

# Errors and solutions during the development

## Array index out of bounds

This exception appeared often during the implementation of the change/delete/edit functions on the different point and line lists. After adding a mode for the different tables (selected point etc.) and running the methods according to these codes and further more improving the count and position variables the problems were solved.

## Running the project on a 64bit PC

When the project with its Access database is ran on a 64bit PC it is necessary to have an installed Java 7 for 32bit PC version and add this to the run configuration. The project won't run with Java 8 because here ODBC isn't supported.

## DrawPanel

Because the draw and the move function user the same method, the mouse listener for a pressed and released event and so use the same 2 coordinates for the two events, lines were moved to the wrong position when a new line was drawn immediately before that.

The moved line didn't change to the new position, but to the end position of the before drawn line. When a line was moved directly after it was drawn, it shrank to a line with start and end point at the same position. After adding a mode to differentiate between the process of creating a new line and moving it this error was fixed.

## Interactivity between DrawPanel and Table

When the user selected a single object it was drawn several times, because the event listener that listened on change actions on the Jtable was not added when the content of the table had changed.

## Updating database

The first idea was to run the application with certain different lists for all manipulating processes like editing, new, deleting. We then figured out that updating the database with all these different lists was too complicated and caused several errors, mainly because of the different Ids in the database and on the lists.

So we decided to use only the point and line list, where the objects are directly manipulated and to delete the content of the point and line table and refill it with our lists.

## Overlapping tables

In the beginning we tried to add new tables to the GUI, but they were overlapping or not showing at all. After changing the JPanel that contains the table to a JscrollPanel and first creating a new JTable with the preferred content and second setting this new Viewportview on the ScollPanel it worked.