

# MITSUBISHI

Mitsubishi Electric Corporation **Industrial** Robot

## MELFA Technical News

BFP-A6079-0107E

November 2013

**Subject:** Report of RT ToolBox2 Version 3.00A release

**Applicable to:** Fseries, S Qseries, S Dseries, Sseries  
(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 3.00A of the RT ToolBox2. 3D-11C-WINJ(E)/3D-12C-WINJ(E)

### 1. Model addition

The following models were added.

<RV-F Load maximum:4Kg 5 axes long arm>

RV-4FJL-D/Q RV-4FJL-D/Q-SH

<RV-F Load maximum:4Kg 5 axes long arm / Clean specification>

RV-4FJLC-D/Q

<RV-F Load maximum:4Kg 5 axes long arm / Mist specification>

RV-4FJLM-D/Q RV-4FJLM-D/Q-SM

<RH-FHR Load maximum:3Kg>

RH-3FHR3515-D/Q

<RH-FHR Load maximum:3Kg/ Clean specification >

RH-3FHR3512C-D/Q

<RH-FHR Load maximum:3Kg/ Waterproofing>

RH-3FHR3512W-D/Q

### 2. Function improvement

#### ● Corresponds to Windows8.1

Windows 8.1 (32/64-bit version) (\*1)

Windows 8.1 Pro (32/64-bit version) (\*1)

Windows 8.1 Enterprise (32/64-bit version) (\*1)

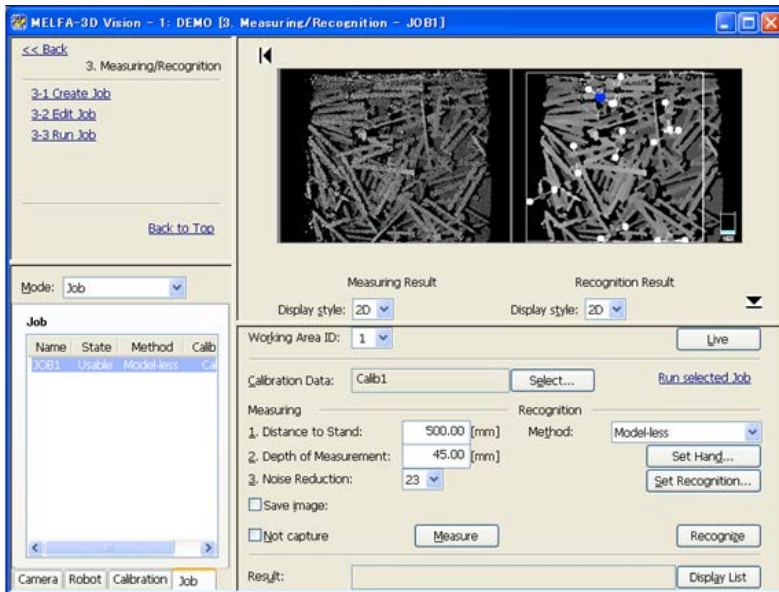
(\*1) When installing in Windows8.1

When you install this software, [.NET Framework 3.5 (includes .NET 2.0 and 3.0)] feature should be turned on.

Refer to Chapter 1.5.1.1 of "RT ToolBox2 / RT ToolBox2 mini User' s Manual" for the method of a present state confirmation and turning on.

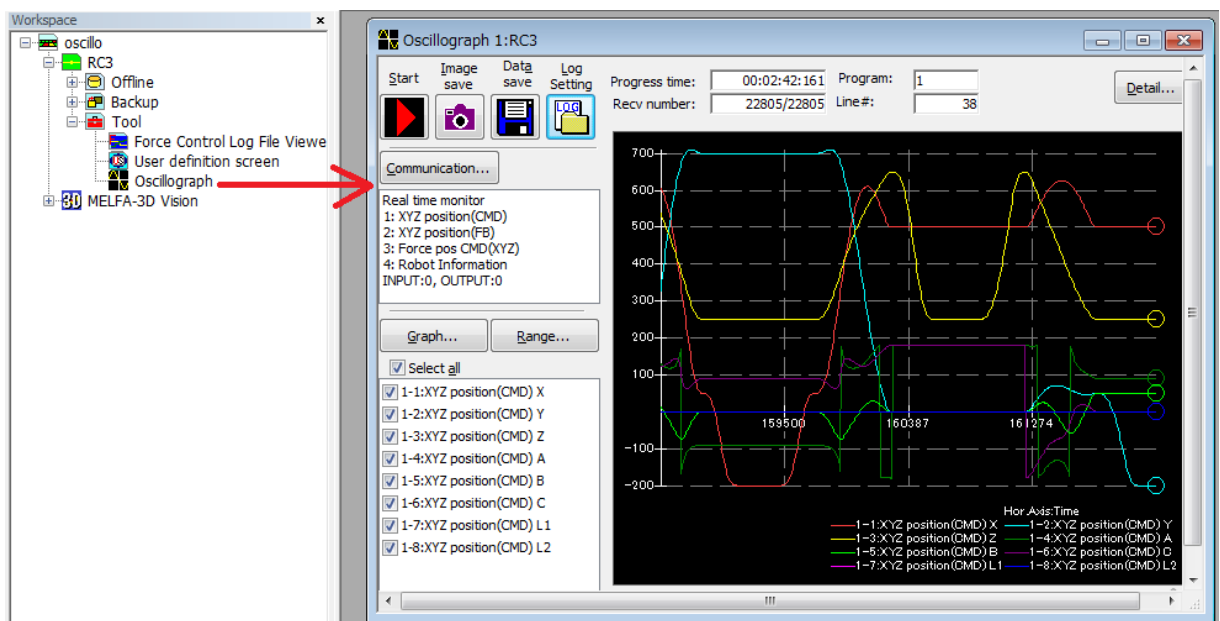
## ● Corresponds to MELFA-3D Vision 1.00A

The function for the support of MELFA-3D vision was added.



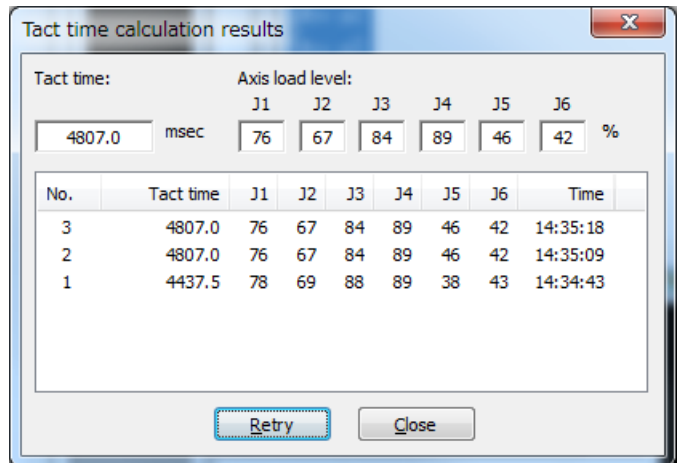
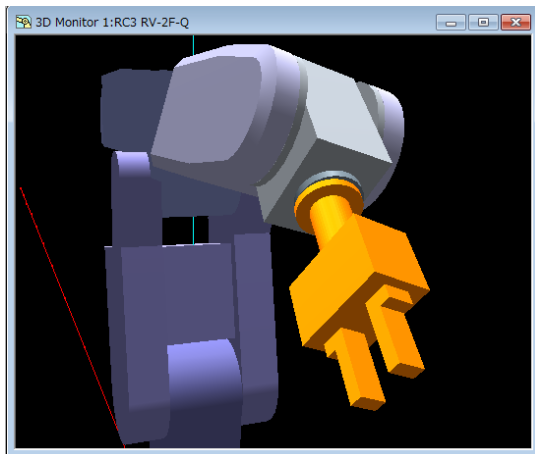
## ● The oscillograph screen was added.

The graphical representations of robot controller's various data can be done. When connecting it with the robot controller S4b/R4b or later, high-speed data transmission (real time monitor function) can be used.



## ● Improvement of simulation facility

- 3D model data that can be loaded is assumed to be STL, OBJ, 3DS, PLY, and VRML.
- The robot hand is made for 3D model to be attached.
- The direction of the flange can be non-displayed.
- The function of servo monitor was added.
- The function of calculation of axis load level was added.  
This function can be used by simulating F series.



Tact time calculation results

Tact time:  msec

Axis load level:

	J1	J2	J3	J4	J5	J6	%
	<input type="text" value="76"/>	<input type="text" value="67"/>	<input type="text" value="84"/>	<input type="text" value="89"/>	<input type="text" value="46"/>	<input type="text" value="42"/>	

No.	Tact time	J1	J2	J3	J4	J5	J6	Time
3	4807.0	76	67	84	89	46	42	14:35:18
2	4807.0	76	67	84	89	46	42	14:35:09
1	4437.5	78	69	88	89	38	43	14:34:43

● The special parameter setting screen was added.

- The parameter setting screen for the DeviceNet was added.

The screenshot shows a window titled "DeviceNet parameter 1:RC1 (Online)". It contains the following fields and controls:

- Send data size: (DNSDLN)  [Byte]
- Receive data size: (DNRDLN)  [Byte]
- Error detection filter: (DNFIL)
- Unit number overlaps  [msec]
- Communication error  [msec]
- Error is canceled temporarily: (DNERR)
- 

- The parameter setting screen for the EtherNet/IP was added.

The screenshot shows a window titled "EtherNet/IP parameter 1:RC1 (Online)". It contains the following fields and controls:

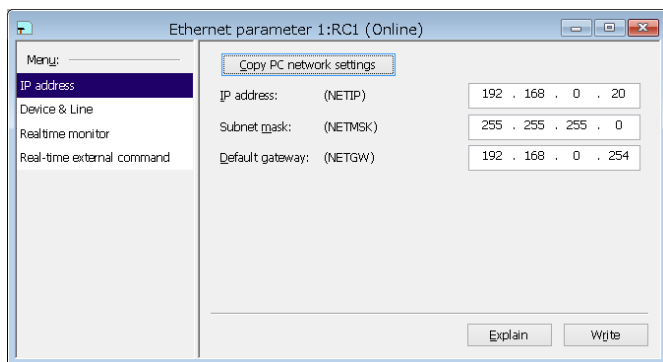
- 
- IP address: (EPIP)
- Subnet mask: (EPMSK)
- Default gateway: (EPGW)
- Send data size: (EPSDLN)  [Byte]
- Receive data size: (EPRDLN)  [Byte]
- 

- The parameter setting screen for the PROFINET was added.

The screenshot shows a window titled "PROFINET parameter 1:RC1 (Online)". It contains the following fields and controls:

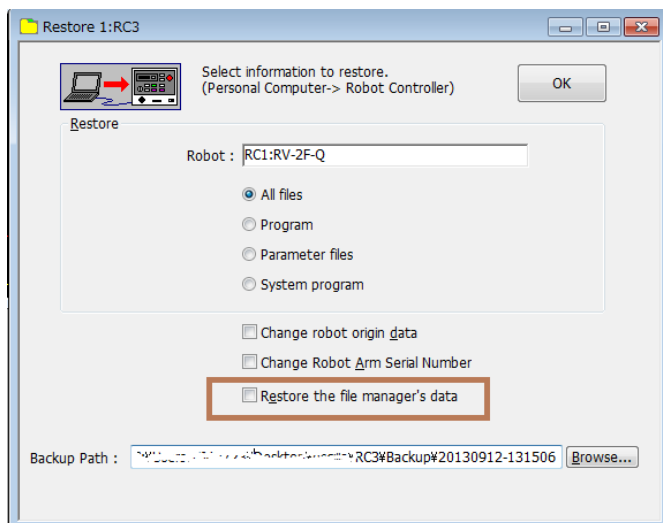
- Network base card information:
- IP address:
- Subnet mask:
- Default gateway:
- Send receive data size: (PNIOLN)  [Byte]
-

- The parameter setting screen for the Ethernet specification was changed.



- The function to restore the data of file manager was added.

The file that the user originally made can be restored.



- It corresponded to a transparent communication that by way of GOT2000.

### 3. Trouble correction

- Repair of communication trouble

After GX Works2 Ver. 1.497T had been installed, the problem that USB was not able to communicate between robots CPU for RT ToolBox2 and iQ Platform was solved.