## **S600 Motion Tasking Example**

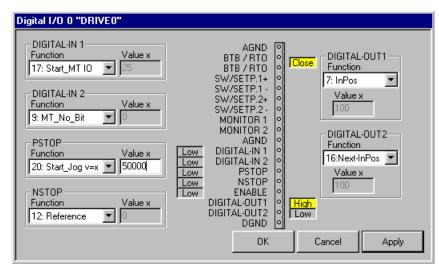
Using ServoStar 600 demo unit

- Start the communication program
- The first window is

S Amplifier 3 "DRIVE3"
OPMODE       PROFIBUS       Torque       8: Position Motion Tasks
Analog I/O - Current
← Digital I/O Speed
ROD/SSI/Encoder Feedback Motor
Servo Drive Configuration Status = OK ENABLED Disable (F12) Enable (Shift+F12) Exit
• Disable the drive (if it is enabled) • Set the <b>OPMODE</b> to mode 8: Position Motion Tasks
• Set the OF MODE to mode 0. Tostiton Motion Tasks

• Open the

**Digital I/O** window and feed the program with the shown data. Not required if commands are giving from the serial port.



- Apply
- Save to EEPROM & Reset Amplifier ? YES
- Restart the software again
- Disable the drive again (if it is enabled )

Open the **Position** window and feed the program with the shown data.

S Position 3 "DRIVE3"	1 0	
	FiFector Setpoint . Speed	Homing Position Data Gearing
m/s/mm max Following Error 262144 deg.		Mode Position, PI Speed Position, P Speed Position Feedback Standard Feedback External (ROD/SSI) ter Position Control OK Cancel Apply

- Press Apply and OK
- Open the **Homing** window and feed the program with the shown data.

5. Homing 3 "DRIVE3"	X
Reference Traverse	Direction of Motion
Acc. Ramp Dec. Ramp	Offset 0 deg.
- Jog Mode 	
F4  60 rpm	Cancel Apply

• Press Apply and OK

Change to the Position data window and put in the shown values

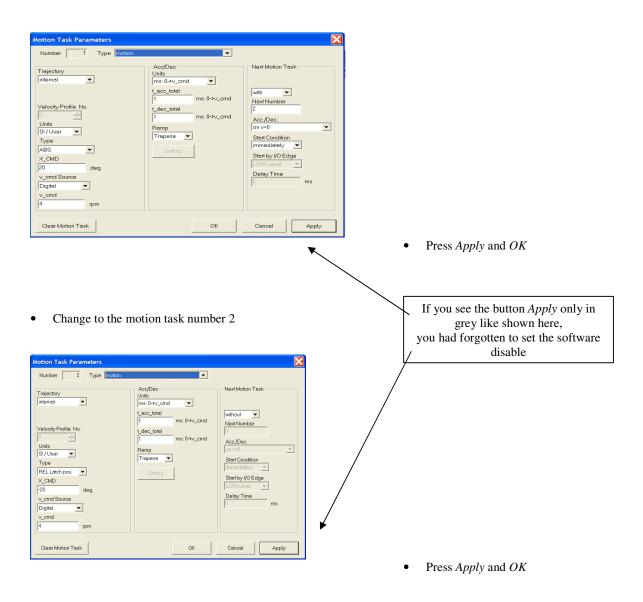
Motion Task  Stop  I  Motion Task Table	
Limit Switch / Position Threshold       Axis Type       tacc/dec min         Position Register       Position       10       ms: 0>v_max         1:       Inactive       0       InPosition       v max         2:       Inactive       0       d000       deg,       60       rpm         3:       Inactive       0       modulo start pos.       modulo end pos.       10239999       deg.       10239999	
Task 1     Task 2       Resolution =     360       Image: Control of the second seco	

- Click on this arrow to select the motion task input table.
- Selecting the Motion Task no.

20 4 -20 4			1	0				
	8199							
	8192							
-20 4	8192	1	1	0	0	0	0	
								Ì
	-20 4					Image: sector	Image: sector	Image: sector of the sector

• Double click on the Motion Task no. to open it

• put in the shown values



- Save the data to EEPROM
- Reset the drive
  - first window (see page 1) button STATUS = ... and then button RESET and YES
- Restart the program
- Set the digital I/O's to low level
- Enable the drive (hardware and software)
- Control the drive by the digital IO

DIGITAL-IN 1	DIGITAL-IN 2	PSTOP	NSTOP	comment
17: Start_MT IO	9: MT_No_Bit	20 Start_Jog $v = x$	12: Reference	Function of this dig.IO
High	Low	Low	Low	Start Reference Traverse (=Motion Task
				with the No. 0)
High	Low	Low	High	Activate the Home Switch, now the motor
				will stop and the reference point is set.
Low	Low	Low	Low	
Low	High	Low	Low	Set Motion Task No. 1 (2^0)

High	High	Low	Low	Start Motion Task No. 1				
The motor runs from position 0 to 4000 µm (4 resolutions) with 5000 µm/s (300rpm), decelerates to zero, has a brake								
from 1 second and starts Motion Task 2. It turns anticlockwise back to position 250 µm with 125 µm/s (7.5 rpm).								
	The DIGOUT 1 (INPOS) is low, if the actual position is outside the In_Position window range.							
The DIGOUT	The DIGOUT 2 (Next-INPOS) is low, while Motion Task 1 is active and high after the start of Task 2							
Low	Low	Low	Low					
Low	Low	High	Low	Start Jog with 50000 µm/s (3000rpm)				
After using the Jog command the motor will go to the defined position from motion task 1, if you start this motion task.								

- Operating the S600 in Serial Positioning from serial commands
- MH (serial command to start homing)
- Motion task higher than 192 can be changed without rebooting by coldstarting the drive information is saved in the RAM, below 192 are saved in the Eeprom.
- Move is the serial command that starts a move from the motion task table . Example (Move 1) Starts Motion Task no. 1
- What is an Order?
- An Order is the serial command for the Motion Task . The Order below has the same information as in the Motion Task table below.
- ORDER 1 20 4 8200 1 1 0 0 2 0

Motion Task Parameters		
Number 1 Type motion Trajectory internal  Velocity Profile No. Units SI/User  Type ABS CMD 20 cond Source Digital Type 4 from from from from from from from from	Acc/Dec Units     Ins:0→v_cmd	
Clear Motion Task	OK Cancel	Apply

ORDER 1 20 4 8200 1 1 0 0 2 0