

Name:

Matr.Nr.:

Gruppe: 08:30 10:15

Abgabefrist: 12.04.2010

Abzugeben: Quellcode elektronisch.

Tutor:

Punkte:

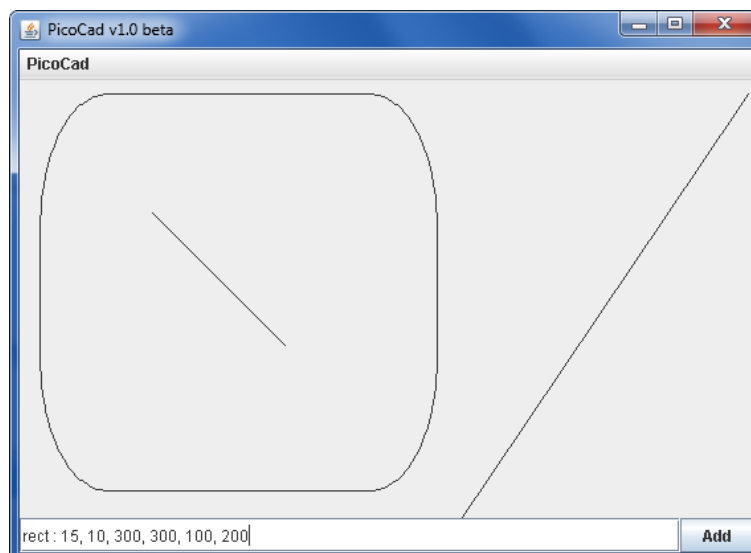
Maximal: 24 Punkte

Swing Components, Reflection

Implement PicoCad, a minimalistic computer aided design program. PicoCad must:

- Have a menu item to clear the drawing; and a menu item to quit the program.
- Have a clear data model, with event support. Define a listener interface and an event object.
- Show the drawing on a self developed drawing panel
- Offer a way to enter the draw commands, in the defined language:
 - *ident "=" ident*
defines an alternative name, e.g.: *line = java.awt.geom.Line2D.Double*
 - *ident ":" number { "," number }*
adds an object of the class described by the identifier to the drawing, e.g.: *java.awt.geom.Line2D.Double 100, 120, 430, 510*
If the identifier is an alternative name, the corresponding class must be used, e.g.: *line : 100, 120, 430, 510*
 - Example input sequence
line = java.awt.geom.Line2D.Double
line : 100, 100, 200, 200
rect = java.awt.geom.RoundRectangle2D.Double
line : 550.3, 10.4, 211, 512
rect : 15, 10, 300, 300, 100, 200
- Show errors, if the entered command is wrong, you could implement for example: a status bar, show the error on the drawing surface or in a separate log window.
- Support all classes that implement *java.awt.Shape*. To support arbitrary classes use Reflection to create the Objects, with the given parameters. You can assume that all parameters are *double* values.

Picture 1 shows an example design of the program, feel free to alter and improve the design!



Picture 1, Sample Design