Command:RDSBYTE (RB)

MS2000 or RM2000 syntax

Shortcut	RB
Format	RDSBYTE [axis] = [status_byte]...

Tiger syntax

Shortcut	RB
Format	RDSBYTE [axis] = [status_byte]...
Type	Axis-Specific

Requests the TG-1000 and MS-2000 to respond with the Status Byte.

The number is one byte, which can be broken down into 8 bits that represent the following internal flags:

Bit 0	0 = No commanded move is in progress. 1 = A commanded move is in progress. This bit is synonymous with the STATUS command. If the bit is set, then STATUS returns B, otherwise STATUS returns N.
Bit 1	0 = The axis is disabled. 1 = The axis is enabled. Axes can be re-enabled using one of the following: High Level command `MC <axis>+`, cycles the clutch switch for the Z-axis, Low Level Start Motor command (hex 47), or a system reset.
Bit 2	0 = Motor is inactive (off) 1 = Motor is active (on).
Bit 3	0 = Joystick/Knob disabled 1 = Joystick/Knob enabled
Bit 4	0 = Motor not ramping 1 = Motor ramping
Bit 5	0 = Ramping down 1 = Ramping up
Bit 6	Upper Limit Switch: 0 = Open 1 = Closed
Bit 7	Lower Limit Switch: 0 = Open 1 = Closed

Reply

:<byte as hexadecimal>

Example

```
RB X
:<0x8A>
RB X Y
:<0x8A><0x0A>
RB X Y Z
:<0x8A><0x0A><0x0A>
```

The X-axis example value of `0x8A` means the following:
Bit7: 1 - X Axis is at its lower limit
Bit6: 0 - X Axis upper limit switch open
Bit5: 0 - Ramping down, if ramping
Bit4: 0 - Motor not ramping
Bit3: 1 - Joystick/Knob is enabled
Bit2: 0 - Motor power is off
Bit1: 1 - X Axis is enabled
Bit0: 0 - No commanded move is in progress

Note: Motor power can be on while a commanded move is not in progress and the stage appears not to be moving. This happens when the motor is either making a final adjustment to a commanded move or when it is applying a force to maintain the stage position.

commands, tiger, ms2000

From:
https://docs.asiimaging.com/ - **Applied Scientific Instrumentation**

Permanent link:
https://docs.asiimaging.com/commands/rdsbyte?rev=1718736629

Last update: **2024/06/18 14:50**