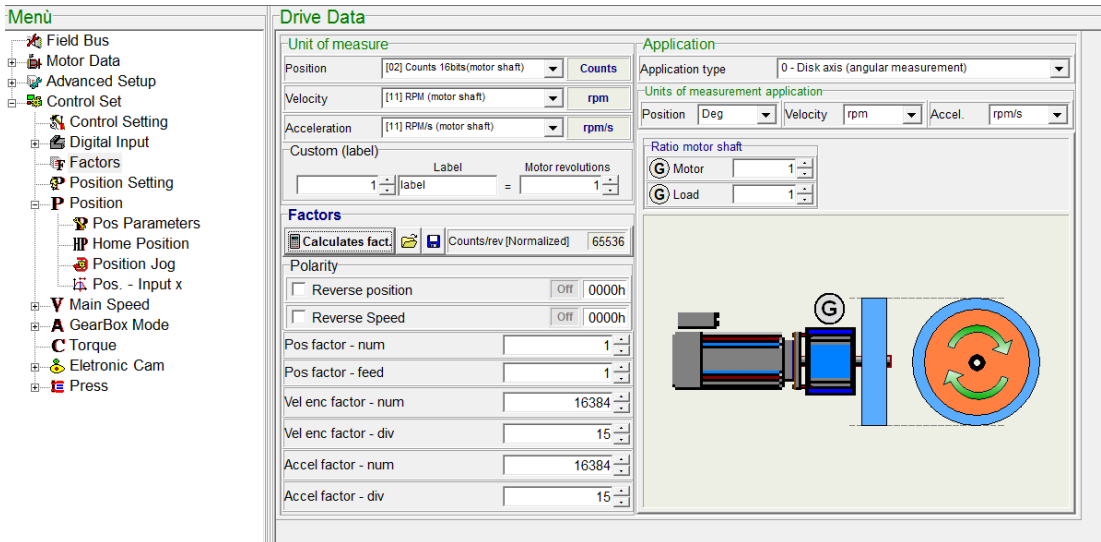




Date: 03/28/2020, Saturday
Subject: Jerk 在速度模式及位置模式的設定方式

工作流程:

1. Ramp 的加減速單位為: RPM/s
2. Jerk 的加加速單位為: RPM/s²
3. 下面 Factor 設定後:
 position 的單位是 count
 速度的單位為: RPM
 Ramp 的加減速單位為: RPM/s
 Jerk 的加加速單位為: RPM/s²



下面 Factor 設定後:
position 的單位是 degree

Menù

- Field Bus
- Motor Data
- Advanced Setup
- Control Set
 - Control Setting
 - Digital Input
 - Factors
 - Position Setting
 - Position
 - Pos Parameters
 - Home Position
 - Position Jog
 - Pos. - Input x
 - Main Speed
 - GearBox Mode
 - Torque
 - Electronic Cam
 - Press

Drive Data

Unit of measure

Position: [07] Degee (motor shaft) **Deg**

Velocity: [11] RPM (motor shaft) **rpm**

Acceleration: [11] RPM/s (motor shaft) **rpm/s**

Custom (label): 1 [label] = Motor revolutions 1

Factors

Calculates fact: Counts/rev [Normalized] 65536

Polarity

Reverse position: Off 0000h

Reverse Speed: Off 0000h

Pos factor - num: 8192

Pos factor - feed: 45

Vel enc factor - num: 16384

Vel enc factor - div: 15

Accel factor - num: 16384

Accel factor - div: 15

Application

Application type: 0 - Disk axis (angular measurement)

Units of measurement application

Position: Deg Velocity: rpm Accel: rpm/s

Ratio motor shaft

Motor: 1

Load: 1

小楊 position table

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Drive Data

Position

Pos. management: Pos-Tab cyclic

Pos-Tab cyclic

Maximum Speed: 3000 Selection index: ---

Pos. actual value: --- Pos number: ---

Cyclic Positions

Mode: Automatic 0001h Max cycles: 1

Cycle: Cyclic 0001h Index: 2

N?	Position	Velocity	Accel.	Decel.	Time	Abso./Rela	Vel. mode
①	0	1000	10000	10000	1000	Absolute	Tab-rec data
②	1800	1000	10000	10000	1000	Absolute	Tab-rec data
③	0	1000	10000	10000	0	Absolute	Tab-rec data

位置模式下, Position → Pos Parameters → Profile Type 設定[0] Profile "S"

Mode rounding → Jerk

Jerk = 10000

Menù

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 - Press

Drive Data

Position Parameters

Position Par. | Positions Set.

Profile Type: [0] Profile "S"

Arrotondamento

Mode rounding: Jerk 0000h

Jerk: 10000

Time [ms]: 100

Position limits

Max limit pos.: 2147483647

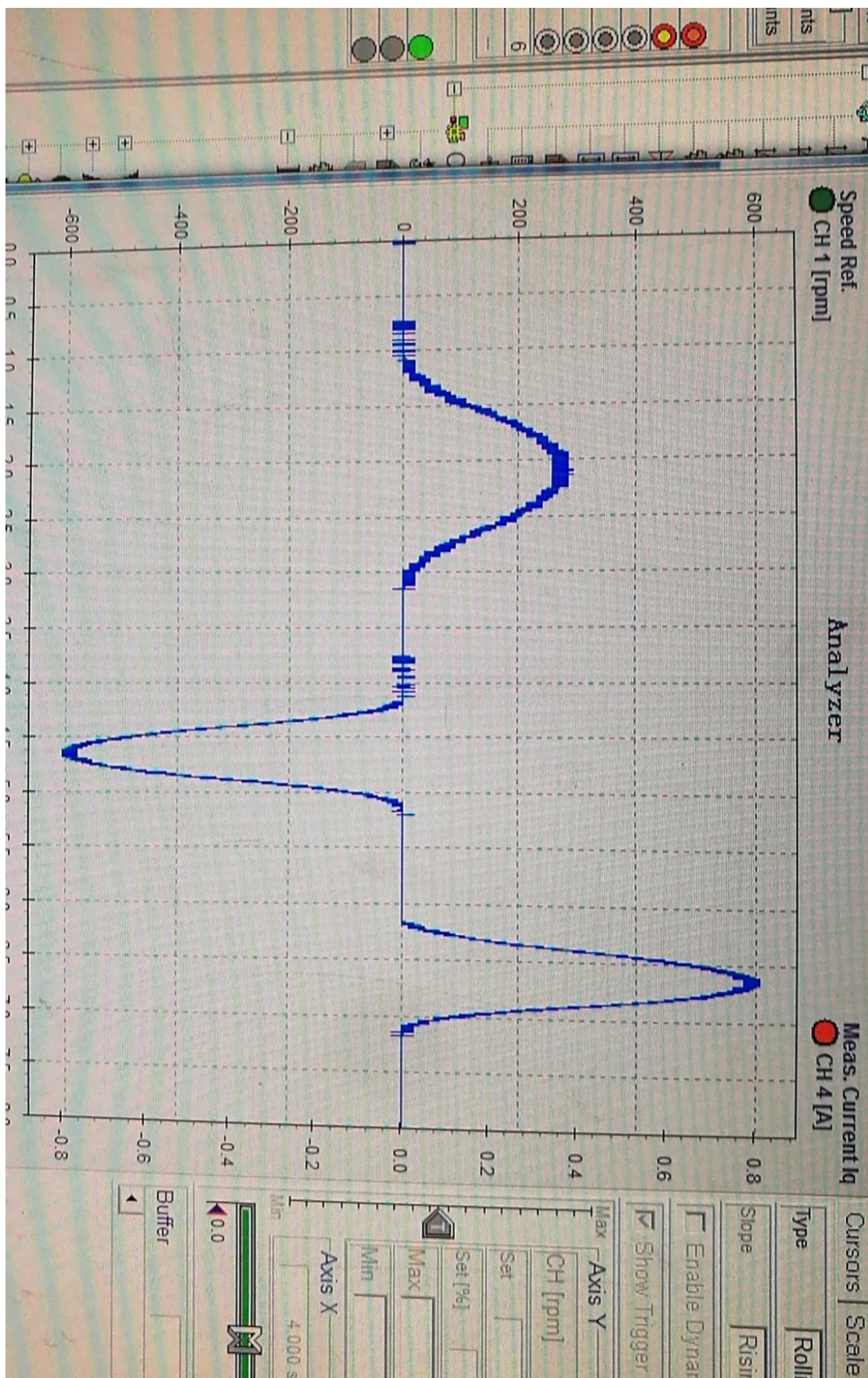
Min limit pos.: -2147483648

Enable limits pos.: Off 0000h

Enable Pos-Torque limit: Off 0000h

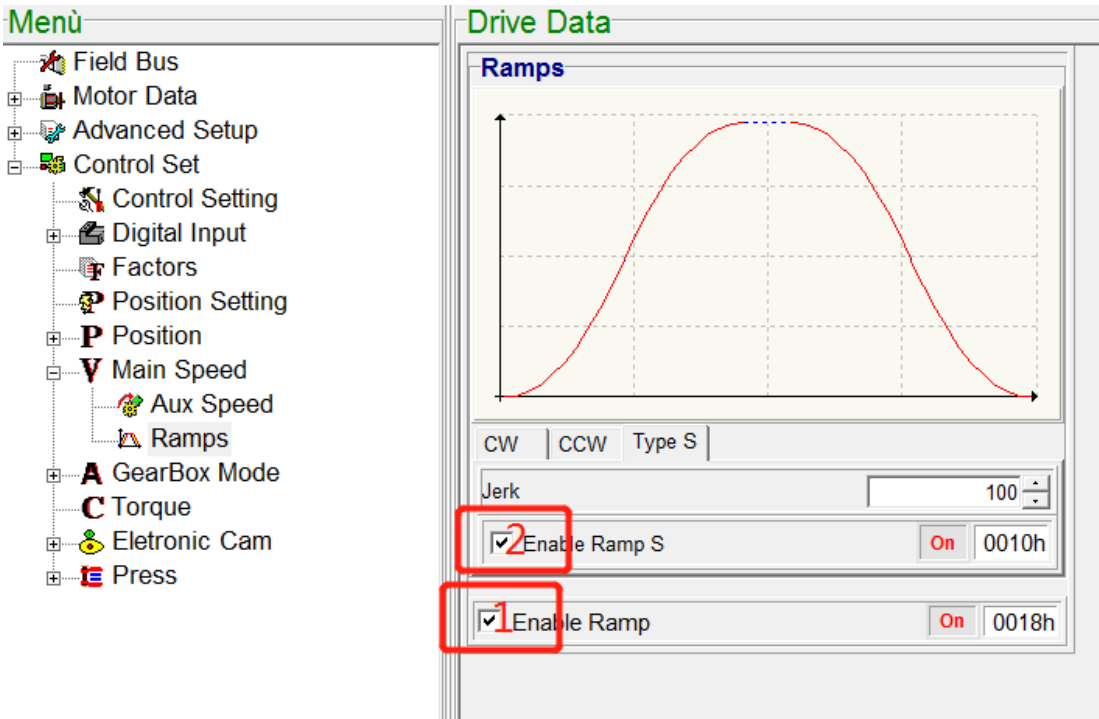
Home Offset: 0

這是 jerk 設 1000 和 10000 的曲線



在速度模式, 設定如下:

這兩個都要啟動



PS: After ramps enabling, acceleration and deceleration values must be set, as RPM/s, both clockwise (CW) that counterclockwise (CCW): so, knowing TRAMP-V time to reach NRPM-V operating speed, acceleration and deceleration parameters (RAMP-V) are provided by following formula:

$$RAMP-V = \frac{N_{RPM-V}}{T_{RAMP-V}} \left[\frac{RPM}{s} \right]$$

Another ramp type supported by drive is the S ramp (Type S) that, besides just described parameters, uses a further parameter called JERK (RPM/s²); this last parameter, also called smooth factor, introduces another ramp coefficient related to acceleration and deceleration profile, and lets drive to smooth speed profile around reference change; knowing TRAMP-A time to reach RAMP-V parameter, acceleration and deceleration ramps (JERK or smooth factor) are provided by following formula:

$$JERK = \frac{RAMP.V}{T_{RAMP.A}} \left[\frac{RPM}{s^2} \right]$$

以下空白



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