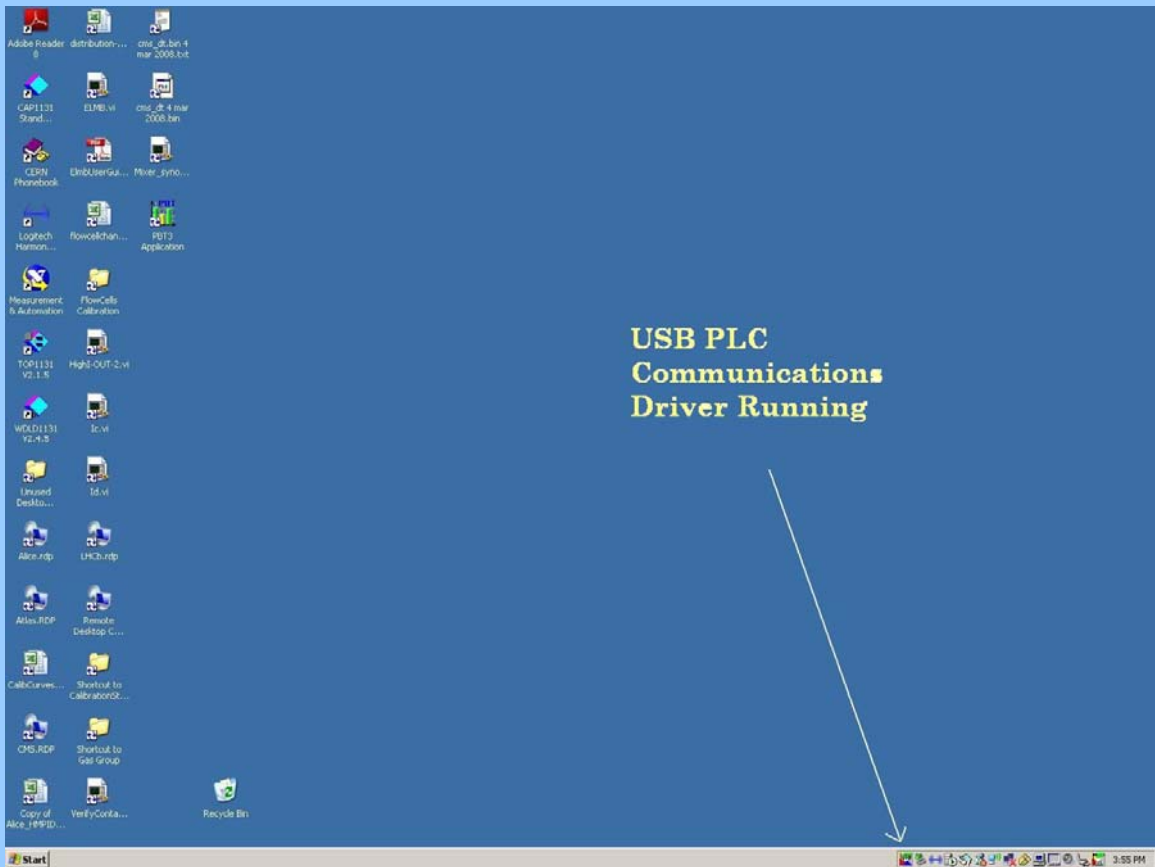


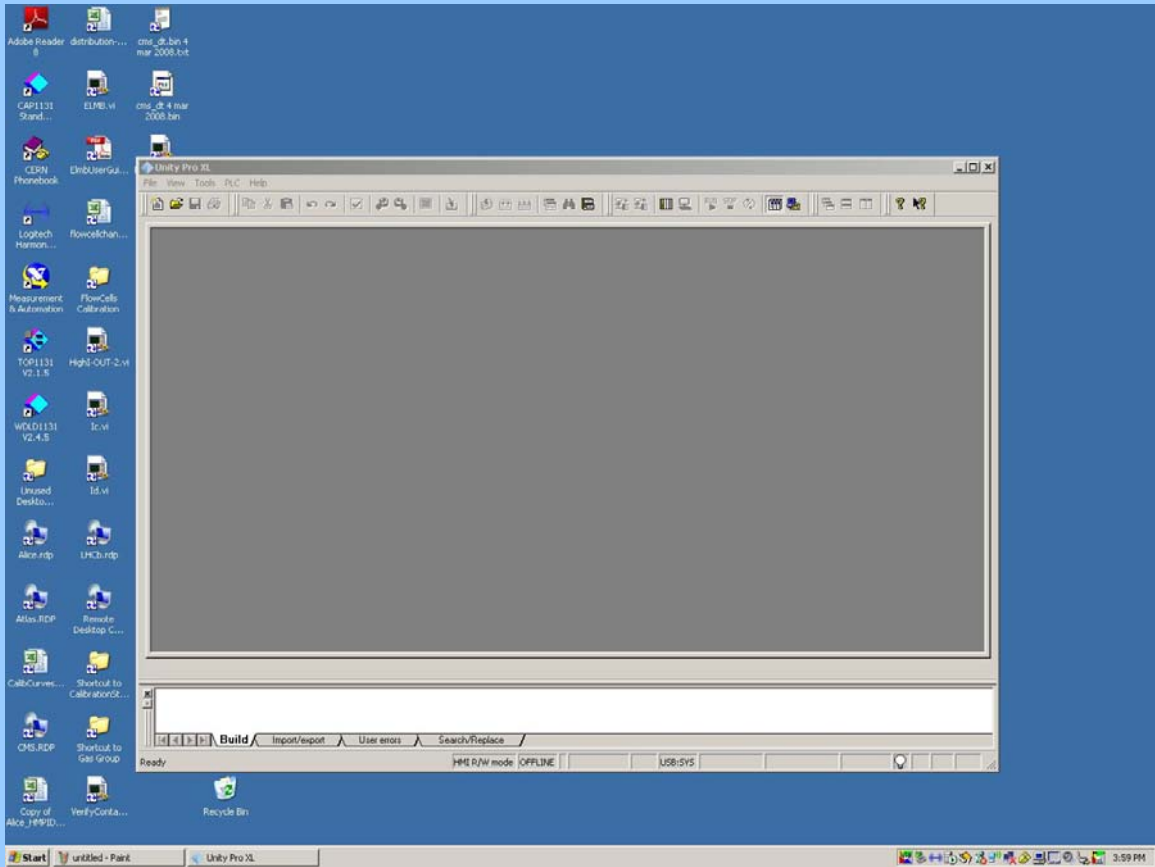
# Procedure For Re-loading the latest version of the Gas Controls Application Program on the Schneider Premium PLC

*If the “ERR” LED on the PLC CPU module is RED flashing, this indicates that the PLC is empty (i.e. has no program). If for this or any other reason the PLC program needs to be re-loaded, the following procedure should be followed:*

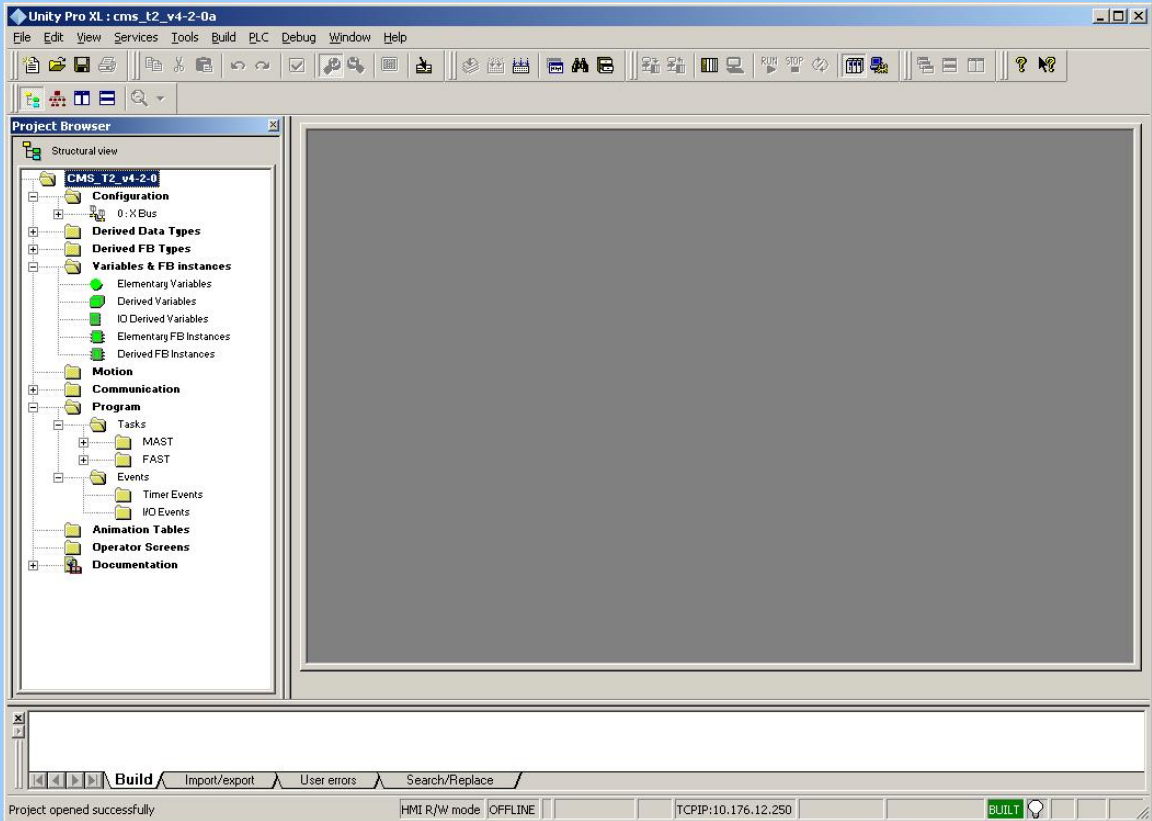
1. The current version of the Gas Controls application program can be retrieved from the IT-CO-FE web site by navigating to Projects, LHC-GCS, Releases.  
Then select the experiment and save the .zip file to the laptop pc. Unzip this file to a convenient directory for later retrieval into the Unity environment.
2. Connect the laptop to the PLC using the provided USB cable, and after a few seconds check that the PLC USB communications driver has automatically started (see below). If not, a prompt should appear on the screen asking if you want to install the driver (follow the instructions as they appear for loading the driver).



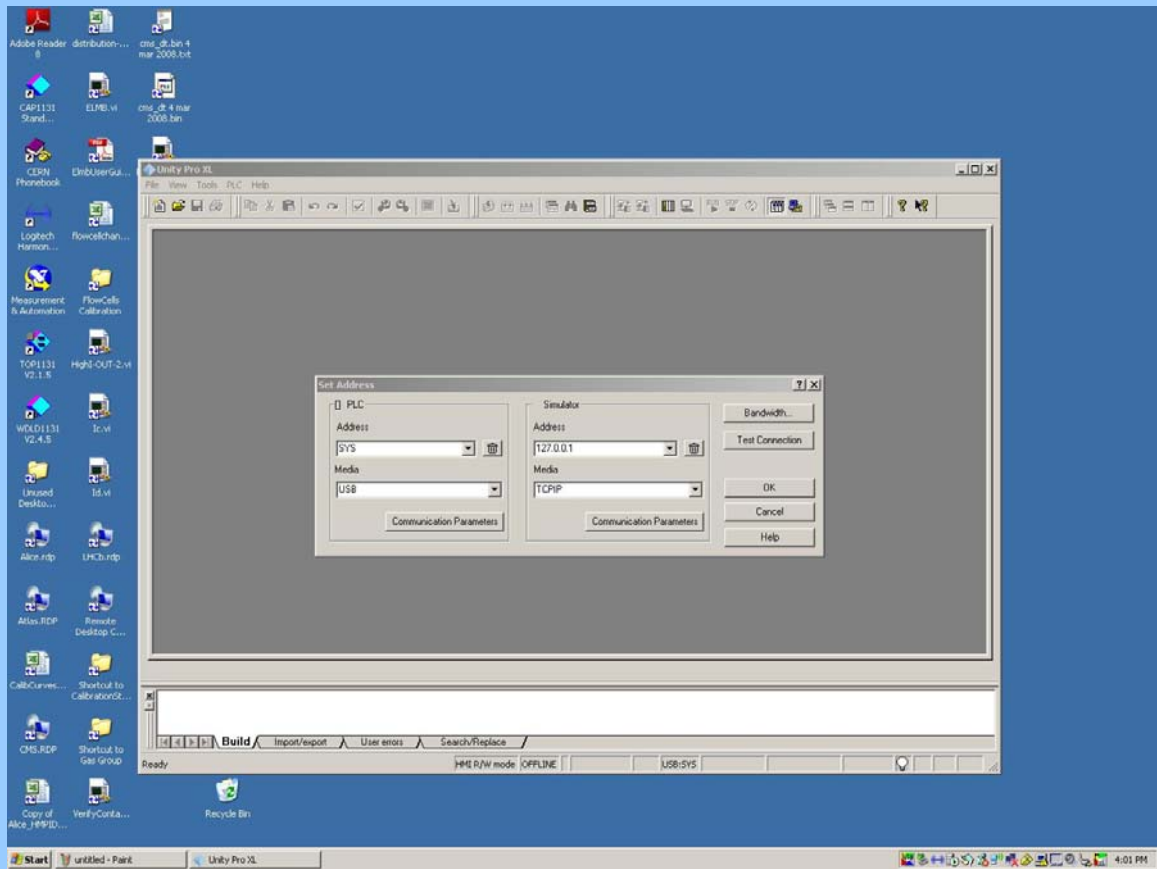
3. Open the Unity ProXL program from the start up/ programs menu. The following screen will then be displayed:



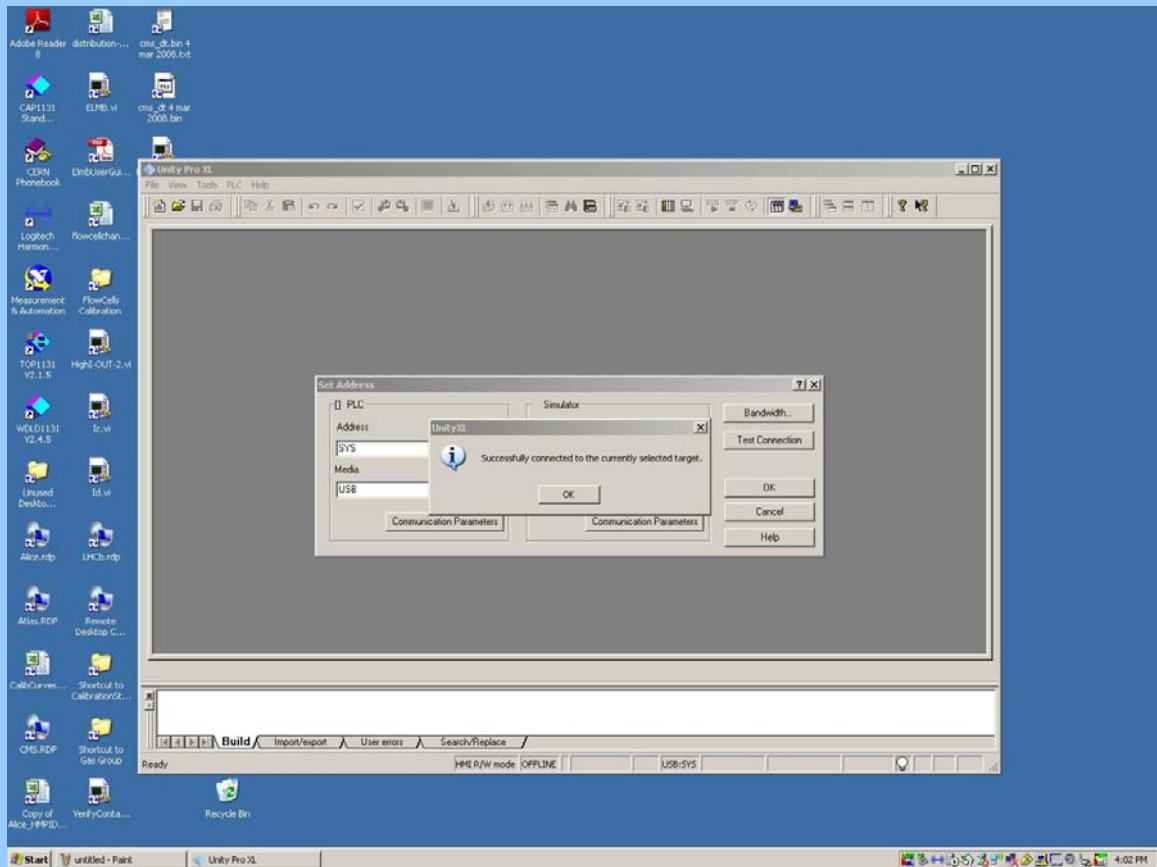
4. Select "file" from the top menu, then from the pull down menu that appears select open and then navigate to the application program file that was previously unzipped.



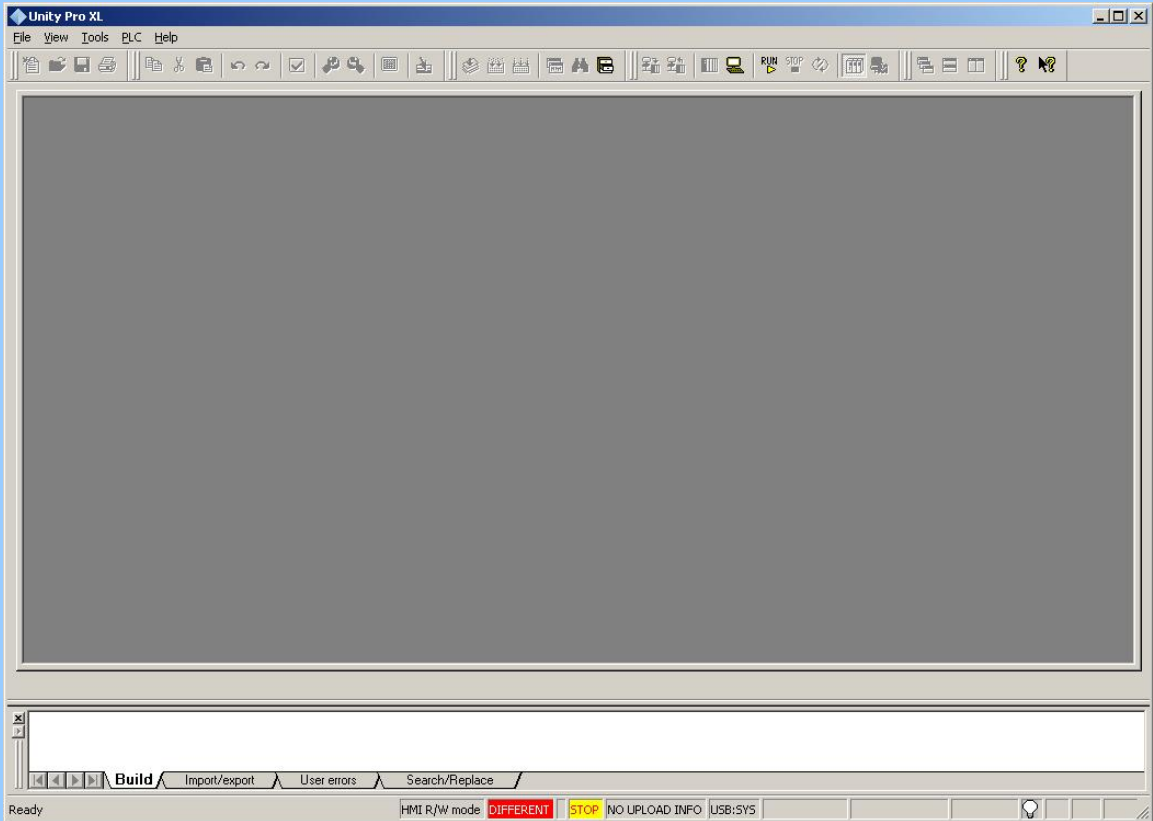
- From the top menu, select PLC and from the pull down menu select “Set Address”. Note the small square character next to PLC in the screen shot below indicating that we are connected to the PLC and not in simulation mode. Select “SYS” and “USB” as shown below.



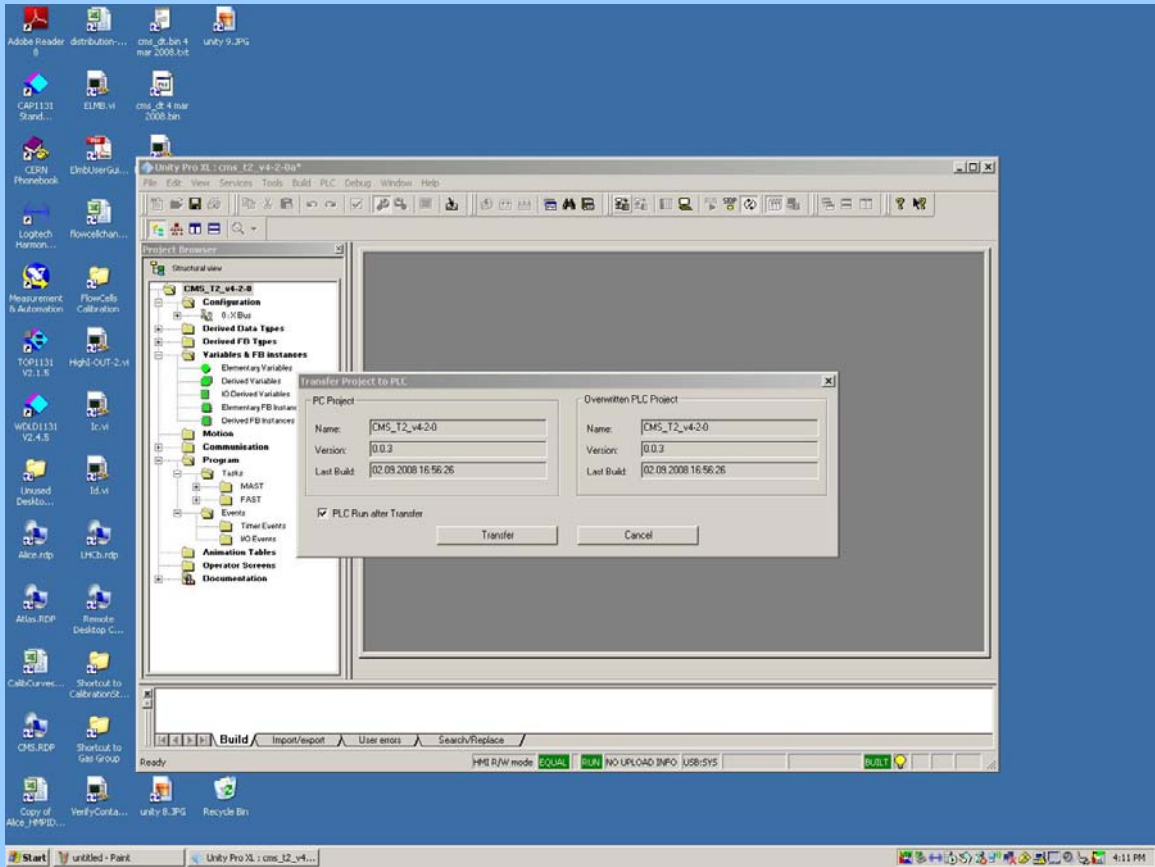
- Next select the “Test Connection“ button on the right of the panel (it may be necessary to try this 2 or 3 times as there seems to be a problem with the USB driver loading from time to time). It should tell you that you are successfully connected to the PLC (target).



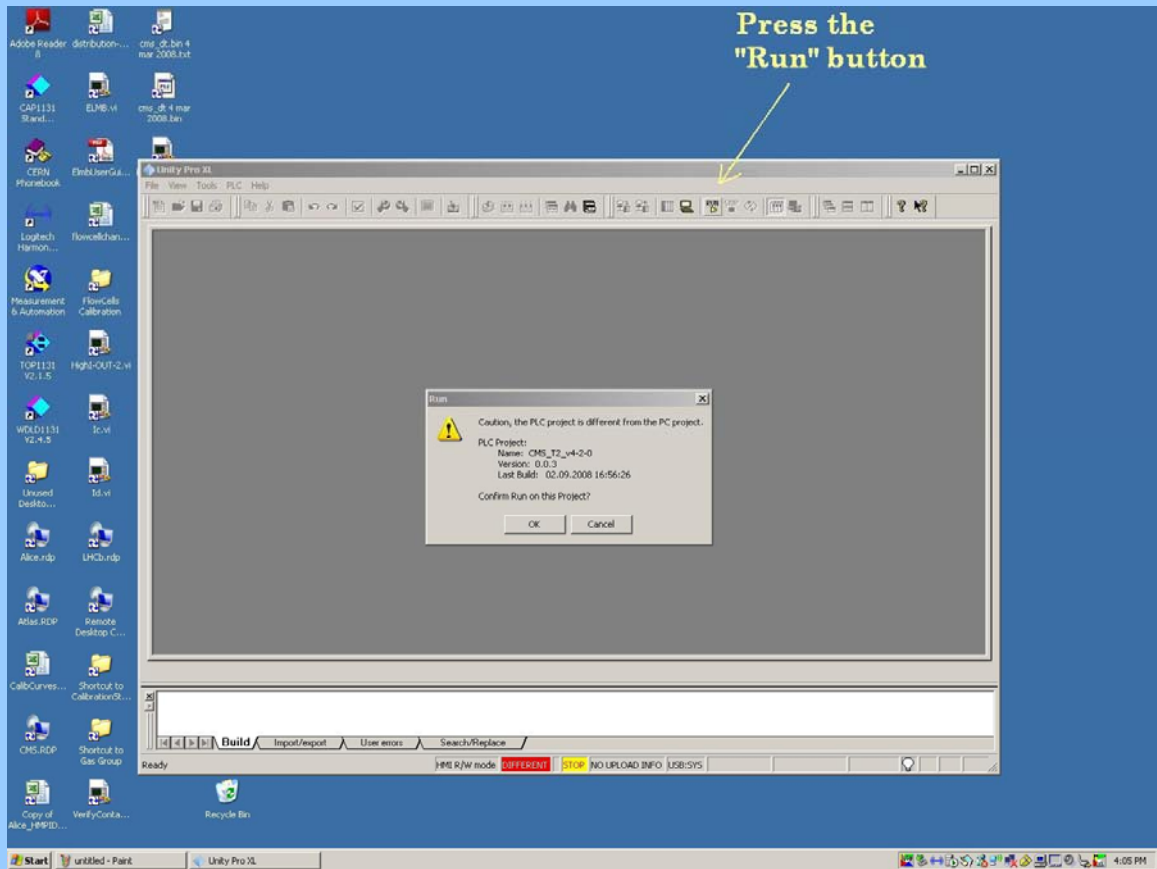
7. Assuming the previous step was successful, you can now close the “Set Address” window and select PLC/Connect. You should now see at the bottom of the screen the word “Different” highlighted in Red and “STOP” highlighted in yellow. The word “Different” indicates that the version of the program stored in the PLC is different to that which is currently loaded into the Unity environment stored in the laptop or missing from the PLC memory.



8. Select “PLC” from the top menu and from the pull down menu that appears select “Transfer program to PLC”.  
(N.B. In the screen shot below the program already existed on the PLC, hence the program status was “EQUAL” highlighted in green. If the PLC is currently empty or has an old version of the program loaded, the status will be “DIFFERENT” highlighted in red.)  
Select “Transfer”.



The screen below may be displayed if an older version of the program is already stored in the PLC. Press “OK”.



9. Once the program has finished loading into the PLC, select “PLC” from the top menu and “Run”. The “STOP” at the bottom of the screen should now change to “RUN” highlighted in green, indicating that the PLC is now running again, and the status “EQUAL” should now be indicated highlighted in green.