



Software support note: Establishing connection between host computer and the 6K4 motion control system.

As suggested by the number of components this system can become confusing and requires a mastery of some simple basic relationships between the components. The following block diagram shows the flow of information between the parts of the system.

The steps to set up communication are:

- 1. Set the Ethernet Adaptor IP 3 (IPv4) to 10.0.0.100
- 2. Set the Mask to 155.155.155.0
- 3. Find the SixKWiz wizard in the ESCA hawk 7 folder or in the Windows start
- 4. window. The Icon is a stick with a Gold Star at the top.
- 5. Open the wizard.
- 6. Unplug the Ethernet cable from the 6K4 controller to at the back of the computer.
- 7. Select next until you reach the window that allows you to select the RS232 Com 8. port. Start with port 1. Select next.
- 9. If the Wizard find the 6K4 you will get two sets of Ethernet parameters. The
- 10. values stored in the registry and the ones from the 6K4. They should match. If
- 11. they don't allow the Wizard to create a match.
- 12. 6. If you get an error close the wizard and start over. This time select the Com Port
- 13. Select next. This should work. If you still get a message that the connection
- 14. failed, check the RS232 cable connections at both ends. Check that the 6K4
- 15. power is on. Turn on if not. If it is on turn the 6K4 power off for 30 seconds and
- 16. then back on. The power switch is near the bottom of the panel. It is a black
- 17. rocker switch with a light.
- 18. 7. Retry both Com ports. When you get a valid Com Port result, Plug in the
- 19. Ethernet cable and proceed NEXT. If you get no message in the error description
- 20. box click on the Ping button above the error description box. If you get a PING
- 21. received message proceed NEXT. Then close the SixKWiz wizard.
- 22. Find the icon with snoopy. This is the Joystick setup icon. When you click it you should see a timer count to 1, 2 or 3 and then go away and you will find the snoopy icon in the hidden icon try at the bottom right of the screen. He can have a green, yellow or red face.

- a. Green-Snoopy has control of the XYZR stage.
- b. Yellow Snoopy is waiting for a programed motion to complete
- c. Red-Snoopy has been disabled
- 23. If you right click the mouse, snoopy you will get a menu setting for snoopy.
- 24. Open the ESCA hawk EU program you will find the menu item Motion Control Panel at the bottom of the View Menu list. This will give you a read out of your position and controls to move the stage. If should have a manual on using this control and also how to program a list of positions and associate recipes with each position.
- 25. You now have the Ethernet connection established

This block diagram shows the interconnections and will be useful in trouble shooting problems.

Joystick Model RS Software: "Snoopy" - joystick setup Interface: USB 2. auto install win 7			
6K4 to computer communication SixKWiz - extablish Ethernet connection RS232 interface used to setup Ethernet address and Mac address for 6K4. SixKWiz then opens Ethernet connection Motion control to automate sample position during data collection is provide through Motion Control Panel and PTM position table builder. Both are part of EU Capture.	Host computer Ethernet Adaptor must have fixed address 10.0.0.100 Mask 255.255.255.0 RS232 Com port must be port 1 or port 2 SixKWiz.exe and Joystick setup.exe must have compatability setting: XP, service pack 3.		
		RS232 com 1 or com2	Ethernet
	6K4 Motion Controller Ethernet address 10.0.0.1 Mac address will be assigned 4 Axis controller. Note: It is necessary to turn the 6K4 off for 30 seconds and then back on affter update or change of interface settings.		