

## Major Changes from K-ROSET

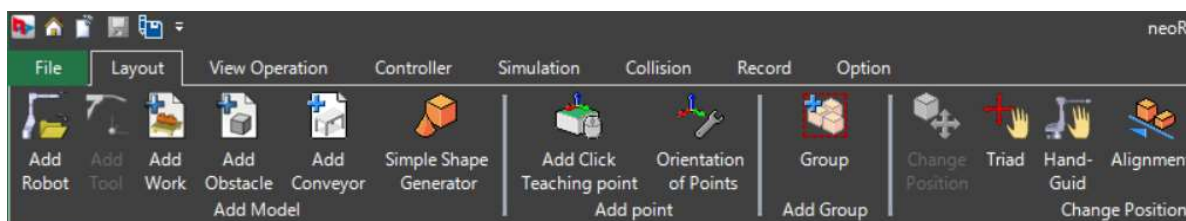
### **Summary**

#### **K-ROSET Project compatibility with neoROSET**

neoROSET can import project files (.krprj) created using K-ROSET. There are some restrictions, so please check the "Restrictions" section at the end of this manual.

#### **Adoption of a ribbon menu**

In neoROSET, a ribbon style menu is placed at the top of the window, and each function is arranged with separate tabs for each use. Operability has been improved with this change by consolidating related functionality into tabs, making it easier to find each function.



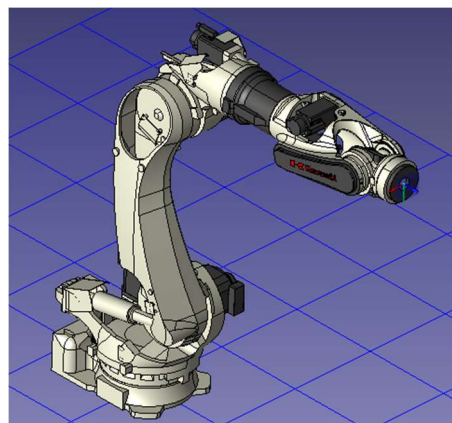
#### **Revamp 3D views and 3D model relationships**

Changing the 3D view greatly increases the number of supported 3D formats. In addition, the maximum amount of memory that applications can handle has been significantly increased, making large 3D models available. It also includes a 3D video output function that can be viewed with a PDF reader, and new features for aligning models using 3DCAD geometry information. (Please refer to the "New Features" section below.)

[K-ROSET]



[neoROSET]



## Supported file format.

The data formats that can be imported into neoROSET are:

### Work file

Format	Extension	neoROSET	K-ROSET
K-ROSET Library	krprj	✓	✓
neoROSET library	kr2prj	✓	-
Part Files	stl	✓	✓
	hsf	✓	-
	radfpart	✓	-

### CAD Format

Format	Extension	neoROSET	K-ROSET
CATIA V5	CATProduct	✓	-
	CATPart	✓	-
	CATDrawing	-	-
CATIA V4	model	✓	-
SolidWorks	sldasm	✓	-
	sldprt	✓	-
	slddrw	-	-
Pro/E	asm	✓	-
	prt	✓	-
Autodesk Revit	rvt	-	-
	rfa	-	-
Rhinoceros	3dm	✓	-
Autodesk Inventor	ipt	✓	-
	iam	✓	-
SolidEdge	par	✓	-
	asm	✓	-
	psm	✓	-
NX	prt	✓	-

### Standard Format

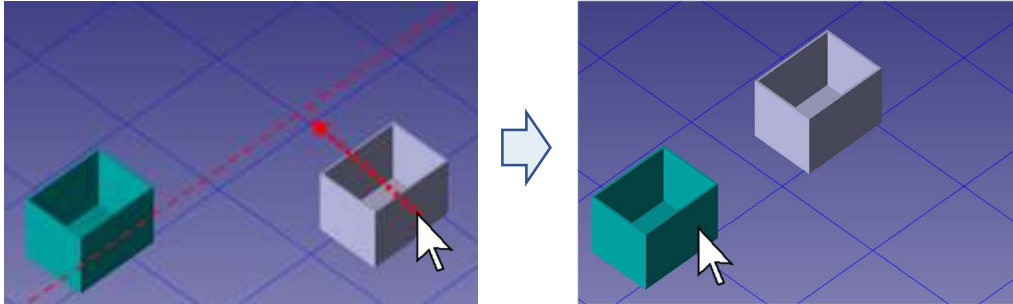
Format	Extension	neoROSET	K-ROSET
ACIS	sat	✓	-
	sab	✓	-
IGES	iges/igs	✓	-
STEP	step/stp	✓	-
DXF	dxf	✓	-
DWG	dwg	✓	-
JT	jt	✓	-
Parasolid	x_t	✓	-
	x_b	✓	-

- ✦ File format listed in [CAD Format] and [Standard Format] section are converted to hsf or radfpart format at the time of import.
- ✦ The trial license only supports iges/step files.

**■ New Features**

**■ Alignment function**

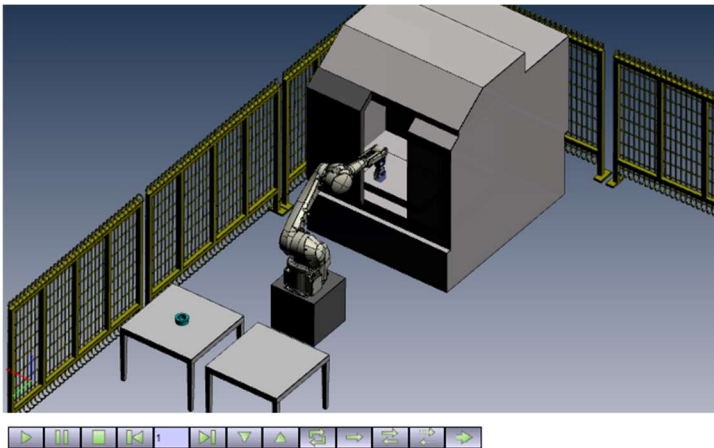
Added ability to align models using 3D CAD geometry information. Operator can move the model relative to its faces, edges, vertices, origin, midpoint of a line, center of a circle, and center axis of a circle.



**■ 3D PDF function**

Added the ability to output the project models into PDF file with 3D geometry inside as well as record a simulation in the view and output as 3D PDF. 3D PDF enables to zoom in and out of 3D models, change the viewpoint, and more.

Use Adobe (R) Acrobat (R) Reader to import 3D PDFs.



◆ Adobe Acrobat is a trademark or registered trademark of Adobe Systems Incorporated in the United States and/or other countries.

## Comparison table

	Function	neoROSET	K-ROSET	Remarks
<b>Layout</b>	Add/Edit/Delete a 3D Model	✓	✓	
	Repositioning 3D Model	✓	✓	
	3D CAD Model Import	✓	-	
	Simple Shape model	✓	✓	
	Click Add Teaching Point	✓	✓	
	Teaching point posture setting	✓	✓	
	Triad/Hand Guide Operation	✓	✓	
	Model alignment feature	✓	-	
	installation position analysis	✓	✓	
	Distance measurement between models	✓	✓	Enhanced functionality with the 3D geometry
<b>Robot</b>	Position change Undo	✓	✓	
	Quick builder	✓	✓	
	Add/Edit/Delete a robot model	✓	✓	
	Controller/Arm settings	✓	✓	
<b>Conveyor</b>	Operating range display	✓	✓	
	Loading/Attaching tools	✓	✓	
<b>View</b>	Add/Edit/Delete a conveyor model	✓	✓	
	Conveyor Settings	✓	✓	
<b>View</b>	Fit	✓	✓	
	Viewpoint change	✓	✓	
	Display format	✓	✓	
	Projection method	✓	✓	
	Model plane display	✓	✓	
	Split View	✓	✓	
	Coordinate plane display	✓	✓	
	Show compass	✓	✓	
	Show axis	✓	✓	
	Show ruler	*	✓	To be implemented in the future
	Zoom	✓	✓	
	Click action	✓	✓	
	Viewpoint history management	✓	✓	
	Save image	✓	✓	
	Triad/Hand guide speed settings	✓	-	
	Section display	*	✓	Implementation TBD
	Camera settings	*	✓	Implementation TBD
<b>Program</b>	Add/Edit/Delete a programs	*	✓	Integrated with AS Editor
	Add/Edit/Delete variables	*	✓	Integrated with AS Editor
	Replay a program	*	✓	Integrated with AS Editor
	Adding program instructions	*	✓	Integrated with AS Editor
<b>Controller</b>	Connecting to a virtual Robot Controller	✓	✓	
	Connecting to an actual robot controller	✓	✓	

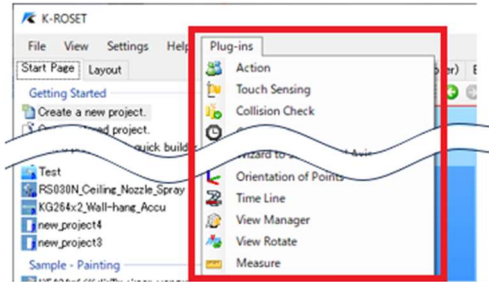
	Connecting to a duAro Tablet	✓	✓	
	Operation panel	✓	✓	
	Terminal	✓	✓	
	Robot arm monitor	✓	✓	
	I/O Monitor	✓	✓	
	AS Editor (Program editing)	✓	✓	
	Synchronization	✓	✓	
	Program conversion	✓	✓	
	External axis setup wizard	✓	✓	
	Show virtual teach pendant	✓	✓	
<b>Simulation</b>	Run simulation	✓	✓	
	Cycle time	✓	✓	
	Timeline	✓	✓	
	I/O signal connection	✓	✓	
	Action	✓	✓	
	Signal graph display	✓	✓	
	Power consumption	✓	✓	
	Failure prediction	✓	✓	
<b>interference</b>	Collision check	✓	✓	
	Collision log	✓	✓	
<b>Recording</b>	Video recording	✓	✓	
	3D PDF	✓	-	
<b>Handling</b>	Handling settings (Clamp zone settings)	✓	✓	
	Handling clamp	✓	✓	
<b>Paint/Ceiling</b>	Gun setting	*	✓	To be implemented in the future
	Simple paint gun model	*	✓	To be implemented in the future
	Automatic program generator (Copy/3 teach points)	*	✓	To be implemented in the future
<b>Arc welding</b>	Touch sensing	*	✓	To be implemented in the future
<b>Spot welding</b>	Spot weld settings	*	✓	To be implemented in the future
<b>Other</b>	Log	✓	✓	
	Vision function	*	✓	To be implemented in the future
	Cubic-S function	*	✓	Implementation TBD
	K-SPARC	*	✓	To be implemented in the future

**Changes to the main screen**

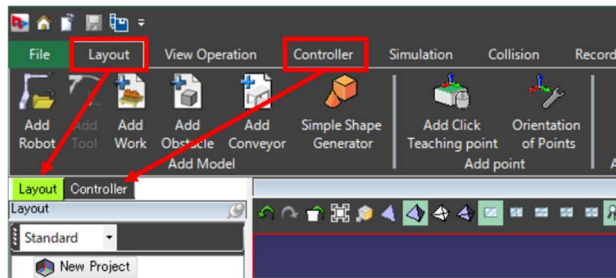
**Change from Plug-in Menu to Ribbon Menu**

The "Plug-in menu" in K-ROSET has been removed, and now those functions are moved to the ribbon menu. The tabs are categorized according to the purpose, and operations on the [Layout Tree] in the left panel are summarized in the [Layout] tab, and operations on the [Controller Tree] are summarized in the [Controller] tab.

[K-ROSET]



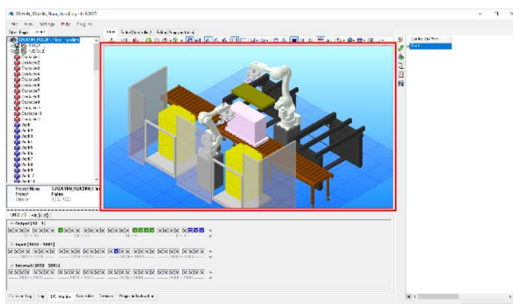
[neoROSET]



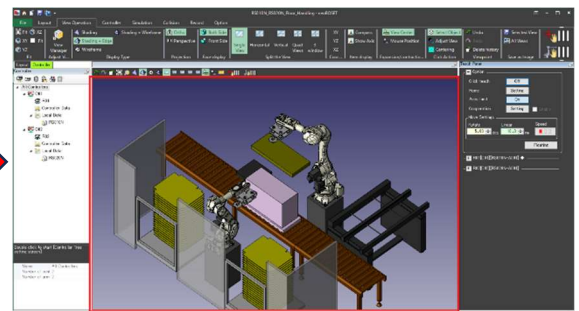
**Change on Bottom Panel**

The bottom panel in K-ROSET has been removed and the 3D view area has been extended. For details on the functions that were on the bottom panel, see "Location change of the functions" section.

[K-ROSET]



[neoROSET]



**Right Panel**

The right panel now has only the Teaching Panel, and the rest of the panels can be displayed from the ribbon menu accordingly. For the functions that were in the right panel, refer to "Location change of the functions" section.

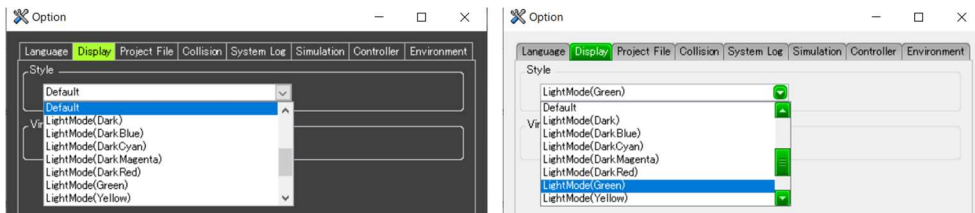
## Location change of the functions

With the removal of the plug-in menu and bottom panel, the following changes have been made to the location of each function.

Function	neoROSET	K-ROSET
<b>Log</b>	[Options] tab in the ribbon menu	Bottom Panel
<b>Collision log</b>	[Collision] tab in the ribbon menu	Bottom Panel
<b>Controller</b>	[Control Panel] button on the [Controller] tab in the ribbon menu	Bottom Panel
<b>I/O Monitor</b>	[Controller] tab in the ribbon menu	Bottom Panel
<b>Terminal</b>	[Controller] tab in the ribbon menu	Bottom Panel
<b>Arm monitor</b>	[Controller] tab in the ribbon menu	Controller window
<b>Program instruction</b>	Integrated into AS Editor	Bottom Panel
<b>Program table</b>	Integrated into AS Editor	Right Panel
<b>I/O signal connection</b>	[Simulation] tab in the ribbon menu	Right Panel
<b>Position change undo</b>	[Layout] tab in the ribbon menu	Right Panel
<b>Teaching panel</b>	Right panel (unchanged)	Right Panel
<b>Other Features</b>	Ribbon Menu	Plugin Menu

## Screen Styles

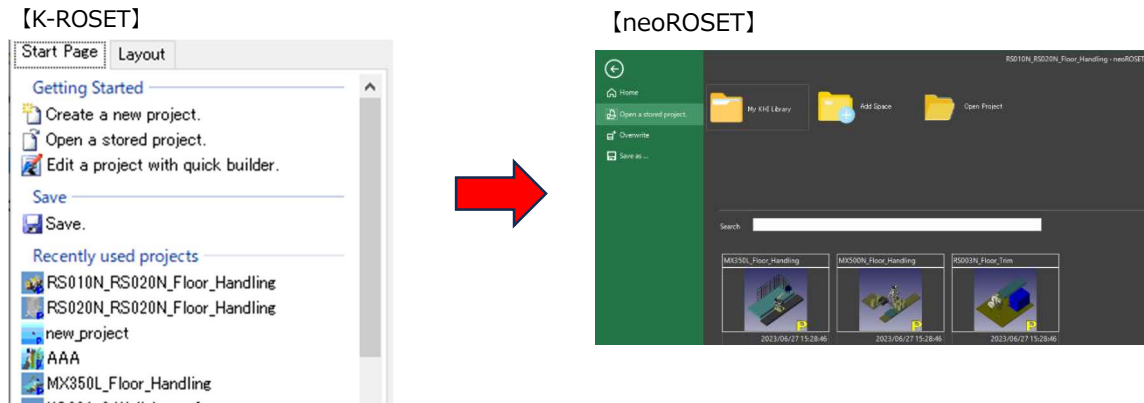
neoROSET uses "dark mode" as its initial style. It can be changed to a lighter background color like K-ROSET by selecting "LightMode" from the Style field on the Options window.



## Changes related to project

### File Menu

The functions in the "Start Page" of K-ROSET has been consolidated into the "File" menu on the ribbon. Project thumbnails appear larger in a list format, making it easier to find the project you are looking for.

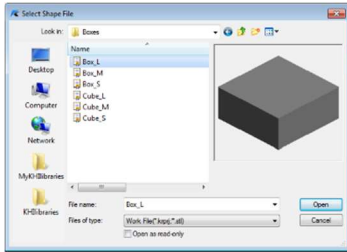


**Changes on models**

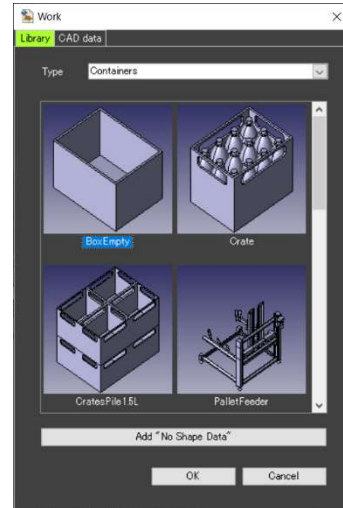
**Model Library Selection**

Thumbnails can now be listed by narrowing down the library type in a list format. And also any model file can be imported just like K-ROSET from the newly added [CAD Data] tab.

[K-ROSET]



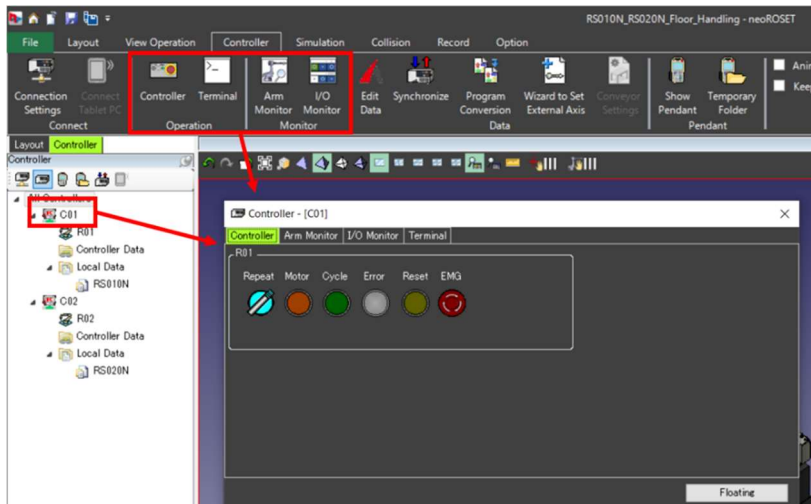
[neoROSET]



**Changes on Controller feature**

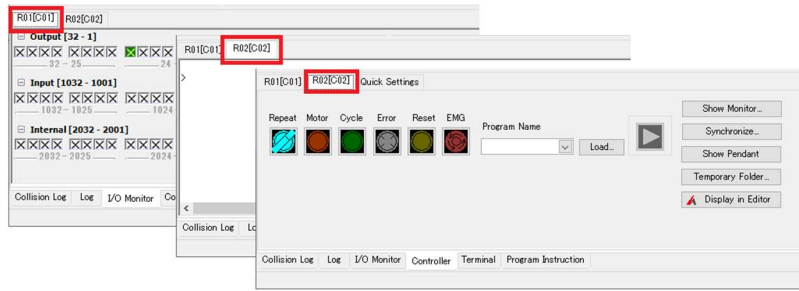
**Consolidation of controller-related windows (Controller, Arm Monitor, I/O Monitor, Terminal)**

Controller related windows such as Controller, Arm Monitor, I/O Monitor and Terminal are now hidden and can be opened any time by clicking on the buttons in the [Controller] tab in the ribbon menu or by double-clicking the controller node in the tree in the left pane.

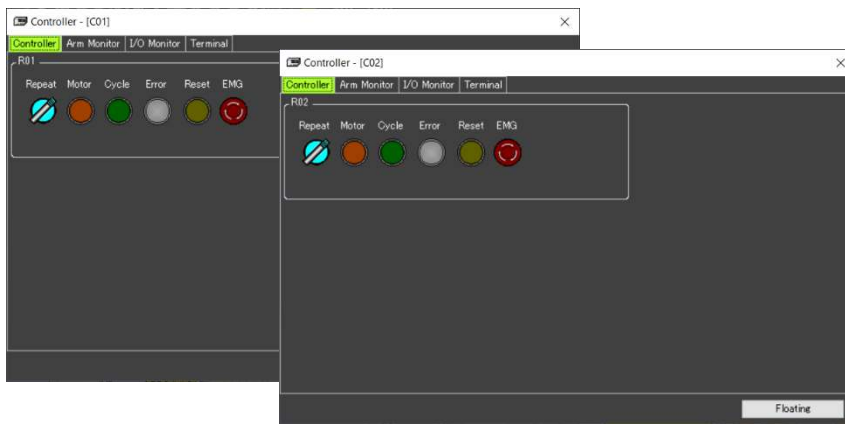


In K-ROSET, controller to use needed to be selected in each function tab, but in neoROSET, each controller has a separate window with each function on it.

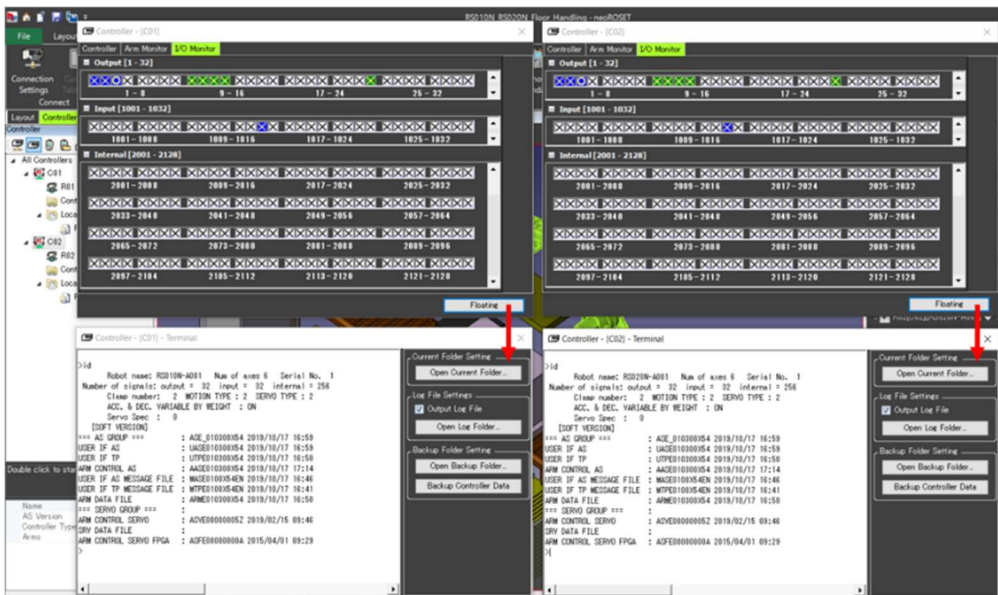
**[K-ROSET]**



**[neoROSET]**



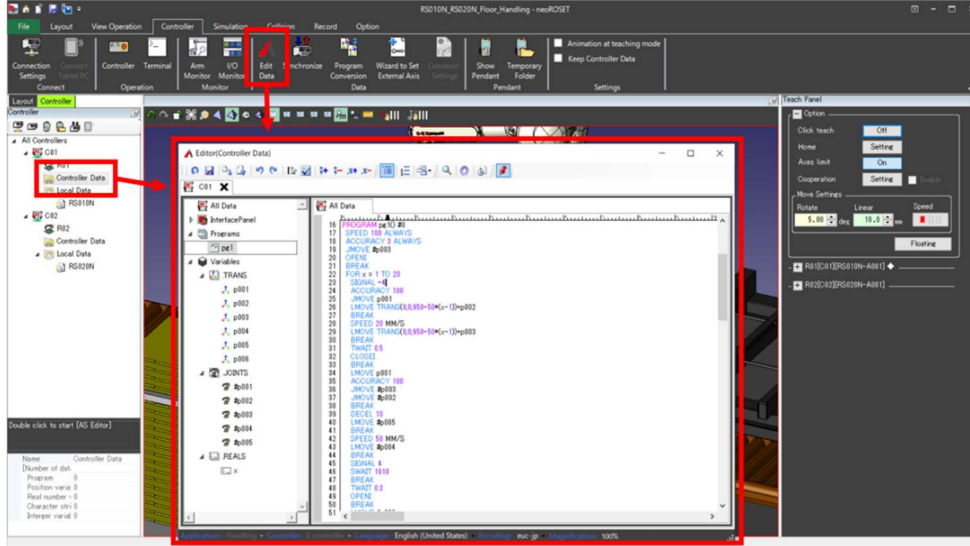
This change has reduced the trouble of selecting a controller per function tab and it enables to display the window of multiple controllers side by side.



## Program table

### Integration of program table functionality into AS Editor

Removed the program tables and integrated program editing functionality into AS Editor. Clicking the [Edit Data] button on the ribbon menu, or double-clicking the "Controller Data" or "Local Data" node in the controller tree can open the AS Editor.

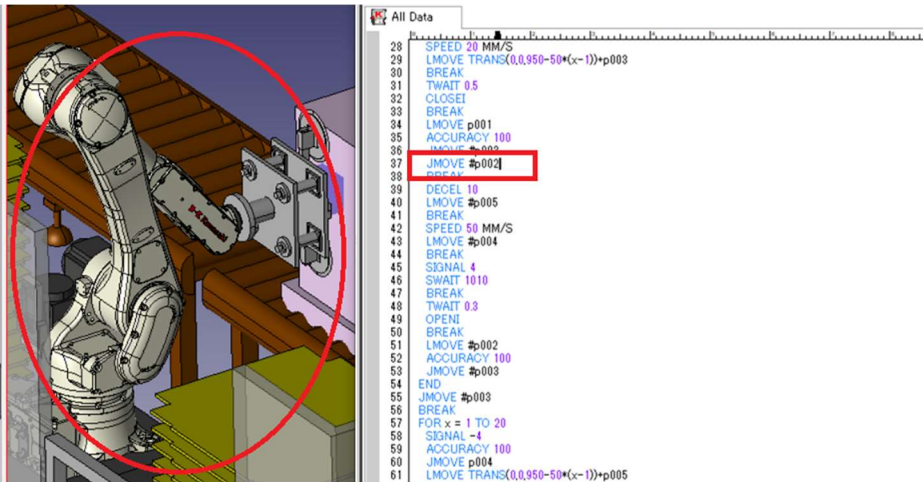


✧ [Synchronization] is not required when data of the connected controller is edited directly in the AS Editor.

The functions integrated into the AS Editor from the program table are:

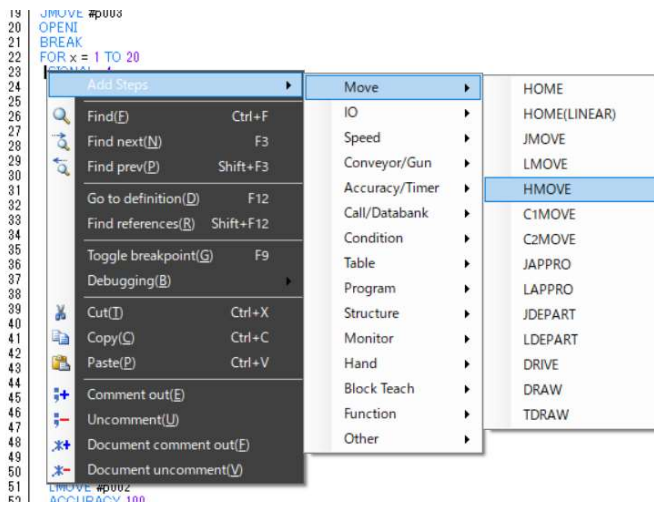
#### ➤ Robot jump in the selection step

Robot posture in the 3D view changes accordingly when a step or position variable with position information is selected.



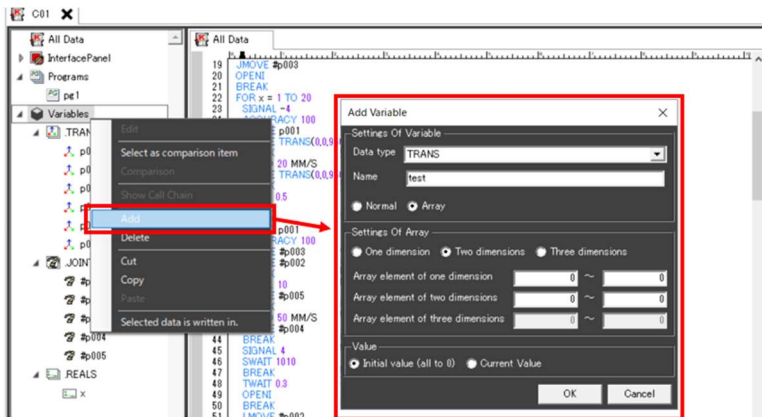
### ➤ Program step addition via right-click menu

Right-click on a line in the program will open up a pop-up menu for adding instructions.



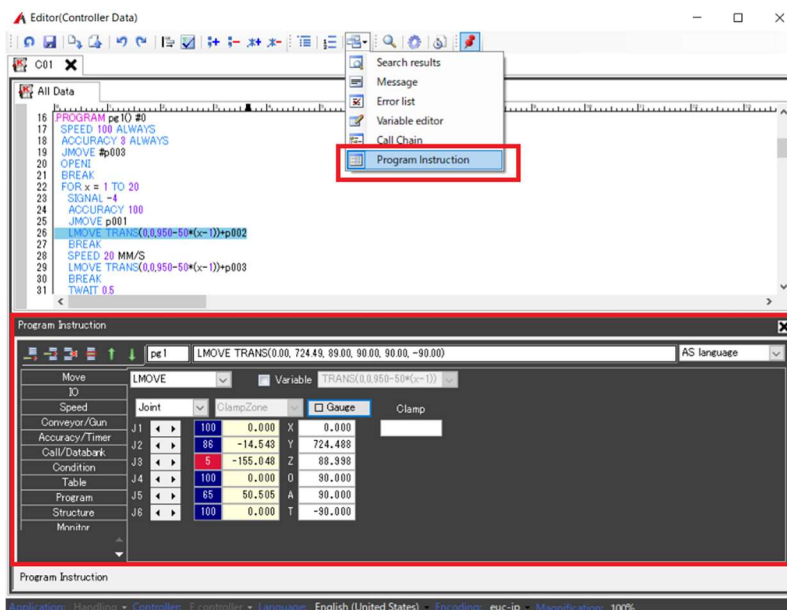
### ➤ Variable addition via right-click menu

Right-click on a variable node in the category list will open the context menu from which any variable can be added. Position variables can also be added from the current robot's posture shown in the 3D view.



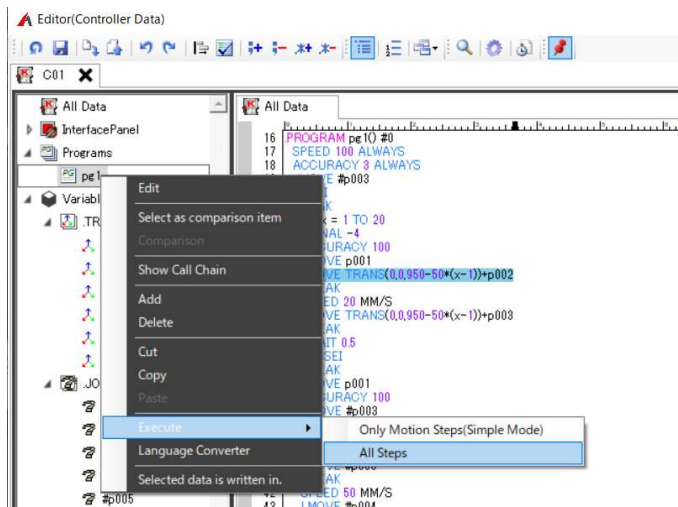
### ➤ Edition of program steps via program instruction panel

Program steps can also be edited via the [Program Instructions] panel by opening it as the bottom panel.



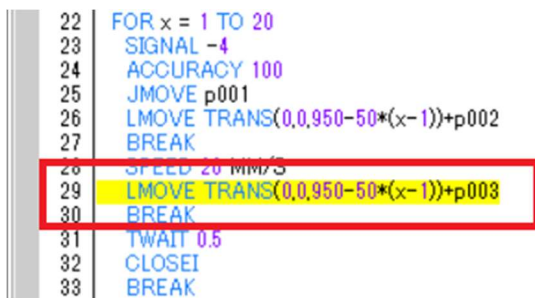
➤ **Play Program**

Simulation of any program from the category list can be played.



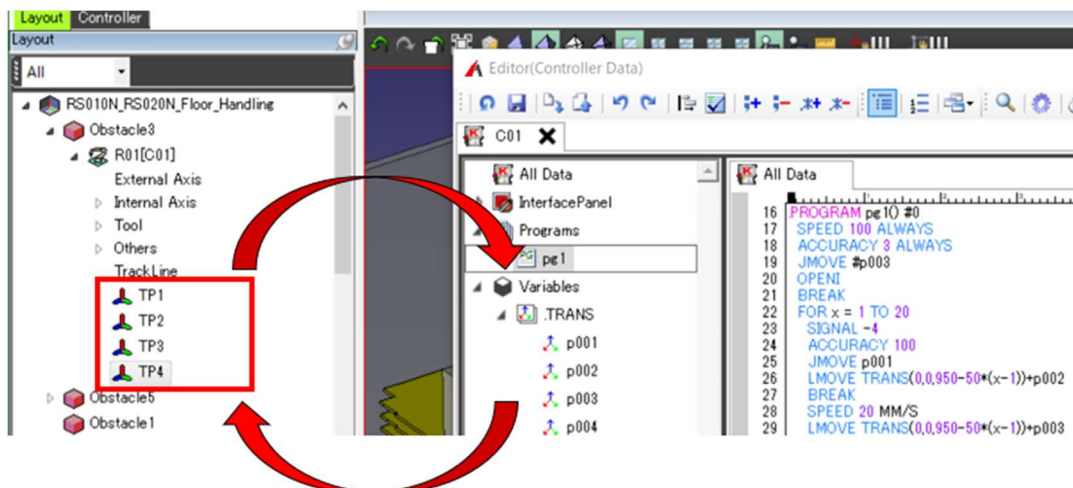
➤ **Highlight a running program step**

Currently executing program step can be highlighted. Highlight settings can be toggled in the AS Editor Options window.



➤ **Drag and drop teaching points**

Program steps and position variables can be added by dragging and dropping the teaching points in the layout tree to the category list in the AS Editor, and vice versa.



## Other

### Restrictions

Currently, neoROSET has the following restrictions:

- Do not open K-ROSET and neoROSET at the same time.  
If they are both opened simultaneously, it may be forcibly terminated when the virtual robot controller is connected.
- Project files containing "Vision Function" and "Cubic-S Safety Function" created with K-ROSET cannot be imported.
- Project files saved with neoROSET cannot be loaded with K-ROSET.
- If you import a project file created with K-ROSET, [Overwrite] of the project is prohibited. To save a project with neoROSET, use [Save As]. By saving it as a new project, it is converted to a project file for neoROSET.

