

常问问题 • 04/2015

SIMOTION 外部编码器如何配置 并清零

SIMOTION External Encoder

目录

1	概述	3
	1.1 介绍	3
2	配置	4
	2.1 操作步骤	4

1 概述

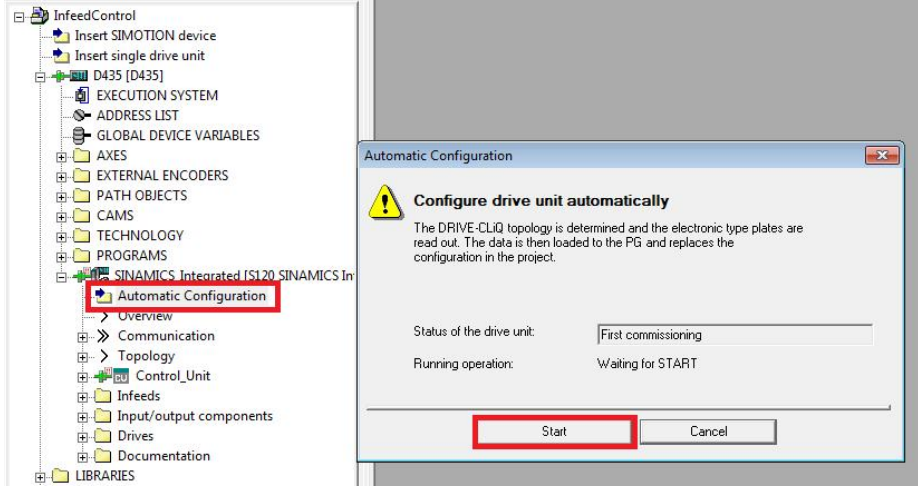
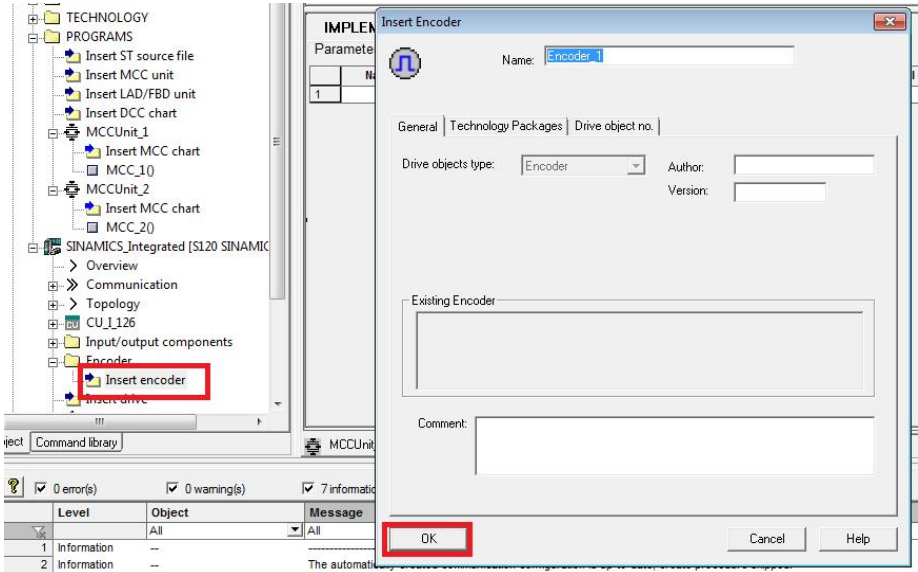
1.1 介绍

在工业应用很多场合需要使用外部编码器作为同步应用等方面的使用，对于 **Simotion D4XX-2**，可直接在 **Sinamics integrated** 中直接插入编码器对象并通过配置 **SIMOTION** 的外部编码器 **TO** 将编码器信息传送到 **simotion**，之后可在 **simotion** 中直接读取到外部编码器的位置信息。

如果需要对外部编码器配置，并且根据需要对编码器清零可以参考下文步骤进行操作。

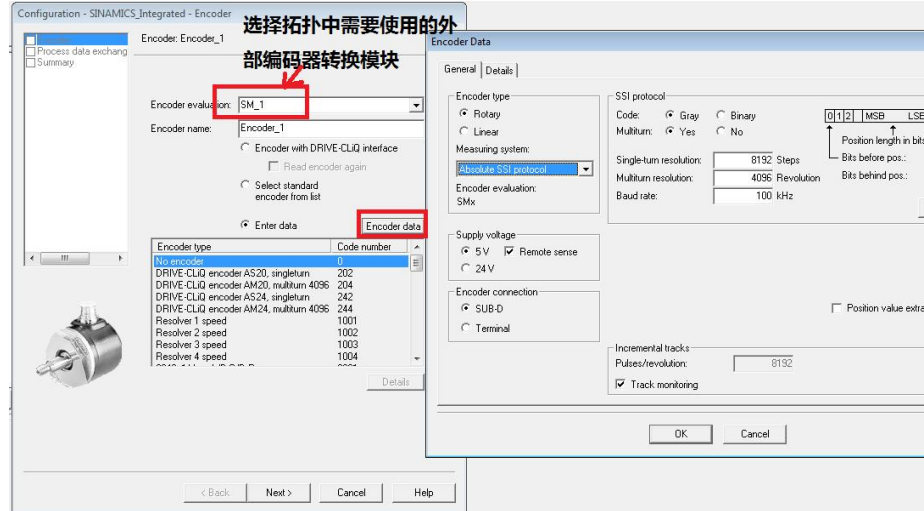
2 配置

2.1 操作步骤

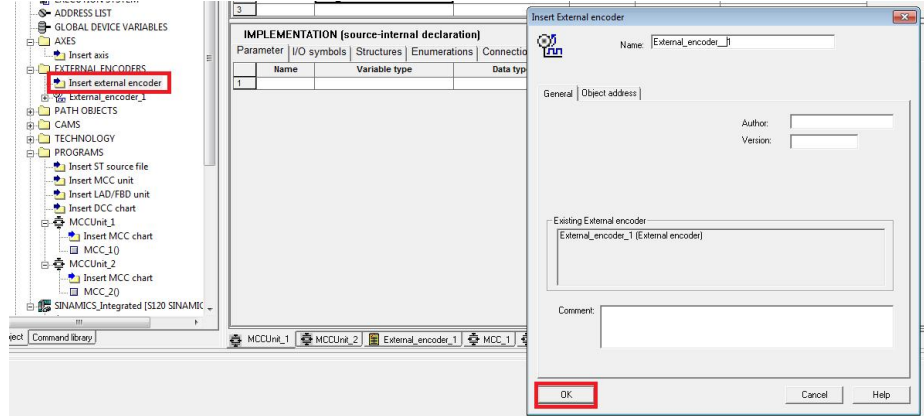
序号	图示与说明
1.	<p>打开 SCOUT 软件，对 SIMOTION 进行基本的配置，并且对集成的 SINAMICS_Integrated 进行自动配置：</p> 
2.	<p>完成自动配置后，在离线项目的 SINAMICS_Integrated 上配置编码器，如下图所示，点击“ Insert encoder” 插入编码器：</p> 

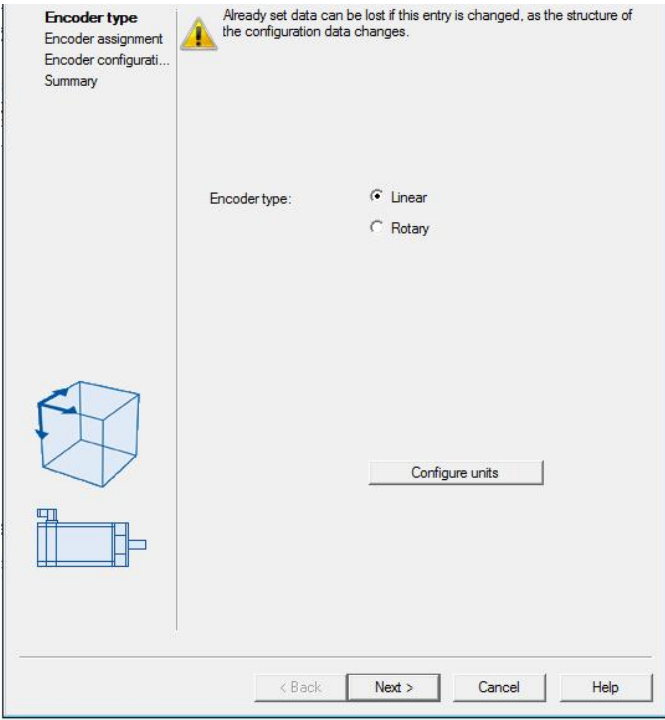
序号 图示与说明

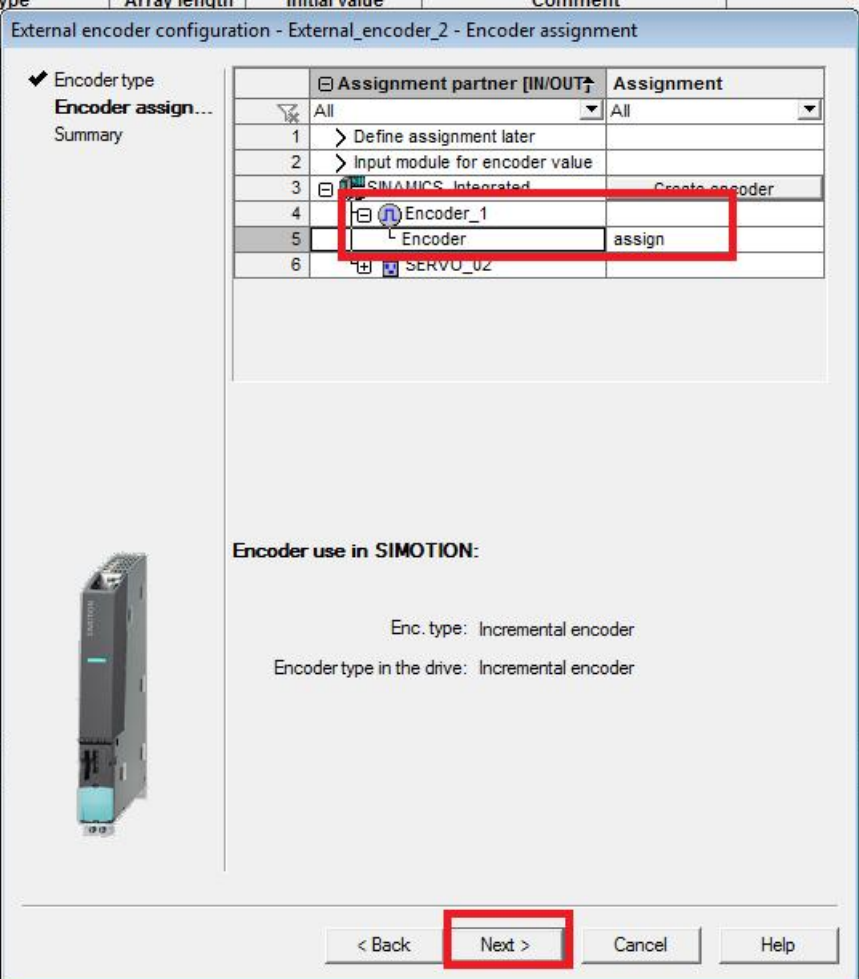
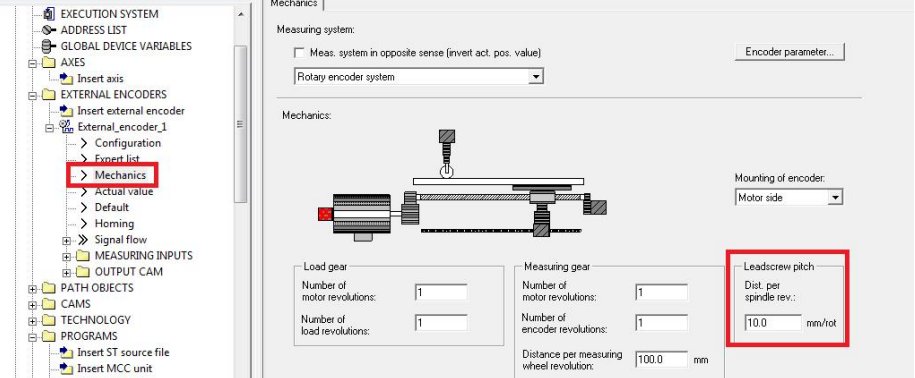
3. 配置编码器参数，此处需要设置与实际使用的编码器参数一致：

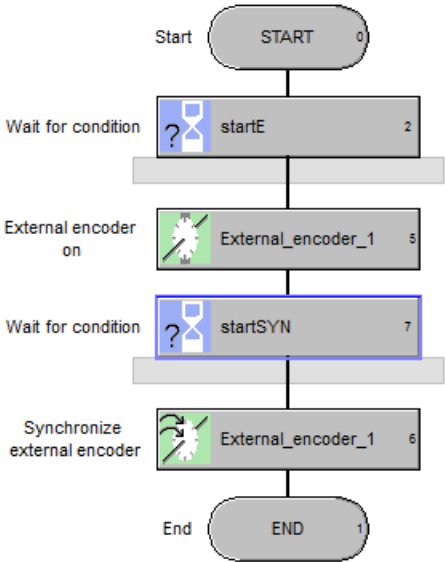
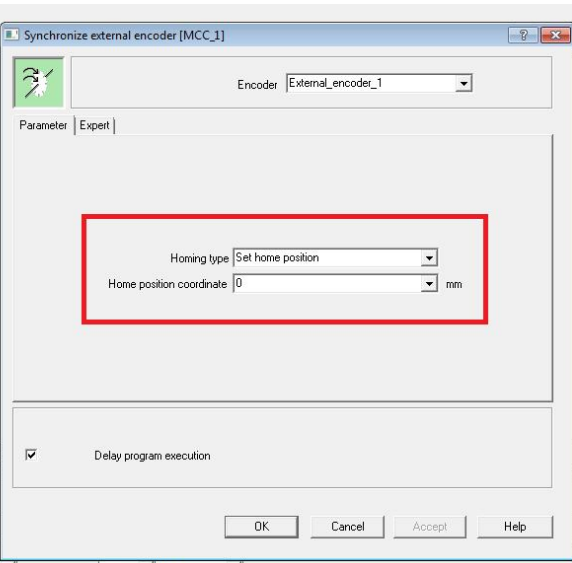
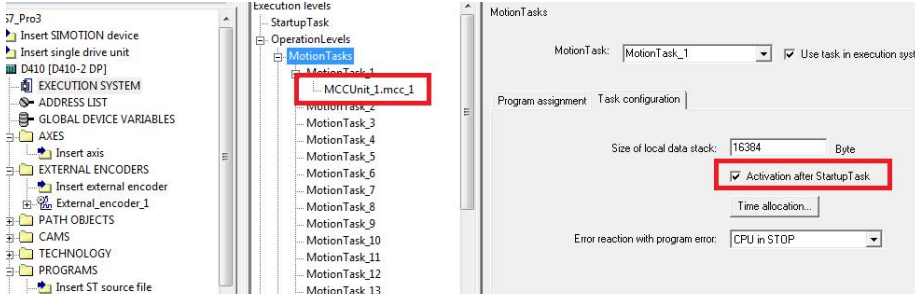


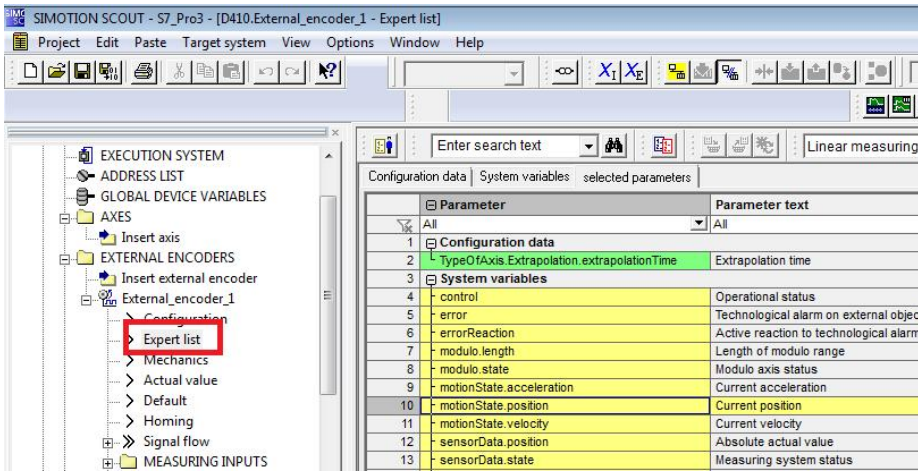
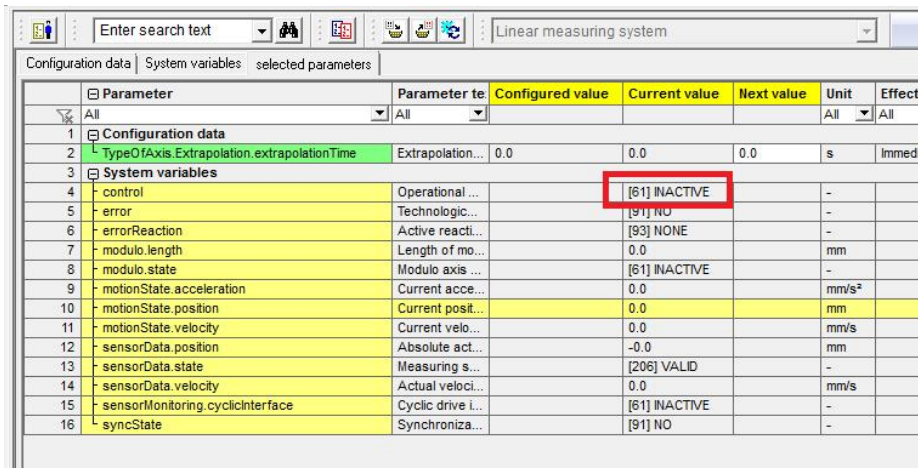
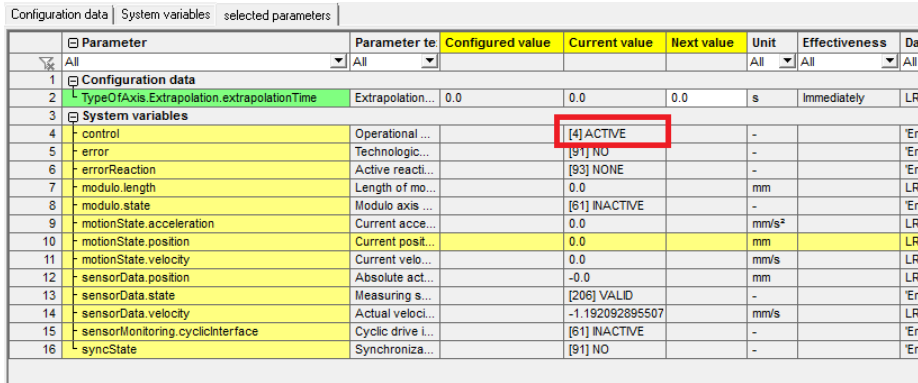
4. 在 SIMOTION 中配置外部编码器，点击“ Insert external encoder”：



序号	图示与说明
5.	<p>根据实际情况，选择编码器类型（线性或者旋转）：</p> 

序号	图示与说明																
6.	<p>分配之前在 SINAMICS_Integrated 上配置的编码器:</p>  <p>External encoder configuration - External_encoder_2 - Encoder assignment</p> <table border="1"> <thead> <tr> <th>Assignment partner [IN/OUT]</th> <th>Assignment</th> </tr> </thead> <tbody> <tr> <td>All</td> <td>All</td> </tr> <tr> <td>> Define assignment later</td> <td></td> </tr> <tr> <td>> Input module for encoder value</td> <td></td> </tr> <tr> <td>SINAMICS_Integrated</td> <td>Create encoder</td> </tr> <tr> <td>Encoder_1</td> <td></td> </tr> <tr> <td>Encoder</td> <td>assign</td> </tr> <tr> <td>SERVO_U2</td> <td></td> </tr> </tbody> </table> <p>Encoder use in SIMOTION:</p> <p>Enc. type: Incremental encoder Encoder type in the drive: Incremental encoder</p> <p>< Back Next > Cancel Help</p>	Assignment partner [IN/OUT]	Assignment	All	All	> Define assignment later		> Input module for encoder value		SINAMICS_Integrated	Create encoder	Encoder_1		Encoder	assign	SERVO_U2	
Assignment partner [IN/OUT]	Assignment																
All	All																
> Define assignment later																	
> Input module for encoder value																	
SINAMICS_Integrated	Create encoder																
Encoder_1																	
Encoder	assign																
SERVO_U2																	
7.	<p>在机械配置中填写编码器旋转一圈对应的位移, 以及齿轮比等相关信息:</p>  <p>Mechanics</p> <p>Measuring system:</p> <p><input type="checkbox"/> Meas. system in opposite sense (invert act. pos. value) Encoder parameter...</p> <p>Rotary encoder system</p> <p>Mechanics:</p> <p>Mounting of encoder: Motor side</p> <p>Load gear:</p> <p>Number of motor revolutions: 1 Number of load revolutions: 1</p> <p>Measuring gear:</p> <p>Number of motor revolutions: 1 Number of encoder revolutions: 1 Distance per measuring wheel revolution: 100.0 mm</p> <p>Leadscrew pitch: Dist. per spindle rev.: 10.0 mm/rot</p>																

序号	图示与说明
8.	<p>通过 MCC 方式，编写程序如下：</p>   <p>上图的参数 Homing type 根据使用不同的编码器选择不同的方式：</p> <ol style="list-style-type: none"> 1. 增量编码器选择：Set home position 2. 绝对值编码器选择：Absolute encoder calibration with specification of the position value <p>分配程序到 motion task 中：</p> 

序号	图示与说明																																																																																																																																								
9.	<p>通过专家列表进行状态监控:</p>  <p>The screenshot shows the SIMOTION SCOUT interface. On the left, a tree view displays the project structure, with 'Expert list' highlighted in red. On the right, a table lists parameters and their descriptions:</p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>Parameter text</th> </tr> </thead> <tbody> <tr><td>1</td><td>Configuration data</td></tr> <tr><td>2</td><td>TypeOfAxis.Extrapolation.extrapolationTime Extrapolation time</td></tr> <tr><td>3</td><td>System variables</td></tr> <tr><td>4</td><td>control Operational status</td></tr> <tr><td>5</td><td>error Technological alarm on external object</td></tr> <tr><td>6</td><td>errorReaction Active reaction to technological alarm</td></tr> <tr><td>7</td><td>modulo.length Length of modulo range</td></tr> <tr><td>8</td><td>modulo.state Modulo axis status</td></tr> <tr><td>9</td><td>motionState.acceleration Current acceleration</td></tr> <tr><td>10</td><td>motionState.position Current position</td></tr> <tr><td>11</td><td>motionState.velocity Current velocity</td></tr> <tr><td>12</td><td>sensorData.position Absolute actual value</td></tr> <tr><td>13</td><td>sensorData.state Measuring system status</td></tr> </tbody> </table>	Parameter	Parameter text	1	Configuration data	2	TypeOfAxis.Extrapolation.extrapolationTime Extrapolation time	3	System variables	4	control Operational status	5	error Technological alarm on external object	6	errorReaction Active reaction to technological alarm	7	modulo.length Length of modulo range	8	modulo.state Modulo axis status	9	motionState.acceleration Current acceleration	10	motionState.position Current position	11	motionState.velocity Current velocity	12	sensorData.position Absolute actual value	13	sensorData.state Measuring system status																																																																																																												
Parameter	Parameter text																																																																																																																																								
1	Configuration data																																																																																																																																								
2	TypeOfAxis.Extrapolation.extrapolationTime Extrapolation time																																																																																																																																								
3	System variables																																																																																																																																								
4	control Operational status																																																																																																																																								
5	error Technological alarm on external object																																																																																																																																								
6	errorReaction Active reaction to technological alarm																																																																																																																																								
7	modulo.length Length of modulo range																																																																																																																																								
8	modulo.state Modulo axis status																																																																																																																																								
9	motionState.acceleration Current acceleration																																																																																																																																								
10	motionState.position Current position																																																																																																																																								
11	motionState.velocity Current velocity																																																																																																																																								
12	sensorData.position Absolute actual value																																																																																																																																								
13	sensorData.state Measuring system status																																																																																																																																								
10.	<p>当 startE 变量为 0 时, 编码器没有激活:</p>  <p>The screenshot shows a detailed parameter table with the following columns: Parameter, Parameter text, Configured value, Current value, Next value, Unit, and Effectiveness. The 'control' parameter is highlighted in red, showing its current value as '[61] INACTIVE'.</p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>Parameter text</th> <th>Configured value</th> <th>Current value</th> <th>Next value</th> <th>Unit</th> <th>Effectiveness</th> </tr> </thead> <tbody> <tr><td>1</td><td>Configuration data</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>2</td><td>TypeOfAxis.Extrapolation.extrapolationTime</td><td>0.0</td><td>0.0</td><td>0.0</td><td>s</td><td>Immedi</td></tr> <tr><td>3</td><td>System variables</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>4</td><td>control</td><td></td><td>[61] INACTIVE</td><td></td><td>-</td><td></td></tr> <tr><td>5</td><td>error</td><td></td><td>[91] NO</td><td></td><td>-</td><td></td></tr> <tr><td>6</td><td>errorReaction</td><td></td><td>[93] NONE</td><td></td><td>-</td><td></td></tr> <tr><td>7</td><td>modulo.length</td><td></td><td>0.0</td><td></td><td>mm</td><td></td></tr> <tr><td>8</td><td>modulo.state</td><td></td><td>[61] INACTIVE</td><td></td><td>-</td><td></td></tr> <tr><td>9</td><td>motionState.acceleration</td><td></td><td>0.0</td><td></td><td>mm/s²</td><td></td></tr> <tr><td>10</td><td>motionState.position</td><td></td><td>0.0</td><td></td><td>mm</td><td></td></tr> <tr><td>11</td><td>motionState.velocity</td><td></td><td>0.0</td><td></td><td>mm/s</td><td></td></tr> <tr><td>12</td><td>sensorData.position</td><td></td><td>-0.0</td><td></td><td>mm</td><td></td></tr> <tr><td>13</td><td>sensorData.state</td><td></td><td>[206] VALID</td><td></td><td>-</td><td></td></tr> <tr><td>14</td><td>sensorData.velocity</td><td></td><td>0.0</td><td></td><td>mm/s</td><td></td></tr> <tr><td>15</td><td>sensorMonitoring.cyclicinterface</td><td></td><td>[61] INACTIVE</td><td></td><td>-</td><td></td></tr> <tr><td>16</td><td>syncState</td><td></td><td>[91] NO</td><td></td><td>-</td><td></td></tr> </tbody> </table>	Parameter	Parameter text	Configured value	Current value	Next value	Unit	Effectiveness	1	Configuration data						2	TypeOfAxis.Extrapolation.extrapolationTime	0.0	0.0	0.0	s	Immedi	3	System variables						4	control		[61] INACTIVE		-		5	error		[91] NO		-		6	errorReaction		[93] NONE		-		7	modulo.length		0.0		mm		8	modulo.state		[61] INACTIVE		-		9	motionState.acceleration		0.0		mm/s ²		10	motionState.position		0.0		mm		11	motionState.velocity		0.0		mm/s		12	sensorData.position		-0.0		mm		13	sensorData.state		[206] VALID		-		14	sensorData.velocity		0.0		mm/s		15	sensorMonitoring.cyclicinterface		[61] INACTIVE		-		16	syncState		[91] NO		-																		
Parameter	Parameter text	Configured value	Current value	Next value	Unit	Effectiveness																																																																																																																																			
1	Configuration data																																																																																																																																								
2	TypeOfAxis.Extrapolation.extrapolationTime	0.0	0.0	0.0	s	Immedi																																																																																																																																			
3	System variables																																																																																																																																								
4	control		[61] INACTIVE		-																																																																																																																																				
5	error		[91] NO		-																																																																																																																																				
6	errorReaction		[93] NONE		-																																																																																																																																				
7	modulo.length		0.0		mm																																																																																																																																				
8	modulo.state		[61] INACTIVE		-																																																																																																																																				
9	motionState.acceleration		0.0		mm/s ²																																																																																																																																				
10	motionState.position		0.0		mm																																																																																																																																				
11	motionState.velocity		0.0		mm/s																																																																																																																																				
12	sensorData.position		-0.0		mm																																																																																																																																				
13	sensorData.state		[206] VALID		-																																																																																																																																				
14	sensorData.velocity		0.0		mm/s																																																																																																																																				
15	sensorMonitoring.cyclicinterface		[61] INACTIVE		-																																																																																																																																				
16	syncState		[91] NO		-																																																																																																																																				
11.	<p>修改变量 startE=1, 则变化如下图:</p>  <p>The screenshot shows the same parameter table as in step 10, but with the 'control' parameter highlighted in red, showing its current value as '[4] ACTIVE'.</p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>Parameter text</th> <th>Configured value</th> <th>Current value</th> <th>Next value</th> <th>Unit</th> <th>Effectiveness</th> <th>Dat</th> </tr> </thead> <tbody> <tr><td>1</td><td>Configuration data</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>2</td><td>TypeOfAxis.Extrapolation.extrapolationTime</td><td>0.0</td><td>0.0</td><td>0.0</td><td>s</td><td>Immediately</td><td>LRI</td></tr> <tr><td>3</td><td>System variables</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>4</td><td>control</td><td></td><td>[4] ACTIVE</td><td></td><td>-</td><td></td><td>En</td></tr> <tr><td>5</td><td>error</td><td></td><td>[91] NO</td><td></td><td>-</td><td></td><td>En</td></tr> <tr><td>6</td><td>errorReaction</td><td></td><td>[93] NONE</td><td></td><td>-</td><td></td><td>En</td></tr> <tr><td>7</td><td>modulo.length</td><td></td><td>0.0</td><td></td><td>mm</td><td></td><td>LRI</td></tr> <tr><td>8</td><td>modulo.state</td><td></td><td>[61] INACTIVE</td><td></td><td>-</td><td></td><td>En</td></tr> <tr><td>9</td><td>motionState.acceleration</td><td></td><td>0.0</td><td></td><td>mm/s²</td><td></td><td>LRI</td></tr> <tr><td>10</td><td>motionState.position</td><td></td><td>0.0</td><td></td><td>mm</td><td></td><td>LRI</td></tr> <tr><td>11</td><td>motionState.velocity</td><td></td><td>0.0</td><td></td><td>mm/s</td><td></td><td>LRI</td></tr> <tr><td>12</td><td>sensorData.position</td><td></td><td>-0.0</td><td></td><td>mm</td><td></td><td>LRI</td></tr> <tr><td>13</td><td>sensorData.state</td><td></td><td>[206] VALID</td><td></td><td>-</td><td></td><td>En</td></tr> <tr><td>14</td><td>sensorData.velocity</td><td></td><td>-1.192092895507</td><td></td><td>mm/s</td><td></td><td>LRI</td></tr> <tr><td>15</td><td>sensorMonitoring.cyclicinterface</td><td></td><td>[61] INACTIVE</td><td></td><td>-</td><td></td><td>En</td></tr> <tr><td>16</td><td>syncState</td><td></td><td>[91] NO</td><td></td><td>-</td><td></td><td>En</td></tr> </tbody> </table>	Parameter	Parameter text	Configured value	Current value	Next value	Unit	Effectiveness	Dat	1	Configuration data							2	TypeOfAxis.Extrapolation.extrapolationTime	0.0	0.0	0.0	s	Immediately	LRI	3	System variables							4	control		[4] ACTIVE		-		En	5	error		[91] NO		-		En	6	errorReaction		[93] NONE		-		En	7	modulo.length		0.0		mm		LRI	8	modulo.state		[61] INACTIVE		-		En	9	motionState.acceleration		0.0		mm/s ²		LRI	10	motionState.position		0.0		mm		LRI	11	motionState.velocity		0.0		mm/s		LRI	12	sensorData.position		-0.0		mm		LRI	13	sensorData.state		[206] VALID		-		En	14	sensorData.velocity		-1.192092895507		mm/s		LRI	15	sensorMonitoring.cyclicinterface		[61] INACTIVE		-		En	16	syncState		[91] NO		-		En
Parameter	Parameter text	Configured value	Current value	Next value	Unit	Effectiveness	Dat																																																																																																																																		
1	Configuration data																																																																																																																																								
2	TypeOfAxis.Extrapolation.extrapolationTime	0.0	0.0	0.0	s	Immediately	LRI																																																																																																																																		
3	System variables																																																																																																																																								
4	control		[4] ACTIVE		-		En																																																																																																																																		
5	error		[91] NO		-		En																																																																																																																																		
6	errorReaction		[93] NONE		-		En																																																																																																																																		
7	modulo.length		0.0		mm		LRI																																																																																																																																		
8	modulo.state		[61] INACTIVE		-		En																																																																																																																																		
9	motionState.acceleration		0.0		mm/s ²		LRI																																																																																																																																		
10	motionState.position		0.0		mm		LRI																																																																																																																																		
11	motionState.velocity		0.0		mm/s		LRI																																																																																																																																		
12	sensorData.position		-0.0		mm		LRI																																																																																																																																		
13	sensorData.state		[206] VALID		-		En																																																																																																																																		
14	sensorData.velocity		-1.192092895507		mm/s		LRI																																																																																																																																		
15	sensorMonitoring.cyclicinterface		[61] INACTIVE		-		En																																																																																																																																		
16	syncState		[91] NO		-		En																																																																																																																																		

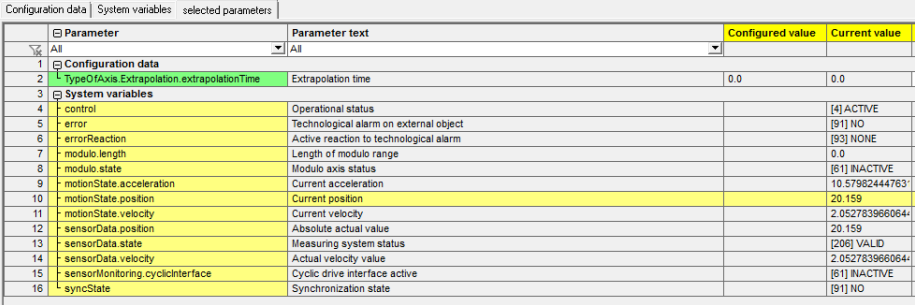
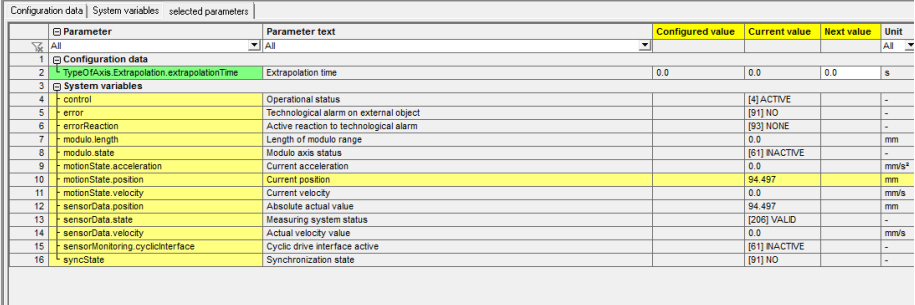
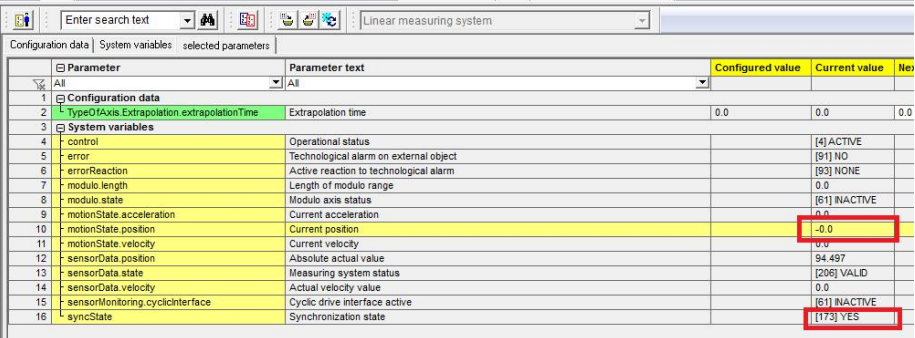
序号	图示与说明																																																																																																						
12.	<p>旋转编码器，则显示如下图：</p>  <table border="1"> <thead> <tr> <th>Parameter</th> <th>Parameter text</th> <th>Configured value</th> <th>Current value</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Configuration data</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>TypeOfAxis.Extrapolation.extrapolationTime</td> <td>0.0</td> <td>0.0</td> </tr> <tr> <td>3</td> <td>System variables</td> <td></td> <td></td> </tr> <tr> <td>4</td> <td>control</td> <td></td> <td>[4] ACTIVE</td> </tr> <tr> <td>5</td> <td>error</td> <td></td> <td>[91] NO</td> </tr> <tr> <td>6</td> <td>errorReaction</td> <td></td> <td>[93] NONE</td> </tr> <tr> <td>7</td> <td>modulo.length</td> <td></td> <td>0.0</td> </tr> <tr> <td>8</td> <td>modulo.state</td> <td></td> <td>[61] INACTIVE</td> </tr> <tr> <td>9</td> <td>motionState.acceleration</td> <td></td> <td>10.57982444783</td> </tr> <tr> <td>10</td> <td>motionState.position</td> <td></td> <td>20.159</td> </tr> <tr> <td>11</td> <td>motionState.velocity</td> <td></td> <td>2.052783966064</td> </tr> <tr> <td>12</td> <td>sensorData.position</td> <td></td> <td>20.159</td> </tr> <tr> <td>13</td> <td>sensorData.state</td> <td></td> <td>[206] VALID</td> </tr> <tr> <td>14</td> <td>sensorData.velocity</td> <td></td> <td>2.052783966064</td> </tr> <tr> <td>15</td> <td>sensorMonitoring.cyclicInterface</td> <td></td> <td>[61] INACTIVE</td> </tr> <tr> <td>16</td> <td>syncState</td> <td></td> <td>[91] NO</td> </tr> </tbody> </table>	Parameter	Parameter text	Configured value	Current value	1	Configuration data			2	TypeOfAxis.Extrapolation.extrapolationTime	0.0	0.0	3	System variables			4	control		[4] ACTIVE	5	error		[91] NO	6	errorReaction		[93] NONE	7	modulo.length		0.0	8	modulo.state		[61] INACTIVE	9	motionState.acceleration		10.57982444783	10	motionState.position		20.159	11	motionState.velocity		2.052783966064	12	sensorData.position		20.159	13	sensorData.state		[206] VALID	14	sensorData.velocity		2.052783966064	15	sensorMonitoring.cyclicInterface		[61] INACTIVE	16	syncState		[91] NO																																		
Parameter	Parameter text	Configured value	Current value																																																																																																				
1	Configuration data																																																																																																						
2	TypeOfAxis.Extrapolation.extrapolationTime	0.0	0.0																																																																																																				
3	System variables																																																																																																						
4	control		[4] ACTIVE																																																																																																				
5	error		[91] NO																																																																																																				
6	errorReaction		[93] NONE																																																																																																				
7	modulo.length		0.0																																																																																																				
8	modulo.state		[61] INACTIVE																																																																																																				
9	motionState.acceleration		10.57982444783																																																																																																				
10	motionState.position		20.159																																																																																																				
11	motionState.velocity		2.052783966064																																																																																																				
12	sensorData.position		20.159																																																																																																				
13	sensorData.state		[206] VALID																																																																																																				
14	sensorData.velocity		2.052783966064																																																																																																				
15	sensorMonitoring.cyclicInterface		[61] INACTIVE																																																																																																				
16	syncState		[91] NO																																																																																																				
13.	<p>停止编码器旋转，则变化如下图：</p>  <table border="1"> <thead> <tr> <th>Parameter</th> <th>Parameter text</th> <th>Configured value</th> <th>Current value</th> <th>Next value</th> <th>Unit</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Configuration data</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>TypeOfAxis.Extrapolation.extrapolationTime</td> <td>0.0</td> <td>0.0</td> <td>0.0</td> <td>s</td> </tr> <tr> <td>3</td> <td>System variables</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>4</td> <td>control</td> <td></td> <td></td> <td>[4] ACTIVE</td> <td>-</td> </tr> <tr> <td>5</td> <td>error</td> <td></td> <td></td> <td>[91] NO</td> <td>-</td> </tr> <tr> <td>6</td> <td>errorReaction</td> <td></td> <td></td> <td>[93] NONE</td> <td>-</td> </tr> <tr> <td>7</td> <td>modulo.length</td> <td></td> <td></td> <td>0.0</td> <td>mm</td> </tr> <tr> <td>8</td> <td>modulo.state</td> <td></td> <td></td> <td>[61] INACTIVE</td> <td>-</td> </tr> <tr> <td>9</td> <td>motionState.acceleration</td> <td></td> <td></td> <td>0.0</td> <td>mm/s²</td> </tr> <tr> <td>10</td> <td>motionState.position</td> <td></td> <td></td> <td>94.497</td> <td>mm</td> </tr> <tr> <td>11</td> <td>motionState.velocity</td> <td></td> <td></td> <td>0.0</td> <td>mm/s</td> </tr> <tr> <td>12</td> <td>sensorData.position</td> <td></td> <td></td> <td>94.497</td> <td>mm</td> </tr> <tr> <td>13</td> <td>sensorData.state</td> <td></td> <td></td> <td>[206] VALID</td> <td>-</td> </tr> <tr> <td>14</td> <td>sensorData.velocity</td> <td></td> <td></td> <td>0.0</td> <td>mm/s</td> </tr> <tr> <td>15</td> <td>sensorMonitoring.cyclicInterface</td> <td></td> <td></td> <td>[61] INACTIVE</td> <td>-</td> </tr> <tr> <td>16</td> <td>syncState</td> <td></td> <td></td> <td>[91] NO</td> <td>-</td> </tr> </tbody> </table>	Parameter	Parameter text	Configured value	Current value	Next value	Unit	1	Configuration data					2	TypeOfAxis.Extrapolation.extrapolationTime	0.0	0.0	0.0	s	3	System variables					4	control			[4] ACTIVE	-	5	error			[91] NO	-	6	errorReaction			[93] NONE	-	7	modulo.length			0.0	mm	8	modulo.state			[61] INACTIVE	-	9	motionState.acceleration			0.0	mm/s²	10	motionState.position			94.497	mm	11	motionState.velocity			0.0	mm/s	12	sensorData.position			94.497	mm	13	sensorData.state			[206] VALID	-	14	sensorData.velocity			0.0	mm/s	15	sensorMonitoring.cyclicInterface			[61] INACTIVE	-	16	syncState			[91] NO	-
Parameter	Parameter text	Configured value	Current value	Next value	Unit																																																																																																		
1	Configuration data																																																																																																						
2	TypeOfAxis.Extrapolation.extrapolationTime	0.0	0.0	0.0	s																																																																																																		
3	System variables																																																																																																						
4	control			[4] ACTIVE	-																																																																																																		
5	error			[91] NO	-																																																																																																		
6	errorReaction			[93] NONE	-																																																																																																		
7	modulo.length			0.0	mm																																																																																																		
8	modulo.state			[61] INACTIVE	-																																																																																																		
9	motionState.acceleration			0.0	mm/s²																																																																																																		
10	motionState.position			94.497	mm																																																																																																		
11	motionState.velocity			0.0	mm/s																																																																																																		
12	sensorData.position			94.497	mm																																																																																																		
13	sensorData.state			[206] VALID	-																																																																																																		
14	sensorData.velocity			0.0	mm/s																																																																																																		
15	sensorMonitoring.cyclicInterface			[61] INACTIVE	-																																																																																																		
16	syncState			[91] NO	-																																																																																																		
14.	<p>修改变量 startSYN=1，则变化如下图：</p>  <table border="1"> <thead> <tr> <th>Parameter</th> <th>Parameter text</th> <th>Configured value</th> <th>Current value</th> <th>Hex</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Configuration data</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>TypeOfAxis.Extrapolation.extrapolationTime</td> <td>0.0</td> <td>0.0</td> <td>0.0</td> </tr> <tr> <td>3</td> <td>System variables</td> <td></td> <td></td> <td></td> </tr> <tr> <td>4</td> <td>control</td> <td></td> <td></td> <td>[4] ACTIVE</td> </tr> <tr> <td>5</td> <td>error</td> <td></td> <td></td> <td>[91] NO</td> </tr> <tr> <td>6</td> <td>errorReaction</td> <td></td> <td></td> <td>[93] NONE</td> </tr> <tr> <td>7</td> <td>modulo.length</td> <td></td> <td></td> <td>0.0</td> </tr> <tr> <td>8</td> <td>modulo.state</td> <td></td> <td></td> <td>[61] INACTIVE</td> </tr> <tr> <td>9</td> <td>motionState.acceleration</td> <td></td> <td></td> <td>0.0</td> </tr> <tr> <td>10</td> <td>motionState.position</td> <td></td> <td>-0.0</td> <td></td> </tr> <tr> <td>11</td> <td>motionState.velocity</td> <td></td> <td>0.0</td> <td></td> </tr> <tr> <td>12</td> <td>sensorData.position</td> <td></td> <td>94.497</td> <td></td> </tr> <tr> <td>13</td> <td>sensorData.state</td> <td></td> <td>0.0</td> <td></td> </tr> <tr> <td>14</td> <td>sensorData.velocity</td> <td></td> <td>0.0</td> <td></td> </tr> <tr> <td>15</td> <td>sensorMonitoring.cyclicInterface</td> <td></td> <td></td> <td>[61] INACTIVE</td> </tr> <tr> <td>16</td> <td>syncState</td> <td></td> <td></td> <td>[173] YES</td> </tr> </tbody> </table>	Parameter	Parameter text	Configured value	Current value	Hex	1	Configuration data				2	TypeOfAxis.Extrapolation.extrapolationTime	0.0	0.0	0.0	3	System variables				4	control			[4] ACTIVE	5	error			[91] NO	6	errorReaction			[93] NONE	7	modulo.length			0.0	8	modulo.state			[61] INACTIVE	9	motionState.acceleration			0.0	10	motionState.position		-0.0		11	motionState.velocity		0.0		12	sensorData.position		94.497		13	sensorData.state		0.0		14	sensorData.velocity		0.0		15	sensorMonitoring.cyclicInterface			[61] INACTIVE	16	syncState			[173] YES																	
Parameter	Parameter text	Configured value	Current value	Hex																																																																																																			
1	Configuration data																																																																																																						
2	TypeOfAxis.Extrapolation.extrapolationTime	0.0	0.0	0.0																																																																																																			
3	System variables																																																																																																						
4	control			[4] ACTIVE																																																																																																			
5	error			[91] NO																																																																																																			
6	errorReaction			[93] NONE																																																																																																			
7	modulo.length			0.0																																																																																																			
8	modulo.state			[61] INACTIVE																																																																																																			
9	motionState.acceleration			0.0																																																																																																			
10	motionState.position		-0.0																																																																																																				
11	motionState.velocity		0.0																																																																																																				
12	sensorData.position		94.497																																																																																																				
13	sensorData.state		0.0																																																																																																				
14	sensorData.velocity		0.0																																																																																																				
15	sensorMonitoring.cyclicInterface			[61] INACTIVE																																																																																																			
16	syncState			[173] YES																																																																																																			

表 2-1 操作步骤说明