Quick user's guide

This guide summarizes the basic steps to begin working with Simula3MS.

1.- When Simula3MS is executed, an editor window appears, that allows:

- the load of a previously edited file
- the edition of a new assemble language code

2.- Once the code is edited (or loaded), use the *Assemble* button. Two results are possible:

- If the code does not have any syntactic errors, the *Execute* button becomes enabled to give access to the simulation.
- In case the code is not correct, a list with all the errors will appear at the bottom of the window. The first error is highlighted. Next errors can be found using *Next error* button. When all these errors have been corrected, repeat step 2.

3.-Choose a configuration to execute the code. There are three possible options in the *Configuration* menu: *Input/Output*, *Datapath* and *Branch techniques*.

- *Input/Output*. The I/O is by default deactivated. To simulate I/O choose *Polling* or *Input/Output with Interrupts*.
- *Datapath*. The selected option by default is the *Monocycle* datapath. Selecting *Multicycle* or any implementation of the *Pipeline* processor, a new window will be opened, allowing to configure the latency of the floating point operations.
- *Branch techniques*. Currently Simula3MS allows the selection two branch techniques: *Delayed branch* and *Fixed branch prediction*. Both of them appear deactivated by default and the selection of any of these techniques forces the basic pipeline.

4.- Use the *Execute* button to access to the simulation window. In this window, the final result of the complete program execution is shown (using the *Execute* button), or the evolution of each instruction in each cycle can be observed (using the *Next cycle* and *Previous cycle* buttons).