

# MITSUBISHI

Mitsubishi Electric Corporation **Industrial** Robot

## MELFA Technical News

BFP-A6079-0055E

July 2012

**Subject:** Report of RT ToolBox2 version 2.20W release

**Applicable to:** F series, S Q q series, S D series, S series  
(CR750/CRnQ-700/CRnD-700/CRn-500series robot controller)

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

This Technical news describes the new version 2.20W of the RT ToolBox2. ( 3D-11C-WINJ(E) /3D-12C-WINJ(E) )

Please download it from the Mitsubishi Electric FA Site when changing to the upgrade product.

### 1. Additional model

The following models were added.

<RP Series>

RP-1ADH RP-3ADH RP-5ADH

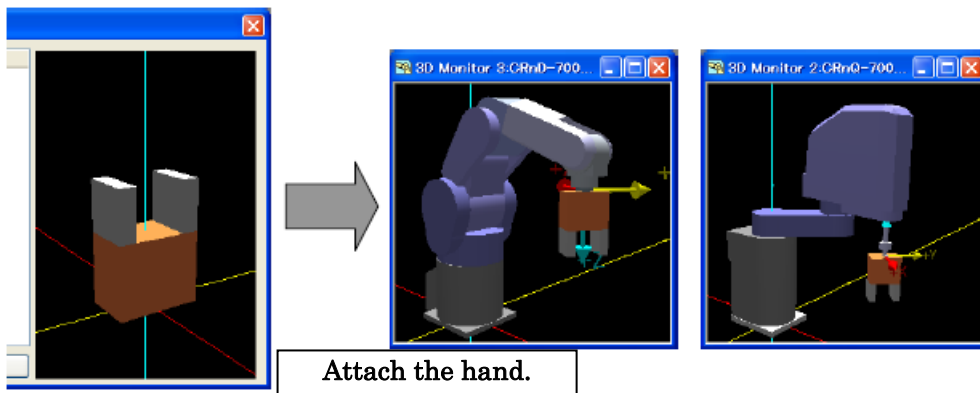
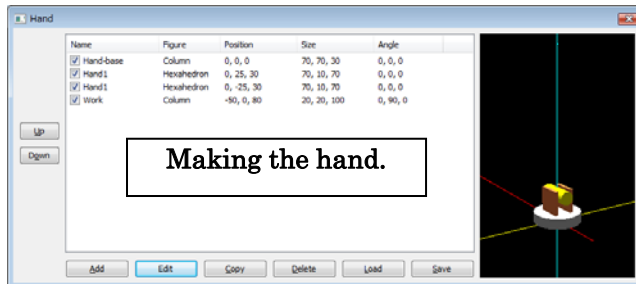
### 2. Function improvement

- Improvement of 3D viewer.
- User definition screen for R56/57TB.
- Corresponded to CC-Link IE
- File list display
- Tool automatic calculation

● **Improvement of 3D viewer.**

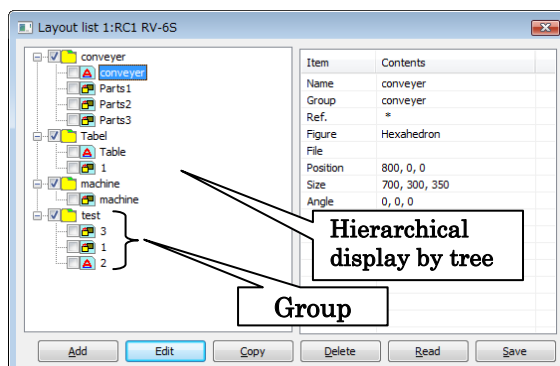
- Make/display of installation hand.

A robot hand can be displayed on the tool of the robot on 3D monitor.

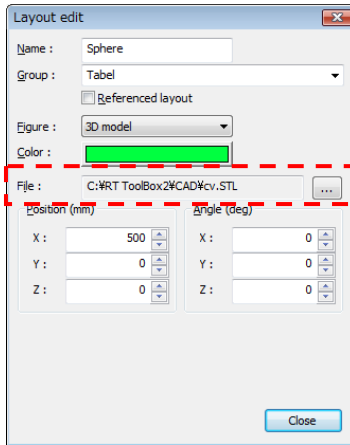


- The group of layout parts, and tree display.

It is possible to manage the layout parts with a group. Moreover, it is possible to set the referenced part and move and rotate with every group. When a white space (for false) is set in the checkbox, the parts are not displayed.

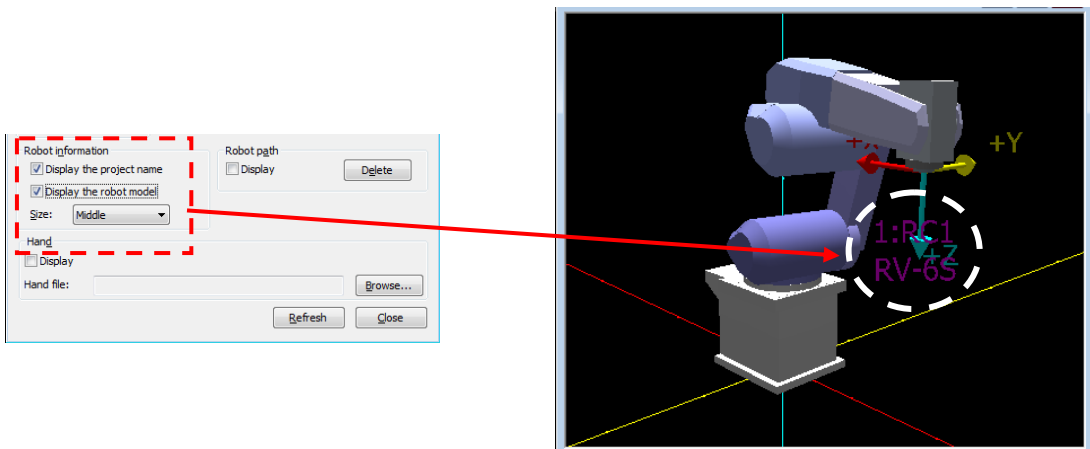


- Import 3D models.  
The 3D models(STL/OBJ format) can be load as layout parts.



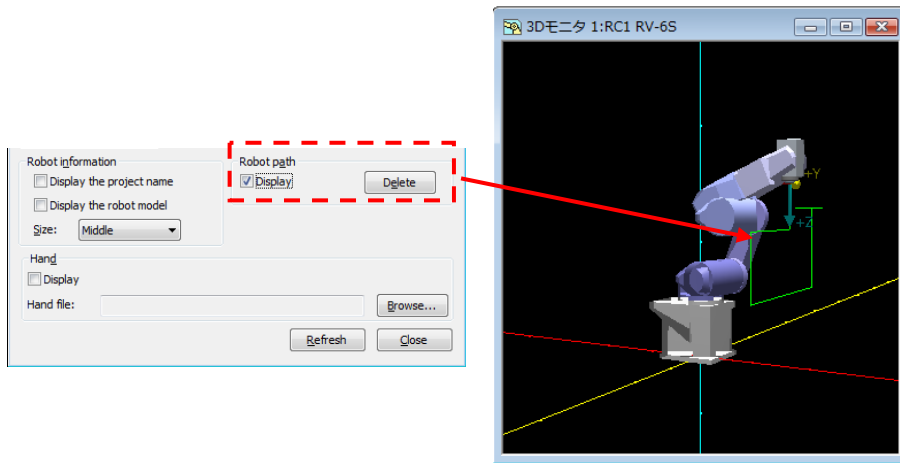
file	extension
STL(Stereolithography)	.stl
OBJ(Wavefront)	.obj

- Display robot information  
The project name and robot's model name is displayed in 3D monitor.



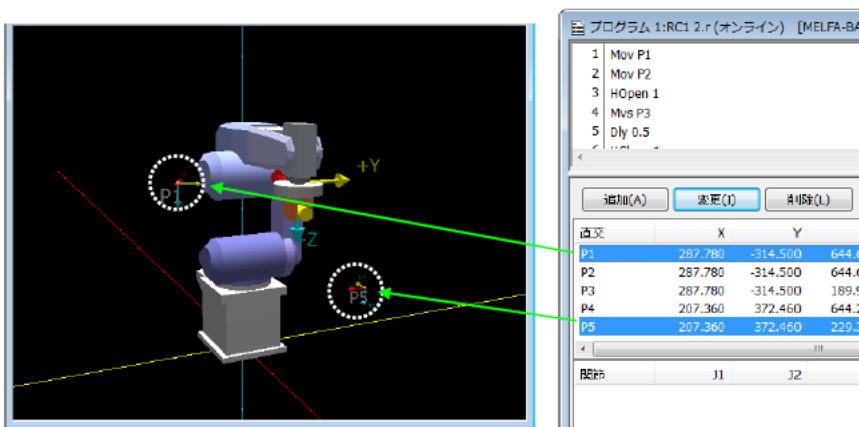
- Robot path

When the robot moves, the position where the tool point is passed is displayed as tracks.



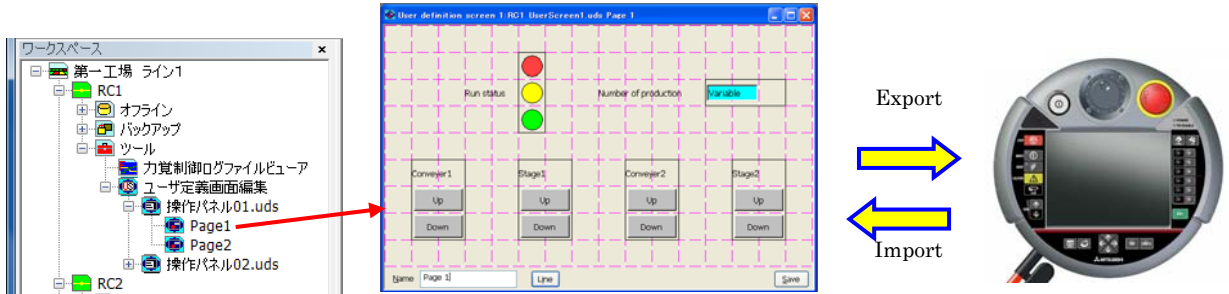
- Display XYZ position variables

When some XYZ position variables in a robot program are selected, these all of positions are displayed on 3D monitor.



● **User definition screen for R56/57TB.**

- It is possible to edit the user definition screen which can be operated by highly efficient T/B.

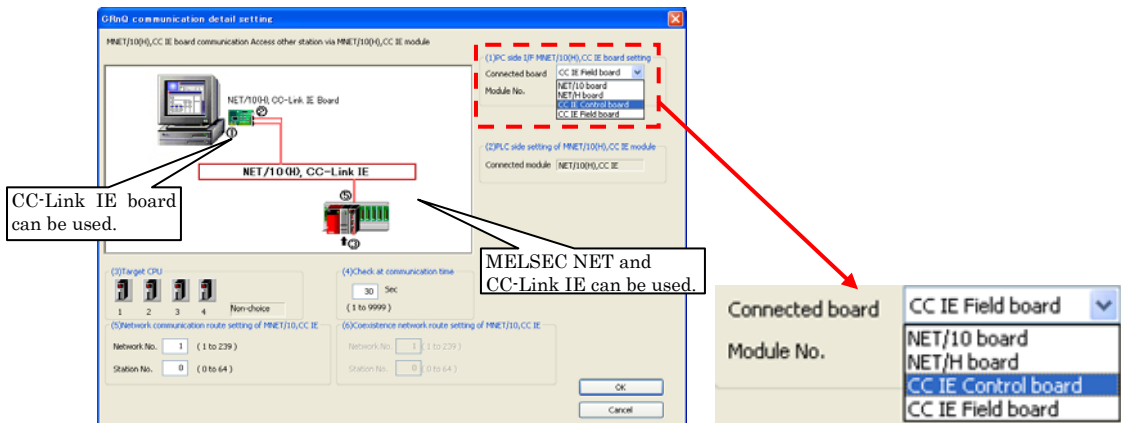


\* This function can use R46/56TB since Ver.2.2. R57TB can be used by all versions.

● **Corresponded to CC-Link IE**

The following routes concerning CC-Link IE were added to the communication route of RT Toolbox2 and PLC.

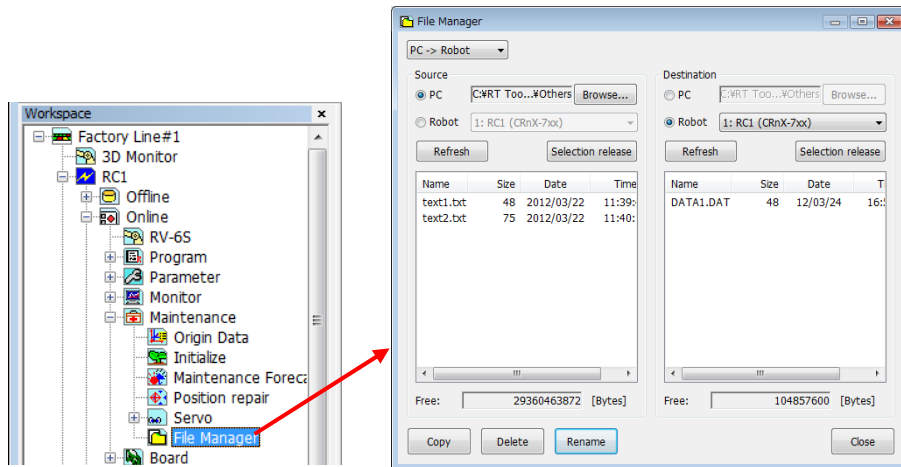
- Connect with PLC by using the CC-Link IE board installed in the personal computer.
- CC-Link IE can be used instead of MELSEC NET/10.



● File list display

- This tool can copy, delete and rename the file in the robot controller.

The file that can be treated is files except the following exclusion list. Please refer to the manual for details.

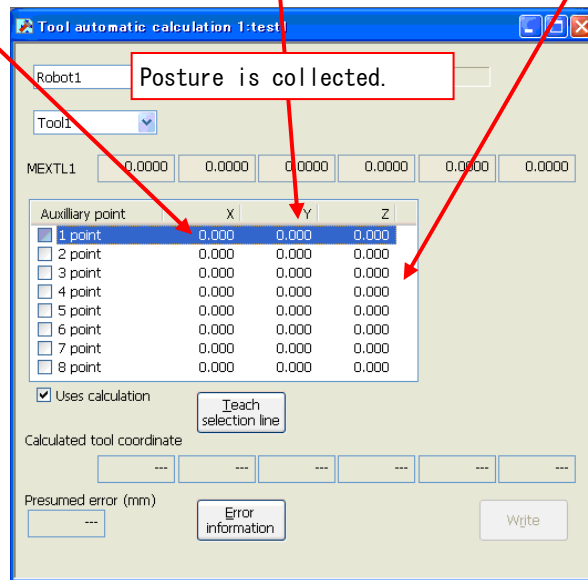
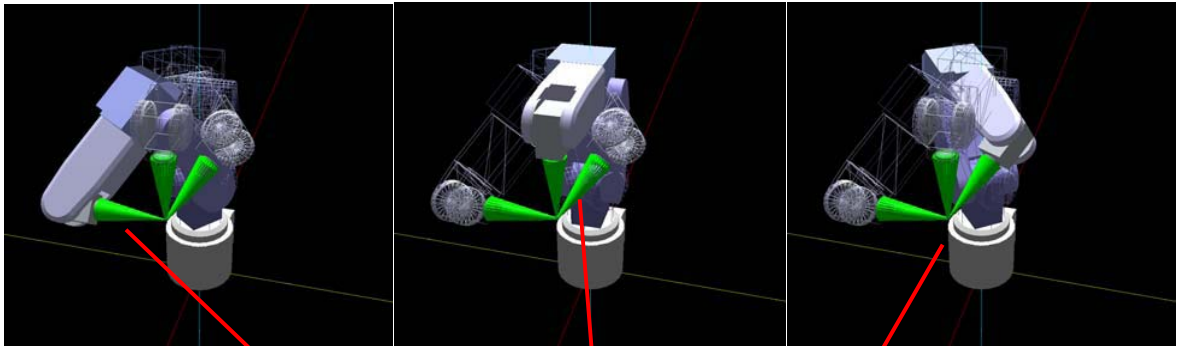


Exclusion files

No.	File type	File name or extension
1	Robot program files	.MB4、.MB5、.prg
2	Parameter files	.PRM
3	Error log files	.log
4	Trap function log files (program execution log files)	.trp
5	Servo data log files (This file is reconstructed at the time of the power supply ON.)	.sdl/.sdb
6	Force control log file (This file is deleted at the time of the power supply OFF.)	.fsl
7	Error record log files	TTLERROR.DAT
8		ERRORLOG.CSV
9	Command information file	COMMANDS.XML
10	System files (Backup information etc.)	.SYS
11	Serial information file (This file is created at the time of backup)	.ser

● **Tool automatic calculation**

– The tool length is calculated automatically by teaching a same position by 3 to 8 points to the robot that is attaching an actual tool, and the value of a tool parameter (MEXTL) is set up.



\* The robot models and robot controller versions with which the function can be used are as follows.

No.	Robot model	CR750/700 CR750/700 series Robot Controller	CRn-500 CR500 series Robot Controller
1	Vertical 6-axis robot	Version R3e/S3e or later	not use
2	Vertical 5-axis robot	not use	
3	Horizontal 4-axis robot	Version R3e/S3e or later	

End