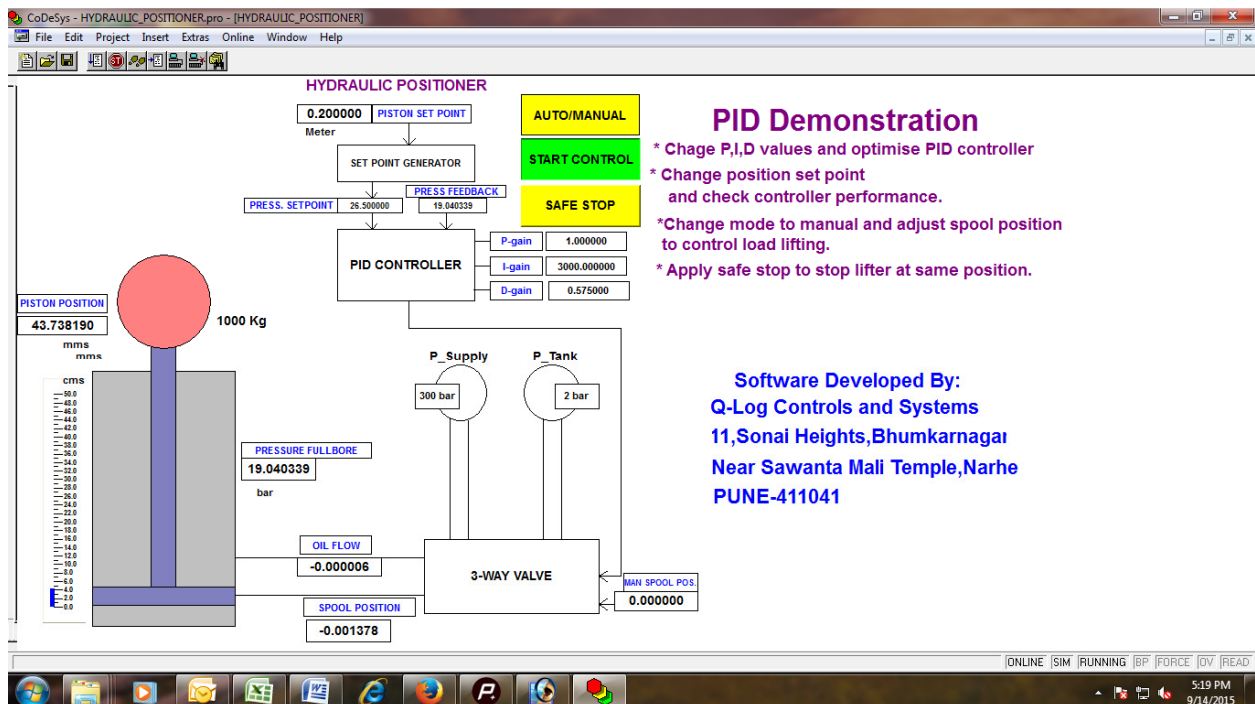


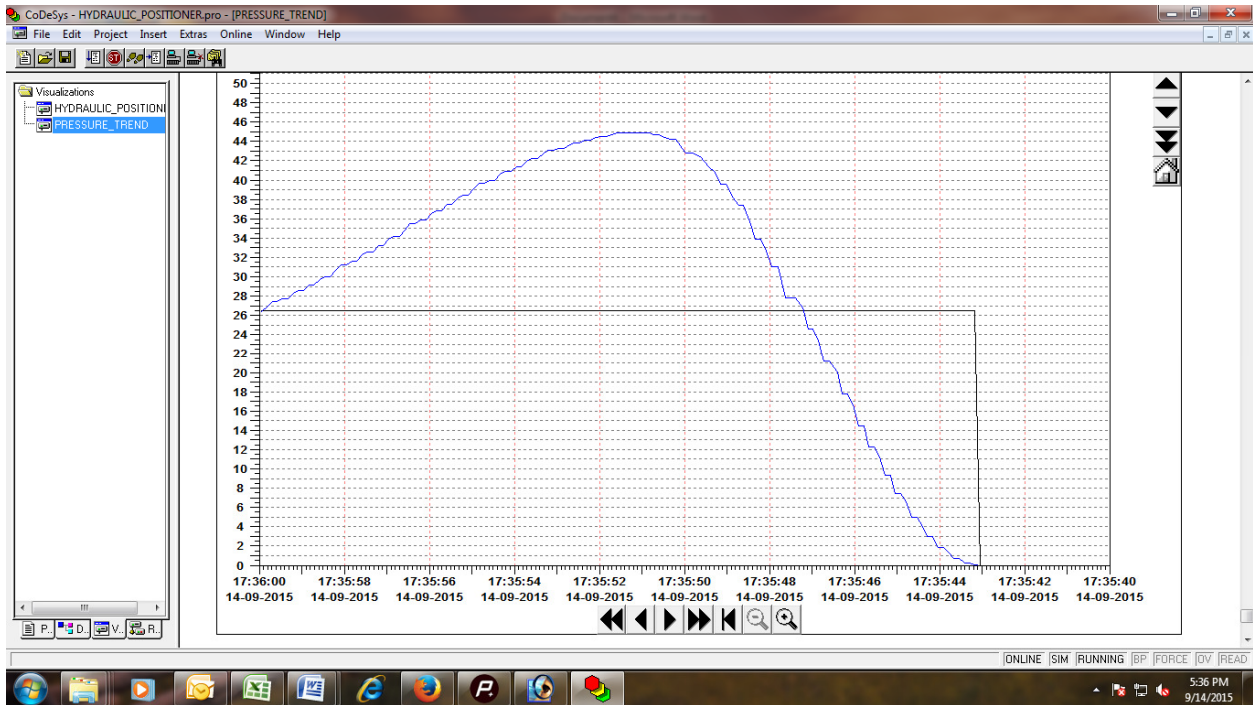
PID Controller Simulator OR Hydraulic Position Controller Simulator

This is a PID controller simulator and runs on soft PLC platform. The backend code is developed in IEC61131 PLC software development languages. The Codesys V2.3 software has IEC61131 PLC development environment with frontend tools. This is very usefull application for studying PID control system. After running the software you can adjust P, I, D values online to optimize controller. You can also change position set point. In auto mode if Safe Stop button is pressed then the PID controller adjusts pressure inside the chamber to equilibrium pressure, so that the weight stops at its present position. With permutations of PID values you can check working of PID controller in Overdamped state or Underdamped State or Critically damped state. Real time graph of set pressure and actual pressure can be observed.

Also to have complete feel of hydraulic system you can put the system in manual mode. In manual mode you will have to control spool position in the range (-1.0000 : 0.0000 : +1.0000) for controlling weight position.



PID controller simulator in Auto mode



Set pressure Vs Actual pressure in Auto mode

NOTE:-PID CONTROLLER DEMONSTRATION IS SPECIFICALLY DEVELOPED FOR ENGINEERING COLLEGES, TECHNICAL INSTITUTES, PROFESSIONAL PLC TRAINING INSTITUTES

Scope of supply from Q-Log Controls and Systems

1) Codesys V2.3 complete software. This is an integrated development platform with IEC61131 PLC and visualization. PLC programs can be developed in IL (Instruction List), LD (Ladder Diagrams), FBD (Function block diagrams), SFC (Sequential Function Charts), ST (Structured Text) and CFC (Continuous Function Charts). In visualization you can develop User Graphic Interface required for your application.

2) Hydraulic positioner application

3) Additional libraries to run the application

4) Document which explains the hydraulic positioner application development. This includes various equations of the hydraulic system based on which the backend program is developed.