

Achieve Real time Motion Control with Freedom.

RT Motion



Micronet
Real-time solution provider

Best Suited for Multi-Axis Conveyance / Positioning

- Motion Controller Software using PC based platform
- Achieve High-Speed • Minute motion control
- Control can be done by PLC, C language programs
- EtherCAT/MECHATROLINK are also available

項目	RT-Motion	
Control	Num of Axis	60 Axis
	Control Synchronous	Fastest 250us
	Position Control	○
Command Type	C/C++/C#/PLC language(IEC61131-3)	

Application Example1

[Use] Work Convey
[Setup] XYZ3 axis
+ Rotation 1 axis

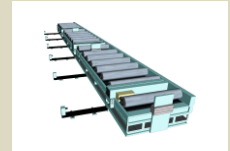


Gantry Loader

Best suited for multi axis control from small to large types

Application Example2

[Use] Pallet Convey
[Setup] XY2 axis



Convey Carriage for FMS

Easy setting for many positional information by teaching

Reason why you select RT-Motion

1.High-Speed Processing

Compared with regular PLC, exhibit several hundred times of calculation performance by using latest CPU



Best suited for multi axis positioning where cycle time is important

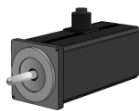


2.High Precision like Machine Tool

Achieve High-Resolution of - 2,147,483,648~ 2,147,483,647 pulse by Command Type



Best Suited for multi axis positioning / assembly where precision is important



3.Correspondence for Fieldbus

Ultrafast fieldbus "EtherCAT" and "MECHATROLINK-III" are also available.



You can select servo for EtherCAT / MECHATROLINK-III freely.

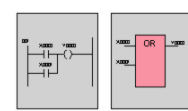


4.Many development languages

Not only ladder / FBD / SFC but also C / C++ / C# by Visual Studio are available.



You can select development languages freely.



C C++
C#

Resolve your problems

Task1

We'd like to improve the quality and reduce production cost by storing various data of points of productions such as production control data, control data, quality data, maintenance data.

Solution1

RT-Motion can do data-sampling and store data which you'd like to acquire such as production control data, control data, quality data, maintenance data as CSV format or arbitrary DB format although RT-Motion is in operation. High-capacity storage can be used since it is a PC based controller.

Task2

Though certain technicians seek improvements using ladder language, the techniques are not taken over. We'd like to replace "Galapagos" techniques by certain vendors with standard techniques.

Solution2

RT-Motion implements the application interface based on international standard specification of PLC called "IEC61131-3". Moreover, RT-Motion also implements the application interface for Microsoft Visual Studio C / C++ / C#, so it is best suited for standard development languages.

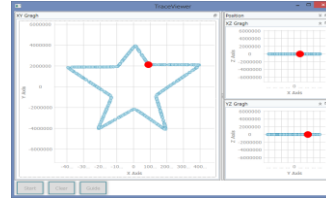
Teaching function

Implement Teaching function which stores the data such as current position of target motor after moving.

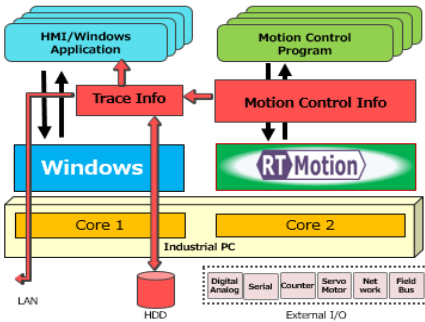


Trace Viewer function

Implement Trace Viewer function which can display coordinate trajectory of multi axis control. You can use on debug for trajectory control of control targets with multi axis control up to 3 axis.



Achieve from System Setting to Control Data logging / HMI / IoT



RT-Motion has traceable functions which automatically store control data etc. from motion control programs.

You can use the data which are stored by traceable functions as it is on your Windows PC where RT-Motion is running.

You can make good use of the data like production control data / quality data / maintenance data.

For example, you use screen display function for HMI, upload data to upper server / cloud using network functions.

Specifications for RT-Motion

Item	Description	
Performance Spec	Num of Control Axis	1-60 axis
	Control Period	Fastest 250 microseconds
	Num of Max Synchronous Axis	60 axis
	Servo Amp I/F	EtherCAT / MECHATROLINK-III
	Appointed Position	-2,147,483,648 ~ 2,147,483,647 (Command Unit)
	Command Velocity	0~4,294,967,295(Command Unit/s):(Position Control)
	Time for Acceleration / Deceleration	0~4,294,967,295(ms):(same for Accel / Decel)
	Command Type	C/C++/C#/PLC language(LD,FBD,SFC)
Functions	Control Method	OPR Control, PTP Control, Positioning Control, Linear Interpolation Control, Path Control
	Method for Acceleration / Deceleration	Trapezoidal acceleration/deceleration, S-curve acceleration/deceleration
	Manual Control	JOG Operation, Manual Pulsar, Inching Operation
	Dynamic Change	Current value changing, Target position change function, Torque change function, Override function
	OPR method	Depend on functions of servo amp to be connected
	External I/O	Emergency Stop Function, Mark Detection Function
	Maintenance	Error History Acquisition Function
	Debug	Step Function, Skip Function, Arbitrary Data Monitor Function, Teaching Function, History Monitor Function, Traceable Function

Product Composition

Name	Description
RT-Motion(E)	RT-Motion using EtherCAT as servo amp interface
RT-Motion(M)	RT-Motion using MECHATROLINK-III as servo amp interface

Available Servo

RT-Motion has corresponds to EtherCAT and MECHATROLINK-III as the servo amp I/F.

Servos confirmed for operation are as follows.

EtherCAT I/F

Panasonic MINA A5B series

SANYO DENKI SANMOTION R ADVANCED MODEL

MECHATROLINK-III

Σ series for MECHATROLINK-III spec by YASKAWA

We can do operation verifications for value for other than above mentioned.

⚡ EtherCAT® is registered trademark and patented technology, licensed by Beckhoff Automation GmbH. ⚡ kOther products are trademarks or registered trademarks of each company

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※The specifications in this catalog might change without any previous notice.