Panasonic

Programmable Controller
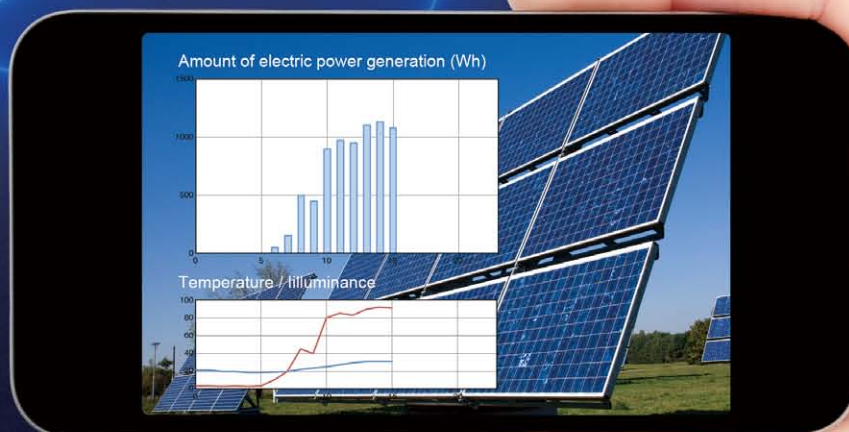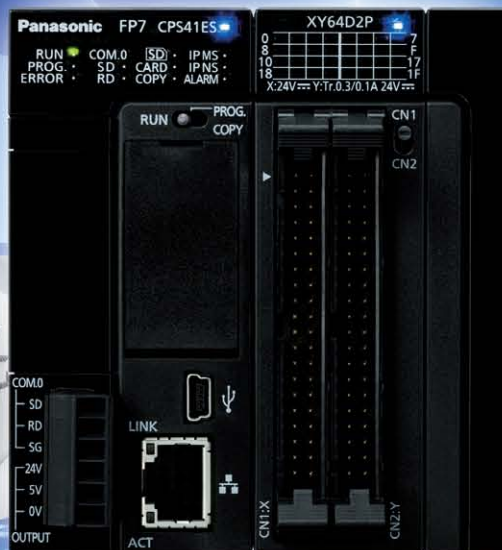
FP7 SERIES

CE Conforming to EMC Directive

c(UL)us Listing

Check remotely by your smartphone!

The FP7 allows you to "Collect", "Store", and "Check" data

Panasonic FP7 CPS41ES

RUN COM.0 SD IPMS
PROG. SD CARD IPNS
ERROR RD COPY ALARM

RUN PROG. COPY

XY64D2P

X:24V Y:Tr.0.3/0.1A 24V

CN1
CN2

COM.0
SD
RD
SG
24V
5V
0V
OUTPUT

LINK

ACT

CN1:X CN2:Y

Amount of electric power generation (Wh)

Temperature / Illuminance

An App for Information Remotely from Smartphone or PC!

"Collect", "Store" and "Check" information with an FP7! Traceability function can be added for existing devices!
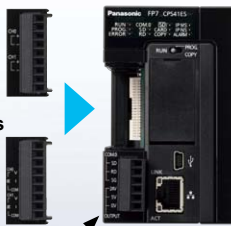
Collect

Easy collection!

Collect work site information

The FP7 can collect voltage, electric power, temperature, production output, alarm notifications, and other information.

- **Expand features without increasing installation space when adding the communication and function cassettes to the CPU unit.**

Serial communication cassettes

RS232C
RS422 / RS485

Analog cassettes

Voltage, Current, Thermocouple and Resistance temperature detector

RS232C

Ethernet

Maximum of 216 connections
MC protocol supported

Store

Easy storage!

Logs collected information

The FP7 securely stores and carries out log management of collected information assets.

- **Logging conditions set up is easy done via the configuration screen.**
- **Maximum of 16 files can be logged at the same time.**
- **Diagnosis of rewrite life of SD memory card helps protect valuable information assets.**

*Diagnosis possible when Panasonic industrial-spec SD memory cards are used.

Easy **Simple** **Economical**

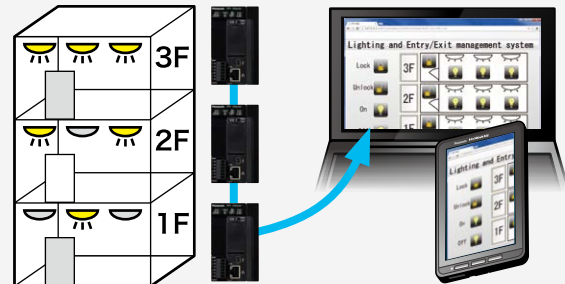# So convenient when you can check it!

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1 **Check out status of greenhouse / food processing**

With data always at hand, there's no need to go to the work site to check indoor temperature and humidity or the operation of pumps, heaters, and other equipment.

Greenhouse 1
Temp. 24.5 °C Humidity 54.8 %
Sprinkler OFF
Heater ON

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3 **Building lighting / entry and exit management**

Through a web interface, it is possible to check the status of lighting in buildings and apartments, and to building entries and exits.

3F
2F
1F

Lighting and Entry/Exit management system
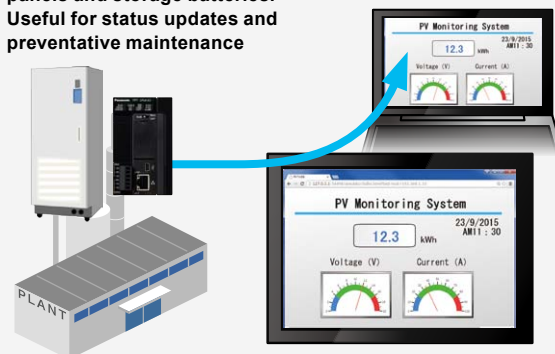Lock 3F
Unlock 2F
On 1F

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2 **Operational status and production log management for production line**

Operational status of the production line can be checked and traceability production control can be carried out.
Current production line information can be collected and displayed on Web interface.

Production control system

Lot No.	Production quantity	Number of defective	Proportion defective	Content of defective
AAAA	12345	1200	0.004	2
	12345	1200	0.004	2
	12345	1200	0.004	2

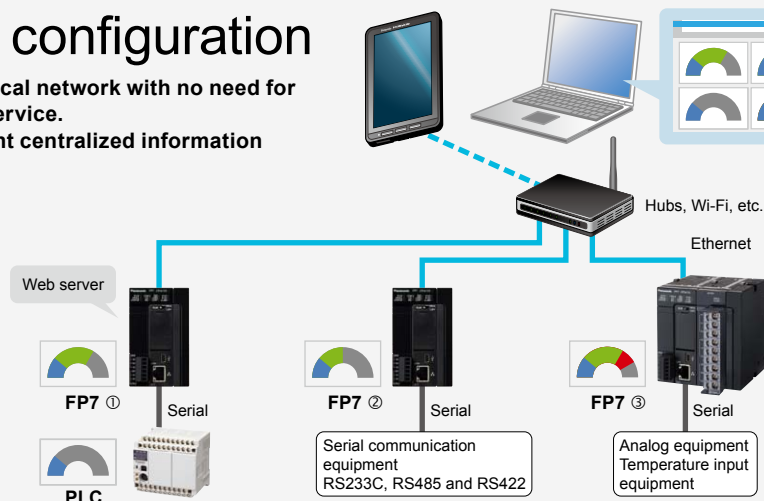**4** **Check photovoltaic generation and rechargeable battery statuses**

Monitor the voltage, current, and storage amount of solar panels and storage batteries.
Useful for status updates and preventative maintenance

PV Monitoring System
23/9/2015 AM11:30
12.3 kWh
Voltage (V)   Current (A)

PLANT

PV Monitoring System
23/9/2015 AM11:30
12.3 kWh
Voltage (V)   Current (A)

System configuration

Build into your local network with no need for joining a cloud service.
Easy to implement centralized information management.

Hubs, Wi-Fi, etc.

Ethernet

Cloud storage unnecessary

*Wi-Fi is a registered trademark of Wi-Fi Alliance.

*Ethernet is a registered trademark of Fuji Xerox Co., Ltd. and Xerox Corporation.
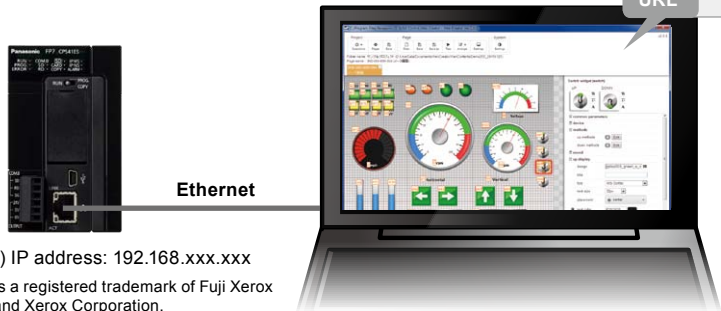
Web server

FP7 ① Serial

PLC

FP7 ② Serial

Serial communication equipment
RS233C, RS485 and RS422

FP7 ③ Serial

Analog equipment
Temperature input equipment

Check available in two Web contents

① Custom Web

Screens (content) that are setup as desired by the user with Control Web Creator are uploaded to the FP7. Then, the information in the FP7's internal Web server can be monitored on a browser.
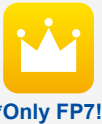
Enter the URL in a browser

| URL | http://192.168.xxx.xxx/ |

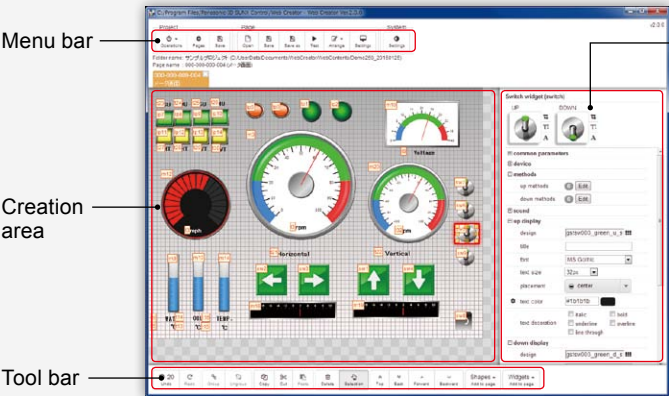**Ethernet**

(Example) IP address: 192.168.xxx.xxx

*Ethernet is a registered trademark of Fuji Xerox Co., Ltd. and Xerox Corporation.

Control Web Creator
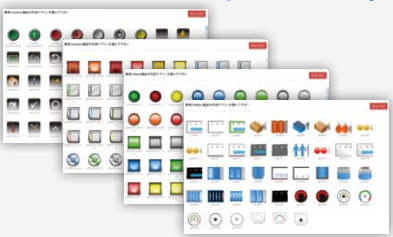
You, too, are a Web content creator

This is a graphics creation tool that allows you to easily design Web content that is published by the **FP7**. You can creatively design content by arranging Web components such as switches, lamps and meters on the screen and then setting the properties. Your content will be linked to information in the PLC without needing any knowledge of HTML.

*Only FP7!

Menu bar

Web component property settings

Creation area

Abundant Web component library

Tool bar

- Same style of operation as the program display image creation tool
- Components can be arranged by dragging and dropping.
- Detailed component settings are easy using properties.

- Components don't lose quality when enlarged or reduced, and you can color them as desired.
- Images can be pasted in.

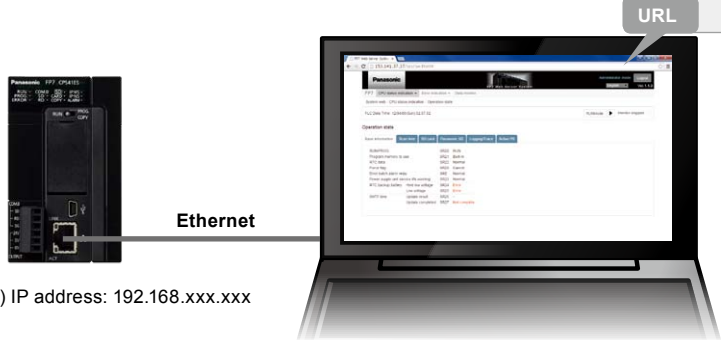*Based on internal research as of June, 2015

② System Web

This is the Web content that is contained as default in the CPU unit. Status of the FP7 (settings, operation history, errors, etc.) can be checked.

Enter the URL in a browser

| URL | http://192.168.xxx.xxx/sys/ |

Ethernet

(Example) IP address: 192.168.xxx.xxx

Even without Control FPWIN **GR7** ladder editing software, as long as you have a browser, you can check the **FP7** status.

- You can view the data register, etc., using a PC or smartphone.

Easy **Simple** **Economical**

Check

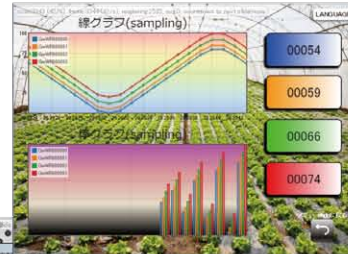## Check information at your fingertips

Data collected by the FP7 can be displayed in a web browser.
Via smartphone or PC, it's easy to check the current state of the work site.

Easy checking!

Create web page in the FP7. **Web server function**

- Use FP7 web page to publish information collected in the FP7.
- View using commercially available smartphones, tablets, or PCs.
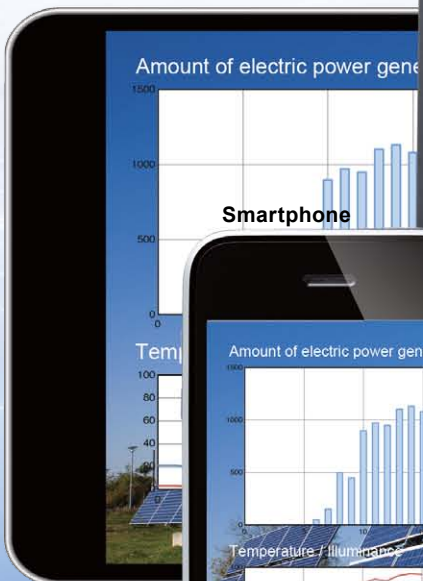- Use of a browser eliminates need for dedicated software or hardware.
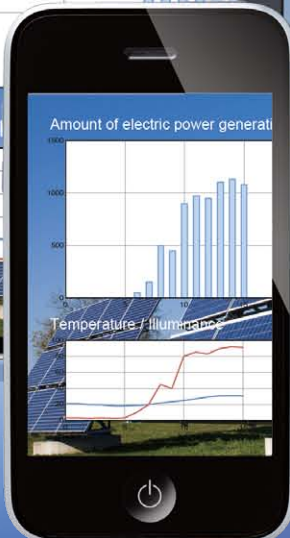
PC

Wi-Fi router, etc.

*Please provide commercially available products.
*Wi-Fi is a registered trademark of Wi-Fi Alliance.

Tablet

Smartphone

Amount of electric power generation (Wh)

Temperature / Illuminance

*The LCD picture is simulated image.

Product types and Specifications

■ CPU units

Product name		Standard program capacity	Max. program capacity	Operation speed	Ethernet function (Note 2)	SD memory card function	Encryption function (Note 3)	Part No.
FP7 CPU units		196 k steps	234 k steps	From 11 ns	Built-in	Built-in	–	**AFP7CPS41E**
		120 k steps	120 k steps	From 11 ns	Built-in	Built-in	–	**AFP7CPS31E**
		120 k steps	120 k steps	From 11 ns	–	Built-in	–	**AFP7CPS31**
	Security enhanced type	196 k steps	234 k steps	From 11 ns	Built-in	Built-in	Built-in	**AFP7CPS41ES**
		120 k steps	120 k steps	From 11 ns	Built-in	Built-in	Built-in	**AFP7CPS31ES**
		120 k steps	120 k steps	From 11 ns	–	Built-in	Built-in	**AFP7CPS31S**
	High cost performance model	64 k steps	64 k steps	From 14 ns	–	–	–	**AFP7CPS21**

Notes: 1) One End unit is attached to the CPU unit.
2) Ethernet function includes FTP server / client function, Web server function, HTTP client function, E-mail sending function and EtherNet/IP compatibility.
Ethernet is a registered trademark of Fuji Xerox Co., Ltd. and Xerox Corporation.
3) When exporting to China, please use a CPU that does not have an encryption function.
4) For CPU units with encryption function, please use the security enhanced type programming tools.

■ Web screen creation tools

Product name	Descriptions	Part No.
Control Web Creator	Windows version. Downloadable free of charge from our website. Please purchase Key unit separately.	**AFPSWC**
Key unit	License key for **Control Web Creator**. 1 license. For USB port.	**AFPSWCKEY**

● Key unit
AFPSWCKEY

*Key unit is required to create Web content.
You do not need Key unit to view Web content on a browser.

■ Web server specifications

Item	Specifications
Compatible CPU unit	Ver. 3.30 or later CPU unit with built-in Ethernet function
Web server	Number of simultaneous accesses: 16 sessions System Web: system monitor function Custom Web: 8 MB max. content capacity
Control Web Creator compatible OS	Windows® 7 or higher
Web server accessible browsers	Windows® Google Chrome Mozilla Firefox Opera Internet Explorer OS X Safari Google Chrome Mozilla Firefox iOS Safari Google Chrome Android Google Chrome

Notes: 1) Windows®, Windows 7 and Internet Explorer are trademarks or registered trademarks of Microsoft Corporation in the United States and other countries.
Google Chrome and Android are registered trademarks of Google Inc.
Safari and OS X are trademarks or registered trademarks of Apple Inc. in the United States.
iOS is a trademark or registered trademark of Cisco Systems, Inc. in the United States and other countries.
Firefox is a registered trademark of Mozilla Foundation in the United States and other countries.
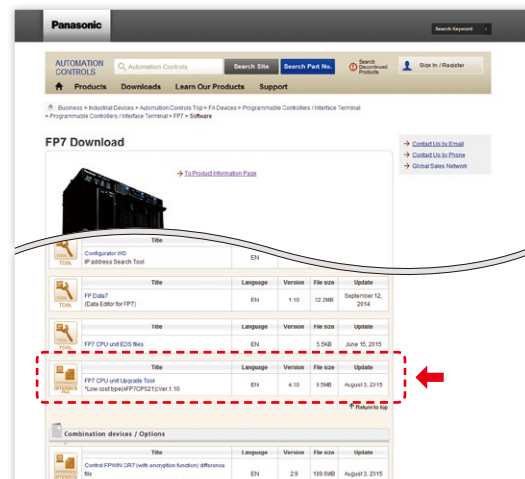Opera is a trademark or registered trademark of Opera Software ASA.
2) Please use the latest OS and browser versions.
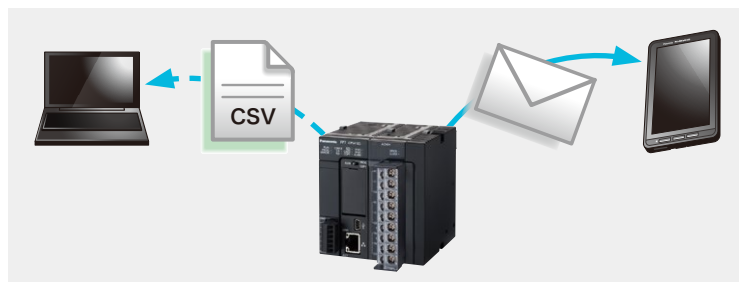Latest browser versions may not work with older models.

Firmware can be updated to latest version!

Update tool for latest firmware version is available on our website. Web server function can be added to CPU units listed above with built-in Ethernet function.

Introduction of FTP, email and other functions

The FP7 has abundant information-exchange features such as an FTP client / server, HTTP client, and email.

CSV

Please request
the catalog.

· This product includes software developed by the IEEE Industry Connections Security Group (ICSG)

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