Kawasaki Robot
Kawasaki Robot Solutions

K-ROSET Offline programming tool

CAUTIONS TO BE TAKEN TO ENSURE SAFETY

For those persons involved with the operation / service of your system, including Kawasaki Robot, they must strictly observe all safety regulations at all times. They should carefully read the Manuals and other related safety documents.

Products described in this catalogue are general industrial robots. Therefore, if a customer wishes to use the Robot for special purposes, which might endanger operators or if the Robot has any problems, please contact us. We will be pleased to help you.

Be careful as Photographs illustrated in this catalogue are frequently taken after removing safety fences and other safety devices stipulated in the safety regulations from the Robot operation system.

Materials and specifications are subject to change without notice.
Any problems starting up your robot system?

- Need to pre-check for robot interference with peripheral equipment.
- Need to know in advance if the robot can reach the workpiece.
- Need to confirm in advance the robot cycle time.
- Need to prepare an operation manual for the system.
- Need to minimize the downtime of the production line.
- Need to monitor the real robot posture and signal conditions.

K-ROSET solves your problems and supports all the phases from startup to commercial production.

K-ROSET makes installation efficient and shortens the startup time.

Drastic reduction of overall costs!

Before installation
- Layout planning
- Teaching/programming
- Simulation
- Manual creation

During installation
- Modifications of the program
- Monitoring of the real robot operation

After installation
- Visualization of the production line
- Monitoring of the real robot operation
- Fine adjustments of the program
Features of K-ROSET

The Kawasaki offline programming software tool, K-ROSET, allows you to display and examine 3D models of your products and equipment on a computer. K-ROSET also lets you use your computer to program robots and perform accurate simulations. You can minimize project risks associated with the actual robot system by employing K-ROSET in the planning phase. In addition, K-ROSET can verify pre-programming and thus help reduce the startup time to production. K-ROSET also lets you pre-test robots in various production processes and thus optimize your assets.

Virtual robot simulation technology
K-ROSET makes full use of the virtual robot controller technology we have developed through decades of experience. K-ROSET operates almost exactly like a real robot working in production.

Support for external axes
K-ROSET can freely customize and simulate the extended external axes that are controlled by the robot controller.

Collision check and layout verification
K-ROSET can perform a preliminary check on your computer to determine whether or not the robot would collide with peripheral equipment during operation. Verification of layout is also possible in advance, preventing damage to the equipment due to collision.

Display of processing trajectories
K-ROSET can display the processing trajectories resulting from welding and painting instructions executed. They can be displayed separately from air-cut trajectories.

Video creation
K-ROSET can save data from the model display area as a video file while running programs. This data can then be used to prepare documents for presentations.

Use of tablets
K-ROSET operations can be viewed on a Windows tablet. It can also be connected to an Android tablet for programming. In addition, a tablet can be used for business meetings/discussions on the robot system.

Simulation of vision systems
The vision filed of the camera used in a vision system can be monitored by using the virtual camera of K-ROSET. Pick-and-place works can be simulated by detecting the location of the workpiece using a camera.

Linkage with other Kawasaki robot software packages
Linkage with Kawasaki robot software packages, such as K-VFinder and K-VAssist, is possible. Offline programming of duAro (dual-arm SCARA robot) is also possible in collaboration with RobotTeacher2.

Layout of multiple workpieces
Multiple workpieces can be placed efficiently, e.g. single- or multi-layers.

Handling (duAro)

Handling

Arc welding

Spot welding

Painting

Polishing

Palletizing

Useful options
Using the simplified palletizing software K-SPARC (optional), you can register workpieces, pallets, and palletizing patterns. After registering such data, you can easily create robot programs. For details, please contact our local sales representative.
System flow

K-ROSET ensures maximum efficiency by simple operations

Additions of robot(s) and workpiece(s) and layout modifications can easily be made through dialog-style operations.

Processing movements can easily be made by snapping the apexes and edge lines of the CAD data on the screen and adding teaching points directly.

Programs can also be made easily by adding an item with the description of an instruction.

Movements of the robot and peripheral equipment and the conditions of interfering models are displayed, thus preventing problems of the system from occurring. Signal conditions can also be checked, allowing quick troubleshooting.

Programs created by K-ROSET can be uploaded to the real robot, or saved on K-ROSET. The robot posture and signal conditions can be monitored, thus reducing adjustments during startup.

Operating environment

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<tr>
<th>OS</th>
<th>Windows 7 x86, x64*1</th>
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<tbody>
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<td></td>
<td>Windows 10 x86, x64*2</td>
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<tr>
<td></td>
<td>Japanese/English/Chinese/German</td>
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</tbody>
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*1: Only Windows 7 Professional, Ultimate and Enterprise editions are supported.

*2: Only Windows 10 Professional and Enterprise editions are supported.

License options

Many license options are available to best suit the user. Please contact our local sales representative for details.

Importing CAD data

K-ROSET supports data in STL format. You can import STL format data from your CAD tool. An optional converting function from IGES data to STL format is also available.

Visualization of the system at the job site

By uploading the backup data of the real robot controller’s program, K-ROSET can duplicate the operations at the job site. It is possible to confirm the robot coordinates and teaching points that cannot be seen otherwise.

Many conversion functions

Teaching points can be converted by the shift or copy functions, thus reducing program modification works during startup at the job site. The robot-model changing function makes it easy to replace an obsolete robot with a new one.

Support functions for actual robot

Robot posture, conveyor location and many other items can be monitored, including:

- I/O signals
- Operation panel of the controller
- Information of the program that is being executed
- Acquisition of the robot posture data from the controller (not available in some robot models)

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