

Stage Cyclcr

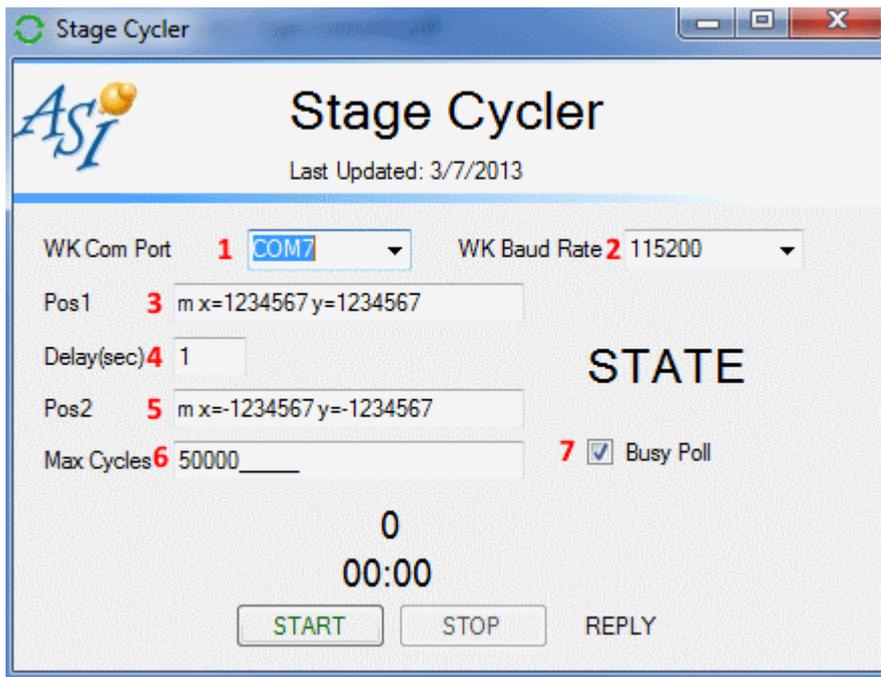


Fig 1

Stage cyclcr is a .net framework based app developed inhouse by ASI for Stage QC and testing. The program lets user send two serial commands Pos1 [3] and Pos2[3] repeatedly with a set delay in seconds using Delay (sec) [4] or poll the controller for a not busy state with the Busy Poll [7] check box, or both. The app can do this indefinitely or for a set number of cycles specified with the Max Cycles [6] field.

This program works with MS2000, RM2000 and TG-1000 controllers.

Example

With the settings in Fig 1 , the app will move the XY axis by 123.45mm in positive direction. Usually the stage will encounter the upper limit. As the stage is travelling the App will do a busy poll ie query the controller with **Command:STATUS** until the controller return a **N** which indicates not busy and stage has finished the Pos1 command. Because the Delay (sec) field is set to **1** , the app waits 1 second before it issues command in Pos2 field. Which makes the controller move the XY axis opposite direction to -123.45mm position. And begins the Busy Poll check again. Then repeats the cycle.

Because the Max Cycles field is set to **50000** , the app does this 50,000 times before stopping.

Controls Explained

1. WK Com Port , pick the serial comm port the ASI controller is assigned to.
2. WK baud Rate, pick the controllers baud rate. MS2000 and RM2000 default baud rate is 9600. TG1000 has a fixed baud rate of 115200
3. Pos1 , first serial command that will get sent.

4. Delay(sec) , delay in seconds before the Pos2 command is sent. if Busy Poll is checked , the does a busy poll first.
5. Pos2 , the second command that will get sent.
6. Max Cycles, total number of times the command Pos1 and Pos2 will get sent. To have the app run indefinitely , set this field to **0**.
7. Busy Poll , when check the app polls the controller with **Command:STATUS** until the controller return a **N** which indicates not busy.
8. The two numbers, indicate the time the app has been cycling, and total number of cycles performed so far.
9. START and STOP , self explanatory , they start or stop the cycling app.

For Cycling a lot of Axis

On systems where we are cycling a lot of axis, with commands like M X=1234567 Y=1234567... . =1234567 , the controller chokes on the huge string. Use **Command:Unit Multiplier** to change the units to mm instead of 1/10 microns. Then shorter commands like M X=999 Y=999... . =999 can be used, to get around the max command length issue.

[software](#)

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