

## Functional Requirements – Final

1. Error handling log, Run-time error handling.
2. Upon startup, a description of functionality should be given.
3. The system should be able to handle positive and negative words.
4. Programs should be able to be reprogrammed before termination.
5. PC and memory should be reported when run-time error occurs
6. Memory overflow should cause an immediate HALT and output a message
7. Run/Stop button for execution (halting).
8. The system should have a menu with options at start up.
9. Help manual should be displayed to user.
10. Main memory should be displayed at runtime.
11. Implemented GUI should have views into the memory, and the user inputs
12. Program needs commands to add/subtract/multiply/divide the accumulator
13. Program needs commands that allow the PC to branch to specified locations  
whether accumulator is 0/negative/always
14. Program needs commands that allow keyboard input of words to memory and console  
output of memory.
15. Program will have commands to load the accumulator into memory, and load memory  
into the accumulator