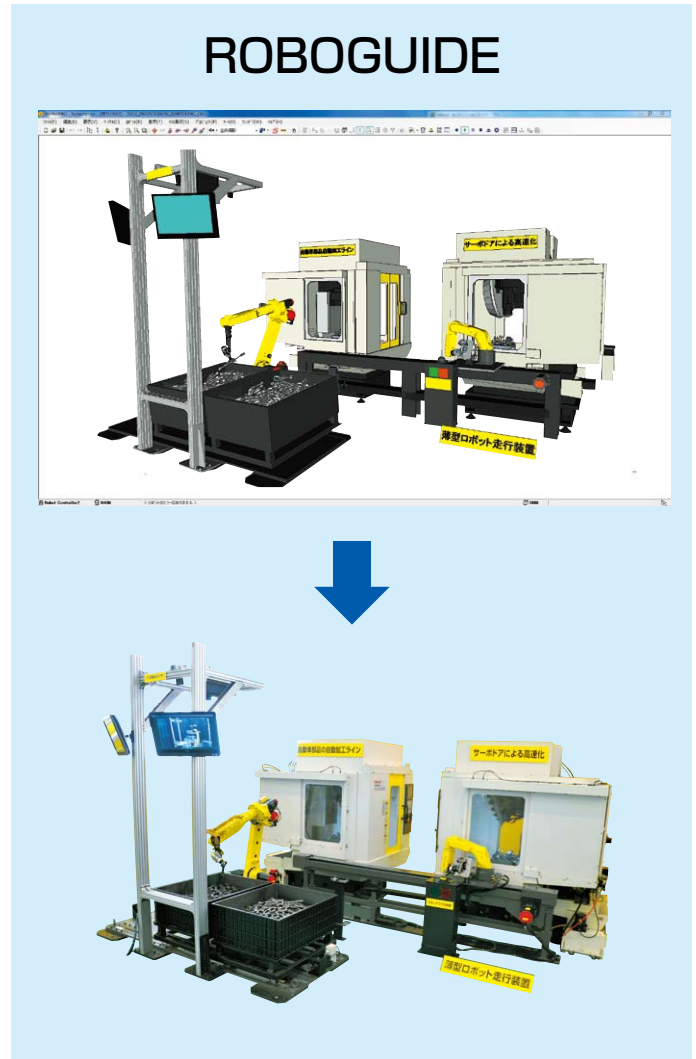# Robot System Design Tool

FANUC
ROBOGUIDE

Features of ROBOGUIDE

- PC tool that easily enables a quick and low cost verification of robot application systems

- Easy creation of layout for devices and machines. Special skills are not required

- Program creation using graphic screen

- Extreme reduction of start-up time and maintenance time with offline checking. Achievable even on the shop floor

- Accurate simulation of robot movement and application commands by virtual robot

- Robot application specific tools with highly efficient operation
  - WeldPRO
  - ChamferingPRO
  - SpotPRO
  - PalletPRO
  - PaintPRO
  - MotionPRO
  - iRPickPRO

- ASCII translator package which converts various robot files between binary and ASCII

ROBOGUIDE

Easy and highly accurate interface from design to confirmation of robot system

| Current system up tasks	System up working by ROBOGUIDE
Concept design ↓ Process verification	• Modeling by library function, CAD IF function • Placement of robot and workpiece by layout function • Robot posture check by graphic jog
Teaching, programming	• Programming by virtual teach pendant • Automatic robot program generation from shape data
Robot motion confirmation	• Simulation of FANUC robot commands • Highly accurate simulation
	• Download program to robot

Standard software

Modeling function

- Reduce time for modeling devices
  - Select objects from the library and modify using dimension settings
  - Import CAD data for creating the parts
  - Create the parts by modeling function
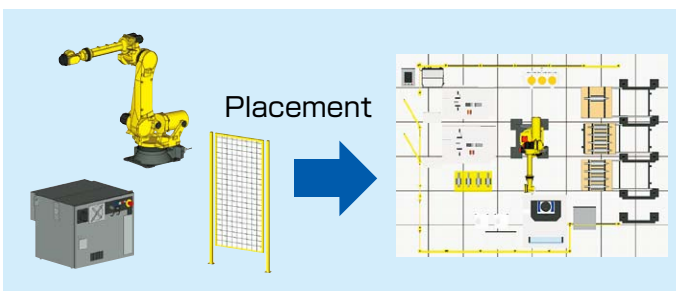
Selection from library
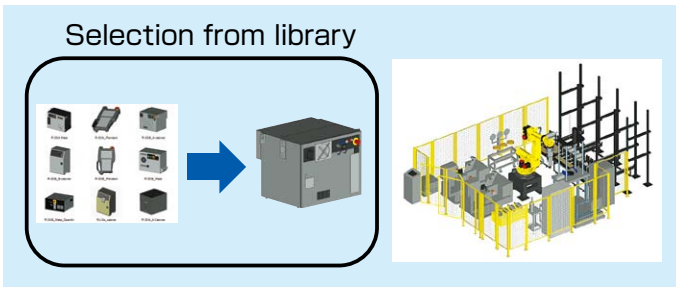
Program function

- Same user interface as the Robot Teach Pendant
- Create the actual program
 - Using visual jog enables to move robot and to teach points
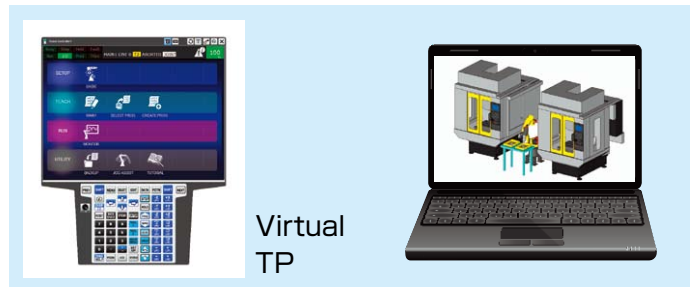
Virtual TP

Layout function

- Change layout by mouse operation on graphic screen
- Change layout by numerical input


Placement

Simulation function

- Highly accurate simulation by using virtual robot
- Simulate not only of robot movement but also application commands
- Virtual camera for iRVision simulation.

Virtual robot

iRVision
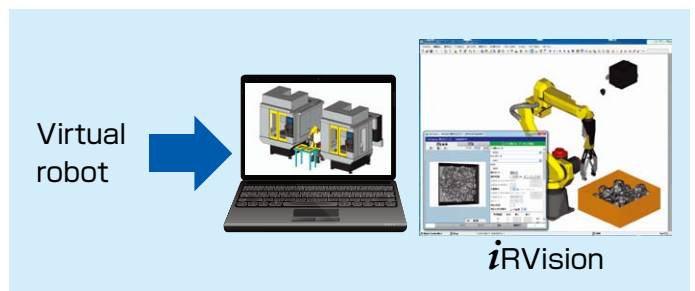
Option software

WeldPRO

- Automatically create the TP program from shape data of workpiece
- Easily select arc welding line by clicking an edge of a workpiece. This can be done even if the shape of the workpiece is complex
- Tool orientation is kept to the designated angle relative to the welding path

Specify the welding line
(Search edges from CAD data)
Generate arc welding program automatically
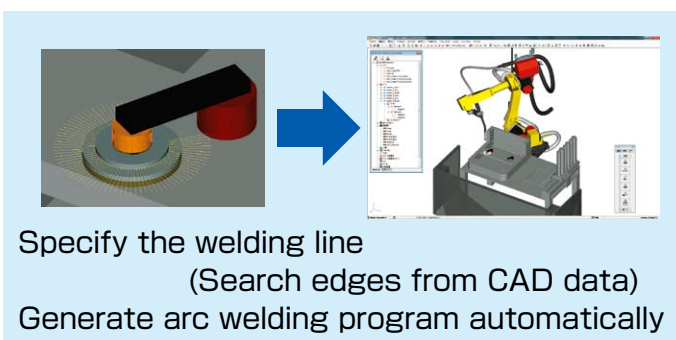
iRPickPRO

- Easy and quick simulation by just selecting the number of conveyors or trays
- Optimum layout design by freely changing the structure of robots and conveyors, infeed configurations of parts, and other configurations
- Programming-less simulation using the prepared standard program

Change the structure and speed of conveyors, and how to place parts freely
Optimum layout design
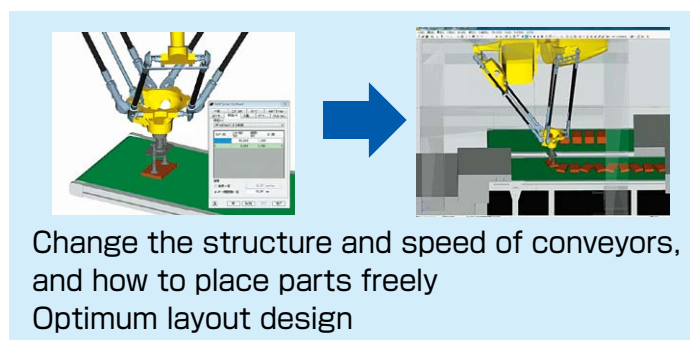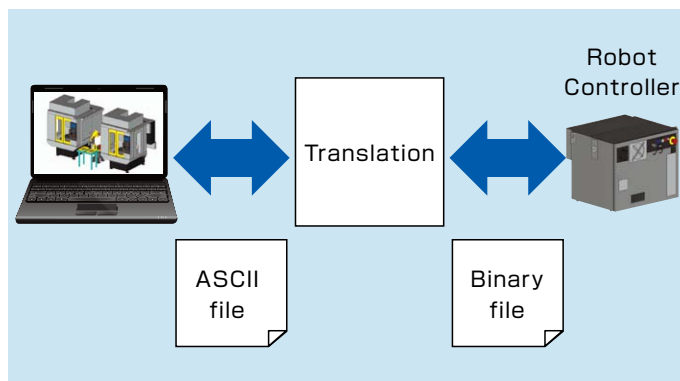
Option software

SpotPRO

- Automatically create the TP program from spot point data.
- Generate a clear path to avoid collisions.
- Setup the interlock signals automatically.

Generate clear path   Setup interlock
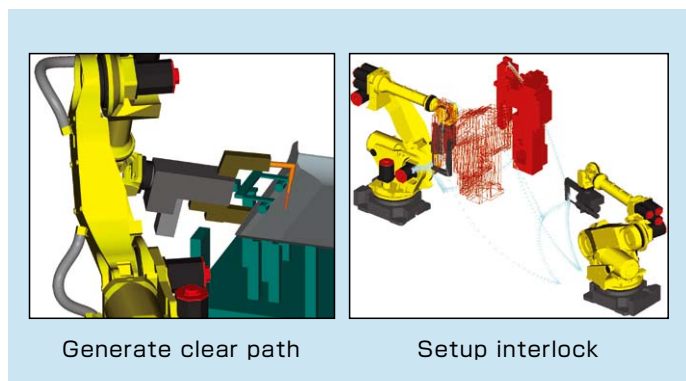
ASCII translator package

ASCII translator package

- Robot programs Text⇔Binary translation.
- System variable Binary⇒Text translation, KAREL Text⇒Binary translation.

Robot Controller

Translation

ASCII file   Binary file

Specifications

Software		Specifications
Standard software		Modeling
		Layout
		Programming
		Simulation
		Vision function
		Profiler
Standard PC option	Auto place PC option	Calculate robot position to minimize cycle time in the specified range
	Duty estimation PC option	Estimate OVC, OH alarm by motor torque
	Life estimation PC option	Estimate reducer life by motor torque
	Consumption power estimation PC option	Estimate consumption power by motor torque
	Coord PC option	Program generation for mult-robots coordinated motion
	Spray PC option	Simulate the lubricant spray to die-cast mold
	Robot integration setup PC option	Creates a robot setup file on PC and downloads the file to robot controller
	Servo gun integration setup PC option	Creates a servo sun setup file on PC and downloads the file to robot controller
Application option	WeldPRO	Navigation menu
		Program generation for arc welding
		Simulation for arc welding
	ChamferingPRO	Navigation menu
		Program generation for chamfering
	SpotPRO	Program generation for spot welding
		I/O interlock automatic setting
	PalletPROTP	Program generation for palletizing
		Simulation for palletizing
	PaintPRO	Navigation menu
		Program generation for painting
	iRPickPRO	Simulation for picking
	MotionPRO*1	Cycle time reduction, trajectory/Reducer Life/Power Optimization
DiagnosticsPRO		Robot diagnosis and preventive diagnosis
Option	Motion Analysis PC option	Analyze motion and estimate duty, reducer life, power consumption
Ascii translator package		Ascii binary translation for file(TP program, variable, register, KAREL)

Hardware option	Specifications
Robot simulator	Highly accurate simulation

Condition

The PC with the following condition is required.

Item	Contents
OS	Windows®7(32bit, 64bit), Windows®8.1(32bit, 64bit), Windows®10(32bit, 64bit), (64bit recommended) *1,
CPU	More than Athlon™ 64 3200+, Pentium® IV 2.4 GHz, Core™ 2 Quad *2 *3
Memory	More than 1 GB (4 GB or more recommended)
HDD	More than 4 GB
Others	Communication with robot controller via Ethernet Display with more than 1280x1024, 24bit color Mouse and DVD drive available under Windows

*1 Windows® is registered trademark of Microsoft Corporation.
*2 Athlon™ is registered trademark of Advanced Micro Devices, Inc.
*3 Pentium®, Core™ 2 Quad is registered trademark of Intel Corporation.

*1 Life estimation PC option/Power Consumption PC option are required to do reducer life/power consumption optimization in MotionPRO

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