Using separate stage drivers for x-y and z motion

SimFCS allows using two separate units for the motion along z and for the normal stage driver xy.

To test the system, in the open SimFCS screen in the Tools menu go to “COM Port test”.

You should see something like the image below

![Image of SimFCS screen]

Use the initialize port tab to Initialize the correct port for the x-y stage and then send commands that are proper for moving the stage to verify that the port is working and the command are accepted by the driver.

Then use the tab for the z-scanner. The page will look the same, but data will be stored in a different memory for this driver. So the procedure is the same: initialize the proper com port, send a string so that you can verify that the port is active and receiving the commands.

Then go back to the SimFCS screen. In the set-parameter menu entry press the tab for Stage. You will see a page like the following
Enter the proper selector for the type of stage driver and the proper COM port and motor step. Note that these entries are in red. If you want to store these entries permanently so that they will be automatically used by SimFCS you must set the proper checkmark in the Hardware tab and exit the program to save these changes. This is done only once.

When the program restarts, these entries will be used to initialize the COM ports if available.

Finally in the Scanner tab, you must enter the proper string commands for the two different stages as shown below

Please, don’t copy the commands from this screen, but consult the manual of your stage for the proper commands. The symbol %d means the software will enter a numerical value in these fields. Note also that these commands are in red. They need to be store permanently so that you can reuse.

Note also that in this screen there is a field called Z Stepper motor factor. This field must be identical to the field found in the stage tab for the z-stage.

Also note that in the instruments with one single stage for the xy and z, you must now enter pretend that there are two stages. Simply enter the same com port for both stages.