

TEST GUIDE FOR THE FANUC PLUGIN ON ROBOGUIDE

A guide for plugin testers

2791N006 Rev. G
06/2024



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1 MODIFICATION HISTORY

Revision	Date	Related software version COVAL_CVGCBridge.ipl	Description
A	06/2023	v00.50 / v00.60	Document creation
B	06/2023	v00.70	Signal states retained when application is exited. Part loss occurred now available in the robot via variable PRTLOS
C	08/2023	V01.00	Add instructions and program COVAL_DEFAULT_PRG.TP
D	10/2023	V01.01	Minor changes to source code in response to feedback from FANUC
E	12/2023	V01.02.00	Minor changes to source code in response to 2 nd feedback from FANUC
F	03/2024	V01.03.01	Minor changes to source code in response to 3 rd feedback from FANUC.
G	06/2024	V01.03.02	Correction of source code following a version error

2 INTRODUCTION

The purpose of this document is to facilitate testing of the plugin on ROBOGUIDE software, a robot simulator that simulates both the robot's motion and application commands.

This plugin enables compatibility between CVGC carbon vacuum gripper and FANUC CRX robots. The various functions and associated I/O states are listed in the sections below.

3 FUNCTIONS

3.1 Idle

Here is the default state, as well as the logical states of its inputs/outputs:

RI[1] = RO[1] = RO[2] = 0



3.2 Vacuum control

Here is the vacuum control function, as well as the logic states of the inputs/outputs:

RO[1] = 1 ; RO[1] et RO[2] must not be set to 1 at the same time.



3.3 Release control

Here is the release control function, as well as the logic states of the inputs/outputs:

RO[2] = 1 ; RO[1] et RO[2] must not be set to 1 at the same time.



3.4 Part gripped

Here is the part gripped signal, as well as the logic states of the inputs/outputs:

When RI[1] = 1, "Part gripped" = 1 (green light on)



3.5 Part loss occurred

Here is the part loss memorization signal, as well as the logic states of the inputs/outputs:

When RO[1] = 1 & RI[1] goes from 1 to 0, "Part loss occurred" = 1 (red light on)

If RI[1] returns to 1, "Part loss occurred" remains at 1 (red light on)

If RO[1] = 0 & RI[1] = 0, "Part loss occurred" returns to 0 (red light off)

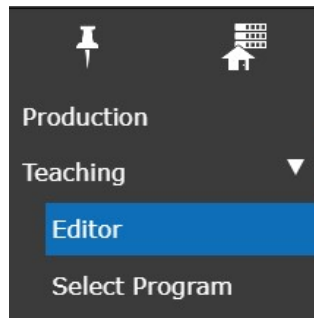


4 PROGRAM

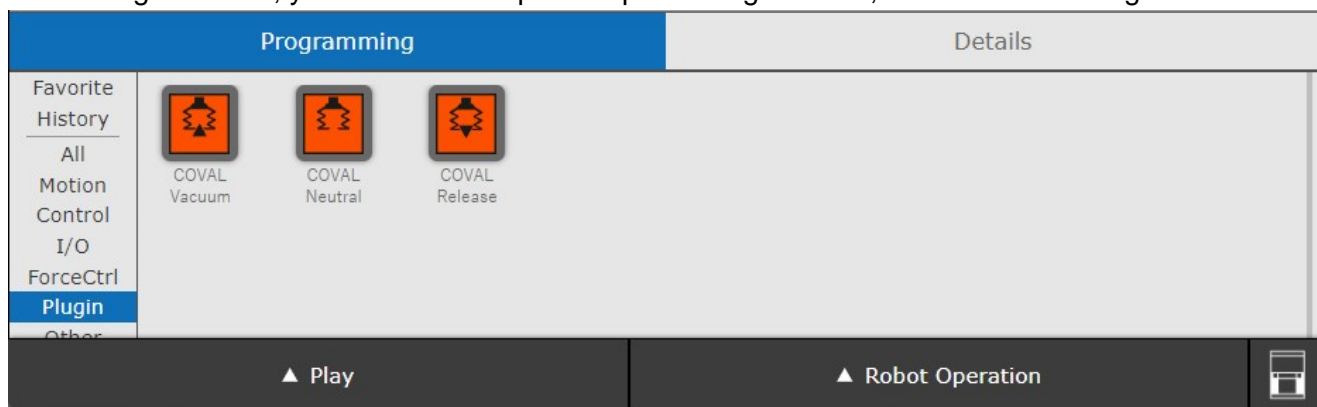
4.1 Adding instructions

This section describes how to add instructions for controlling the peripheral device.

To edit the program, use the ihmieditor screen display in Teaching / Editor.



In the Plugin section, you can find icon pallet representing vacuum, neutral and blowing instructions :

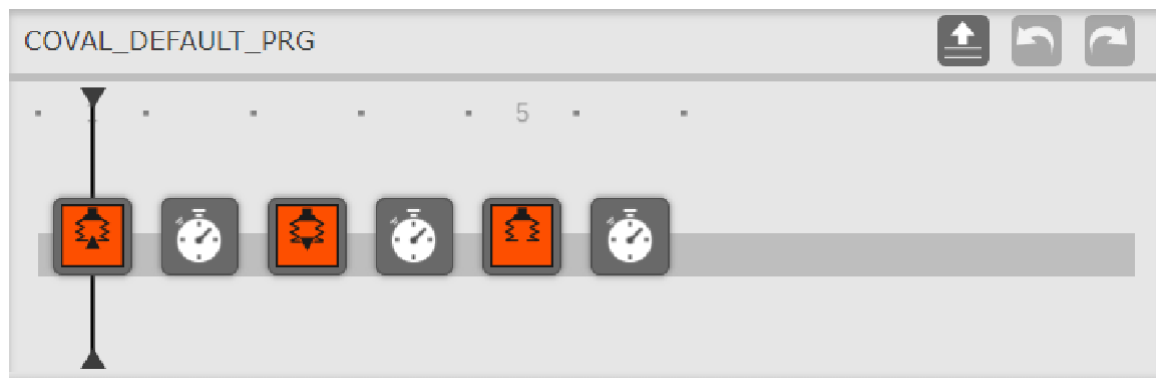


You can select the chosen command and add it to the program by dragging it into the program line.

4.2 Example

The COVAL_DEFAULT_PRG.TP file, attached to the plugin, is an example of a program that can be added by the user. It uses the plugin's various instructions :

- Vacuum command (RO[1]=1) for 3s ;
- Release command (RO[2]=1) for 3s ;
- Neutral position (RO[1]=RO[2]=0) for 3 s.



-- End of document --