MELFA Technical News

BFP-A6079-0134E

October 2014

Subject:	Report of RT ToolBox2 Version 3.20W release
Applicable to:	**F series, SQ series, SD series, S series (CR750/CRnQ-700/CRnD-700/CRn-500 series robot controller)**

Thank you for your continued support of Mitsubishi industrial robot "MELFA".

This Technical news describes the new version 3.20W of the RT ToolBox2. 3D-11C-WINJ(E)/3D-12C-WINJ(E)

In order to use the functions described in this technical news, you need to download the latest version from MITSUBISHI ELECTRIC FA site, and upgrading the RT ToolBox2.
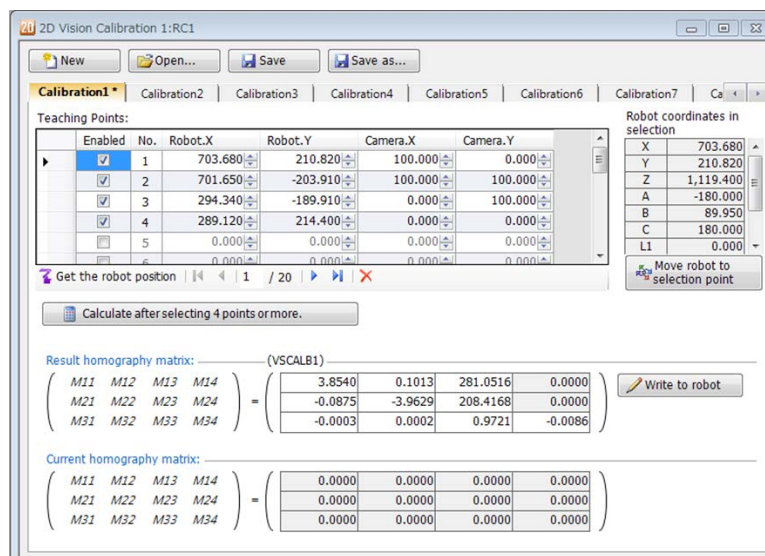
1. Program editor

● **Corresponded to multiple undo/redo.**

2. Maintenance

● **Added the function of "2D vision calibration"**

Added the calibration function of the coordinate of the 2D vision sensor and the coordinate of the robot and did it.

MITSUBISHI ELECTRIC CORPORATION

3. Operation panel

● The automatic driving function is added.

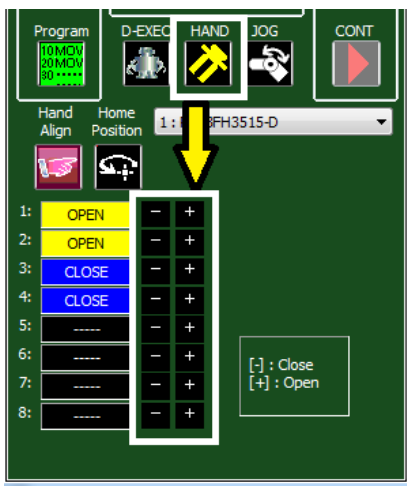When RT ToolBox2 connects to the robot controller or the simulator, you can run the robot program.

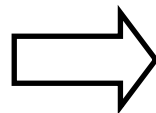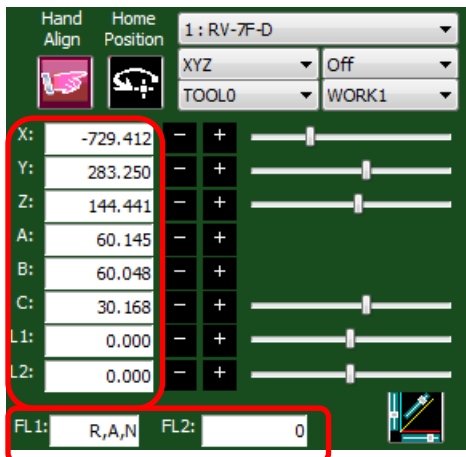Operating a controller screen   Operating a simulation screen

4. Simulator
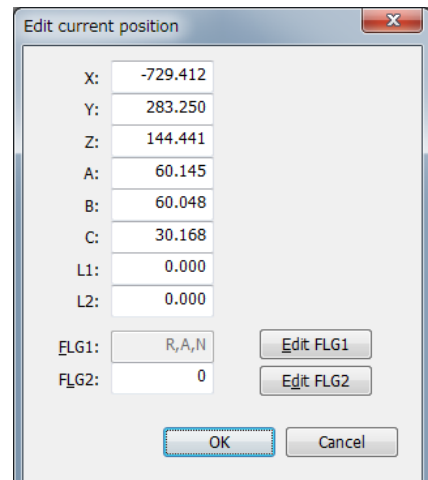
● Open/Close operation of the hand is added.

● The function that moves specifying the coordinate value is added.

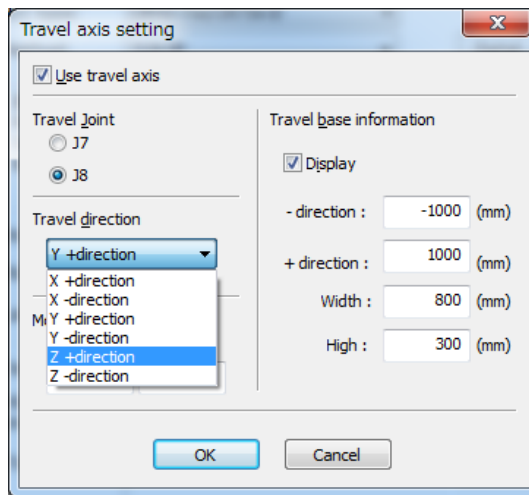By directly specifying the XYZ coordinate values or joint, you can move the robot.

Double click
the control of
position value

● Corresponded to Z direction of the travel base.

If you set the [Z-] direction or [Z +] direction, the robot will move up and down.

● Enable the additional axis parameter settings during simulation.

Select the [Set the additional axis parameter of the simulation automatically by the content of the above setting] checkbox in Project editor, the setting content of the traveling axis is applied to robot additional axis parameters of the simulation. To use setting parameters in the simulation, clear the checkbox.
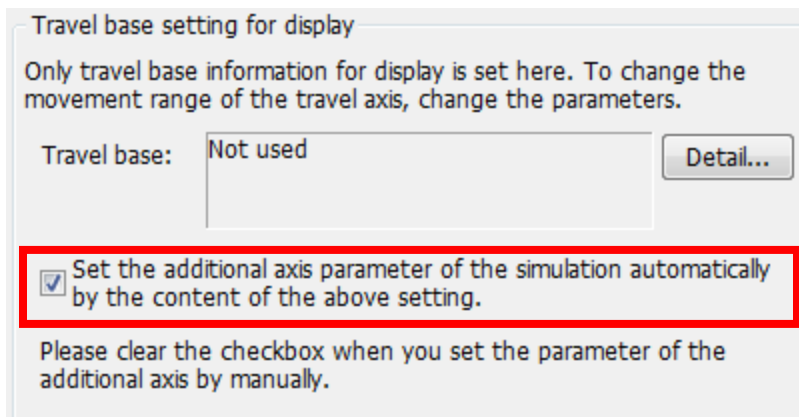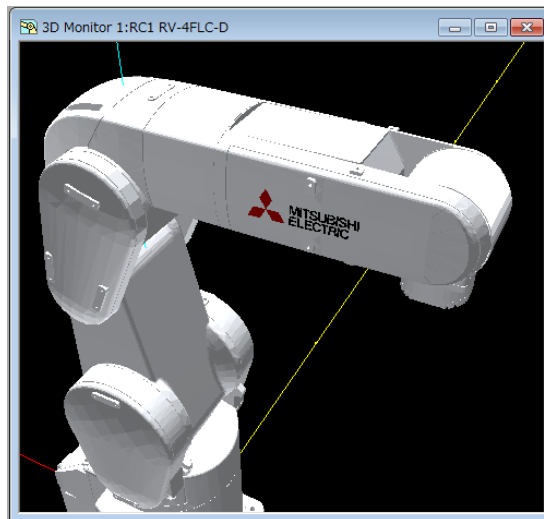
# 5. 3D monitor

● Added the detailed robot model.

The robot model that displays in 3D monitor can be selected from "Detailed model" and "Simple model" with Version 3.20W or later of this software.

Recommended environment to display "Detailed model" is as follows.

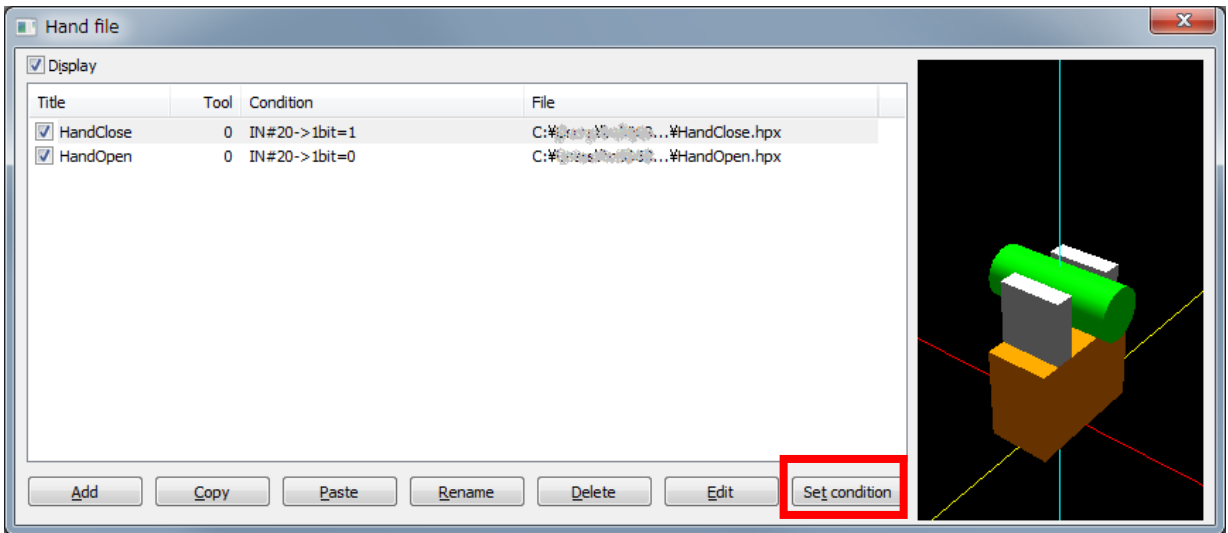| Item	Recommended environment
CPU	Core2 Duo, Core i3 3 GHz or higher.
Main memory	2 GB min.

If you want to display a simple model, you can change the settings in the Edit workspace.
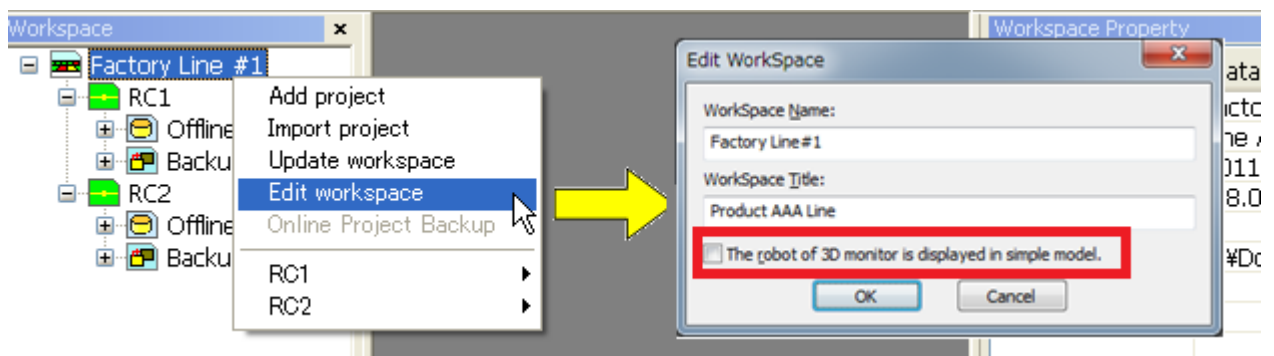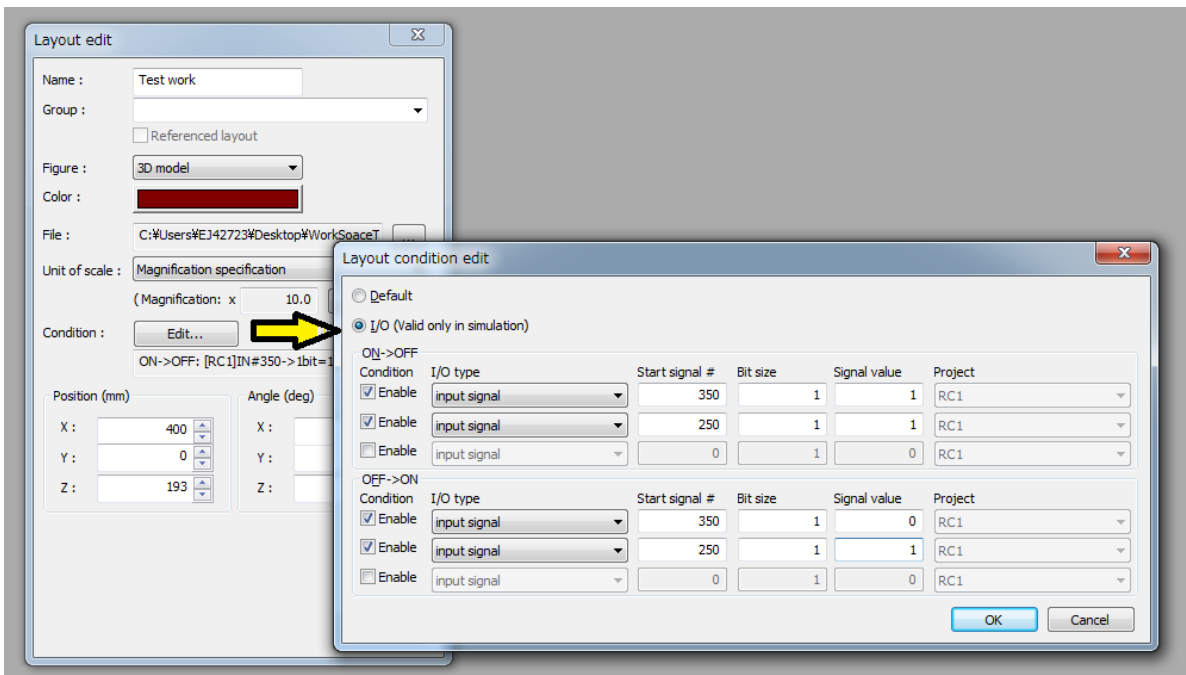
● **Added the function to switch the hand depending on the tool selected state and I/O.**

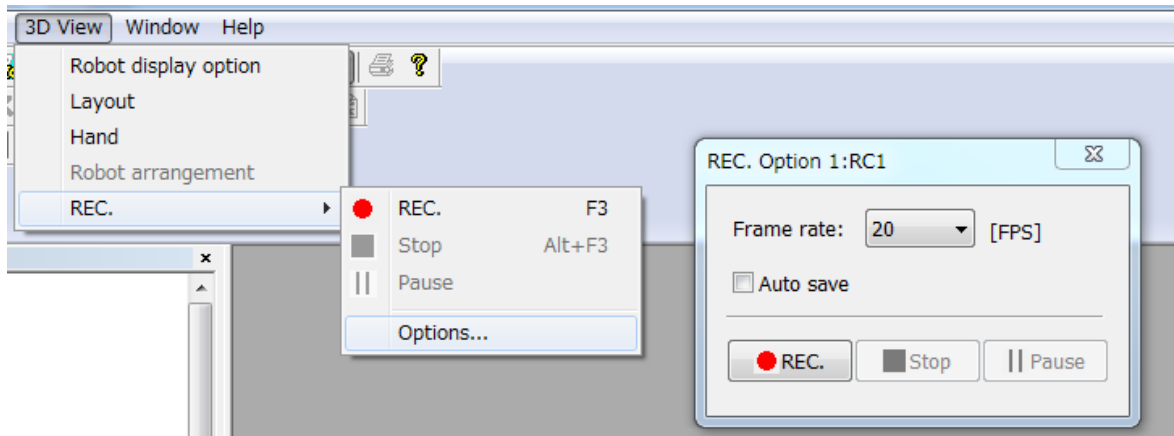It is now possible to grab the work automatically, switch the hand.

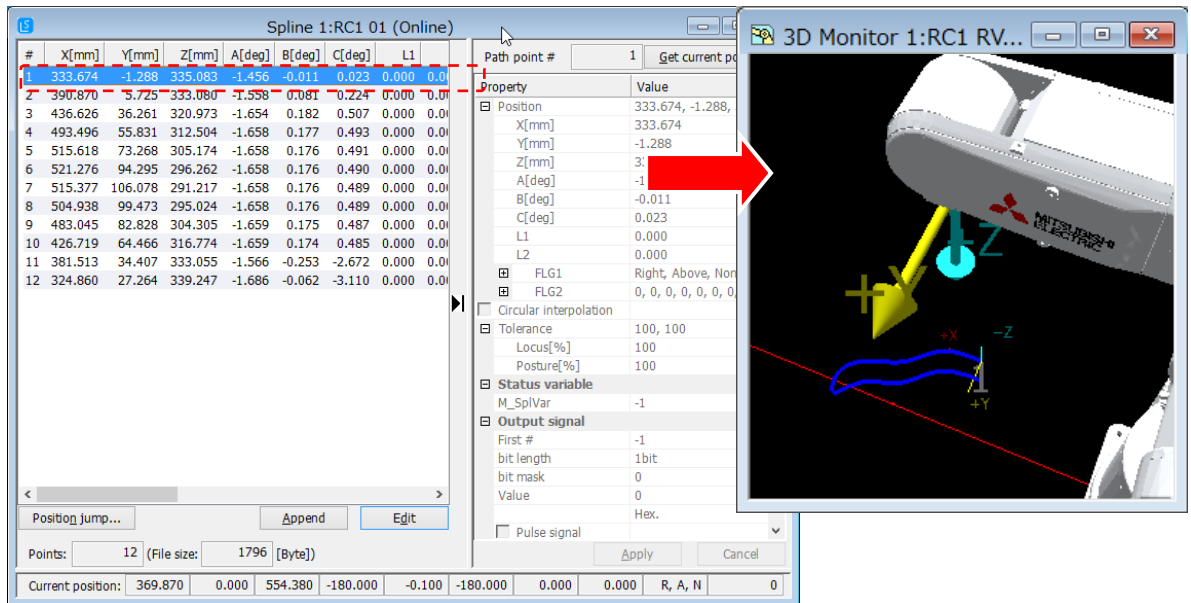● **Added the function to display / hide the layout in the I / O state.**

● **Added function to recode to record contents in the 3D monitor and save the AVI file.**

At a frame rate 30/20/10, it can be saved AVI files of up to 500M bytes.

● **Added function of display the spline curve.**

Spline file being edit or spline file that is specified in the option screen will be displayed on the 3D monitor.
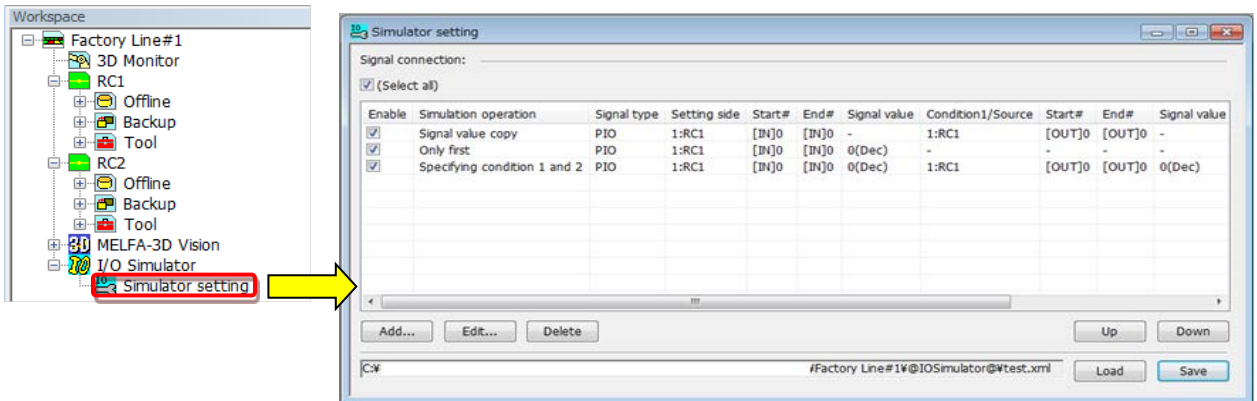
6. I/O simulator

I/O simulator simulates the signal communication between robots. And this function can also interact with device of GX Simulator2.

● Simulator settings

Before starting I/O simulator, create a I/O simulator definition file.

● Starting I/O Simulator

Click [Start I/O simulator] button on toolbar to start I/O simulator during the simulation.