MITSUBISHI

Changes for the Better

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, SQseries, SDseries, 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.

MITSUBISHI ELECTRIC CORPORATION

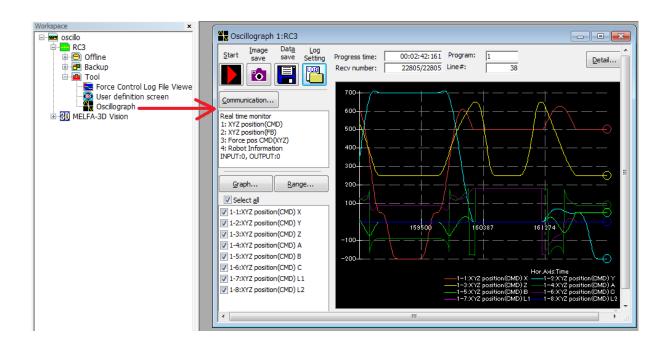
Corresponds to MELFA-3D Vision 1.00A

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

<u>A Back</u> 3. Measuring/Recognition	14	Perantsam	and and a state of the			
3-1 Create Job 3-2 Edit Job 3-3 Run Job		A de				
Back to Top						
lode: Job 💌	- Display style:	Measuring		Rec Display style: 2	ognition Result	t <u>-</u>
lode: Job 💌					-	t Live
ode: Job 💌	Display style:	20 💌			D V	-
ode: Job 🗸	Display style: Working Area ID: Calibration Data: Measuring	20 v 1 v Calb1		Display style: 2 Select Recognition	Bu	Live
ode: Job 🗸	Display style: Working Area ID: Calibration Data: Measuring 1, Distance to Star	20 V 1 V Calib1	500.00 (mm)	Display style: 2	Bu Model-less	Uve Live n selected Job
ode: Job 🗸	Display style: Working Area ID: Calibration Data: Measuring	20 V 1 V Callb1 nd: rement:		Display style: 2 Select Recognition	Bu Model-less	Live
ode: Job 🗸	Display style: Working Area ID: Calibration Data: Measuring 1. Distance to Star 2. Depth of Measu	20 V 1 V Callb1 nd: rement:	500.00 [mm] 45.00 [mm]	Display style: 2 Select Recognition	Bu Model-less	Live n selected Job Set Hang

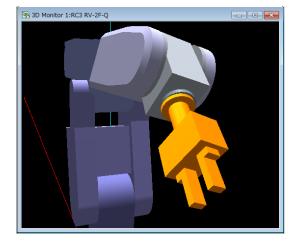
The oscillograph screen was added.

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.



Fact time: 4807.		Axis lo J1 76	0ad lev J2 67		13 34	J4 89	J5 46	J6 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
	ſ	Ret	ry		Clos	se]	

The special parameter setting screen was added.

• The parameter setting screen for the DeviceNet was added.

DeviceNet para	meter 1:RC1 (Onlin	e) 🗖 🗖 💌
Send data size:	(DNSDLN)	8 [Byte]
Receive data size:	(DNRDLN)	8 [Byte]
Error detection filter:	(DNFIL)	
	Unit number overlaps	5000 [msec]
	Communication error	200 [msec]
Error is canceled tem	porarily: (DNERR)	Err. Cancel
	Explain	Write

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

EtherNet/IF	o paramete	r 1:RC1 (Online)
Copy PC netwo	rk settings	
IP address:	(EPIP)	192 . 168 . 0 . 200
Subnet mask:	(EPMSK)	255 . 255 . 255 . 0
Default gateway:	(EPGW)	192 . 168 . 0 . 254
Send data size:	(EPSDLN)	8 [Byte]
Receive data size:	(EPRDLN)	8 [Byte]
		Explain Write

• The parameter setting screen for the PROFINET was added.

PROFINET parameter 1	L:RC1 (Online) 📃 📼 💌
Network base card information:	
IP address:	· · ·
Subnet mask:	· · ·
Default gateway:	
Send receive data size: (PNIOLN)) 16 ¥ [Byte]
	Explain Write

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

🖬 Ethe	rnet parameter	1:RC1 (Online)	- • ×
Men <u>u</u> :	Copy PC netw	ork settings	
IP address Device & Line	IP address:	(NETIP)	192 . 168 . 0 . 20
Realtime monitor	Subnet <u>m</u> ask:	(NETMSK)	255 . 255 . 255 . 0
Real-time external command	Default gateway:	(NETGW)	192 . 168 . 0 . 254
			Explain Write
,			

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

The file that the user originally made can be restored.

Restore 1:RC3
Select information to restore. (Personal Computer-> Robot Controller) OK
Robot : RC1:RV-2F-Q
All files
Program
Parameter files
🔘 System program
Change robot origin <u>d</u> ata
Change Robot <u>A</u> rm Serial Number
Restore the file manager's data
Backup Path : The Contract Contract RC3¥Backup¥20130912-131506 Browse

• 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.