

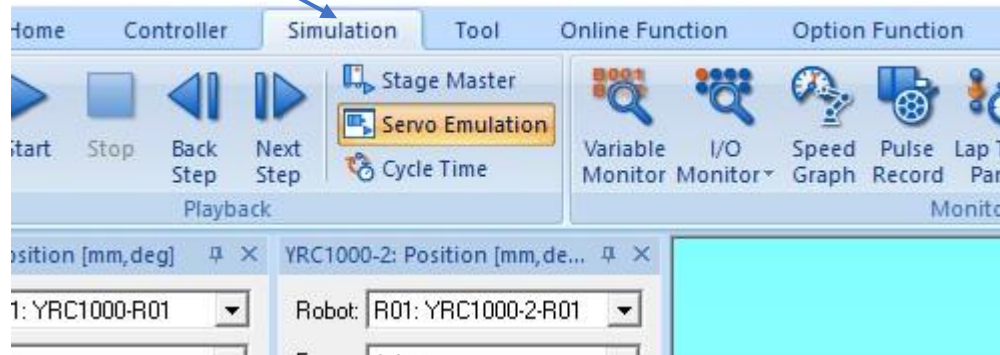
How to Connect the I/O Between Multiple Controllers in MotoSim

Introduction

This document will help walk you through setting up I/O points from one controller to another for hand shaking between them, when the controllers are not setup as follows. In a DR2C, TR3C or QR4C setup, all the I/O is handled within one controller and there is no way or need to handshake between controllers. In the case you do need separate controllers in a system, and need to handshake between them, then you will need to do the following:

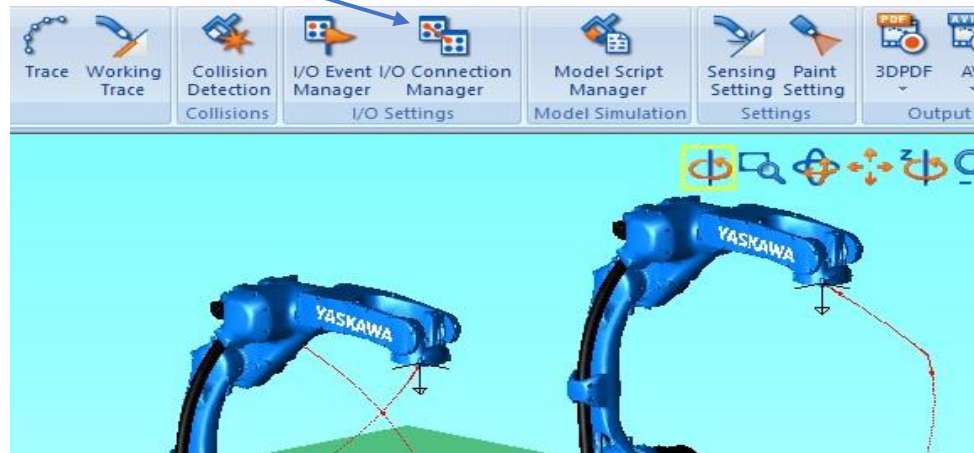
Assigning I/O to controllers

1. Go to the simulation tab as pictured below.

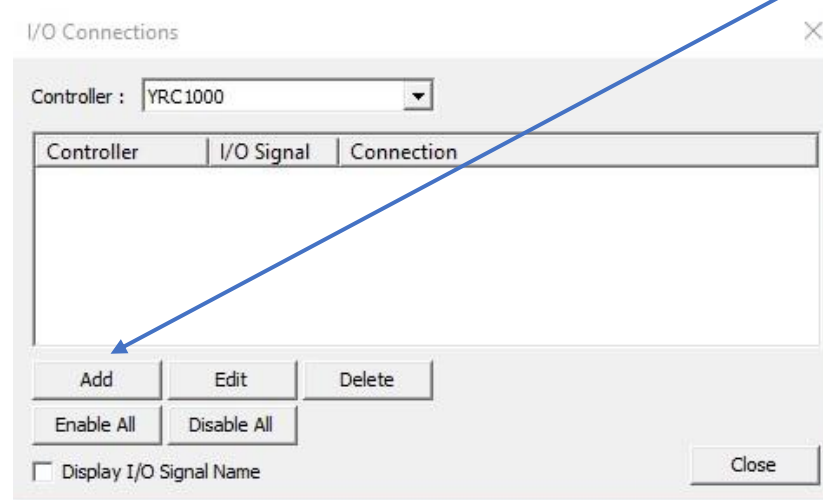


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2. Next, click on the I/O Connection Manager icon



3. After clicking on the connection manager, it will open the setup window, where you click the Add button.



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4. The add button will let you add the I/O connection for tying the output from one controller to another controllers' input.

I/O Connection Setting

Controller : YRC1000

Input : EXTERNAL START

Delay Timer
T = 0.00 Sec.

Oper.	(!	Controller	I/O Signal	I/O Name)
=					

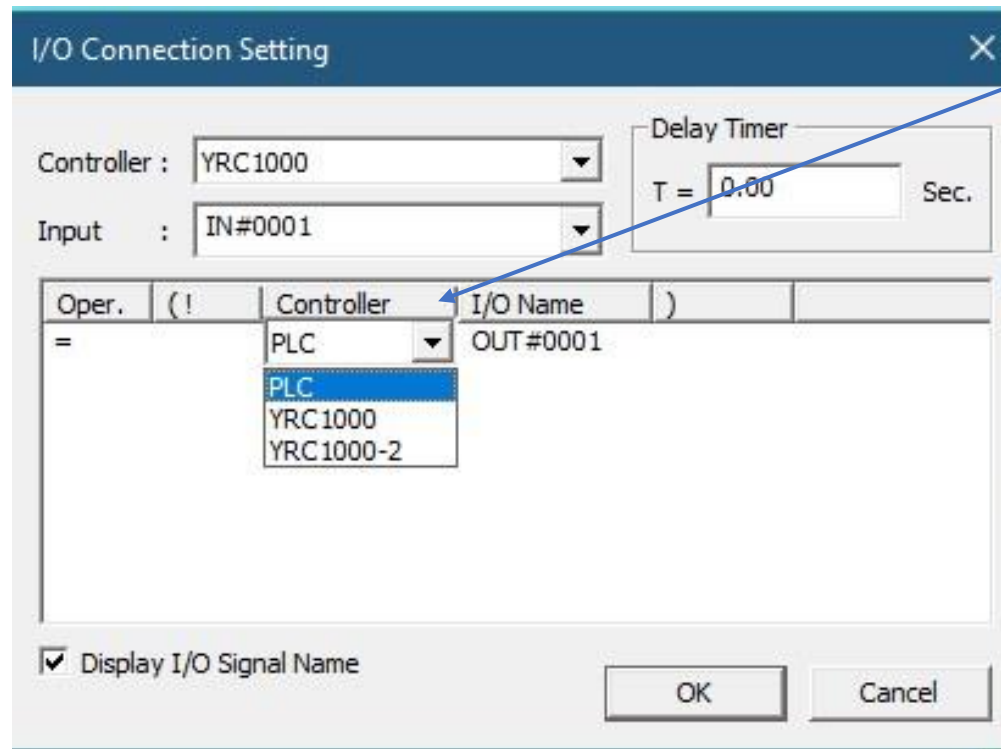
Display I/O Signal Name

OK Cancel

A. First, pick what controller you want to assign an input to
B. Then click on the input to assign

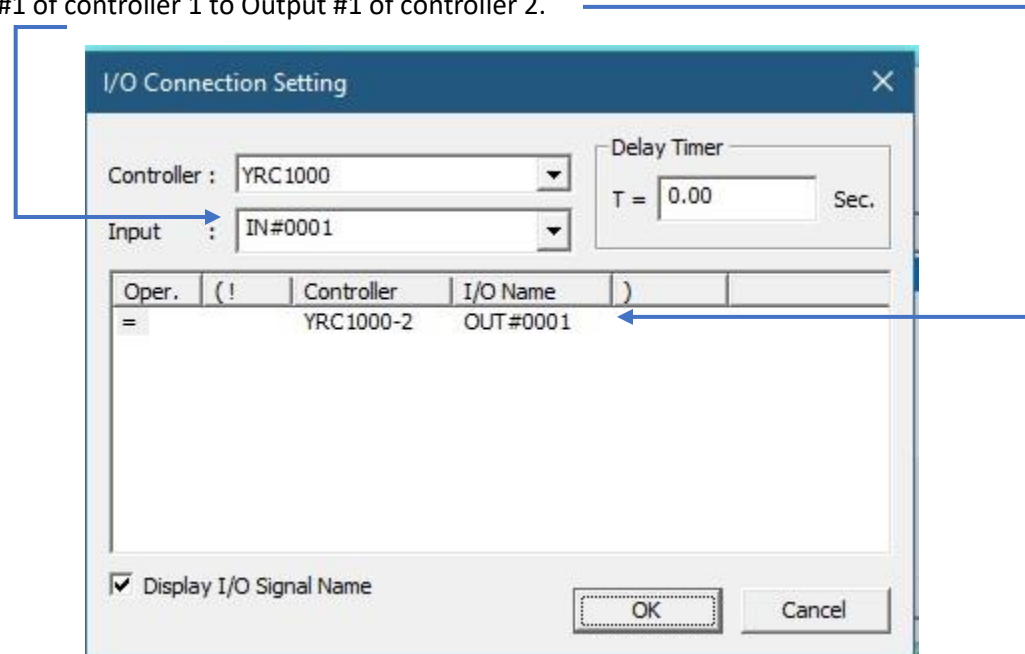
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- Next, click in the field as identified here, which will give you a pull down to pick what controller you are connecting to the above controller.



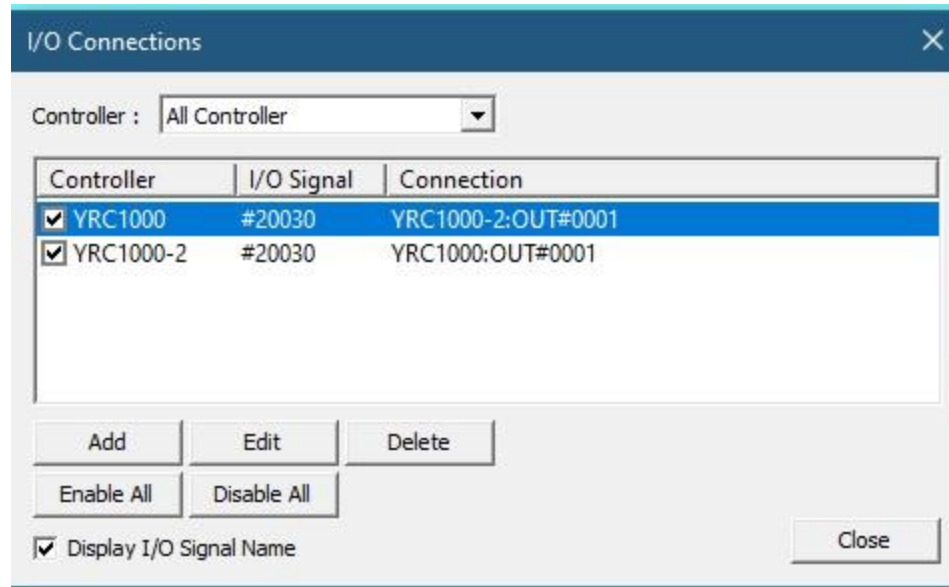
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6. In this case, we are connecting the input #1 of controller 1 to Output #1 of controller 2.



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- Repeat the process to go from controller 2, output #1 to controller 1's input #1.



- You can assign any available I/O point to either controller for control. I used #1 for example only.

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- When programming, you can use the WAIT command, to wait for an input from the other controller.



- Use the DOUT command for the other controller to wait or continue moving when needed.
 - The same commands would be used on the other controller to communicate back to this controller.
 - These are just examples, and you can use whatever free I/O you have to setup for this.