



Prof. Dr.-Ing. A. Bruhn
Institute for Visualization and Interactive Systems
Computer Vision and Intelligent Systems Group
University of Stuttgart

Assignment T0 – Training Sheet

Problem 1 (Brightness and Contrast)

Please download the required file `is18_ex00.tgz` from ILIAS into your own directory. To unpack the data use the command `tar xvzf is18_ex00.tgz`.

- a) In the file `simple_filter.c`, supplement the routine `brightness` with the missing code such that it shifts all pixel values by a given offset.
- b) In the file `simple_filter.c`, supplement the routine `contrast` with the missing code such that it scales all pixel values by a given factor. Please note, that the scaling is applied to pixel values which are shifted by 127.5.

Compile the program with `gcc -O3 -o simple_filter simple_filter.c -lm`.

Guidelines for the Tutorials

- **This training sheet** should recall some programming preliminaries and is **not** graded.
 - The following exercise sheets contain **three types of problems**:
 - **Theoretical Homework Assignments** have to be submitted **at the beginning** of the next tutorial. They will be marked and given back to you in the subsequent tutorial.
 - **Programming Homework Assignments** have to be submitted in ILIAS **before** the next tutorial. Make sure all relevant data are contained!
 - **Classroom Assignments (C)** are intended to be solved **within** the next tutorial. They **don't** have to be submitted and will not be graded.
 - In order to gain **admission to the exam**, you have to achieve **50% of the total points** from the theoretical and programming assignments within the semester.
 - **Regular attendance** of the tutorials is not mandatory, but highly recommended as preparation for the exam.
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