Q.uick Start Guide: How to prepare test.con Studio with a Q.gate and Q.pac Test Controllers

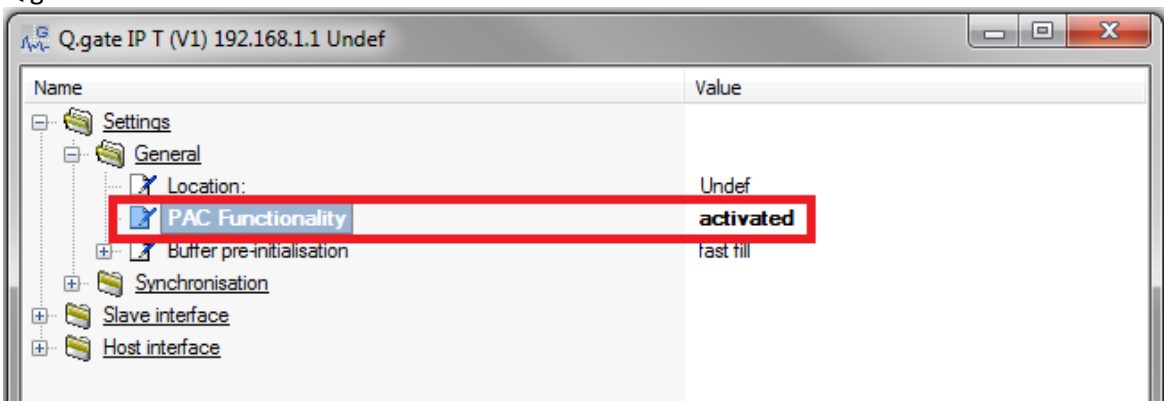
Purpose: This guide will describe how to setup a Q.gate and/or Q.pac controller using test.commander in order to configure a test.con Studio project.

Procedure:

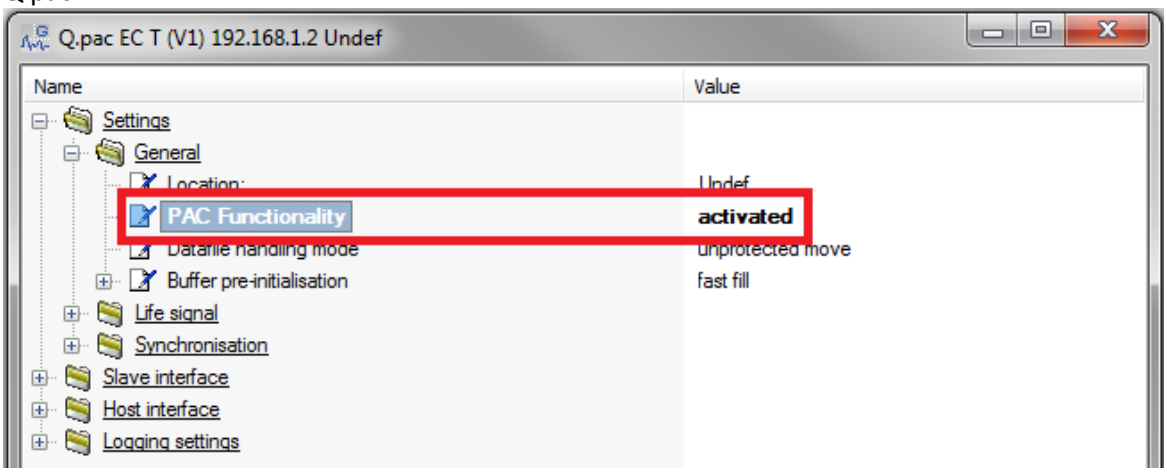
1. Configure the hardware (controller and measurement modules) using test.commander first

2. Make sure the PAC Functionality in the test controller is activated.

   Q.gate:



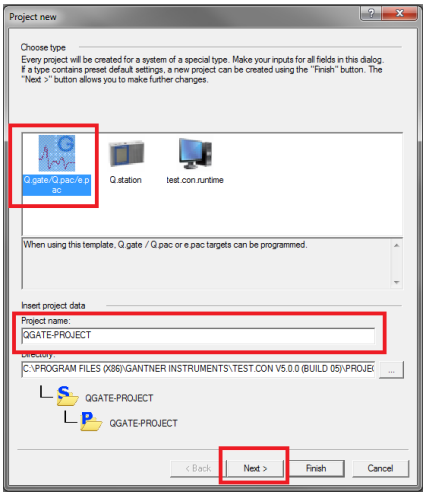
   Q.pac:



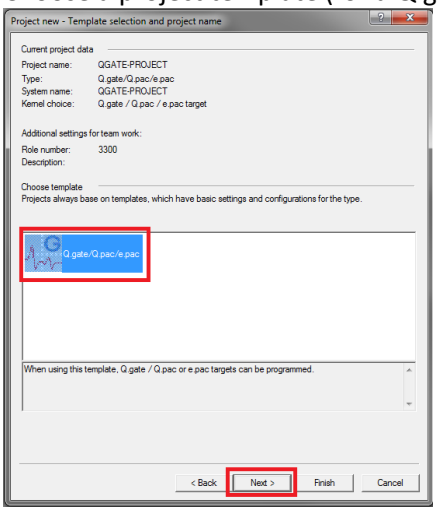
3. Open test.con Studio.

4. Project > New.

5. Give the project a name. Select the controller type. Click Next.



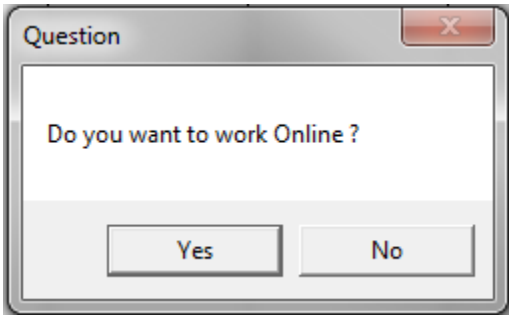
6. Choose a project template (for a Q.gate, Q.pac, or e.pac), there is only one option. Click Next.



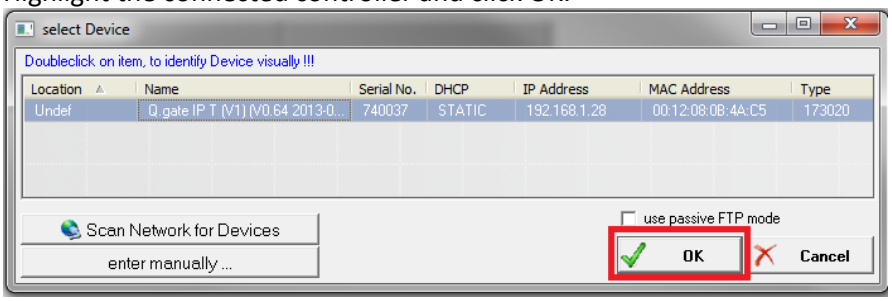
7. Click Finish.

8. Tools > Select Device.

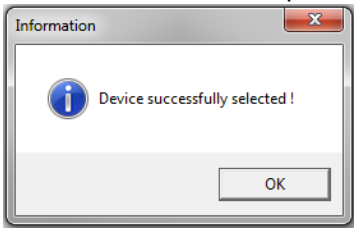
9. Select Yes to work online.



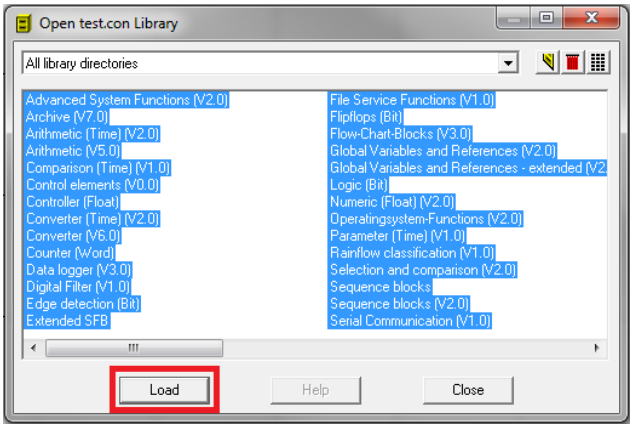
10. Highlight the connected controller and click OK.



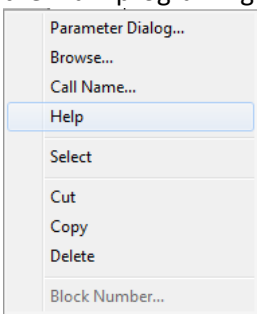
11. The software will attempt to connect to the controller and will confirm if successful. Click OK.



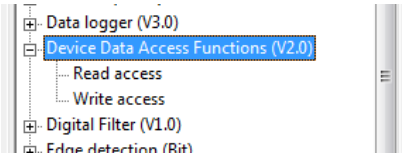
12. At this moment, create the test.con program using the function blocks in the various libraries. Make sure to load the complete directory of libraries: Project > Load Library. Select all the libraries and click Load.



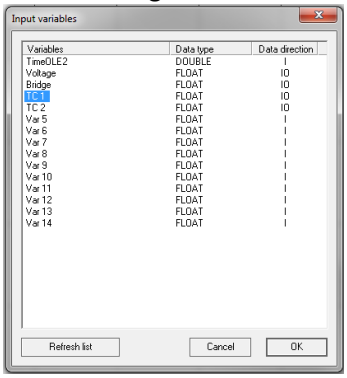
13. A help section is available for each function block. Drag the function block from the library to the main programing area. Right-click on the individual function block and select Help.



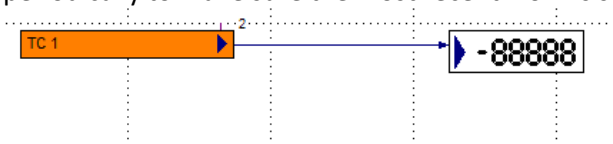
14. The main function blocks to consider are the Read access and Write access under the Device Data Access Functions section.



Drag the function block into the programing area. At this moment a window will appear to select which variable to read or write. Selecting a variable will assign it to the function block. The variable assigned to the function block can be modified at any time.

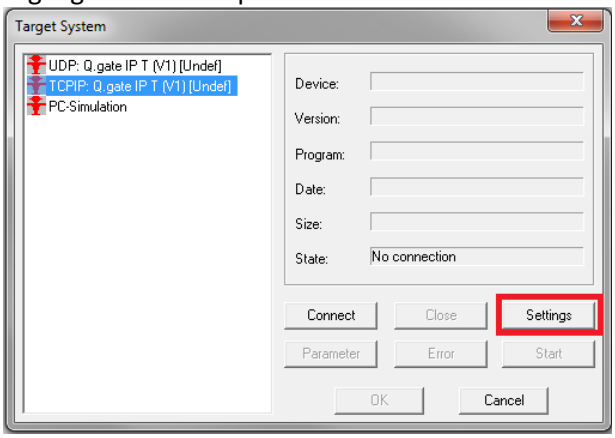


15. Program the rest of the application. Add arithmetic function blocks and visualization blocks. Use Macro & Program blocks to organized the entire project. We recommend saving the project periodically to make sure the most recent work is saved.

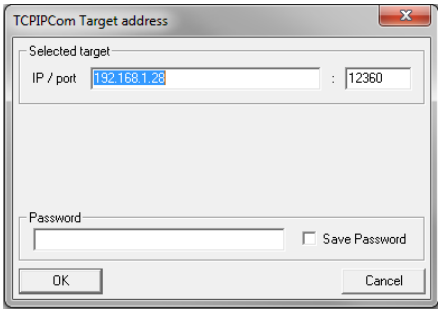


16. When the project is ready to be downloaded to the controller, select Run > Enter.
    Run > Logon to Target System

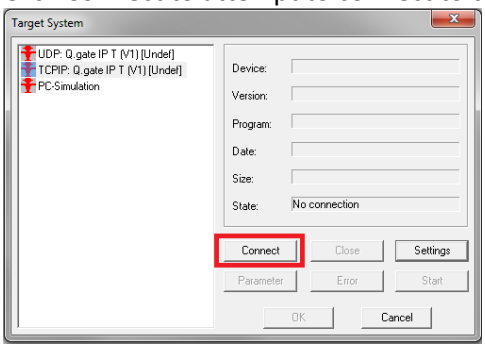
17. Highlight the TCPIP port of the controller and click on Settings.



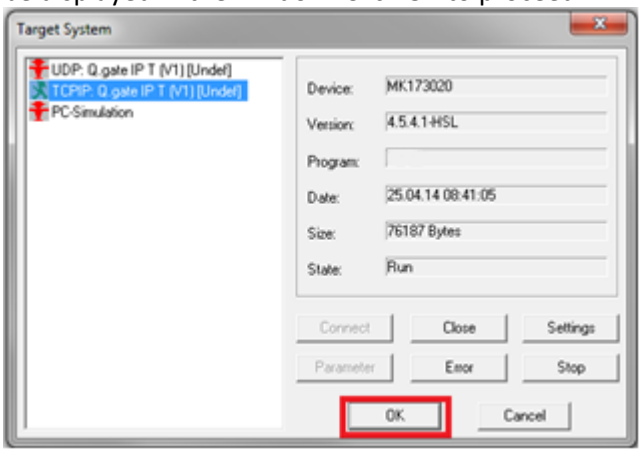
18. Enter the IP address of the controller and click OK.



19. Click Connect to attempt to connect to the controller.

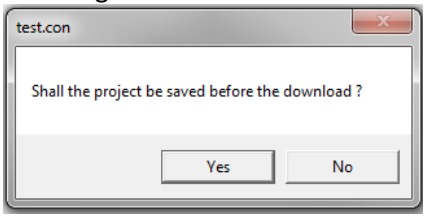


20. If successful, the red icon next to the TCPIP port will turn green and the device information will be displayed in the window. Click OK to proceed.



21. Run > Download

22. The software will ask if you would like to save the project before downloading. We recommend selecting Yes.



23. The project will then download to the controller.

24. The project will also run as long as the controller is powered on. The test.con programming environment can be turned off but the arithmetics and logic are still being executed.

25. To go back to the programming environment, select Run > Offline, Edit > Configuration. Make the necessary changes to the program and repeat the download process:

    a. Run > Enter
    b. Run > Download