

M

100

	M		M100 M200 M300 M500 M500S		
	-				-
					2025-08-4
M	Sysctrl Studio 2.4 M100 M200 M300 M500 M500S HCMXB-CAN-BD HCMXB-RTC-BD HCMXB-2RS232-BD HCMXB-2RS485-BD				
M					
2025-8-4		V1.0			

	.....	1
1.	100	1
2.	RS485 ?.....	1
3.	ASCII RTU	1
4.	E610 CAN 603F	2
5.	RS485	2
6.	.....	2
7.	TCP 502 5020	3
8.	Modbus TCP	3
9.	Socket	4
10.	485	5
11.	E600 485	6
12.	.....	6
13.	ModbusTCP M	6
14.	.....	6
	.....	7
1.	.....	7
2.	.....	7
3.	.....	7
4.	.....	8
5.	Q	8

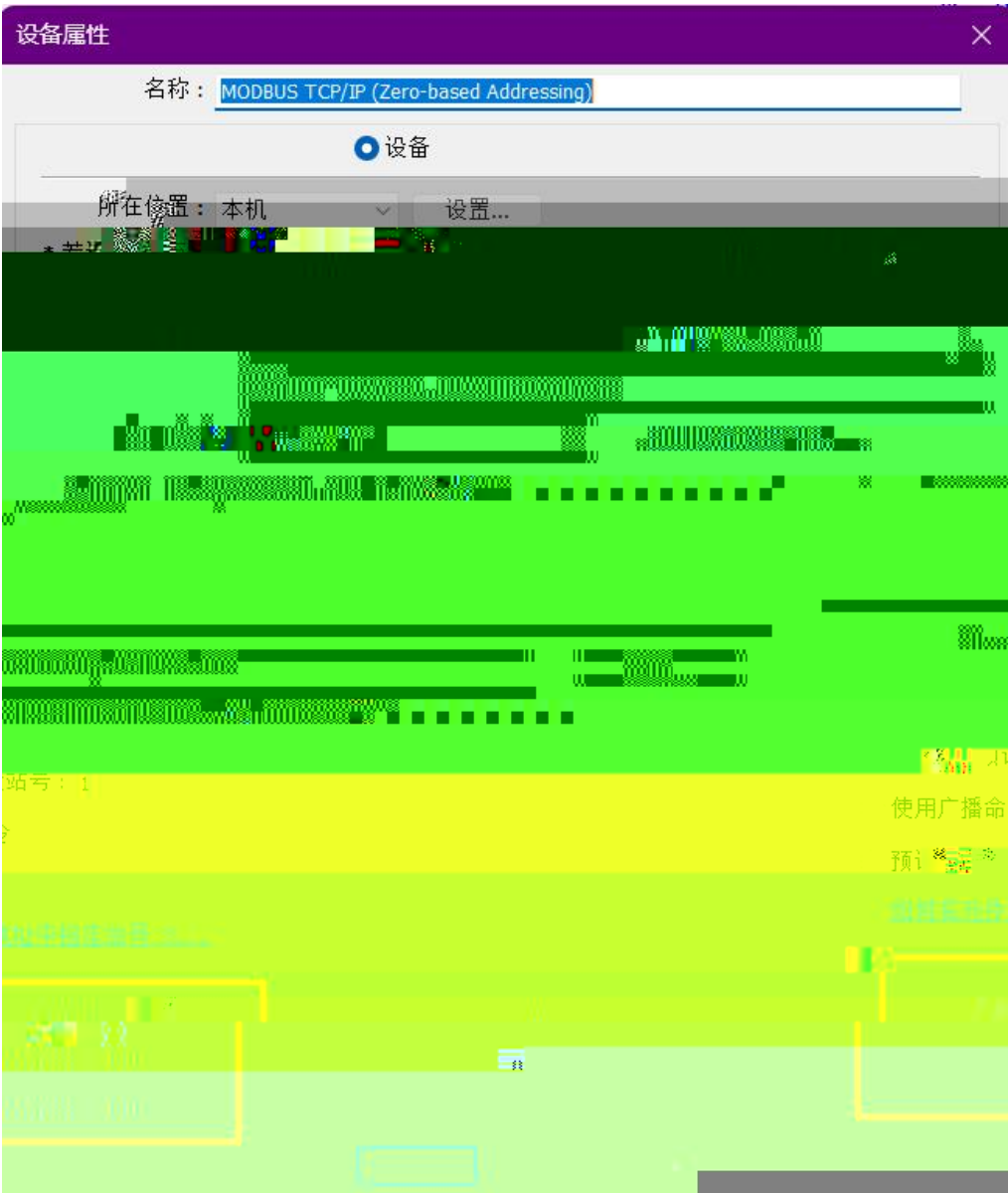
6.	M511S	M511	2104	.....	8
7.	IP	.....			8
8.		.....			9
9.	Time to DINT			.....	9
10.			16#2103	.....	9
11.			.....		9
12.	M514	.....			10
13.	4-20ma	200	200	.....	10
14.	INT	.....			10
15.	TIME	.....			11
16.		.....			11
17.	ID				12
18. M		RTC			12
19.	RTC	16690			12
20.					12
21.					13
22.					13
23.					13
24.	IF				14
25. IF	THEN END_IF				14
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1.	MC_Setposition				16

2. 6064	PLC		16
3. M511S	M511		16
4.			17
5.	200	50-80	17
6.	MC_HomeByPLCIO		17
7.		.....	17
8.		.....	17
9.	MC Stop	MC_MoveContinuousVelocity	5377 .....18
10.	MC_HomeByPLCIO	20	4105 .....18
11.		4612	 18
12.	XY		20 4618 .....18
13.	MC_HomeByPLCIO		homing 19
14.		.....	19
15.	M512	op	 19
16.	DI	.....	19
17.		.....	20
18.	4123	096	20
19.	MC_GearIn	InGear	Eexecute ...20
20.	16#2151	.....	20
21.		.....	20
22.		.....	20
23.	M511S	M511	4116 .....20

1.

104 WORD PLC 100WORD /

100word



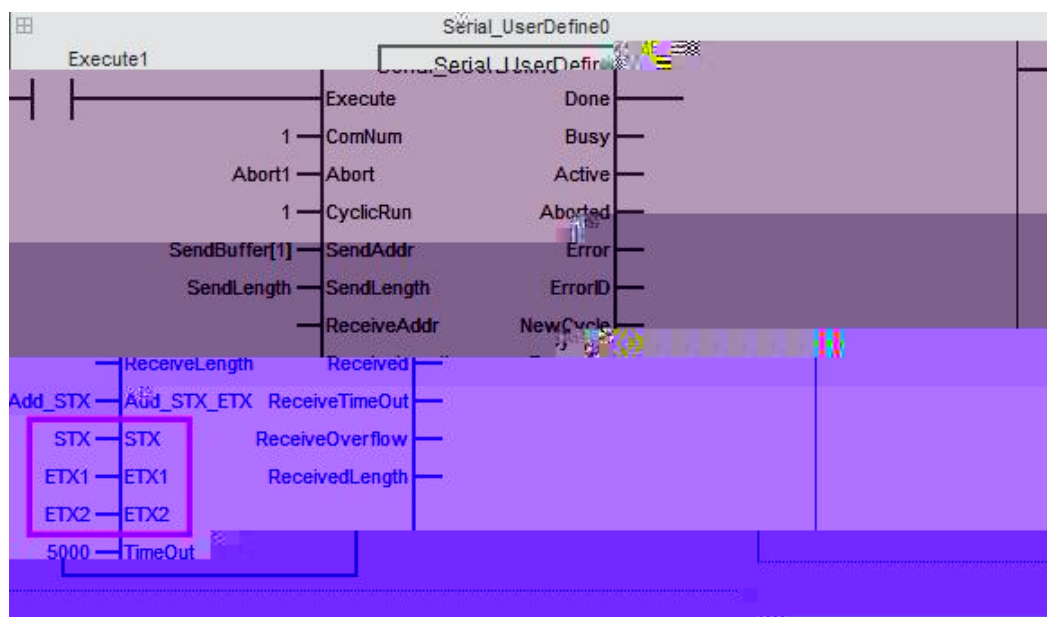
2.

RS485 ? ModbusRTU

06 10 10

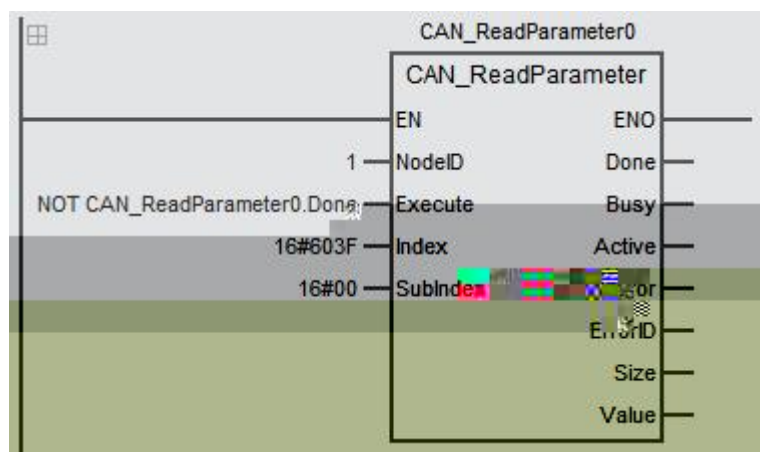
3.

ASCII RT 0 o s



4. E610 CAN 603F

603F 00



5. RS485

选择	变量	初始值	触发方式	执行方式	读写类型	功能码	主站地址	从站地址	数量
☒	1000	默认触发	循环	读寄存器	默认	%MW1000	16#0001	1	
☒	10000	默认触发	循环	写寄存器	默认	%MW10000	16#6502	1	

6.

M HMI

(1) 名称需要和【生成HMI符号表】-【连接路径】命名一致。



7. TCP

socket

5020

TCP

8. Modbus TCP

TCP

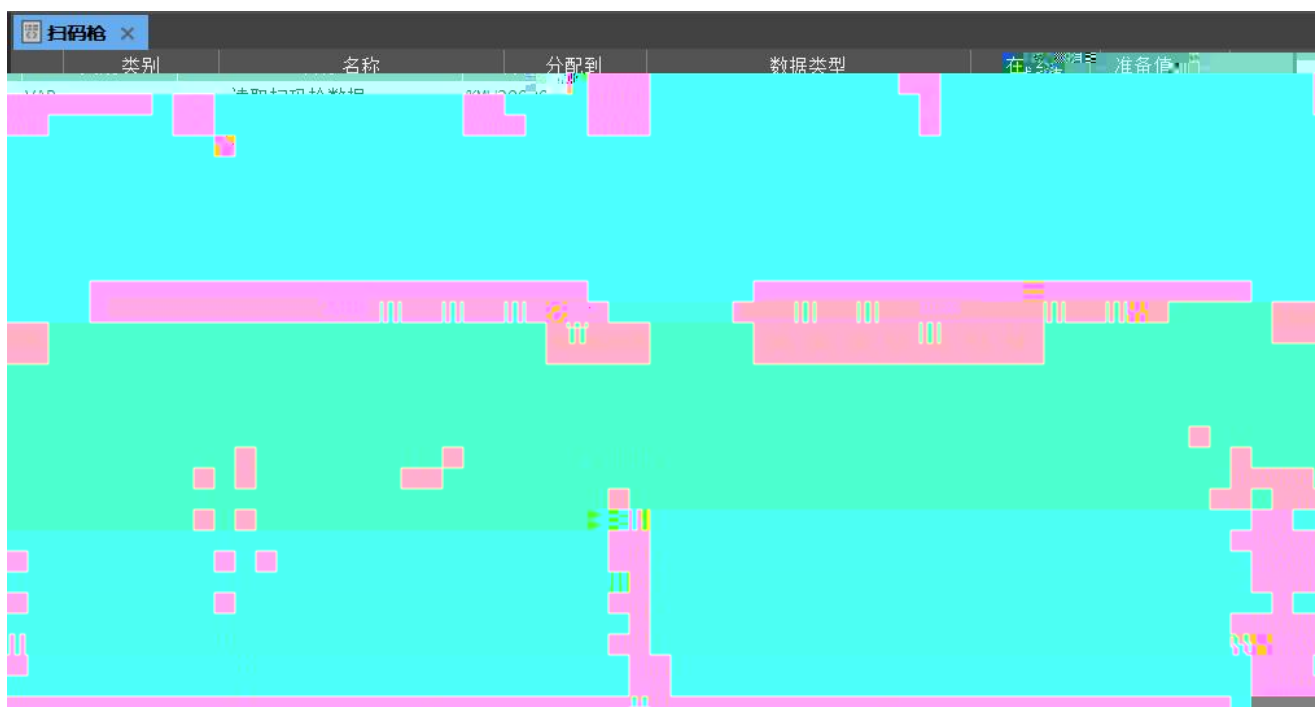
6 ASCII

ACK

0 ASCII

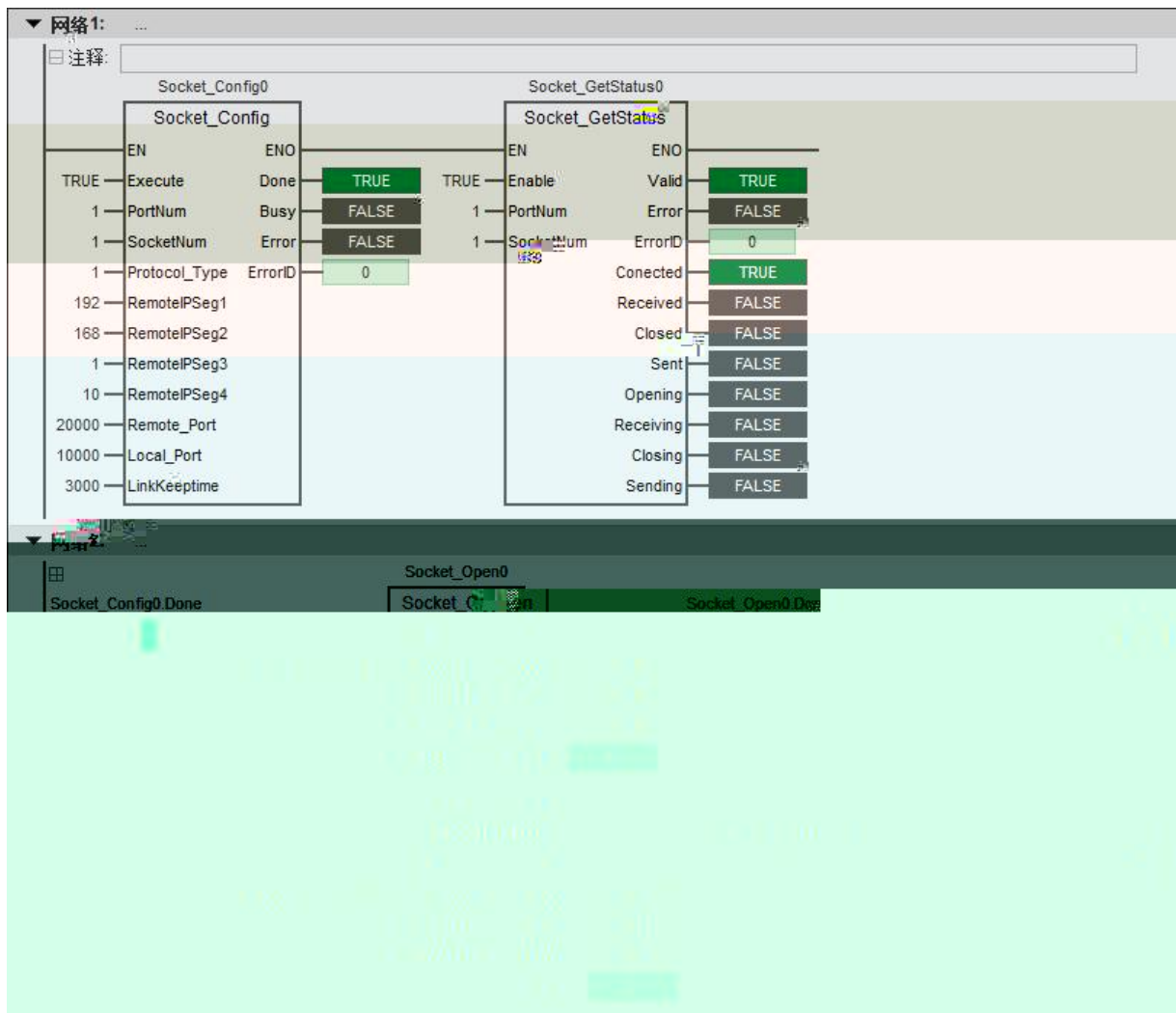
0

ASCII 0



9. ket

G
O O
O O



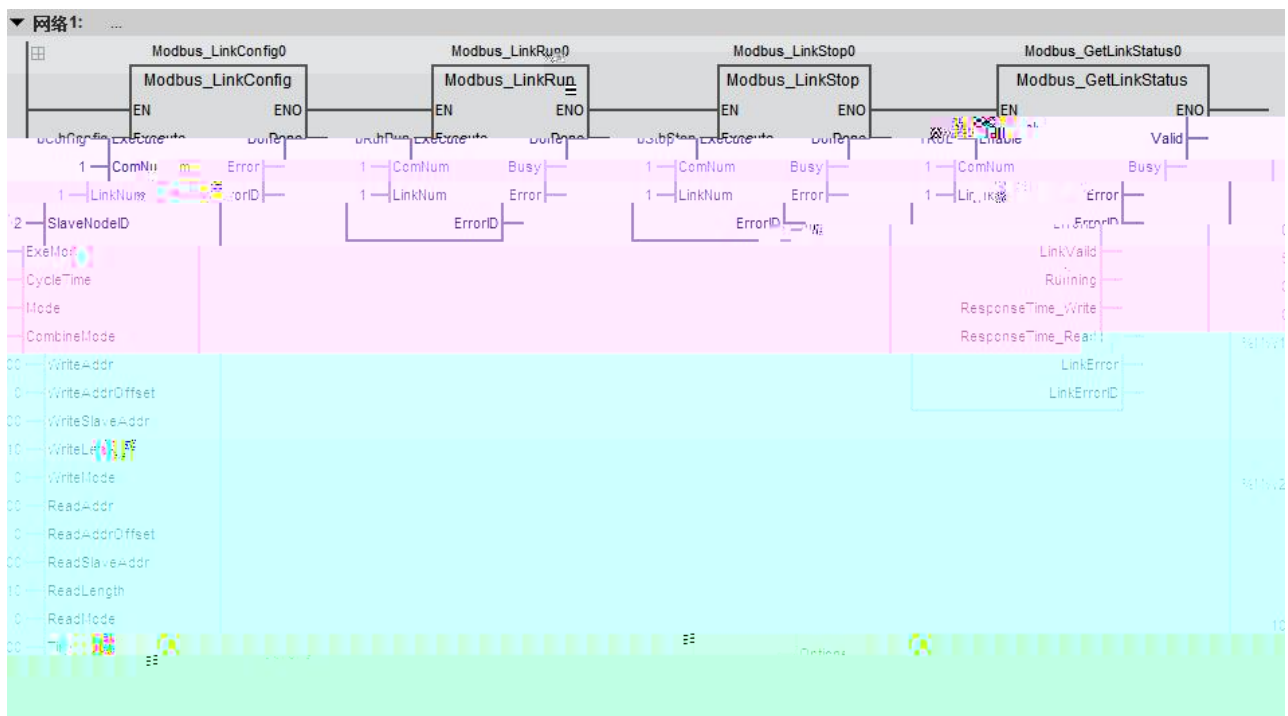
10.

485

LINKCONFIG

1-Modbus_LinkConfig 2-Modbus_LinkRun 3-Modbus_GetLinkStatus 4-

5-Modbus_LinkStop



11. E600

E

≡

1.

POU x

	类别	名称	分配到	数据类型	在线值
1	VAR	AA		ARRAY [1..7] OF REAL	
2	VAR	AA[1]		REAL	24675
3	VAR	AA[2]		REAL	24675
4	VAR	AA[3]		REAL	24675
5	VAR	AA[4]		REAL	24675
6	VAR	AA[5]		REAL	24675
7	VAR	AA[6]		REAL	24675
8	VAR	AA[7]		REAL	24675
9	VAR	BBB		BOOL	FALSE
10	VAR	CCC		INT	17945
11	VAR	DDU		REAL	
12	VAR	ifor		INT	9

网络1: ...

注释:

结构化文本

```

1 for ifor := 0 to 8 DO
2   AA[ifor] := AA[ifor] + 1;
3 END_FOR;
  
```

2.

9	VAR	测试	BOOL		
10	VAR	转盘故障	BOOL		
11	VAR	edge back val1	BOOL		

```

18 FOR I := 1 TO 7 DO
19   St_RealAxis[I].IN_ib_轴复位 := Axis[I].AxState = 2 AND HMI_故障复位;
20 END_FOR;
21 //-----警告手动不停机101-150
22 //Err101-----缺料警告
23 toff:=缺料提示延时(IN:=(Gby_整机状态字=自动) AND NOT DI_纸堆检测 AND DO_吸纸允许,PT:=REAL TO TIME(hmi缺料提示延时*
24 //警告触发S11(Set:=ton缺料提示延时,ON:=HMI_缺料报警,OFF:=HMI_缺料报警清除));
  
```

警告触发S11(Set:=ton缺料提示延时,ON:=HMI_缺料报警,OFF:=HMI_缺料报警清除);

3.

EXT_GetModuleStatus



5.

6.

2104

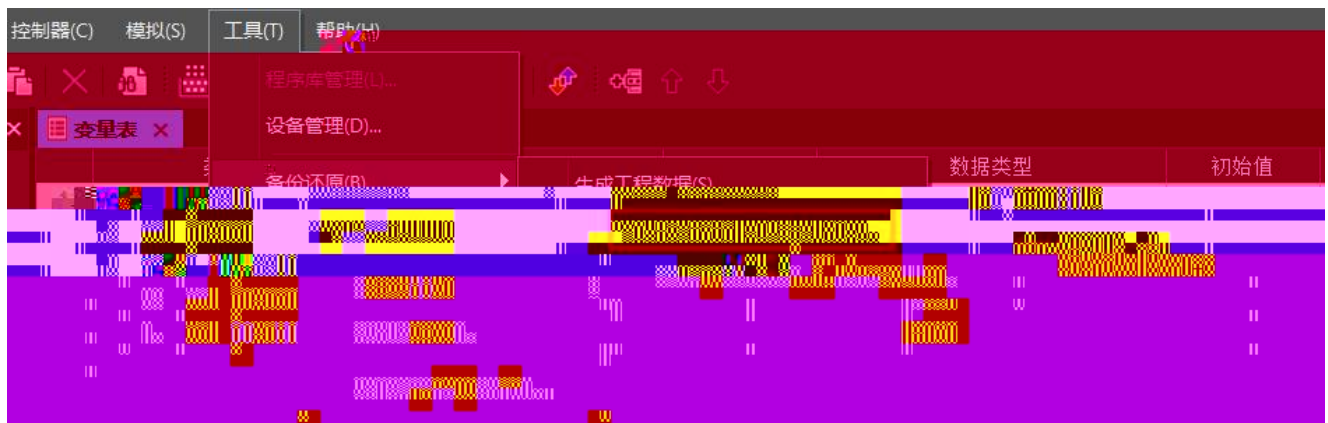
7.

IP

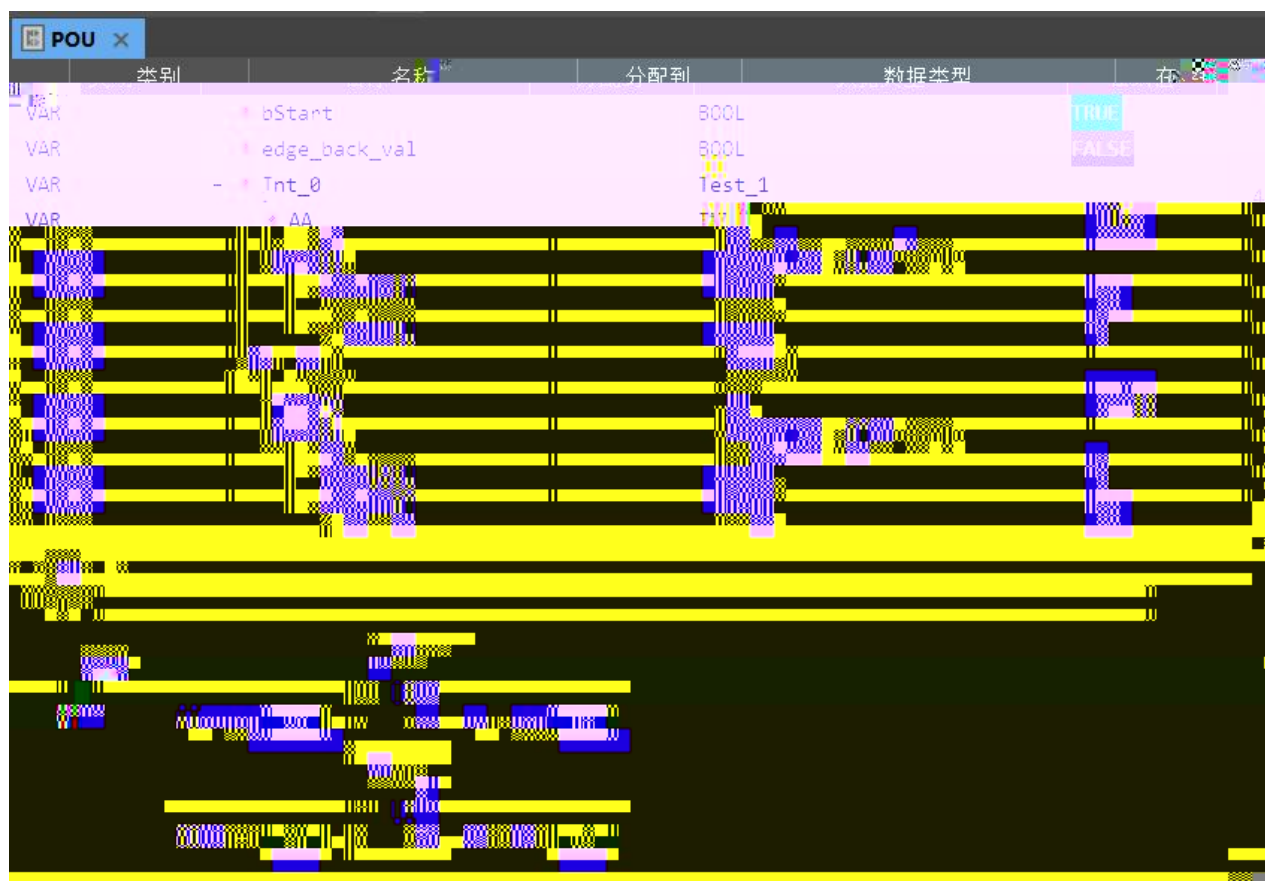


Time to DINT

6



13. 4-20ma 200 200

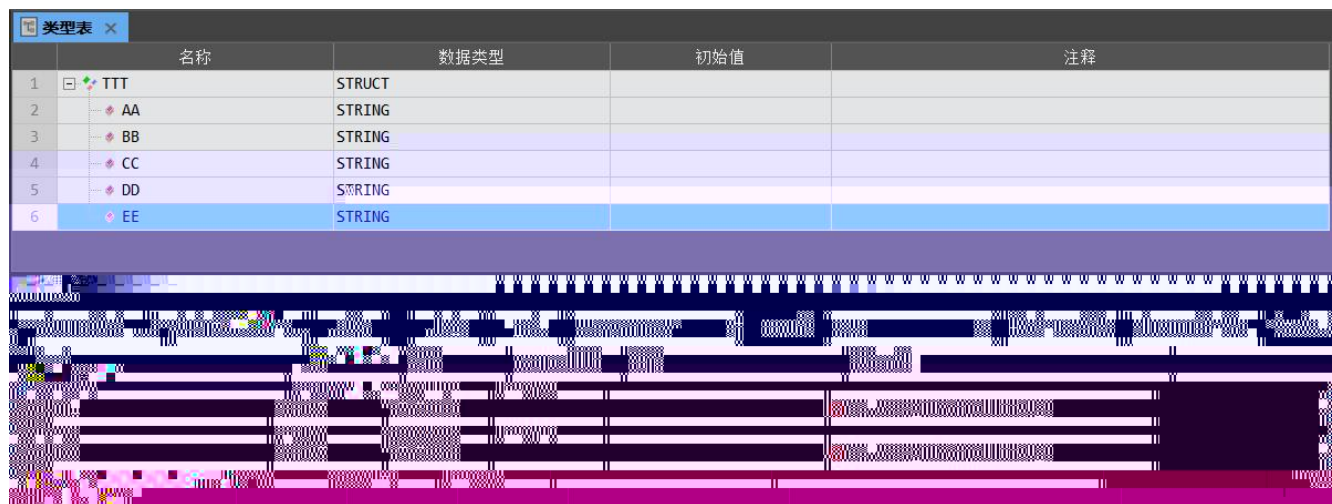


15. TIME

TIME modbus

16.

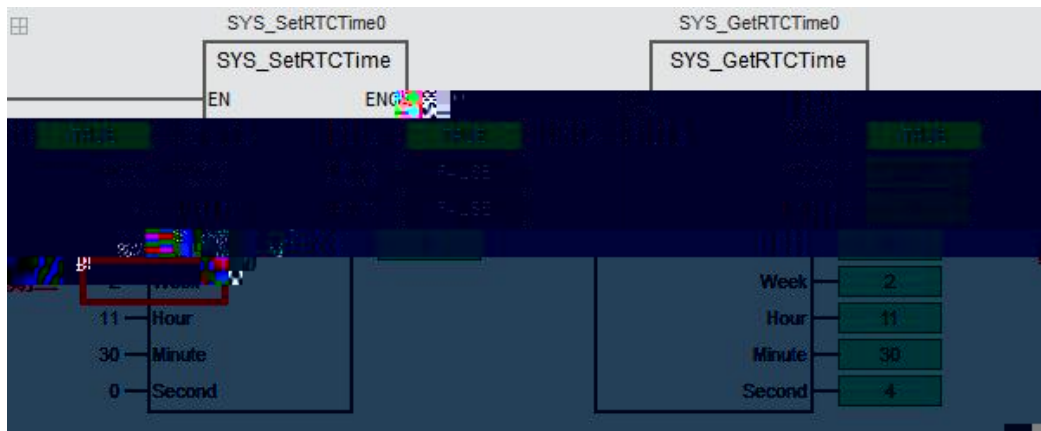
80+1 1 modbus



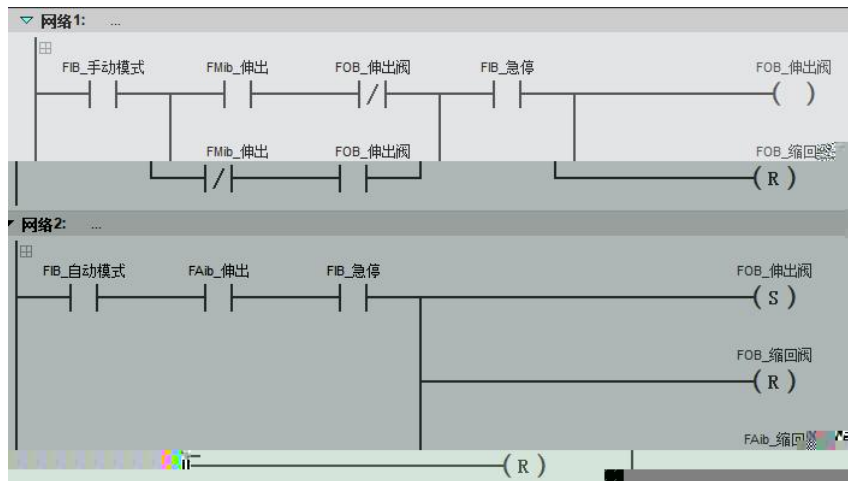
17. ID PLC

18. M RTC Sysctrl Studio 2.4.0.1705 SYS_SetRTCTime M100 M200 M300 M500 M500S

19. RTC 16690 week 1-7



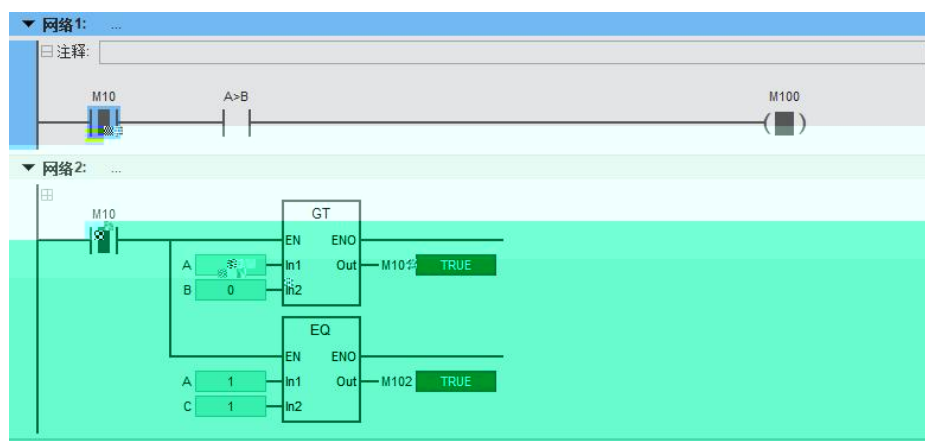
20.



21.

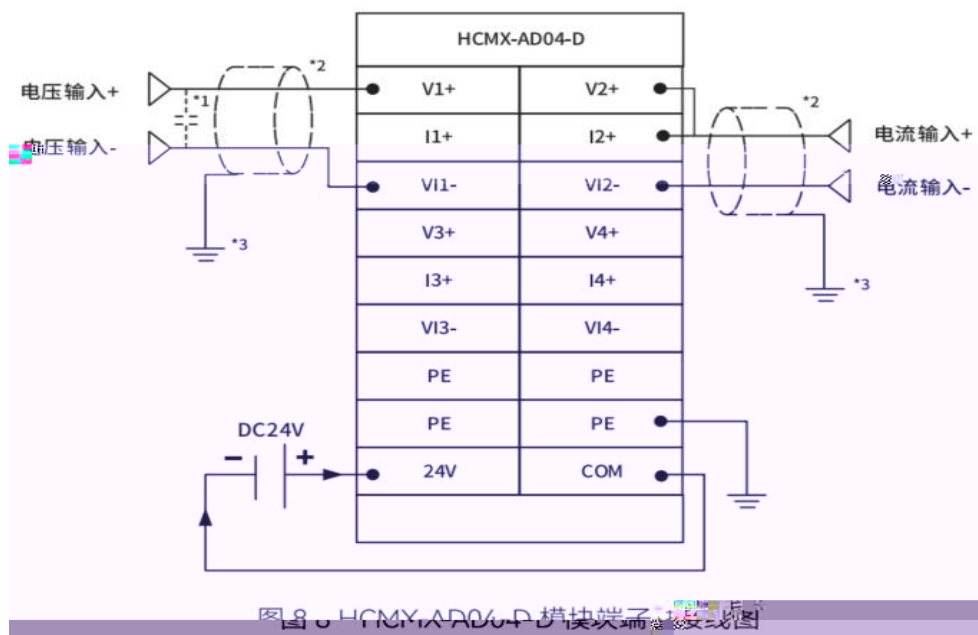


22.



23.

V+ I+



24. IF

Sysctrl Studio 2.0.0.705

FB_Test

	类别	名称	分配到	数据类型
1	VAR_INPUT	reData		REFERENCE TO REAL
2	VAR_INPUT	reST		REFERENCE TO Test

1

2

3

4

5

reData:=reData+1;

reST.Output:=reST.Input;

POU

1

2

3

4

5

reData:=reData+1;

reST.Output:=reST.Input;

1.

MC_Setposition



2.

1:400	23	1	8388608	6064	230.4mm	6064	
	PLC	6064					
23	+Y7S						
M		100000	Y7S	Pn78C	8388608	Pn78E	100000

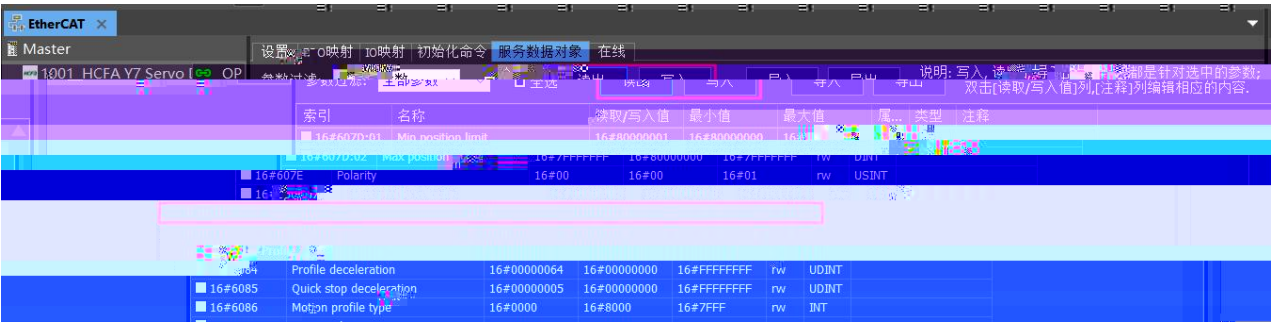
3.

M500	PLC	PDO	XML
PDO 6077	6071		



MC_TorqueControlWithVelocity 6080

6080 6080 6080 0 0 10000



4.

M



5.

200 50-80

MC_TorqueControl InTorque Axis[].ActTrq

6.

MC_HomeByPLCIO

On

7.

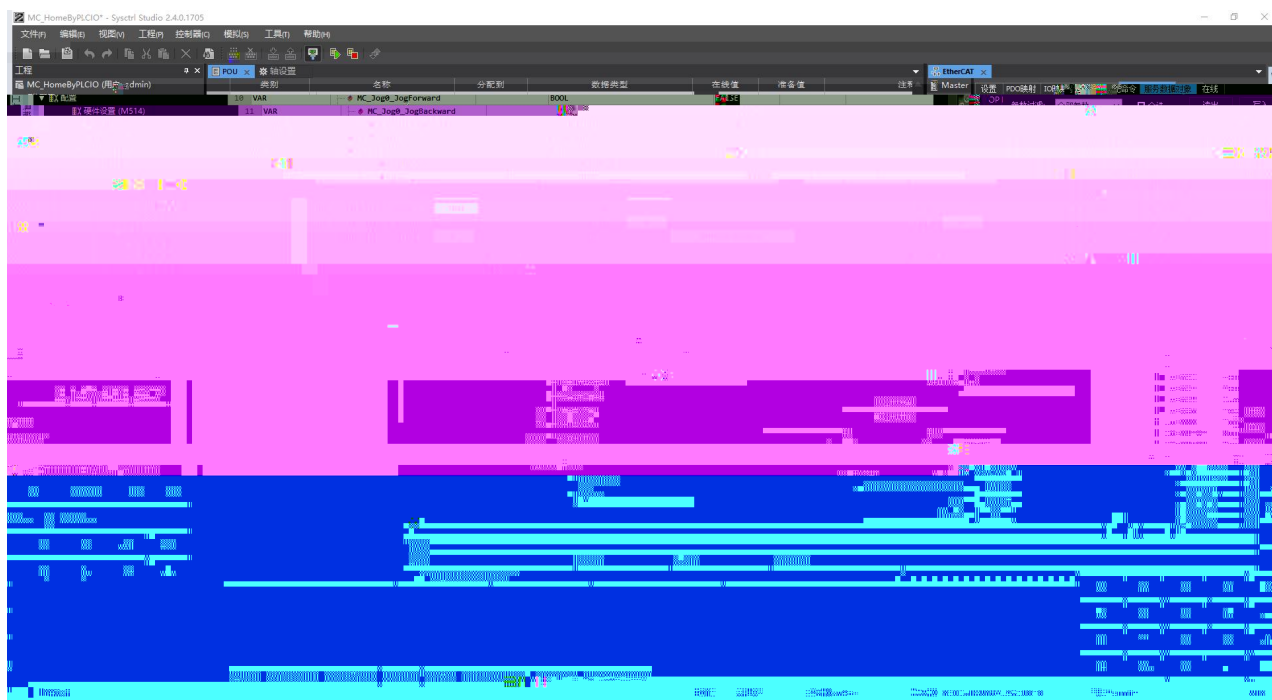
Jerk Jerk

8.

MC_StopAtPhase

9. MC Stop MC_MoveContinuousVelocity 5377
MC_MoveContinuousVelocity stopping

10. MC_HomeByPLCIO 20 4105
8388608 1:10 150 3839
 $3839/150 \times 10 \times 8388608 = 2146924407$ 607C 2,147,487,744



11. 4612
50 0 50 0 0 0
0 MC_Setposition 0

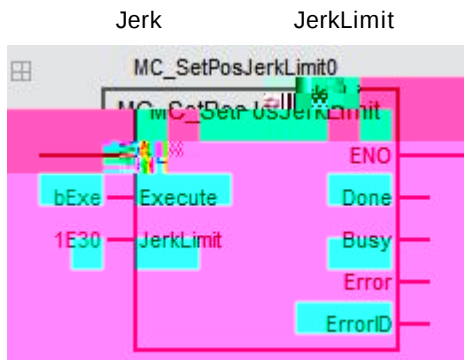
12. XY 20 4618



13. MC_HomeByPLCIO homing

PDO 6060
PDO 6060 6061 6040 6041 607A 6064

14. Jerk JerkLimit 1E30



15. M512 op

pdo pdo

名称	索引	长度(类型)	偏移	注释	名称	索引	长度(类型)	偏移	注释
Receive PDO 1	16#1600	8.0			Transmit PDO 1	16#1A00			
Control Word	16#1601	2.0 (UDINT)	0.0		Left Hand Code	16#1A01	2.0 (UDINT)	0.0	
Probe Target Position	16#1602	4.0 (UDINT)	2.0		Axis Word	16#1A02	2.0 (UDINT)	2.0	
Touch Probe Function	16#1603	2.0 (UDINT)	6.0		Modes of Operation display	16#1A03	1.0 (UDINT)	4.0	
Control Word	16#1604	2.0 (UDINT)	0.0		Probe Target Position	16#1A04	4.0 (UDINT)	5.0	
Probe Target Deceleration	16#1605	4.0 (UDINT)	0.0		Touch Probe Status	16#1A05	2.0 (UDINT)	0.0	
Probe Target Velocity	16#1606	4.0 (UDINT)	2.0		Touch Probe 1 Position Value	16#1A06	4.0 (UDINT)	11.0	
Probe Target Acceleration	16#1607	4.0 (UDINT)	6.0		Probe Target Position	16#1A07	4.0 (UDINT)	15.0	
Probe Target Deceleration	16#1608	4.0 (UDINT)	10.0		Transmit PDO 2	16#1A08			
Probe Target Velocity	16#1609	4.0 (UDINT)	14.0						
Modes of Operation	16#160A	1.0 (UDINT)	18.0						
Receive PDO 3	16#160B	15.0							
Control Word	16#160C	2.0 (UDINT)	0.0						
Target Velocity	16#160D	4.0 (UDINT)	2.0						
Profile Acceleration	16#160E	4.0 (UDINT)	6.0						
Profile Deceleration	16#160F	4.0 (UDINT)	10.0						
Modes of Operation	16#1610	1.0 (UDINT)	14.0						
Receive PDO 4	16#1611	15.0							
Homing Onset	16#1612	4.0 (UDINT)	15.0						
Modes of Operation	16#1613	1.0 (UDINT)	19.0						

16. DI SDO

ECAT_ReadParameter DI SDO



25.

6080

26.

JERK

1000

27. MC_SetPosition

IF

```

IF bSetCon THEN
  MC_SetPosition1(
    Axis:=1 ,
    Execute:=bSetCon,
    Position:= ,
    Relative:= ,
    ReferenceType:= ,
    ExecutionMode:= ,
    Done=> ,
    Busy=> ,
    Error=> ,
    ErrorID=>
  );
END_IF;
IF MC_SetPosition1.Done THEN
  bSetCon:=FALSE;

```

```

MC_SetPosition1
Axis:=1
Execute:=bSetCon AND bSetCon
Position:=
Relative:=
ReferenceType:=
ExecutionMode:=
Done=>
Busy=>
Error=>
ErrorID=>
END_IF;

```

28.

MC_SetPosition

0

Axis[].cmdPos

0

MC_SetPosition

MC_ReadActualPosition

29.

AXIS[1].CMDPOS

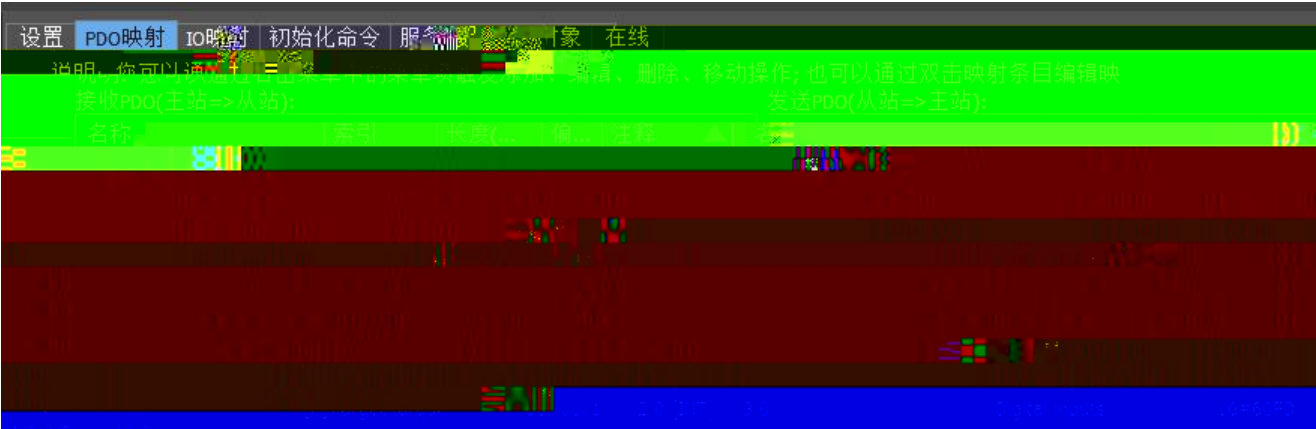
31. M511 Y7S

10000 / plc 10000 / plc



32. M512

M500 PDO PDO 16#606C M



33. Z

Z Axis[1].CmdPos

34.

$1,000 \times 1 \div 69 \times 131,072 = 1,899,594.2028985$ 200Khz

1000

35.

+SetPosition MC_SetOverride 0

36. 4107

37. buffermode 1 3 0

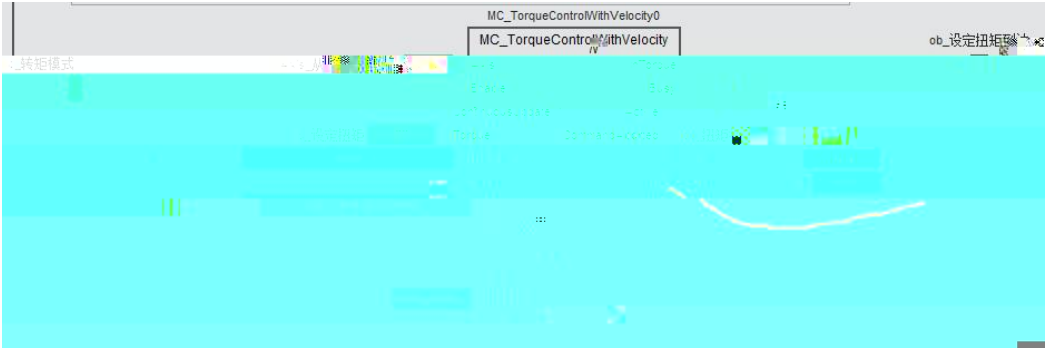
38. MC_Encode M100 M200 M300 M500S
MC_home 30 4105
30*10*8388608=2,516,582,400 607C

39. SV730W 4866

730W XML 6080 16#607F

40. MC_TorqueControlWithVelocity 4865

SDO PDO
1) 1ms SDO
2) SDO SDO
SDO SDO



41. MC_SetCamPoint

MC_GetCamPoint

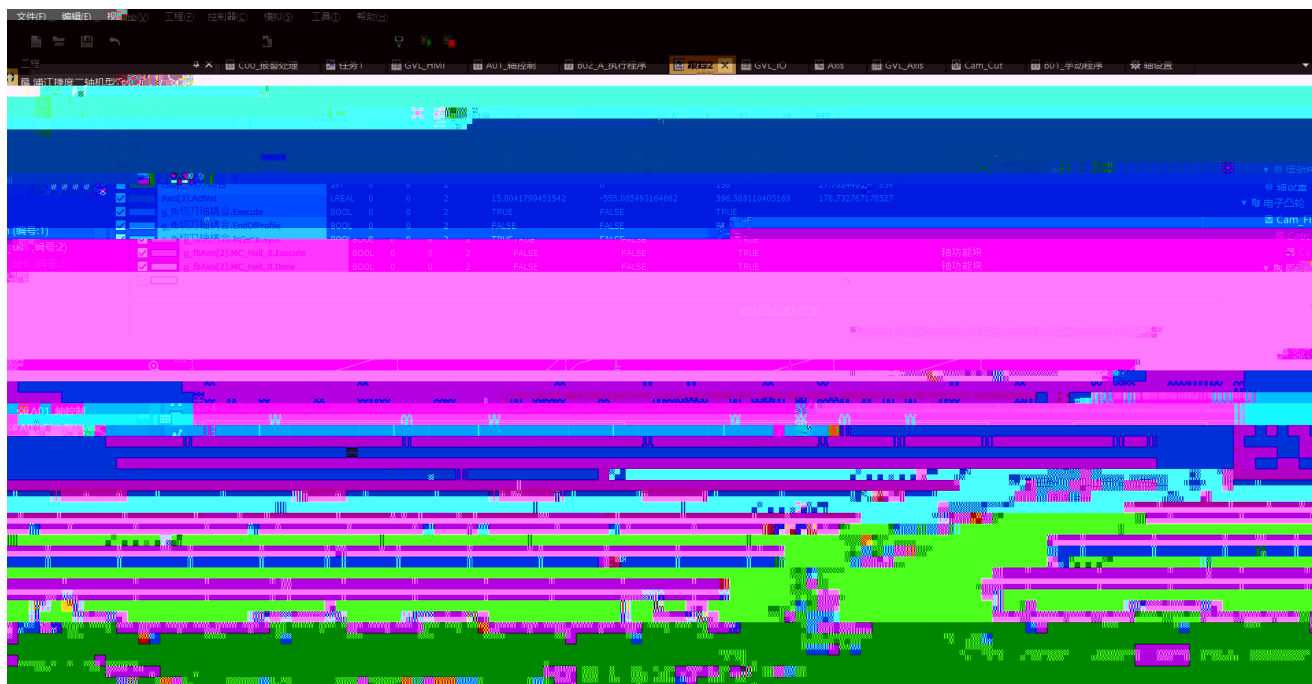
42. 0

MC_CAMIN MasterValueSource
1 1

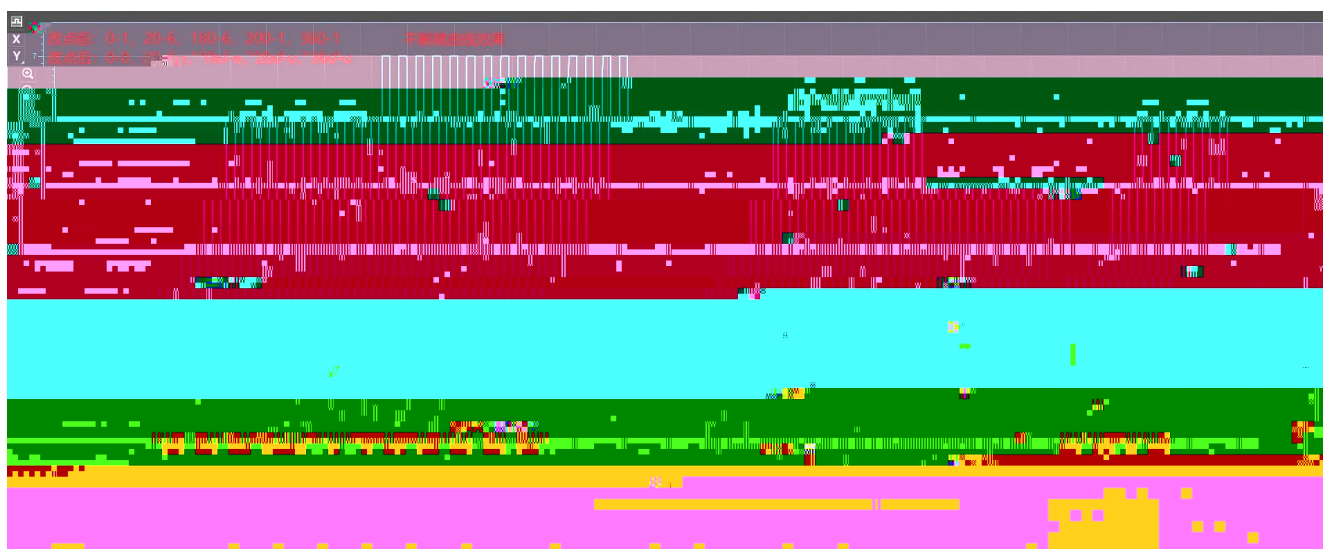
43. CAM

44. 1:1

1 camin
AB



45.



1. — RUN

ERR

2. —

IP

STOP

3. —

Sysctrl Studio

4. —

PLC

0.0

5. M :

Sysctrl Studio

6. M512

I —

500

500

5 5 00 9-00

1*111'Y 0Y*1€