



Assignment

18 June 2011

This assignment should help you to understand „geometric transformations“ and how they are organized using the stack-mechanism of `pushMatrix()` and `popMatrix()`.

Develop a sketch in Processing that generates an arrangement of rectangles all of the same size, placed one upon the other, but such that they are slightly displaced horizontally.

So much for the (still a bit vague) idea of a simple sketch. The following conditions may turn it into an already more precise form:

- The sketch must be constructed from six rectangles. Each of them is 100 pixels wide (in x-direction) and 20 pixels high (in y-direction).
- The rectangle's location is defined by the position of its upper left vertex.
- The rectangles are oriented horizontally and they are placed one on top of the other but such that they are shifted a little to the left or right.

Work on this and turn it into a running sketch, before we continue on the development of the sketch.

Here are a few ideas about additional features:

- Relax the condition of exactly six rectangles in your pile.
- Assign colors to the rectangles, each one different.
- Allow the rectangles to be oriented in a non-horizontal direction, but all in the same.
- Grab the entire pile of rectangles with the mouse and move it around.
- Allow for some interactive operation that rotates the pile.

Remember and obey the following general rules of good practice! Your sketch must have a header block giving its name, a short indication of its function, your name as the author, the date of the version. The sketch must be well-structured and contain enough comments so that the reader (you yourself) is supported in analyzing the specific function of a part. Assemble all the program's global parameter settings at the beginning and with comments clearly defining their meaning.