



Problem

How can I restrict the unauthorized operators?



Answer

Operator authentication function solves the problem!



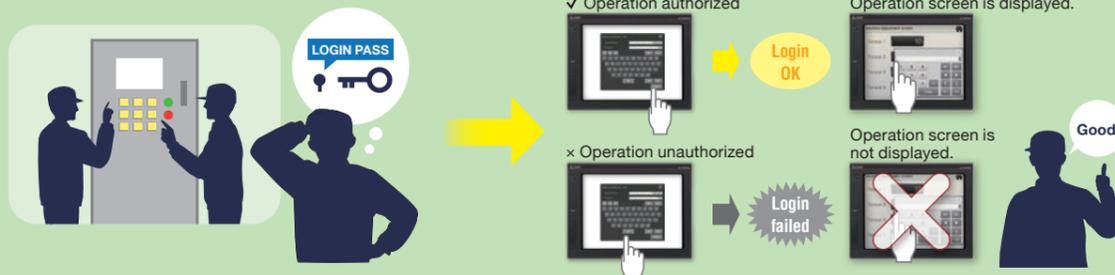
Password management ensures security and safety!

Operator authentication function*1

Supported GOT models GT27 GT25 GT23 GT21

Recommended for all stages in production!

Operator name and password enable the secure login management in a large-scale worksite, providing the flexibility of setting the operation authority per worksite or operator. In addition, the login management can be performed by an external authentication device such as RFID.



Function benefits

Setting the operation authority and viewing authority achieves "enhanced security" and "access management per operator". Use of the operator authentication function combined with the operation log function*2 enables you to check the "who, what, when, and how" of an operation performed.

Enhanced password security*2 NEW

By setting password requirements (the minimum number of characters and the character types), you can set more advanced passwords. It is possible to prompt a password change at the initial login or notify the password expiration date in advance (1 day to 30 days).

The GOT2000 Series can be used to support FDA 21 CFR Part 11



*1 Supports FDA 21 CFR Part 11 *2 Not supported by GT21



GOT2000 Series

Extensive lineup for various applications

White Model - GT27 and GT25 models are available. You can select the model that matches the color of the equipment.

Open Frame Model - Flush surface with the operation panel. The GOT compliant with water-resistant IP67F can be wiped with a damp cloth and washed with water, making the equipment clean and hygienic.



Graphic Operation Terminal GOT2000 Series catalog L(NA)08270ENG

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Safety Warning

To ensure proper use of the products in this document, please be sure to read the instruction manual prior to use.

Registration

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NEWS!

Additional release in Apr. 2019

Food-Related Equipments

Why not try solving the problems of food manufacturing?

Problems

The current state of the food industry is as follows:

- With production of a variety of products in small quantities, each type must be monitored individually.
- Great divergence in the levels of quality of the produced
- When an unforeseen incident (such as contamination of the product due to a foreign substance) occurs, we need to examine the causes promptly safety and security of the customers.

Arrgh... it's a lot of effort to maintain high quality and safety of produced food.



We will contribute to the food safety and stable production quality! /
has the answer to the **FOOD MANUFACTURING PROCESS!**

Suggestion

By connecting **MELSEC iQ-F series** X to other equipments, variety of applications can be managed!

Leave it to MELSEC iQ-F!



3 suggestions for introducing MELSEC iQ-F

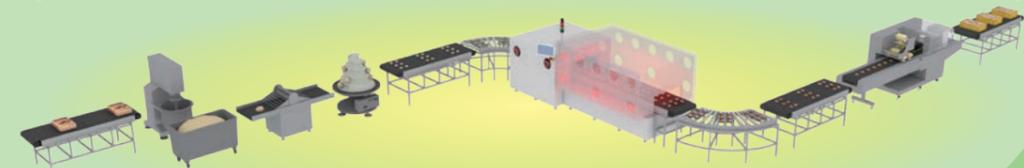
Suggestion 1 | Ease of traceability
Connectivity between MELSEC iQ-F's built-in logging and 2-dimensional code readers

Suggestion 2 | Improvement of packaging quality
By gathering tension data, we can visualize the food packaging process.

Suggestion 3 | Operator management
Operator authentication function (supports FDA 21 CFR Part 11*) / Operation log function

GOT functions

Let's outline the manufacturing process of a bread factory in simple terms! /



* This refers to a publication of the US Food and Drug Administration regarding the method of providing a paperless record system to comply with the Current Good Manufacturing Practices (CGMPs) in the 1990s.

Each process is explained in detail on the next page...





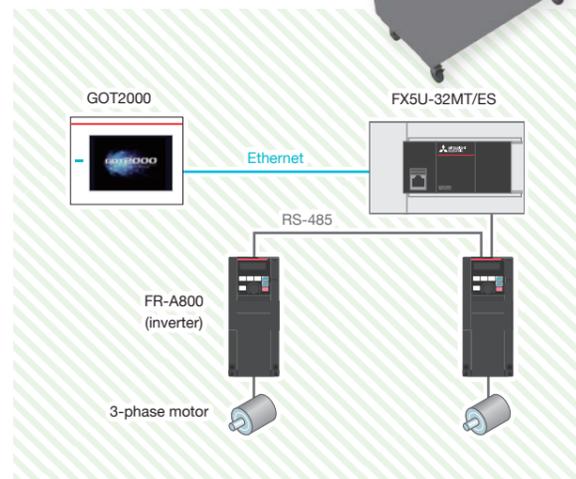
Let's look at the production processes for making bread...



Process 1 Dough mixing



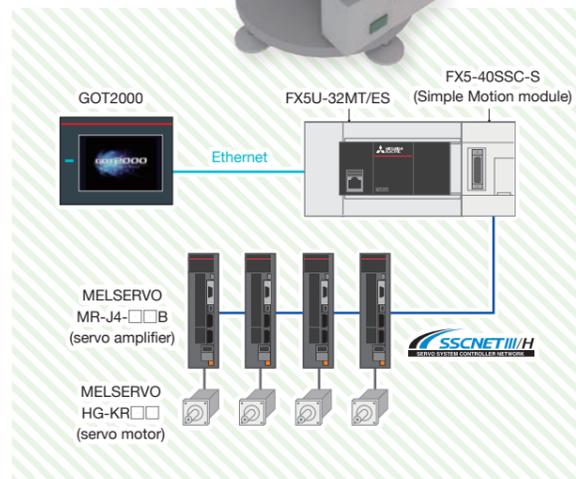
System configuration example



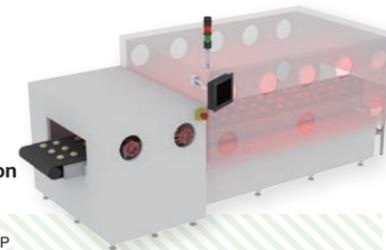
Process 2 Molding



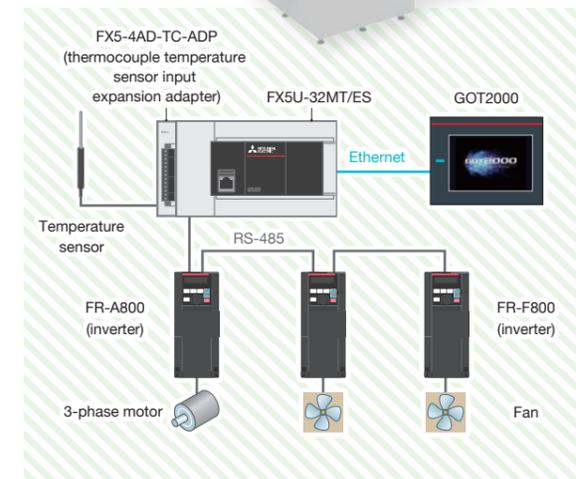
System configuration example



Process 3 Baking



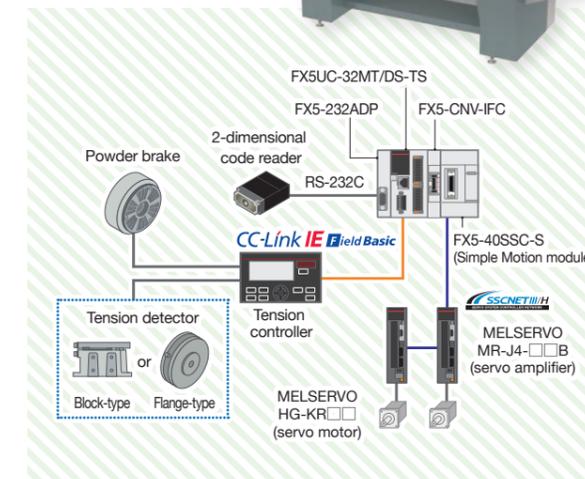
System configuration example



Process 4 Packaging



System configuration example



Problem

How can I collect and store information of all the equipment in case something bad happens...



Answer

Data logging and the **Web server function** solve the problem!



Problem

- The plastic film is stretched and warped by the heat...
- The plastic film becomes wavy or crinkled...



Answer

We can solve this thanks to **tension controller connectivity** and the **iQ-F Series Statistical Analysis FB!**



Traceability can be achieved with 2-dimensional code reader connectivity and built-in logging!

Data logging

With no need for programming, the data can be logged with parameter settings alone, allowing easy collection of product ID numbers, etc. by reading with a 2-dimensional code reader.

Product information	
Name	Cream Buns
Producer ID	*****
Weight	120 g
Production date	March 1, 2019
Production lot No.	*****

Recorded data is stored to the SD memory card.



Recommended for all stages in production!

You can check easily on your smartphone or tablet!

Web server function

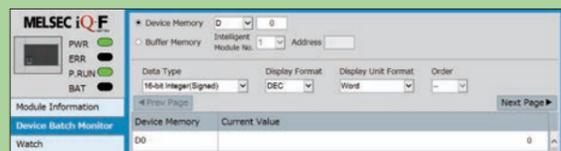
Even from a remote location it is possible to visualize the production process, such as the number of units produced, etc.

NEW

Line A (Cream Buns)		
Date	Number of units	Operating status
3/2/19	5,000 rolls	Normal
3/3/19	5,000 rolls	Normal
3/4/19	4,851 rolls	Call

Recommended for all stages in production!

You can check on the status immediately.



Shown on the system web page

Shown on the user Web page*

By gathering tension data, any deviations can be detected!

Statistical Analysis FB

Various data can be imported to the PLC from the tension controller through the CC-Link IE Field Network Basic, without any complicated programs. With the tension data (received from the tension controller) or the control command value (sent to the powder brake), information such as the status of the actuator (like a powder brake) or the tension data related to packaging quality can be monitored. Additionally, if you are using the Statistical Analysis FB released in the iQ-F Series, it will give you a clear image of the difference between the target tension and the actual observed tension, any deviations in the actuator, serving an important function in product quality improvement.

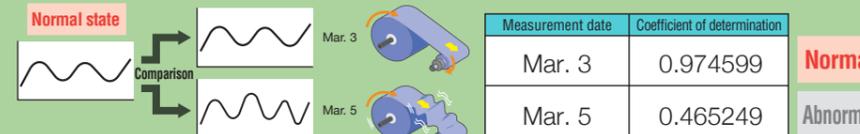


Recommended for packaging!

Execution command	M+DataStatistics_CoeffDetR2_F		
M1	B: i_bEN	o_bENO :B	M11
Number of data points	UW: i_uDataPoints	o_bOK :B	M12
The predictive value	W: i_w500XaxisData	o_bErr :B	M13
The actual measurement value	W: i_w500YaxisData	o_uErrId :UW	[D10]
	o_eCoeffDetR2 :E		[D11] Coefficient of determination

- Normal value: Target tension** Actual measured value: Measured tension data
By knowing the difference between the measure tension data and the target tension, we can determine whether the equipment has any errors, damage or the like, etc.
- Normal value: Initial control command to the powder brake (electric current value)** Actual measured value: Current control command to the powder brake (electric current value)
By monitoring the control command (electric current value) and the current control command (electric current value), we can be aware of changes in the electric current value exciting the powder brake, thus allowing us to predict any deterioration in the quality of the powder inside the powder brake.
(When the powder deteriorates, the electric current rises.)

Comparison/Calculation of the target tension and actual measured tension



Assuming the threshold value is 0.5, when the coefficient of determination is 0.5 or lower, that is abnormal.

Monitoring needs a lot of attention because of production of many models in small quantities



*1 Compatible with FX5U/FX5UC, Ver. 1.100 and later, with the production code 17X**** (FX5UC-32MT/DS-TS and FX5UC-32MT/DSS-TS are production code 178****), and GX Works3, Ver. 1.047Z and later.