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Changes for the Better

Mitsubishi Electric Corporation Industrial Robot

MELFA Technical News

BFP-A6079-0013E

JUNE 2010

Subject: Report of RT ToolBox2 version 1.6 release

Applicable to: S series, SQ series, SD series
(CRn-500／CRnQ-700／CRnD-700 series robot controller)

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

This Technical news describes the new version of the RT ToolBox2.

1. Additional model
There is no model addition in this version.

2. Additional function
2.1 A user definition area, a free plane limit, and the basic object display function in 3D viewer.
A user definition area, a free plane limit, and a basic object were made to be able to be displayed in 3D viewer as shown in the figure below. The state of the parameter can be visually confirmed, and it confirm the operation by arranging the peripheral equipment virtual.
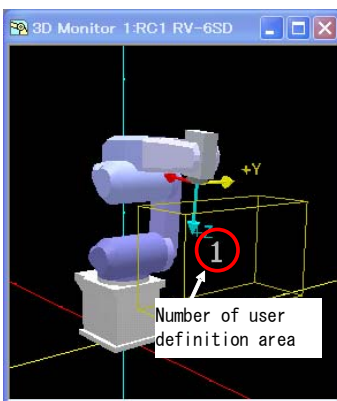
(1) User definition area
A user definition area (a rectangular solid) and a area number set by the parameter are displayed in 3D viewer. The position of the user definition area or the validity of the definition are confirmed.
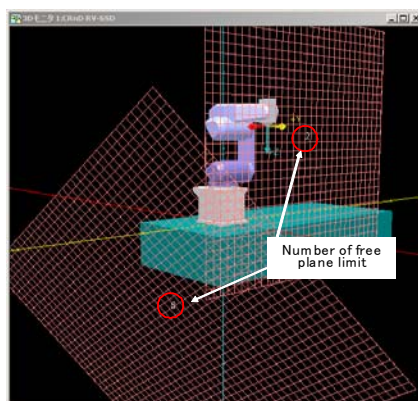(2) Free plane limit
A free plane limit set by the parameter is displayed in 3D viewer. The position of the free plane limit or the validity of the definition are confirmed.
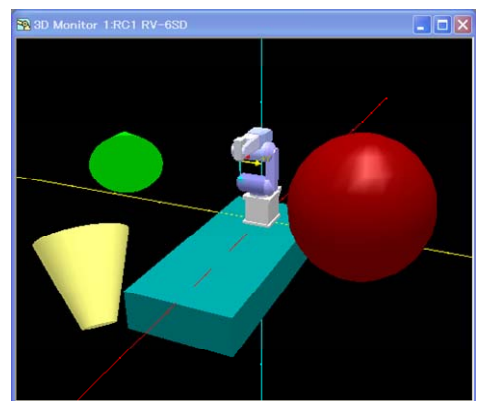(3) Basic object
The object of a rectangular solid, a column, and a globe are displayed in 3D viewer. The simple virtual model such as the real layout can be built, and robot movement is checked.

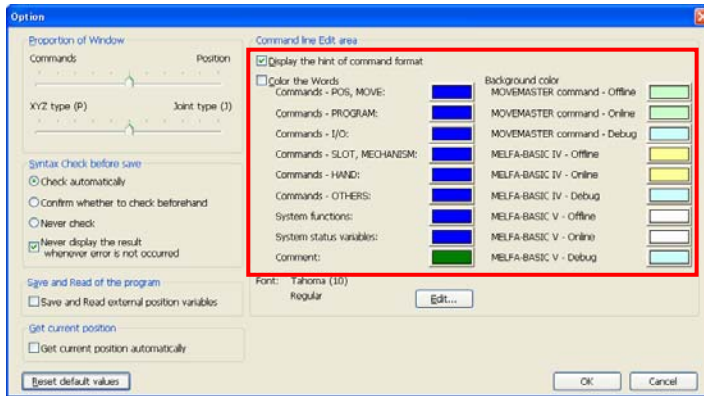| User definition area | Free plane limit | Basic object |

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2.2 Program edit screen

(1)The function that the color is change in each off-line online/mode is added.

The background and the character color of the program edit can be switched even by online/off-line, and the state confirmation of the mode is easy.

(2) The retrieval function of a positional variable is added.

The range of the retrieval has been expanded even to a positional variable identifier and the value of a variable.

This function is effective for not only the programming but also data checks in debugging.
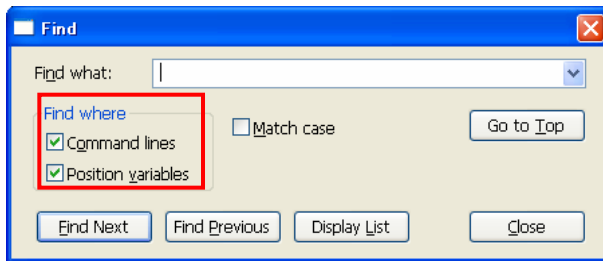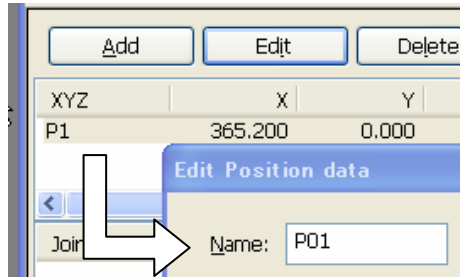

(3) The batch transfer function of the program is added to the right-clicking menu.

The batch transfer function was added to the right-clicking menu. The batch transfer can be chosen as needed.
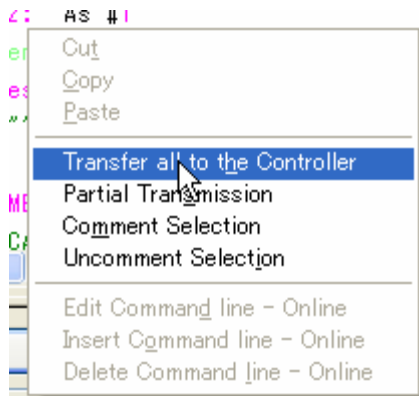
(4) Addition of function renaming of positional variable
Revocable was made the name of positional variable.

(5) When a positional variable is added, the automatic present location taking function is added.
Present location was able to be taken automatically at the same time as adding a positional variable when there was a project in office. The teaching operation is easy. (The option setting is necessary.)
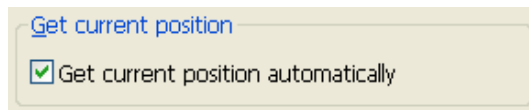

2.3 Tool JOG/work JOG function is added to the simulator.
Tool JOG/work JOG function was added to the operation panel(Only when the CRn700 series had been selected, work JOG:).
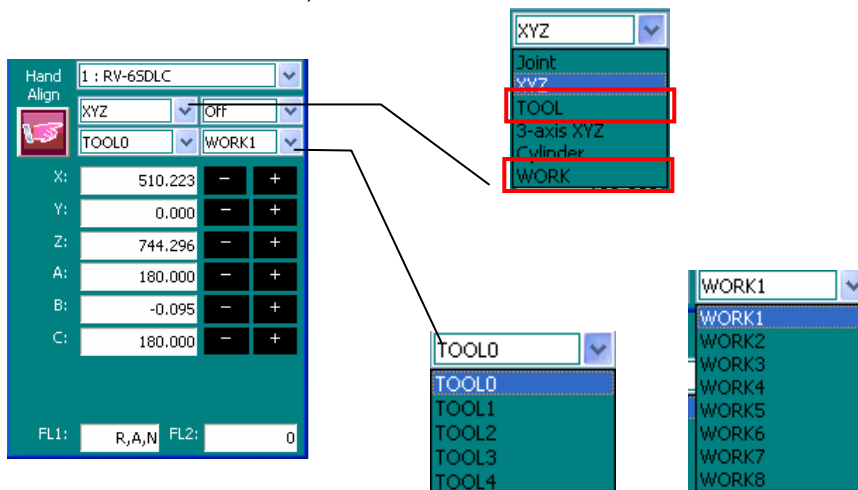
Tool JOG
The position can be adjusted forward/backward, left/right, or upward/downward relative to the direction of the hand tip of the robot (the Tool coordinate system). The tip moves linearly. The posture can be rotated around the X,Y, and Z axes of the Tool coordinate system of the hand tip by pressing the A,B, and C keys, without changing the actual position of the hand tip.
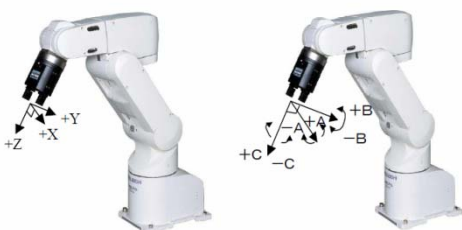

Work JOG
The axes are adjusted linearly with respected to the work coordinate system. The posture rotates around the X , Y, and Z axes of the work coordinate system by pressing the A,B, and C keys, without changing the actual position of the hand tip.

Work Coordinate system
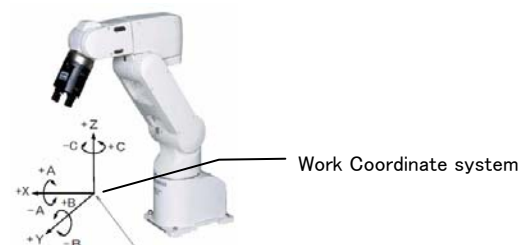
2.4 The program lockup function of all slots is added.

"Stop All Program" button was applied to the slot driving state screen, and it came to be able to stop the program of all slots. Because the setting of the parameter is unnecessary, rewriting the program is easy.
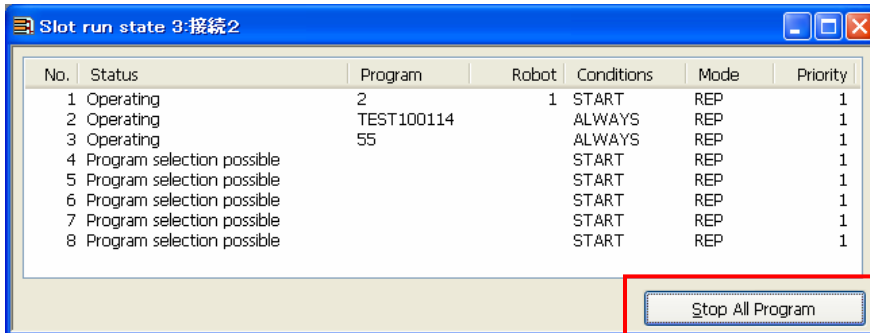
2.5 Reading of the parameter list is speed up.

Reading the parameter list when it used the parameter list function first time was sped up.
Then reading the parameter list that took dozens of seconds is completed in several seconds.