

Übung 10 – Mensch-Maschine-Interaktion 2

Exercise 10: Visualizing Focus and Context

A) Implementation of transfer functions (team work, 3-5 students)

Given are long pictures with a width of 2000 pixels (you can use the example pictures from the exercise website). They should be visualized on the screen in a reduced size of 500 pixels. Create a distorted view on the picture to demonstrate the principle of focus and context. Use the Java template from the exercise website to implement two different transfer functions:

1) Implement a bifocal transfer function. Additionally there should be a slider which enables the user to move the focus within the picture.

2) Try to find and implement a transfer function with continuous derivation (i.e. without peaks).

On the screen should be a group of radio buttons which enables the user to switch between the two transfer functions.

Hints:

- Modify the class member variables:
 - *imgPath*: the path of your image
 - *focusSlider*: you can init the JSlider with your own values
- Implement the methods *bifocalFunction()* and *continuousFunction()*
- In *bifocalFunction()* you can use the class member variable *focusX* to get the value of the JSlider

Implement both transfer functions using the template from the exercise website. Please provide your solution as a zip archive *vorname_nachname.zip* containing your files *ImageFrame.java* and *ImageFrame.class*. Send the link to the zip archive (or the archive itself) by email to Andreas Pleuss (Andreas.Pleuss@ifi.lmu.de). Submission deadline is **16th of July 2004**.