

AC Servo System 1S Series

## Multi-axis setup and tuning

Achieve machine performance in a short amount of time by Multi-axis setup and tuning.



### Multi-drive window

Configure and monitor multiple axis in one view

OMRON originality #1



### Parameter copy transmission

Easy & fast parameter transfer among axis in the machine (up to 256 axis)

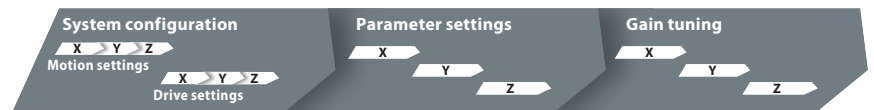
OMRON originality #1



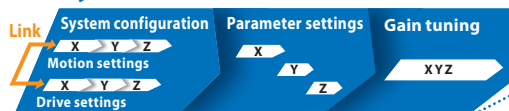
### Multi-axis tuning wizard

Comprehensive gain tuning

### Before



### 1S+Sysmac Studio Ver.1.18



\*1. Based on Omron investigation in January 2017.

\*2. Performance comparison with previous Sysmac Studio version based on Omron investigation in January 2017.

**40%**  
time  
reduction\*2

### Automation Software Sysmac Studio Ver.1.18

Upgrades in April, 2017

Sysmac Studio is the software that provides an integrated environment for setting, programming, debugging and maintenance.

NJ/NX/NY\*3 Controller

EtherCAT®

Released in July, 2016

1S Servomotor  
R88M-1□



Released in July, 2016  
Upgrades in April, 2017

1S Servo Drive with  
Built-in EtherCAT  
Communications  
R88D-15N□-ECT

**SYSMAC**  
always in control

\*3. Industrial PC Platform NY-series IPC Machine Controller only.

\*4. 1S Servo Drive won the iF Design Award 2017. The iF Product design Award, presented by Hannover-based International Forum Design GmbH, is one of the world's most prestigious design awards.



**Multi-drive window**

### Multiple drives set-up and monitoring

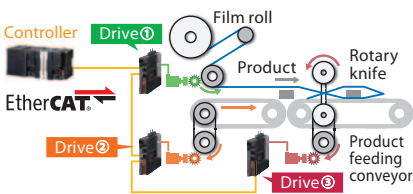
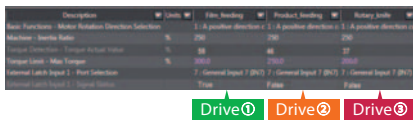
**Issue:**

Each drive in the machine is configured and monitored with separated configuration windows. Many operations are required to adjust and monitor parameters.

**Solution:**

Sysmac Studio multi-drive parameter and monitor window provides a single view for drives set-up.

■ Screen view of "Multi-drive window"



■ Application



Wrapping machine

Note: Please use Sysmac Studio Ver.1.18 or higher. The latest version of Sysmac Studio is available via auto update.



**Parameter copy transmission**

### Quick parameter copy and transfer

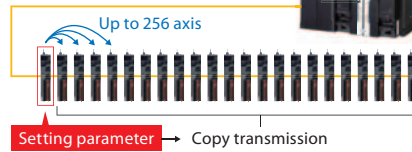
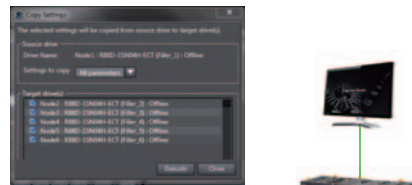
**Issue:**

For machine with a large number of axis, user need to modify parameters manually for each drive. A long time is required.

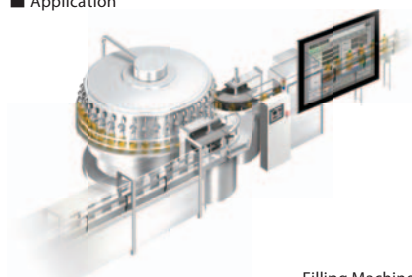
**Solution:**

After configuring 1 drive in the machine, all other similar drives can be configured by applying same parameters in few seconds with Sysmac Studio.

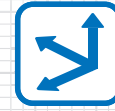
■ Screen view of "Parameter copy transmission"



■ Application



Filling Machine



**Multi-axis tuning wizard**

### Easy gain tuning for XYZ table\*

**Issue:**

User need to adjust axis one by one. It requires much effort and analysis to obtain the best system performance.

**Solution:**

With multi-axis tuning wizard of Sysmac Studio, drives can be tuned simultaneously in a short amount of time. System performance is achieved by non-expert users.

■ Screen view of "Multi-axis tuning wizard"

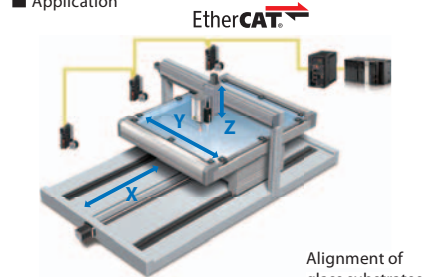
**Step1**  
Setup and criteria

**Step2**  
Auto tune process

**Step3**  
Data trace and result

\*Multi-axis tuning can adjust up to 4 drives simultaneously.

■ Application



Alignment of glass substrates

## Refer to the 1S Series CATALOG (Cat. No. I821) for details.

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