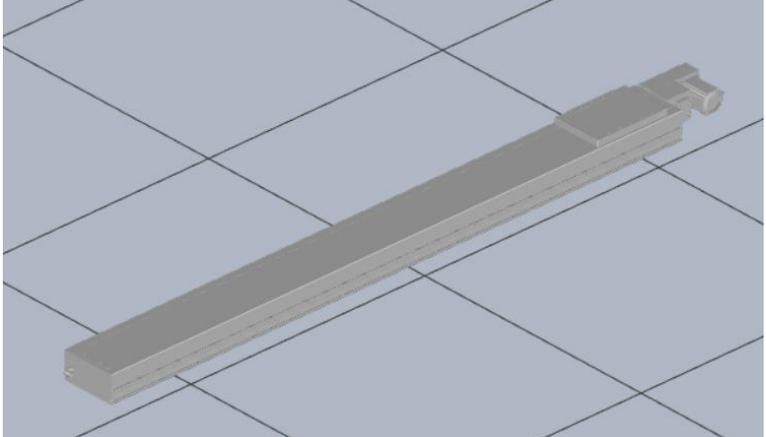


3D Simulation Sample Program No.01	<h1>Electric actuator</h1>
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Basic function	Makes the device to be ready for operation, and performs homing, jog, and demonstration.
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3D image	 <p>CAD data: CKD Corporation ECV-22-40200-RP8XNNNN          The CAD data was edited by OMRON. Refer to the Sysmac Studio 3D Simulation Function Operation Manual (W618-E1) for the editing procedures.</p>
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File name	CKD ECV 22 40200 RP8XNNNN Slider.smc2
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Applicable model	Sysmac Studio (64-bit version)	SYSMAC-SE2xxx Ver.1.40 or higher
	Sysmac Studio 3D Simulation Option	SYSMAC-SA4xxL-64

Used language	Ladder programming
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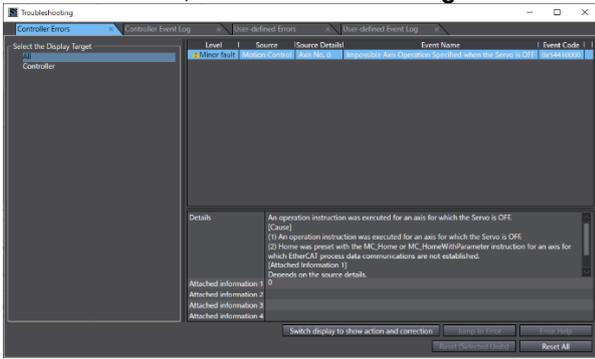
Used materials and equipment	Virtual axis is used as the motor component in this simulation.
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Function description	<ul style="list-style-type: none"> <li>• When the Move_Home variable (Boolean) rises, the slider moves to the home position.</li> <li>• When the Move_Middle variable (Boolean) rises, the slider moves to the halfway position.</li> <li>• When the Move_Edge variable (Boolean) rises, the slider moves to the end.</li> <li>• When the Move_Stop variable (Boolean) rises, the slider stops.</li> </ul>
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Mechanical component types provided on the Sysmac Studio	Single Axis Position Control
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Precaution for use	<ul style="list-style-type: none"> <li>• This sample program is specifically prepared for 3D simulation. Do not use this program in actual machine operation.</li> <li>• CKD Corporation does not sell motor with this actuator, and also does not guarantee quality, accuracy, functionality, safety or reliability as the combination of the actuator and motor in this example.</li> </ul>
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Restrictions and others	<ul style="list-style-type: none"> <li>• Error processing is not included in the sample program.</li> </ul> <p>To reset errors, select <b>Troubleshooting</b> from the Tools Menu, then click the <b>Reset All</b> button.</p>
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Application example

1. Moving to home signal: Shifts the slider to the home position.

=====

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=====

[ENG] Moving to the home position: The slider moves to the home position.  
 [JPN] 原点移動運転：スライダを原点に移動します。

Variable: Move\_Home  
 [ENG] The signal triggers moving to the home position. Assigning 0 to the target position and TRUE to the variable of the start slider signal while the signal rises will shift the slider to the home position.  
 [JPN] 原点移動開始指示信号。立ち上がり時、目標位置に0をセットし、動作開始の変数をTRUEにすることで、スライダを原点に移動します。

Variable: Move\_Middle  
 [ENG] The signal triggers moving to the halfway point. Assigning 1000 to the target position and TRUE to the variable of the start slider signal while the signal rises will shift the slider to the halfway point.  
 [JPN] 中間地点移動開始指示信号。立ち上がり時、目標位置に1000をセットし、動作開始の変数をTRUEにすることで、スライダを中間地点に移動します。

Variable: Move\_Edge  
 [ENG] The signal triggers moving to the end. Assigning 2000 to the target position and TRUE to the variable of the start slider signal while the signal rises will shift the slider to the end.  
 [JPN] 末端移動開始指示信号。立ち上がり時、目標位置に2000をセットし、動作開始の変数をTRUEにすることで、スライダを末端に移動します。

Variable: Target\_Position  
 [ENG] Target position of the slider (mm).  
 [JPN] スライダ目標位置(mm)。

Variable: Slide\_Start  
 [ENG] Variable triggers the slider to move. Assigning TRUE operates the slider.  
 [JPN] スライダの動作開始に対応する変数です。TRUEにするとスライダが動作します。

2. Moving to halfway point signal: Shifts the slider to the halfway point.

[ENG] Moving to the halfway point: The slider moves to the halfway point.  
 [JPN] 中間地点移動運転：スライダを中間地点に移動します。

3. Moving to the end signal: Shifts the slider to the end.

[ENG] Moving to the end: The slider moves to the end.  
 [JPN] 末端移動運転：スライダを末端に移動します。

4. Stop positioning signal: Stops the slider.

[ENG] Stop positioning : The slider stops.  
 [JPN] 位置決め停止：スライダを停止させます。

Variable: Move\_Stop  
 [ENG] Stop positioning signal: The signal stops the slider.  
 [JPN] 位置決め停止信号：立ち上がり時、スライダを停止させます。

(Additional information)  
 To confirm 3D operation, select **3D Visualizer** from the View menu. You can confirm the operation on the 3D Visualizer.

Related manuals

Sysmac Studio Version 1 Operation Manual (W504-E1)  
 Sysmac Studio 3D Simulation Function Operation Manual (W618-E1)

## ■ Variable Tables

### Input Variables

Meaning	Name	Data type	Default	Range	Description
Moving to home signal	Move_Home	BOOL		TRUE or FALSE	The signal triggers moving to the home position. Assigning 0 to the target position and TRUE to the variable of the start slider signal while the signal rises will shift the slider to the home position.
Moving to halfway point signal	Move_Middle	BOOL		TRUE or FALSE	The signal triggers moving to the halfway point. Assigning 1000 to the target position and TRUE to the variable of the start slider signal while the signal rises will shift the slider to the halfway point.
Moving to the end signal	Move_Edge	BOOL		TRUE or FALSE	The signal triggers moving to the end. Assigning 2000 to the target position and TRUE to the variable of the start slider signal while the signal rises will shift the slider to the end.
Stop positioning signal	Move_Stop	BOOL		TRUE or FALSE	The signal stops the slider.

### Output Variables

Meaning	Name	Data type	Range	Description

## ■ Version History

Version	Date	Contents
1.00	March 2022	Original production.

## ■ Note

This document explains the function of the sample programs specifically prepared for 3D simulation.

It does not provide information of restrictions on the use of Units and Components or combination of them. For actual applications, make sure to read the operation manuals of the applicable product

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