

This is a simulator for register automata. There are six Java classes comprising Controller, Permutation, RegisterAutomaton, UserInterface, GraphViz and RAutomata in this folder named myProject. Before running the program of this simulator, the following steps should be completed firstly

1. Download and install Graphviz (<https://www.graphviz.org/download/>);
2. Modify some code in class UserInterface. See figure 1.

```
public class UserInterface extends JFrame{
    private GraphViz gViz;
    private Permutation per;
    private ArrayList<String[]> uelist = new ArrayList<String[]>();
    private ArrayList<String[]> slist = new ArrayList<String[]>();
    private int registerNum;
    private Container c;
    private String startState;
    private ArrayList<String> finalStates = new ArrayList<String>();
    private String input;
    private JTextArea resultarea = new JTextArea();
    private JLabel jgraph;
    private ArrayList<String[]> state;
    private int emptygraph;

    public UserInterface(){
        emptygraph = 0;
        gViz=new GraphViz("C:\\Users\\guowenbin\\Desktop\\myProject\\bin\\myProject", "E:\\Java\\bin\\dot.exe");
    }
}
```

directory for this folder (myProject)

directory for "dot.exe", it is belongs to Graphviz.

Figure 1

After finishing these operations, another thing should be aware of is that two images named 'stateGraph.png' and 'empty.png' respectively must be added to the folder 'myProject//bin//myProject', then you can run the class Controller and test this simulator tool for register automata.