbers. The program should allow the user to enter the numbers using pushbuttons S5, S6, and S7 while simultaneously outputting the data onto the LCD screen like a real calculator. Test the code by programming the PIC16F84 processor.

Exercise 2

Now add a subtraction operation to your pocket calculator. The final product should be the same as in exercise one except for the fact that it can now add and subtract. Again, remember to test your pocket calculator on the PIC16F84 processor.

When you are finished with the lab, please compress all appropriate assembler files into one ZIP file and then submit it through the courses Web Site Portal.