

Scene 4 Factory IO

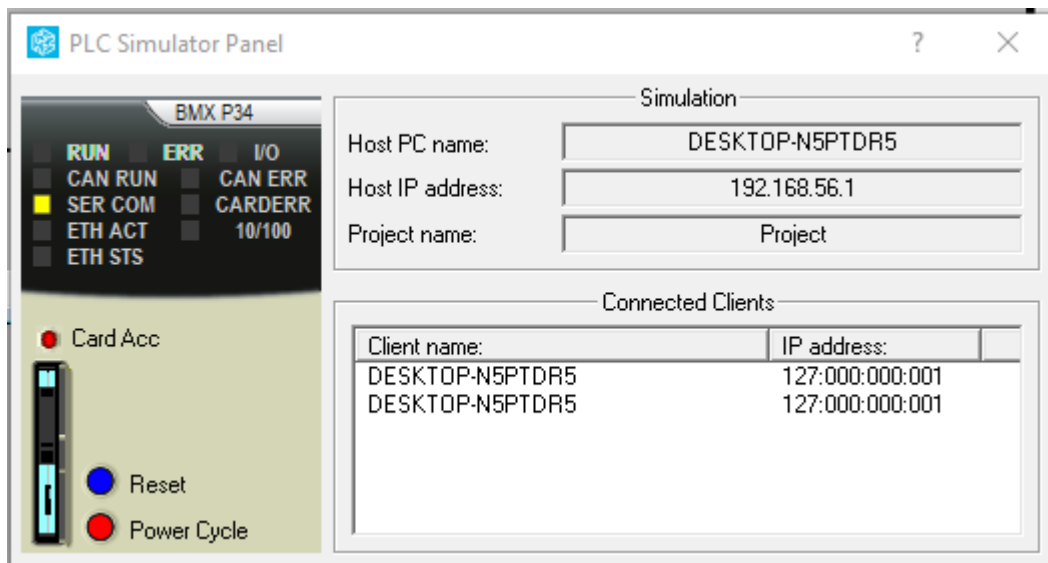
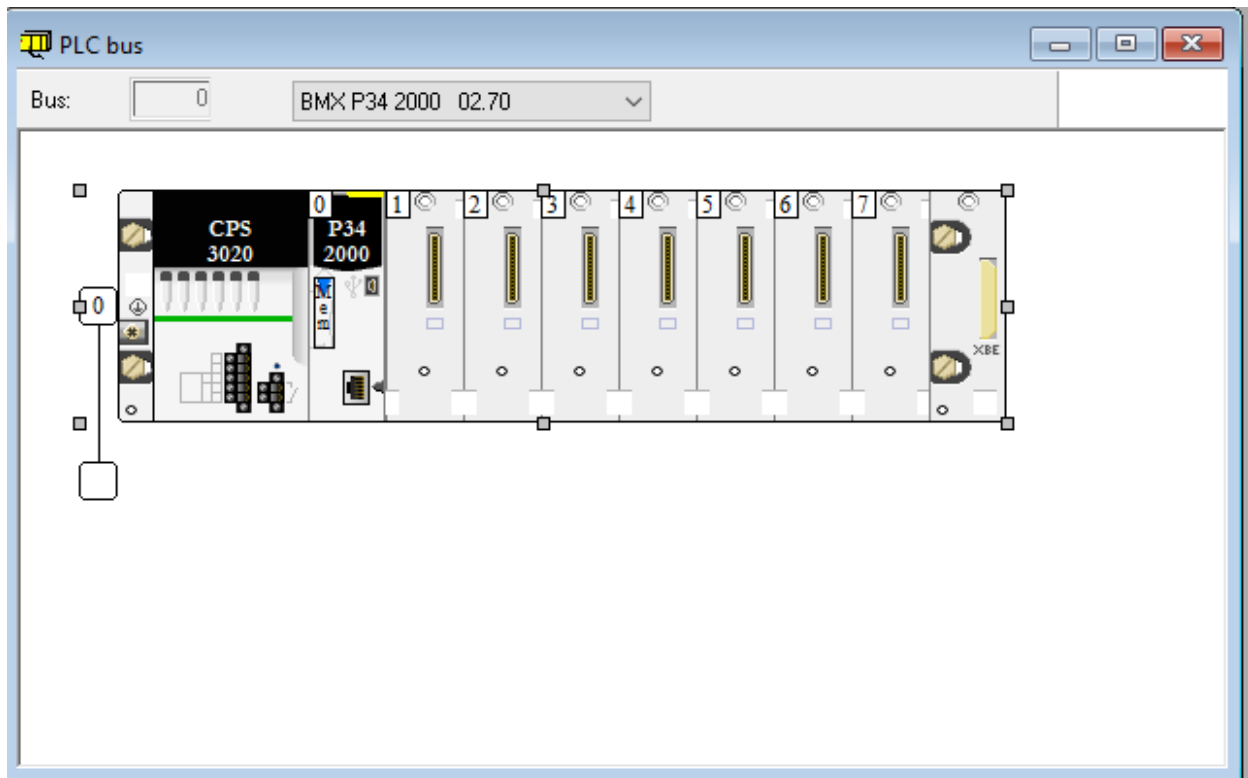
Objective: Load and Unload boxes into a conveyor

Solution : Count UP is used to count the boxes . Timer Off is used to control the Remover. F trig is used to read the Exit sensor. A counter is used to check if the quota is reached and stop the system .

Software Used : Factory IO and Unity Pro XL

Communication Protocol : Modbus Protocol is used.

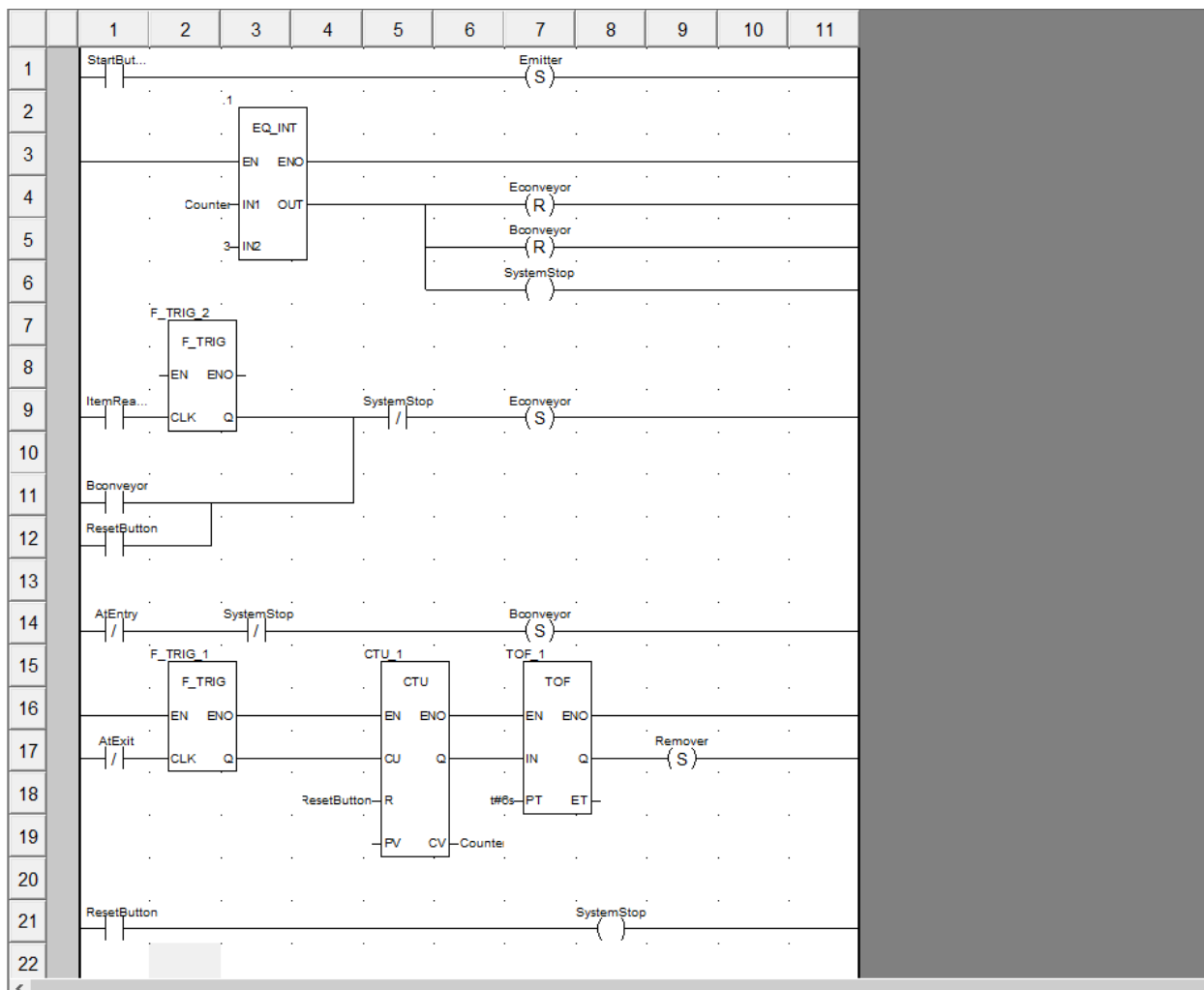
1. Hardware Configuration and PLC simulator Panel (2 connected Clients, factory io and unity pro xl)



2.Data variable :

| Name | Type | Value | Comment |
|-----------------|-------|-------|---------|
| AtEntry | EBOOL | | |
| AtExit | EBOOL | | |
| Bconveyor | EBOOL | | |
| buffer | EBOOL | | |
| Counter | INT | 0 | |
| Econveyor | EBOOL | | |
| EmergencyButton | EBOOL | | |
| Emitter | EBOOL | | |
| ItemReady | EBOOL | | |
| RButtonLight | EBOOL | | |
| Remover | EBOOL | | |
| ResetButton | EBOOL | | |
| SButtonLight | EBOOL | | |
| StartButton | EBOOL | | |
| SystemStop | EBOOL | | |

3.Main PLC program (ladder diagram) :



4.Factory IO: Docked Sensor and actuators tags.

