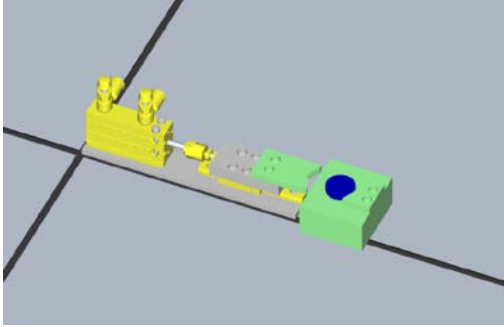
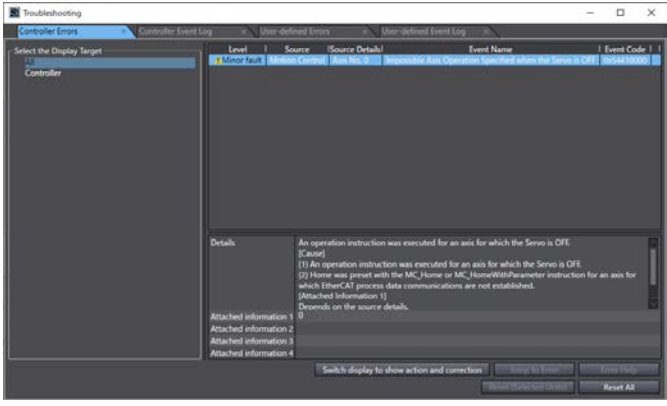
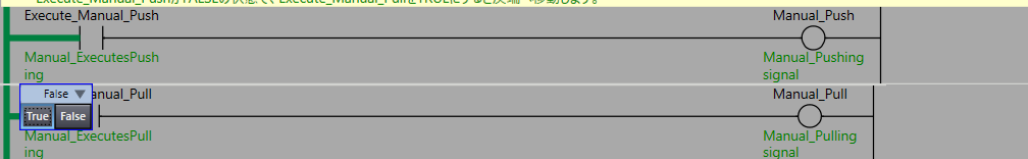
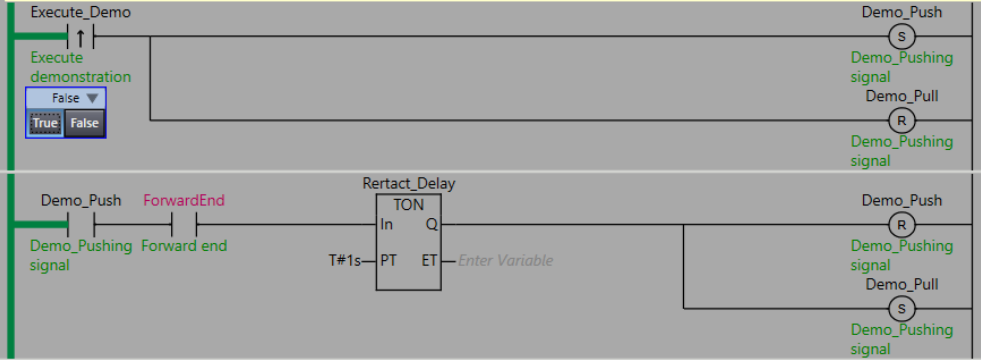
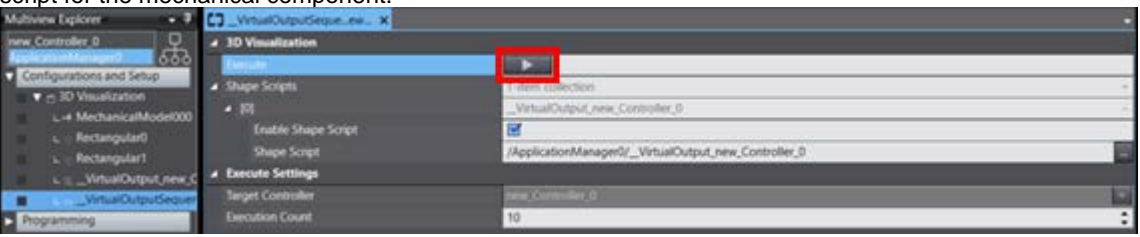


3D Simulation Sample Program No.29	Compact guide using cylinder	
Basic function	Performs manual operation and demonstration.	
3D image	 <p>CAD data: MISUMI Corporation inCAD Library No. 000843 (*) The CAD data was edited by OMRON. Refer to the Sysmac Studio 3D Simulation Function Operation Manual (W618-E1) for the editing procedures. (*The component name is not listed in the English website of MISUMI Corporation.)</p>	
File name	3DSimulationSample_29_Compact_guide_using_cylinder_V1_00.smc2	
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	
Used materials and equipment	-	
Function description	<ul style="list-style-type: none"> <li>When the Execute_Manual_Push variable (Boolean) changes to TRUE while the Execute_Manual_Pull variable (Boolean) is FALSE, the cylinder moves to the forward end.</li> <li>When the Execute_Manual_Pull variable (Boolean) changes to TRUE while the Execute_Manual_Push variable (Boolean) is FALSE, the cylinder moves to the backward end.</li> <li>When the Excute_Demo variable (Boolean) changes to TRUE, a demonstration is performed.</li> </ul>	
Mechanical component types provided on the Sysmac Studio	Air Cylinder (Double Solenoid Type)	
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>MISUMI Corporation may not offer all parts in each application design. Available parts can only be purchased separately not as a unit shown in each application design. MISUMI Corporation does not guarantee quality, accuracy, functionality, safety or reliability for the combination of the parts in each application example.</li> </ul>	
Restrictions and others	<ul style="list-style-type: none"> <li>Error processing is not included in the sample program.</li> <li>To reset errors, select <b>Troubleshooting</b> from the Tools Menu, then click the <b>Reset All</b> button.</li> </ul> 	

Application example	<p><b>1. Manual Operation: Turns the double solenoid switches ON or OFF manually..</b></p> <p>[ENG]Manual Operation : Turns the double solenoid switches ON or OFF manually  [JPN]手動運転 : ダブルソレノイドスイッチ を手動操作でON/OFFします。</p> <p>Variable: Execute_Manual_Push/Execute_Manual_Pull  [ENG]When the value of the Execute_Manual_Push variable changes to TRUE while the Execute_Maual_Pull variable is FALSE, the cylinder moves to the forward end.  When the value of the Execute_Manual_Pull variable changes to TRUE while the Execute_Manual_Push variable is FALSE, the cylinder moves to the backward end.  [JPN]Execute_Manual_PullがFALSEの状態で、Execute_Manual_PushをTRUEにすると出端へ移動します。  Execute_Manual_PushがFALSEの状態で、Execute_Manual_PullをTRUEにすると戻端へ移動します。</p>  <p><b>2. Demonstration: Performs demonstration.</b></p> <p>[ENG]Demonstration : Performs demonstration  [JPN]デモ動作 : デモ動作を実行します。</p> <p>Variable: Execute_Demo  [ENG]A demonstration is performed when the value of this variable changes to TRUE.  [JPN]立ち上がり時にデモ動作を開始します。</p>  <p>(Additional information)  To confirm 3D operation, select <b>3D Visualizer</b> from the View menu. You can confirm the operation on the 3D Visualizer.</p> <p>After performing a program simulation on the Sysmac Studio, execute the virtual output script for the mechanical component, in the following procedure.  Select <b>ApplicationManager0 – Configuration and Setup – 3D Visualization – _VirtualOutputSequence_new_Controller_0</b> in the Multiview Explorer, and execute the virtual output script for the mechanical component.</p> 
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
Manual Operation (forward end)	Execute_Manual_Push	BOOL		TRUE or FALSE	When the value of this variable changes to TRUE while the Execute_Manual_Pull variable is FALSE, the cylinder moves to the forward end.
Manual Operation (backward end)	Execute_Manual_Pull	BOOL		TRUE or FALSE	When the value of this variable changes to TRUE while the Execute_Manual_Push variable is FALSE, the cylinder moves to the backward end.
Demonstration	Execute_Demo	BOOL		TRUE or FALSE	A demonstration is performed when the value of this variable changes to TRUE.

### Output Variables

Meaning	Name	Data type	Range	Description
Solenoid Switch Forward End Output	Push	BOOL		TRUE while signals are output to the double solenoid switches.
Solenoid Switch Backward End Output	Pull	BOOL		TRUE while signals are output to the double solenoid switches.

## ■ Version History

Version	Date	Contents
1.00	July 2020	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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