# Teaching Interactive Computer Science
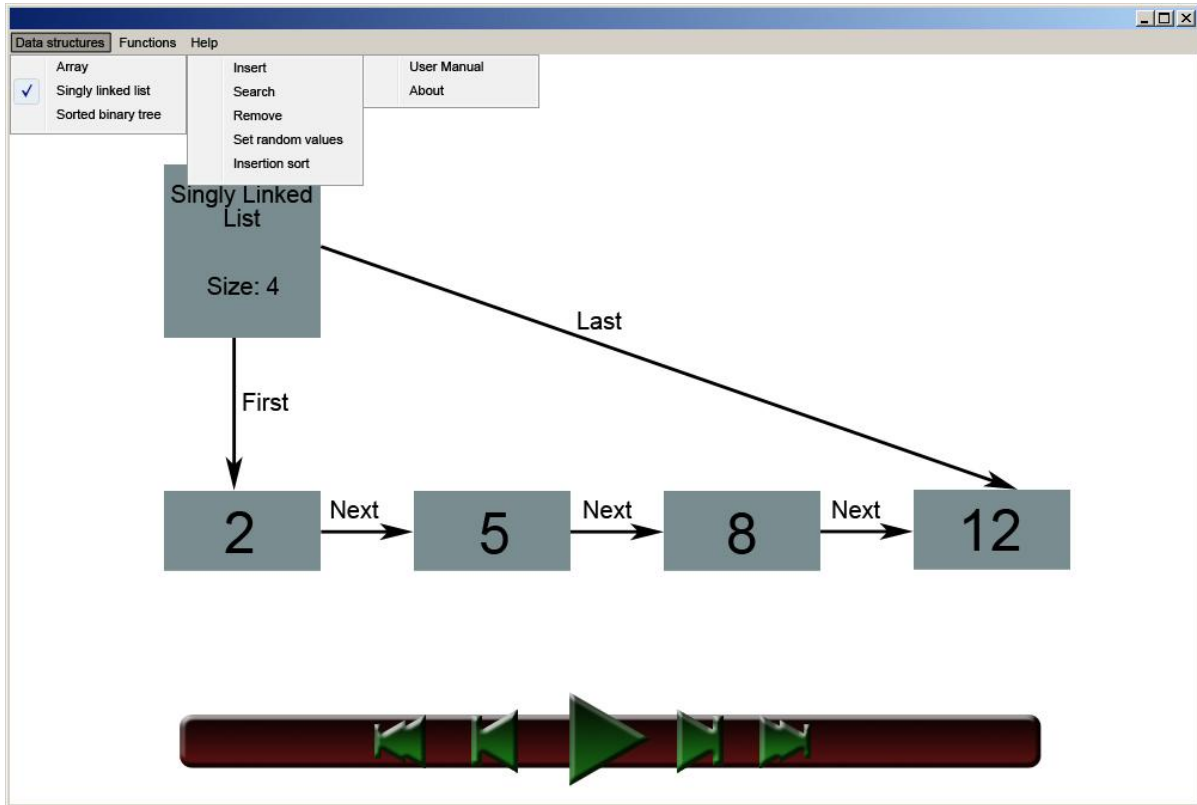
## Group 7

**Alexander Kjellén**
**Björn Delin**
**Erik Skogby**
**Jan-Erik Bredahl**
**Joakim Israelsson**

Section 4

# Graphical User Interface

## General GUI information

This is how our main Graphical User Interface (GUI) will look like:



It consists of a menu bar, a drawing area and an animation control area. The drawing area is just a big white space used for drawing the animations, which will be described later on. The animation control area contains five buttons named Stop, StepBackwards, Play/Pause, StepForward and Finish. These correspond to the animation control requirements in the requirements document. The Play/Pause button will display Pause when the animation is running and Play when the animation is paused.

The menu bar will have three drop down menus named: Data Structures, Functions and Help. The menu button Data Structures will have the three available data structures: Array, Linked list and Binary tree described in the requirements documents. When you click on one of these the data structure will appear in the animation window. The Functions menu contains all the available functions for the currently selected data structure. If no data structure is currently selected, the Functions menu is empty. The help menu contains: User Manual and About which describes current version and information about the developer.

## Specified GUI information

### Popup windows

When a user clicks on dropdown button Functions and selects a function which takes a parameter, a popup window that looks similar to the left window below appears. It is called Parameter and waits for the user to specify a parameter and click OK.
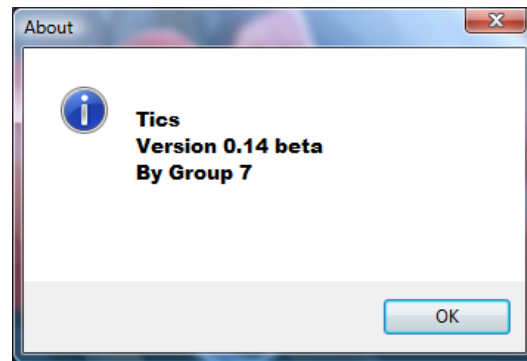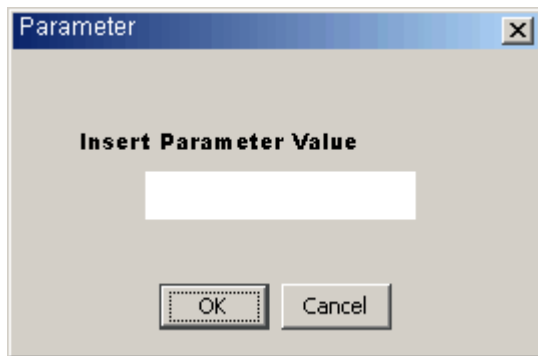
The help menu has two choices as said before; User Manual and About. The About popup will look similar to the picture shown above to the right. The User Manual will look something like the picture below.
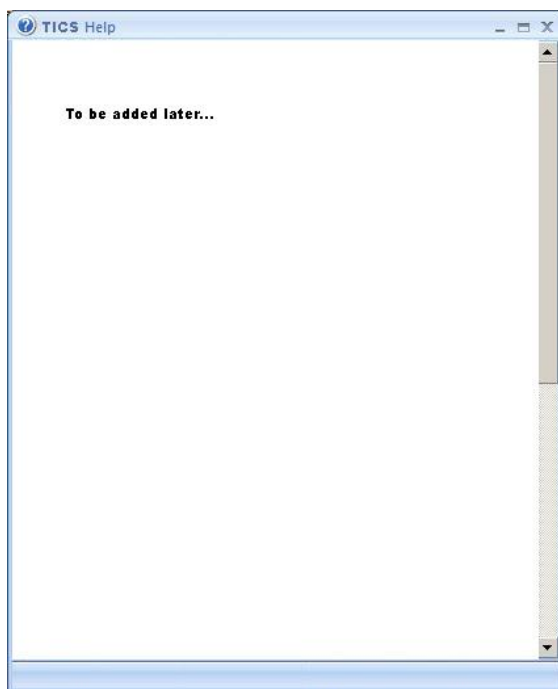
## Animation Window

The animation window is where all the animations will take place. It is the main window of the program and also the largest. It will be blank when the program starts and stay that way until the user chooses to load a data structure from the Data Structure menu. When a data structure has been loaded, it will appear in the animation window. When the user activates a function and uses the animation control buttons, the animation window will show an animation representing the function being executed on the current data structure.