# **GENNECT One User's Manual**

**Rev. 20** 

Author	HIOKI E.E. CORPORATION
Created at	2018 / 10 / 30
Updated at	2025 / 2/ 18

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## **Before start using**

Thank you for using the HIOKI GENNECT One.

## Supported Instruments for GENNECT One

GENNECT One is compatible with the following products.

Model name	Product name	URL
PQ3100	POWER QUALITY	https://www.hioki.com/en/products/detail/?product_key=6387
	ANALYZER	
PQ3198	POWER QUALITY	https://www.hioki.com/en/products/detail/?product_key=6503
	ANALYZER	
PW3335	POWER METER	https://www.hioki.com/global/products/power-meters/single-
		phase-ac-dc/id 5831
PW3336	POWER METER	https://www.hioki.com/global/products/power-meters/3phase-
PW3337	POWER METER	ac-dc/id 5805 https://www.hioki.com/global/products/power-meters/3phase-
P W 3337	POWER METER	ac-dc/id 5929
PW3360	CLAMP ON POWER	https://www.hioki.com/en/products/detail/?product_key=5589
	LOGGER	
PW3365	CLAMP ON POWER	https://www.hioki.com/en/products/detail/?product_key=5565
1 11 22 02	LOGGER	
PW3390	POWER ANALYZER	https://www.hioki.com/en/products/detail/?product_key=6413
PW6001	POWER ANALYZER	https://www.hioki.com/en/products/detail/?product key=5796
PW8001	POWER ANALYZER	https://www.hioki.com/global/products/power-meters/power-
1 ₩ 0001	I OWER ANALIZER	analyzer/id 412384
LR8400	MEMORY HILOGGER	(Discontinued Product)
LR8401		
LR8402		
LR8410	WIRELESS LOGGING	https://www.hioki.com/en/products/detail/?product_key=5697
	STATION	
LR8450	BATTERY TESTER	https://www.hioki.com/en/products/detail/?product_key=6535
LR8450-01	BATTERY TESTER	https://www.hioki.com/global/products/multichannel-data-
2100100001	Difficient instance	loggers/multichannel/id_6768
LR8101	DATA LOGGER	https://www.hioki.com/sg-en/products/multichannel-data-
LR8102		loggers/multichannel/id 1266484
MR6000	MEMORY HiCORDER	https://www.hioki.com/en/products/detail/?product_key=6439
MR8847A	MEMORY HICORDER	https://www.hioki.com/global/products/data-acquisition/daq-
		testing/id 6555
BT4560-50	BATTERY IMPEDANCE	https://www.hioki.com/sg-en/products/resistance-
	METER	meters/battery/id_5897
BT5525	BATTERY INSULATION	https://www.hioki.com/global/products/electrical-safety-
	TESTER	testers/insulation/id_1265405 (Models with LAN interface only)
BT6065	PRECISION BATTERY	https://www.hioki.com/sg-en/products/resistance-
BT6075	TESTER	meters/battery/id 1266730
ST5680	DC HIPOT TESTER	https://www.hioki.com/global/products/electrical-safety-
515000	Definition fiestek	testers/hipot/id 1265574
IM3523A	LCR METER	https://www.hioki.com/global/products/lcr-meters/10-
		<u>mhz/id_1265475</u>
D) (25454		(Models with LAN interface only)
RM3545A	RESISTANCE METER	https://www.hioki.com/global/products/resistance- meters/resistance/id 1266279
DM7275,	PRECISION DC	https://www.hioki.com/sg-en/products/benchtop-dmm/dc-
DM7276	VOLTMETER	voltmeters/id 6551
BT3554	BATTERY TESTER	(Discontinued Product)
BT3554-01	D'ATLATILITE	
BT3554-50	BATTERY TESTER	https://www.hioki.com/en/products/detail/?product_kev=6596
D15554-50	DATIENT TESTER	integes, i in in minorateoni, en products/ detail/ i product_RCY_0570

\*The supported features and corresponding firmware versions may vary depending on the measuring instrument. For details, please refer to the "Supported Instruments" section for each feature.

## **Main screens**

The main window of GENNECT One is composed of [Data], [Functions], [Console], [Launcher] tabs.

## [Data] Tab

Functions Consol								Information 4 ×
	List 🗹 🚺	and brand	ed items off	Search Input text (3) rated by space		Period ~		
Report	Туре	Date	Time	Title	Comment	Search Tag	Model ^	
	· 2022-09-02 (1 i	item)						
t	PQA Measu	rem 2022-09-02	13:09:31	50000001/22090205	StartEvent, DipEventStart, IntrptEven	Click here to set.	PQ3100	
Not categorized	· 2022-08-24 (3 i	items)						
A		vzer 2022-08-24	16:22:37	180712345_192-168-1-81_2022-08	No Comments	Click here to set.	. PW8001	
в		yzer 2022-08-24	16:22:37	180712345_192-168-1-81_2022-08		Click here to set.	. PW8001	
	Power Analy	yzer 2022-08-24	07:22:37	180712345_192-168-1-81_2022-08	No Comments	Click here to set.	. PW8001	
	· 2022-08-19 (5 i	itom a)						
		ER 2022-08-19	16:27:18	102-168-1-03 220810-163221 AUT	2022-08-19 16:27:18 - 2022-08-19 1	Click here to set	188450-01	
		2022-08-19	16:10:34	No title	2022-08-19 16:10:34 - 2022-08-19 1			
	Logging	2022-08-19	16:10:34	No title	2022-08-19 16:10:34 - 2022-08-19 1			
	Logging	2022-08-19	16:10:34	No title	2022-08-19 16:10:34 - 2022-08-19 1			
	Logging	2022-08-19	15:55:35	No title	2022-08-19 15:55:35 - 2022-08-19 1	Click here to set.	LR8450-01	6
	· 2022-08-08 (1 i	item)		U				
	Picture	2022-08-08	17:24:19	remoteMonitoring.png	No Comments	Click here to set.	No mod	
				i contection in graphing				
	✓ 2022-08-04 (5 i		10.51.15					Q, []
		2022-08-04 ER 2022-08-04	18:54:46 08:08:34	No title MEASUREMENT/ALL/AUTO0001.CSV	2022-08-04 18:54:46 - 2022-08-04 1	Click here to set.		
		ER 2022-08-04 ER 2022-08-04	08:08:34	MEASUREMENT/ALL/AUTO0001.CSV MEASUREMENT/ALL/AUTO0001.CSV		Click here to set.		
		ER 2022-08-04	08:08:34	MEASUREMENT/ALL/AUTO0001.CSV		Click here to set.		
		ER 2022-08-04	08:08:34	MEASUREMENT/ALL/AUTO0001.CSV		Click here to set.		
	* 2022-07-29 (1 i	2022-07-29	00.41.40	No Mar	2022 07 20 00 41 40 2022 07 20 0	CE-t. based a set	100450.01	
	Logging	2022-07-29	09:41:48	No title	2022-07-29 09:41:48 - 2022-07-29 0	Click here to set.	LR8450-01	
	2022 07 20 14						Y	

#### 1 Menu Bar

The menu of the application is displayed.

- See the following sections for the functions of the menu.
- Import Data
- Using the logging schedule
- Application settings
- Other Application Menu

## **2** Data Switch Window

Changes the data type to display in the data list by selecting [Data]/[Report]. Manage the data group in the tree style structure. Data displayed in the data list is filtered by selecting the group.

See the following sections for the management of the data group.

**ORGANIZE DATA** 

#### **3** Toolbar

-Search data by text or search tag.

-Refine the data displayed in the data list by applying the criteria settings.

-Change the checked state or the expanded/collapsed state of the data list.

See the following sections for the functions of the tool bar.

#### MANIPULATE DATA LIST

## (4) Data List

Display the data loaded from the measurement instrument or GENNECT One in the list. Data is listed in date order.

The data imported into GENNECT One, as well as the data acquired through the Logging/Dashboard functions, will be saved in the [Uncategorized] group under [Data].

Functions Console Lau	ncher							
¢	List	MC ⊞E	Show checked	items off	Search Input text separated by space	VQ Filter OFF All I	Period ~	All v All v
Data Report		Туре	Date	Time	Title	Comment	Search Tag	Model
	- 202	24-11-19 (1 item)						
Root		Photo	2024-11-19	20:52:09	Sample.png	No Comments	Click here to set	No model information

Files with a PDF extension or data saved to GENNECT One as the destination for daily, weekly, or monthly reports via the auto-output function will be saved in the [Uncategorized] group under [Report].

	List 🗹 🚺 🛨	Show check	ed items off	Search Input text separated by spa	ce 🗸 <b>Q</b> Filter of A	All Period 🗸 🗸 🗸	
Data Report	Туре	Date	Time	Title	Comment	Search Tag	Model
	✓ 2024-11-19 (1 item	)					
Root	Report	2024-11-19	20:51:38	Sample_Report.pdf	No Comments	Click here to set	No model information

#### **5** Button Panel

-Open the selected data.

-Output the selected data in the CSV/Image/PDF format.

-Delete the selected data.

If you are logged in to GENNECT Cloud, the [Upload] button will be displayed.

You can upload saved measurement data to GENNECT One. Uploaded measurement data will be reflected on the GENNECT Cloud drive window and in the GENNECT One data list (cloud), creating a data link with GENNECT Cloud. Measurement data for which a data link has been created can be shared with other users in the same account.

For more information, see the following:

Creating links between GENNECT One and GENNECT Cloud measurement data

#### **6** Information Windows

Show the detailed information of the selected data. Show the preview image if the data is the image format.

#### **7** Login button

- Log in to GENNECT Cloud.
- Logging In to GENNECT Cloud

#### [Functions] Tab

Connect the measuring instrument and the computer via LAN to display and record measurement values in real time.

	GENNECT One		-		×								
Import(i)	Settings(S)	Language(L) Window(W) Information(H)		Log in									
Data	Functions	Console Launcher											
Measure	ement Functio	ns											
PW3335/	PW3335/PW3336/PW3336/PW3366/PW3365/PW3390/PW6001/PW8001/PQ3100/PQ3190/LR8400 series/LR8410/LR8450/MR6000												
E	*	Logging											
PW3335/	PW3336/PW333	7/PW3360/PW3365/PW3390/PW6001/PW8001/PQ3100/PQ3198/LR8400 series/LR8410/LR8450/MR6000											
		Dashboard											
PW3335/	PW3336/PW333	7/PW3360/PW3365/PW3390/PW6001/PW8001/PQ3100/PQ3198/LR8410/LR8450/MR6000											
<b>∠</b>	<b>P</b>	Remote monitoring mode											
		Cancel 278											

#### 1 Logging

[Logging] feature logs the measured values with the specified logging interval.

- See the following sections for the functions of the logging.
- Measured values with the logging feature (Logging Function [LAN])

#### 2 Dashboard

The [Dashboard] function allows you to monitor the status of measurements in an easy-to-understand, visual manner by placing measured values on a user-specified background image.

See the following sections for the functions of the dashboard.

Monitor MEASURED VALUES (DASHBOARD FUNCTION [LAN])

#### **③** Remote monitoring mode

Linked to GENNECT Cloud, remote monitoring (monitoring, file transfer, remote control, etc.) is performed. See the following sections for the functions of the remote monitoring mode.

Using Remote Monitoring Mode

## [Console] Tab

You can check the information of the measuring instrument connected to the computer via LAN. Additionally, the following features are available:

### GENNECT One User's Manual

- Manually Acquiring Files from an Instrument (File Acquisition [MANUAL])
- Automatically receive instrument files (File Transfer [AUTO])
- · Control an instrument (Remote control [LAN])

### •Update the firmware of the instrument

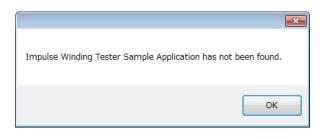
НІОКІ С	SENNECT One								-		$\times$
	Settings(S)			V) Information(H)							
Data	Functions	Console	Launcher								
Uş	pdate										۰
											_
LAN		1.001	utomatic			_					
	LAN remot control (H	TTP) file tra (FTP)	nsfer	IP Address	Instrument						
	₩~		OFF	192.168.1.32	PQ3100	* PQ3100#16	51043981				
			1	Set IP Address here.		<ul> <li>Select t</li> </ul>	he instrument.				
LAN											
								22	_	-	
								22			

## [Launcher] Tab

Open the HIOKI application software installed on your computer.

Generation HIOKI GENNECT One		-		×								
Import(]) Settings( <u>S</u> )	Language(L) Window(W) Information(H)	L	.og in									
Data Functions	Console Launcher											
ST4030												
	Impulse Winding Tester Sample Application											
LR8101,LR8102												
	LR8101,LR8102 DATALOGGER IP Address Configuration Tool											
SW1001,SW1002												
	SWITCH MAINFRAME Application											
				_								
	Cancel 2824			.:								

\* If the application software listed in [Lancher] tab has not installed on your computer, the following message appears. Install the application software if needed.



#### ① Impulse Winding Tester Sample Application.

Open the application software for ST4030 Impulse Winding Tester installed on your computer.

#### **②** LR8101,LR8102 DATALOGGER IP Address Configuration Tool

Open the LR8101, LR8102 DATALOGGER IP Address Configuration Tool.

## **③** SWITCH MAINFRAME Application.

Open the application SWITCH MAINFRAME installed on your computer.

## Install the application

Install GENNECT One by following steps.

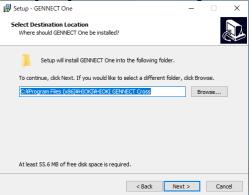
1. Double click the [setup.exe].



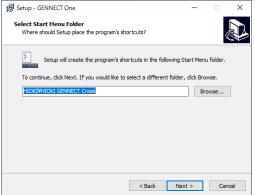
2. Click [Next] button.



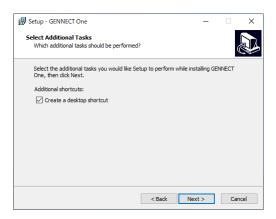
3. Click [Next] button, after selecting the destination for installation.



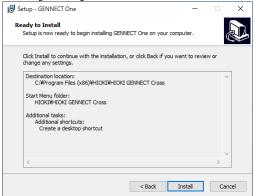
4. Click [Next] button, after selecting the program group.



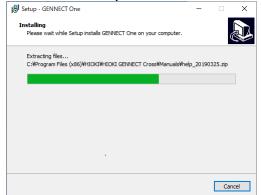
5. Click [Next] button, after selecting whether to create shortcut icon.



#### 6. Click [Install] button.



7. Installation is completed after a little while.



8. <u>Click [Next] button to finish the installation</u>.



## Set up communication between the computer and the instruments

Set up communication between the computer and the instruments (USB) (only for BT3554, BT3554-01, BT3554-50)

To communicate with Battery Tester by USB connection cable, the USB driver package must be installed on the computer.

#### Install the USB driver package

See the instruction manual for how to install the USB driver of the earlier product 3554.Please note that the earlier product 3554 is NOT supported by Windows 8 or later.

- 1. Insert the CD-R that comes with BT3554 Series into the computer.
- 2. Open the [driver] folder.
- 3. Double-click the [DPInst32.exe] or [DPInst64.exe] to perform the driver installation.(\*1)



	bt3554cdc Setup Information 2.55 KB
S.	DPInst64 Driver Package Installe Microsoft Corporation

- (\*1) For the 32bit version of Windows, click [DPInst32.exe] to perform installation. For the 64bit version of Windows, click [DPInst64.exe] to perform installation.
- 4. The installation wizard window is displayed. Click [Next].



5. After a while, the installation will be completed.

Device Driver Installation Wizard	
The drivers are now installing	
Please wait while the drivers ins	itall. This may take some time to complete.
	< Back Next > Cancel

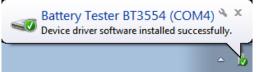
6. Click [Finish] to close the installation wizard.

Device Driver Installation Wiza	rd	
	Completing the Device Driv Installation Wizard	er
	The drivers were successfully installed on this of	omputer.
	You can now connect your device to this comp came with instructions, please read them first.	uter. If your device
	Driver Name	Status
	✓ HIOKI (usbser) Ports (01/27/2016 1.00)	Ready to use
	< <u>B</u> ack Finish	Cancel

#### Connect Battery Tester with the computer.

- 1. Connect the Battery Tester with the computer using the USB connection cable that comes with BT3554 Series.
- 2. The conformation message is displayed when the computer find the installed driver.

This message is displayed when the first connection is made between the computer and Battery Tester.



3. If [PC] is displayed in the battery tester, your instrument is connected to the computer.

\*We have received numerous inquiries regarding the issue where "[PC]" is displayed on the LCD, but the battery tester is not shown in GENNECT One. In such cases, it has been reported that uninstalling the USB driver and reinstalling it can resolve the issue. Please try this solution.

- \* See Import data from Battery Tester (BT3554/BT3554-01/BT3554-50) for how to load data from Battery Tester.
- > See Settings for Battery Tester BT3554/BT3554-01/BT3554-50 for how to perform the settings of Battery Tester.

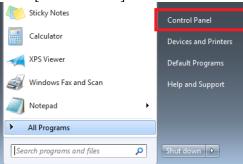
#### Uninstall the USB driver package

% See the instruction manual for how to uninstall the USB driver of the earlier product 3554.

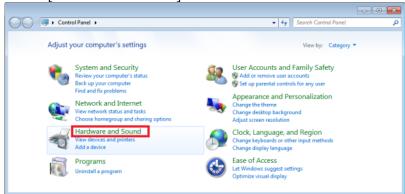
- 1. Connect the Battery Tester with the computer using the USB connection cable.
- 2. Click [Start] button.



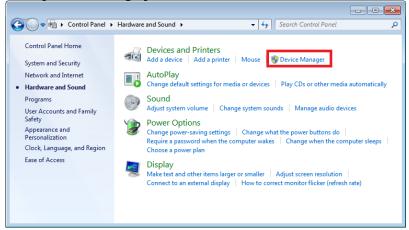
#### 3. Click [Control Panel].



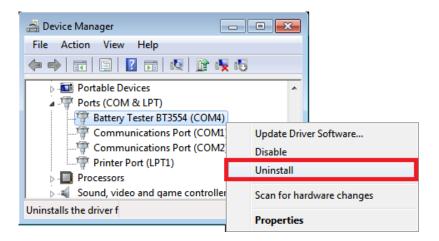
4. Click [Hardware and Sound].



5. Click [Device Manager].



6. Select [Battery Tester BT3554], after expanding [COM and LPT] tree. Click [Uninstall] in the right-click menu.



7. Click [OK], after checking [Delete the driver software for the device].

Confirm Device Uninstall
Battery Tester BT3554 (COM4)
Warning: You are about to uninstall this device from your system.
Delete the driver software for this device.
OK Cancel

8. The USB driver package has been deleted.

## Set up communication between the computer and the instruments (LAN)

#### Configure the LAN settings between the computer and the instruments

This application supports wired LAN communication.

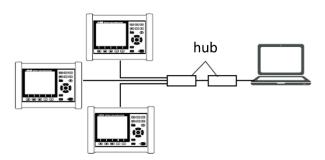
To use the communication function between the computer and the instrument, the computer and instrument must be connected by a LAN connection cable, and the network settings for both must be properly configured. This section describes how to connect the instrument to a local network or to an existing network.

For details on how to change the network settings of the instrument, please refer to the instruction manual that came with the instrument.

For information on how to change the network settings of the computer, refer to the following.

> Check and change the network settings of your computer

#### When connecting the instrument to the local network



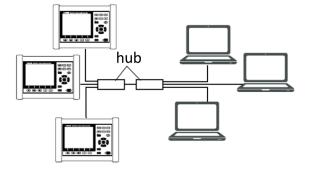
When establishing a local network with no external connections, it is recommended to use IP addresses as shown in the table below.

When connecting multiple measurement devices to a computer, be careful to set up the IP addresses so that they do not overlap.

Configuration example: 7	To build a network with a	network address of 192.168.1.0/24

IP address	computer	<u>192.168.1.1</u>
	Measuring instrument	<u>192.168.1.2</u>
	(1st unit)	
	Measuring instrument	<u>192.168.1.3</u>
	(2nd unit)	
	Measuring instrument	<u>192.168.1.4</u>
	(3rd unit)	
subnet mask		<u>255.255.255.0</u>
default gateway	computer	
	measuring instrument	<u>0.0.0.0</u>

#### When connecting the instrument to the existing network.



When connecting the instrument to an existing network, it is necessary to have the network administrator (department) assign the network settings (IP address, etc.) for the instrument in advance. At this time, be careful not to duplicate IP addresses of other devices, and have them assigned to the same network range as the computer on which this application will be installed. For the setting items in the table below, note down the assigned information and set it to the measurement item.

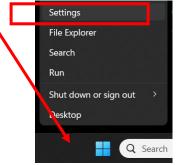
IP address	Measuring instrument	•	•		

	(1st unit)	
	Measuring instrument (2nd unit)	
	Measuring instrument (3rd unit)	
subnet mask		
default gateway		

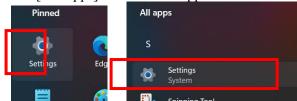
#### Check and change the network settings of your computer

This section describes how to check or configure network settings in Windows 11.

- 1. Open the Windows 11 settings window. To open the settings screen, do one of the following :
  - Right-click the Windows [Start] button and select the [Settings] menu.



• Click the Windows [Start] button, then click the [Settings] icon on the Start menu. If the icon is not pinned, click the [All Apps] button in the upper left corner and select the [Settings] menu.



2. Click on [Network & Internet] on the left side of the Settings screen to display the Network & Internet screen.



3. Click on [Network & Internet] on the left side of the Settings screen to display the Network & Internet screen.

Network	x & internet		
<b></b>	<b>Wi-Fi (internet)</b> ⊕ Connected, open	(i)	Properties Public network 5 GHz
	<b>イーサネット 3</b> No internet	()	Properties Public networ

4. Click the [Edit] button in the IPv4 Settings Display column to display the Edit IP Settings screen. Network & internet > Ethernet

et		^
cation settings		Edit
s might work differently to reduce		Off
ress: 192.16 k: 255.2	55.255.0	Edit
h p s	ta limit to help control data usa nment: Manu dress: 192.16 sk: 255.2	d connection         ps might work differently to reduce data usage when you're connected to this network         tta limit to help control data usage on this network         mment:       Manual         dress:       192.168.1.3         sk:       255.255.0

5. Check the network settings. If you wish to change the settings, edit the configuration items and click the [Save] button.

Manual	~	
Pv4		
On On		
P address		
192.168.1.3		
Subnet mask		
255.255.255.0		
ateway		
192.168.1.1		
Preferred DNS		
192.168.1.1		
DNS over HTTPS		
Off	~	
Alternate DNS		
Alternate Divo		
Save	Cancel	

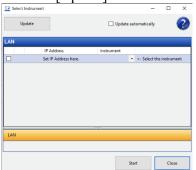
#### Searching for and connecting to a measurement device (LAN)

This section describes how this application searches for and establishes a connection with a measurement device in a LAN.

\*The same method is used for the console screen and the instrument selection screen in telemetry mode, although the following explanation uses the instrument selection screen for the logging function as an example. \*If the LAN settings for the computer and measuring instrument are not yet completed, please complete them first.

Configure the LAN settings between the computer and the instruments

1. Click on [Update].



2. After a few seconds, a list of measuring instruments found in the search is displayed.

LAN			
	IP Address	Instrument	
	192.168.1.31	PQ3198	PQ3198#000025824,2.01
	192.168.1.33	PW3360	• PW3360-10#131199442,V3.22
	192.168.1.35		<ul> <li>&lt;- Select the instrument</li> </ul>

3. A measuring instrument that has never been connected to this application will be displayed as shown below. To establish a connection with this instrument, click the [Instrument] combo box and select the model name of this instrument.

192.168.1.35	*	<- Select the instrument
--------------	---	--------------------------

4. When the icon turns green, the connection to the instrument is complete.

#### If the instrument is not found in the search

If the instrument is not found in the search, check the following

Is the LAN cable connected correctly? Are the IP addresses of the PC and the instrument duplicated?

If the above does not solve the problem, restart the PC and the instrument, and then perform the above procedure again.

## **Import Data**

By importing the measurement files generated by the measuring instrument into GENNECT One, you can manage the data centrally, view and analyze it using the dedicated viewer, and output it in CSV file format.

Note: There are limitations on the types of files that can be imported into this application. Please refer to the next section for details.

Note: For instructions on how to import measurement data from the battery testers (BT3554, BT3554-01, BT3554-50), please refer to the following.

Import data from Battery Tester (BT3554/BT3554-01/BT3554-50)

There are three methods to import data into this application.

#### 1. Using the File Transfer (Auto) Function

When the measuring instrument generates a file, it will be automatically transferred to the PC at that time.

- Up to 15 devices can be used simultaneously.
- Transferred files will be displayed in the data list.
- A LAN connection between the measuring instrument and the PC is required.

For details, please refer to the following.

> <u>Automatically receive instrument files (File Transfer [AUTO])</u>

#### 2. Using the File Acquisition (Manual) Function

Files saved on the storage media (such as SD cards) inserted into the measuring instrument are manually retrieved to the PC.

- You can choose to save the files either in the data list of this application or in any desired folder.
- A LAN connection between the measuring instrument and the PC is required.

For details, please refer to the following.

Manually Acquiring Files from an Instrument (File Acquisition [MANUAL])

#### 3. Using the [Import] Menu / Drag & Drop Folders/Files

You can import measurement data saved on the local PC into GENNECT One.

- You can select multiple folders/files.
- A LAN connection between the measuring instrument and the PC is not required.

For details, please refer to the following. <u>Using the Import Menu / Drag & Drop</u>

## **Supported Files**

The types of files that can be imported into GENNECT One and the corresponding import methods are as follows:

#### GENNECT One User's Manual

Model Name	Туре	Extension	File Transfer	File Acquisition	Menu, Drag
	(*1)		(Auto)	(Manual)	& Drop
PQ3100 PQ3198	Folder	-	0	0	0
PW3360 PW3365	Folder	—	0	0	0
PW3390	File	CSV	—	0	0
PW6001		CSV	—	0	0
PW8001	File	BIN	0	0	0
		CSV	0	0	0
		PNG	0	0	0
		SET	0	0	—
		MAT	0	0	—
		DBC	0	0	—
		JSON	0	0	—
LR8400, LR8401, LR8402	File	MEM	0	0	0
LR8410,16		CSV	0	0	0
LR8450, LR8450-01	File	MEM	0	0	0
LR8101, LR8102		CSV	0	0	0
		MF4	0	0	0
MR6000	File	MEM	0	0	0
		REC	0	0	0
		MDF	0	0	—
		MF4	0	0	—
		FLT	—	0	—
		CSV	0	0	0
		DAT	—	0	—
		CFG	—	0	—
MR8847A MR8875	File	MEM	_	—	0
LR5000 Series LR5001, LR5011, LR5021, LR5031 LR5041, LR5042, LR5043, LR5061(*2)	File	hrp2	_	_	0

Other Image Files	File	PNG	—	—	0
PDF		BMP			
HOK format file(*3)		JPG			
		PDF			
		HOK			

(\*1) Save the selected measurement folder (date folder).

Note: For instructions on how to import measurement data from battery testers (BT3554, BT3554-01, BT3554-50), please refer to the following.

(\*2)

- Measurement files (.hrp2) obtained using the LR5000 Utility PC application included with the Data Mini LR5000 series instruments can be imported into this application.
- The measurement files (.hrp2) from the Data Mini LR5000 series must be saved on the PC in advance. Please refer to the help guide for the LR5000 series for instructions on how to save measurement files (.hrp2) to your PC.

(\*3) Measurement files in HIOKI GENNECT Format (.hok) output from GENNECT Cross for iOS/Android, GENNECT Remote, and GENNECT One can be imported into this application. The imported data can be viewed

using the corresponding viewer. For instructions on how to output data in. hok format from GENNECT Cross and GENNECT Remote, please refer to the product manual.

For instructions on how to output measurement data from GENNECT One in .hok format, please refer to the following.

#### **Data Storage Location**

The data imported into GENNECT One, as well as the data acquired through the Logging/Dashboard functions, will be saved in the [Uncategorized] group under [Data].

	Tunctions console cau	incinci							
L	ф	List	◩∟ੋੋ	Show checked	items off	Search Input text separated by space	V Q Filter OFF All	Period ~	All v All v
	Data Report		Туре	Date	Time	Title	Comment	Search Tag	Model
	🐱 📩	- 202	24-11-19 (1 item)						
	Root		Photo	2024-11-19	20:52:09	Sample.png	No Comments	Click here to set	No model information
	3								

Files with a PDF extension or data saved to GENNECT One as the destination for daily, weekly, or monthly reports via the auto-output function will be saved in the [Uncategorized] group under [Report].



## Automatically receive instrument files (File Transfer [AUTO])

• The file transfer (AUTO) function uses an FTP link between the instrument and your PC to transfer files created by the instrument to the PC. Transferred files are saved in the application's database.

•Recording media such as an SD memory card or CF card must be inserted into the instrument.

•This function is used to acquire instrument measurement files after setting up an FTP server on your PC.

\*Measurement files cannot be acquired by GENNECT One while your PC is not on.

\*Measurement files will not be saved on MR6000, PW3360, PW3365, PQ3100, PQ3198, LR8450, PW8001 if that instrument's file transfer (AUTO) function is enabled. Verify that you were able to receive measurement files with GENNECT One before turning off your PC.

\*It will take about 7 minutes for the measurement file transferred from the measurement instrument to be reflected in the data list.

\*If another FTP server already exists on your PC, you will not be able to acquire measurement files using this function.

\*If your security software is set to restrict communication to your PC, you may not be able to use this feature to acquire measurement files. In this case, you need to refer to your security software's manual and set it to allow FTP communication from the instrument to your PC (port number range: 21,65000-65020).

#### **Supported instruments**

Model number	Name	Supported versions
PQ3100 *1	POWER QUARITY ANALYZER	V2.30 or later
PQ3198 *1,*3	POWER QUARITY ANALYZER	V1.10 or later
PW3360 *1	CLAMP ON POWER LOGGER	V3.20 or later
PW3365 *1	CLAMP ON POWER LOGGER	V2.10 or later
PW8001 *2,*4,*5 *6	POWER ANALYZER	V1.00 or later
LR8400, LR8401, LR8402 *1	MEMORY HILOGGER	V1.28 or later
LR8410 *1	WIRELESS LOGGING STATION	V1.42 or later
LR8450, LR8450-01 *1,*5	MEMORY HILOGGER	V1.20 or later
LR8101, LR8102 *1,*5	DATA LOGGER	V1.00 or later
MR6000	MEMORY HICORDER	V2.10 or later

The file transfer (AUTO) function supports the following instruments:

\*1. Start/stop measurement of the instrument when this function is started/stopped.

\*2. Start/stop integration of the instrument when this function is started/stopped.

\*3. All of the analysis data of the measurement instrument is reset when starting/stopping this feature. It is recommended to use this feature after the recording and analysis of the measurement data has been completed (Data reset state).

\*4. All of the integrated data of the measurement instrument is reset by starting/stopping this feature. It is recommended to use this feature after the recording and analysis of the integration data has been completed (Data reset state).

\*5. When this function starts, the start/stop control setting (trigger, start/stop time control) of the measurement instrument is released and measurement starts.

\*6 Measurement is not started/stopped when the connection-specific integration or time control function (actual time, timer) is enabled when this function is started/stopped (except in remote monitoring mode).

#### Limitations

Limitations on the file transfer (AUTO) function

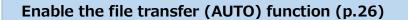
Aspect of function's operation Limitation

Remarks

Maximum number of connected	15	
instruments		
Communications interface	LAN	
Maximum time until received files	7min.	Maximum time for a file that has been successfully
are visible		received via FTP to show up in the application's database
Interface		
Limitations on communication	ions	
Aspect of function's operation	Limitation	Remarks
Interface	LAN	
Automatic search network scope		
	*Limited to same network scope as computer.	
DHCP	Not supported	

#### Using the function

Set up communication between the computer and the instruments (LAN)



## Disable the file transfer (AUTO) function (p.29)

## Check or change file transfer (AUTO) function settings (p.30)

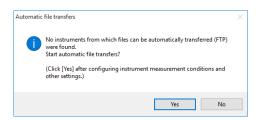
#### Enable the file transfer (AUTO) function

The instrument will start measurement automatically once the settings have been configured. Before enabling the file transfer (AUTO) function, configure the instrument's measurement condition settings and connect it to the device or circuit to be measured.

#### **Enable on application launch**

This option starts file transfers for the target instrument if the application is launched while connected to an instrument supported by the file transfer (AUTO) function.

- 1. Launch GENNECT One.
- 2. If GENNECT One detects that an instrument supported by the file transfer (AUTO) function is connected to the PC but that automatic file transfers are not enabled, it will display the following message:



- 3. [Click [Yes] to enable the file transfer (AUTO) function for the target instrument.
- 4. This processing may take several minutes. For more information about this processing, see "Enabling file transfer (AUTO) (details)".
- 5. Once file transfer (AUTO) is started, the instrument will start measurement.

\*For the MEMORY HiCORDER MR6000, enabling file transfer (AUTO) will not cause the instrument to start measurement. Press the instrument's [START] button or use the LAN remote control function to start measurement.

#### Configure settings from the [Console] tab

You can start file transfers for the target instrument by setting the [File Transfer (AUTO)] button to [ON] for the connected instrument on the [Console] tab's instrument settings screen.

1. Select the [Console] tab on the main screen.

💶 HIOKI GEN	INECT One						_		×
Import(l)	Settings(S) Lange	uage(L) Window	(W) Information(H)						
Data	Functions Con	sole Launcher							
Upda	ite							\$	?
LAN									
	LAN remote control (HTTP)	LAN automatic file transfer (FTP)	IP Address	Instrument					
	₩~~;	OFF	172.19.114.230	PQ3100	•	PQ3100#00000000,V2.30			
	4∼.	OFF	172.19.114.231	PW3360	•	PW3360-11#161224839,V3.21			
	+∼.	OFF	172.19.114.232	LR8410	•	LR8410#130317911,V1.41	Initial settings when co	ntrolling a	a log
			Set IP Address here.		•	<- Select the instrument.			
									ļ
LAN									
					_				
							149		

- 2. Select the [LAN] navigation bar.
- 3. Click the [File Transfer (AUTO)] button ( I or FF) to enable it ( I ).
- 4. The file transfer (AUTO) setting for the target instrument will be enabled.

This processing may take several minutes. For more information about this processing, see "Enabling file transfer (AUTO) (details)".

- Once file transfer (AUTO) is enabled, the instrument will start measurement.
   \*For the MEMORY HiCORDER MR6000, enabling file transfer (AUTO) will not cause the instrument to start measurement. Press the instrument's [START] button or use the LAN remote control function to start measurement.
- 6. When the measurement device creates a measurement file, the measurement file is transferred to the PC.
   \* The transfer timing is either when the measurement device stops measuring, or when the measurement file/folder is split by the device.

\* The measurement file is automatically set to be split once a day, except for the recorder (MR6000) and Power Analyzer (PW8001).

\* It will take about 7 minutes for the measurement file transferred from the measurement instrument to be reflected in the data list.

Data	Functions	Console	Laun	icher						
		ţ.	Sho	w cheked items 🚺 o	ff					
		PDE	Sear	rch Input text separ	ated by space	~ <b>Q</b>				
Dat	a F	eport	Filte	er Off All	Period ~ All	~ All	~ List	MCI⊕E	]	
				Туре	Date	Time	Title	Comment	Search Tag	Model
E 👰 Ro	oot			POWER LOGGER	2021-08-31	11:15:00	130622960_210831	2021-08-31 11:15:0	Click here to set sear	PW3360-11

#### Enabling file transfer (AUTO) (details)

#### Setting up the FTP server (if not yet set up)

Set up the FTP server on your PC if you have not already done so.

Click [Yes] on the confirmation dialog box that is displayed. \*The FTP server setup process will not start if you click [No].

1/3 FTP se	rver settings	×
1	In order to use the automatic file transfer (FTP) function, you must configure the FTP server on your computer. Start configuring the FTP server? (Ports opened with Windows Firewall: 21 65000-65020)	
	はい(Y) いいえ(N	)

Setting up the FTP server requires administrator privileges. When the [User Account Control] dialog box is displayed, click [Yes].

Vser Account Control	×
Do you want to allow this app from publisher to make changes to you	
Program name: CallBatch.exe Publisher: <b>Unknown</b> File origin: Removable media on th	computer
Show details	Yes No
<u>Change v</u>	nen these notifications appear

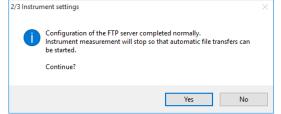
It may take several minutes to set up the FTP server.



If the FTP server setup process fails, you can display a detailed description of any errors that occurred. See <u>List of error codes</u> for a description of how to configure the server manually.

#### Instrument settings

Instrument settings necessary for transferring files will be configured automatically. Click [Yes] on the confirmation dialog box that is displayed.



\*If measurement has already begun, it will need to be stopped in order to start file transfer (AUTO). \*File transfer (AUTO) will not start if you click [No].

Configuration of the instrument settings completes the process of preparing to use the file transfer (AUTO) function. Click [OK].

3/3 Start au	utomatic file transfers	×
1	Automatic file transfers have been started.	
	ОК	

When the instrument creates a file, it will be automatically transferred to the PC and saved in the application's database.

#### Disable file transfer (AUTO)

As long as file transfer is enabled, the instrument will attempt to send files, even if it is no longer connected to the PC. If using the instrument while not connected to a PC, it is recommended to disable file transfer (AUTO).

#### Configuring the setting from the [Console] tab

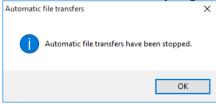
You can stop file transfers by setting the [File Transfers (AUTO)] button to [OFF] for the connected instrument on the [Console] tab's instrument settings screen.

1. Select the [Console] tab on the main screen.

Update	HIOKI GE	ENNECT One						- 0
Update       LAN automatic file transfer (TFP)       IP Address       Instrument       PQ3100 **       PQ3100#0000000,V2.30         Image: Provide the state of the	mport(l)			w(W) Information(H)				
AN       LAN remote control (HTTP)       LAN automatic file transfer (TTP)       IP Address       Instrument       Instrument       Instrument         Image:	Data	Functions Cor	nsole Launche	er				
LAN remote control (HTTP)         LAN automatic file transfer (FTP)         IP Address         Instrument           Image: Control (HTTP)         Image: Control (HTTP)         IP Address         Instrument         Image: Control (HTTP)           Image: Control (HTTP)         Image: Control (HTTP)         Image: Control (HTTP)         Image: Control (HTTP)         Image: Control (HTTP)           Image: Control (HTTP)         Image: Control (HTTP)         Image: Control (HTTP)         Image: Control (HTTP)         Image: Control (HTTP)           Image: Control (HTTP)         Image: Control (HTTP)         Image: Control (HTTP)         Image: Control (HTTP)         Image: Control (HTTP)           Image: Control (HTTP)         Image: Control (HTTP)         Image: Control (HTTP)         Image: Control (HTTP)         Image: Control (HTTP)           Image: Control (HTTP)         Image: Control (HTTP)         Image: Control (HTTP)         Image: Control (HTTP)         Image: Control (HTTP)           Image: Control (HTTP)         Image: Control (HTTP)         Image: Control (HTTP)         Image: Control (HTTP)         Image: Control (HTTP)           Image: Control (HTTP)         Image: Control (HTTP)         Image: Control (HTTP)         Image: Control (HTTP)           Image: Control (HTTP)         Image: Control (HTTP)         Image: Control (HTTP)         Image: Control (HTTP)           Image: Control (HTTP)	Upo	date						*
LAN remote control (HTTP)       file transfer (FTP)       IP Address       Instrument         Image: Control (HTTP)       0N       172.19.114.230       PQ3100       PQ3100#00000000,V2.30         Image: Control (HTTP)       0N       172.19.114.231       PW3360       PW3360-11#161224839,V3.21         Image: Control (HTTP)       0N       172.19.114.232       LR8410       LR8410#130317911,V1.41       Initial settings when controlling a log	AN							
Image: Non International System         ON International System         PW3360         PW3360-11#161224839,V3.21           Image: Non International System         ON International System         International System         International System           Image: Non International System         International System         International System         International System         International System           Image: Non International System         Internateon         International System			file transfer	IP Address	Instrument			
Image: Section of the sectio		₩~~	ON	172.19.114.230	PQ3100	•	PQ3100#00000000,V2.30	
			ON	172.19.114.231	PW3360	•	PW3360-11#161224839,V3.21	
Set IP Address here.		₩~.	ON	172.19.114.232	LR8410	•	LR8410#130317911,V1.41	Initial settings when controlling a log
				Set IP Address here.		•	<- Select the instrument.	
	LAN							
AN								149

- 2. Select the [LAN] navigation bar.
- 3. Click the [File Transfer (AUTO)] button ( ) and disable it ( ).
- 4. The file transfer setting for the target instrument will be disabled. This processing may take several minutes.

\*If measurement has already begun, it will need to be stopped in order to start file transfer (AUTO).



#### Check or change the file transfer (AUTO) setting

This section describes how to check or change file transfer (AUTO) settings.

- 1. Display the [Common Settings]-[File transfer (AUTO)] settings dialog box by either of the methods shown below.
- Select the [Settings] menu on the main screen and choose [Application Settings]. Then choose [Common Settings] and click [Start]. When the [Common Settings] dialog box is displayed, select the [Console] tab.
  Settings(5) Language(L) Window(W)

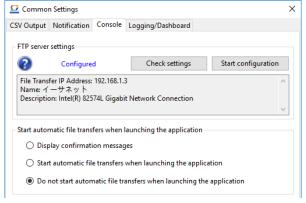
	9	
Instrum	nent Settings(M)	her
Applica	tion Settings(A)	

🖸 Select Type	-	×	Common Settings ×
			CSV Output Notification Console ogging/Dashboard
Common Settings			FTP server settings
Battery			Configured Check settings Start configuration
			File Transfer IP Address: 192.168.1.3 Name: イーサネット Description: Intel(R) 82574L Gigabit Network Connection
			Start automatic file transfers when launching the application
			<ul> <li>Display confirmation messages</li> </ul>
			<ul> <li>Start automatic file transfers when launching the application</li> </ul>
			Do not start automatic file transfers when launching the application

Select the [Console] tab on the main screen and click the settings button (▲).
Q HIOKI GENNECT One

Import(l)	Settings(S)	Language(L)	Window(W)	Information(H)				
Data	Functions	Console	Launcher					
Up	date							•
LAN								
					1			

2. The [Common Settings]-[Console] dialog box will be displayed. Configure the settings shown below.



#### Set up or check the FTP server

This section describes how to check the settings that control the FTP server used by the file transfer (AUTO) function and how to set up the FTP server.

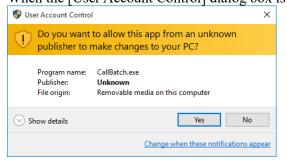
Click the [Check settings] button to check whether the FTP server has been properly configured.
 A list of FTP server settings will be displayed.
 If the message "PASS" is indicated for all settings, your PC's FTP server has been configured properly.

No.	Description	Result	
	Create FTP Windows user	Pass	
2	FTP Windows user password expiration date (no expiration)	Pass	
	FTP Windows user group (delete user group)	Pass	
	FTP folder access privileges (write access)	Pass	
,	Windows Firewall (FTP port)	Pass	
	Windows Firewall (PASV mode port)	Pass	
	Config folder privileges	Pass	
;	IIS deployment	Pass	
	IIS FTP server setup	Pass	
0	IIS FTP folder	Pass	
1	IIS SSL connection permission	Pass	
2	IIS client access permission	Pass	
3	IIS basic authentication	Pass	
4	IIS FTP authentication rules	Pass	
5	IIS firewall port	Pass	
6	IIS firewall IP address	Pass	

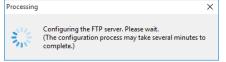
Click the [Start] button to set up a new FTP server.

If the [Check settings] function indicates that your PC's FTP server has not been configured properly, use this function to set up the FTP server. This processing may take several minutes.

Setting up the FTP server requires administrator privileges. When the [User Account Control] dialog box is displayed, click [Yes].



It may take several minutes to set up the FTP server.



#### Enable at application launch ([Start file transfer (AUTO) when launching the application])

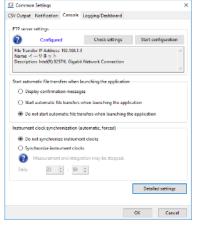
You can set whether to start file transfers (AUTO) when the application is launched. The [Start file transfer (AUTO) when launching the application] setting provides the following options:

- [Display confirmation messages] Choose whether to start file transfer (AUTO) on a dialog box when the application detects an instrument supported by the file transfer (AUTO) function at launch.
- [Start file transfer(AUTO) when launching the application] Start automatic file transfers when the application detects an instrument supported by the LAN automatic file transfer function at launch.
- [Do not start file transfer(AUTO) when launching the application] Do not start file transfer(AUTO) when launching the application.

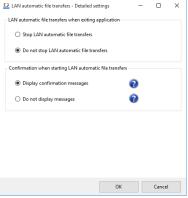
#### **Change detailed settings**

This section describes how to change detailed settings related to file transfer (AUTO).

1. Click the [Detailed settings] button on the [Common Settings]-[Console] dialog box.



2. The [File transfer (AUTO) – Detailed settings] dialog box will be displayed. Configure the settings shown below.



#### Setting when exiting the application ([File transfer(AUTO) when exiting application])

You can set whether to disable file transfer (AUTO) when closing the application. The [File transfer(AUTO) when exiting application] setting provides the following options:

[Stop file transfer(AUTO)]

Exit the application after stopping LAN automatic file transfers for all instruments. \*Disabling LAN automatic file transfers while measurement is in progress will stop measurement and transfer any files created up to that point in time. It may take several minutes for the application to close depending on file size and communications status.

[Do not stop file transfer(AUTO)]
 Exit the application without stopping LAN automatic file transfers for instruments.

# Display of confirmation dialog boxes before configuring instruments ([Confirmation when starting file transfer(AUTO)])

You can set whether a confirmation dialog box will be displayed when starting or stopping file transfer(AUTO). The [Confirmation when starting file transfer(AUTO)] setting provides the following options:

[Display confirmation messages]

Display a confirmation dialog box when starting or stopping file transfer(AUTO).

[Do not display messages]
 Do not display a confirmation dialog box when starting or stopping file transfer(AUTO).

## Instrument save settings

Enabling the file transfer (AUTO) function causes instruments to be configured with model-specific save settings as follows:

Model	Name	Automatic save settings	File save timing
PQ3100 (*1)	POWER QUARITY	•Recording interval: 1 sec. to 5 min.	•When an event occurs as defined
	ANALYZER	•Recording start method: Repeat, 2000-01-01	by conditions set with instrument
		•Recording stop method: Repeat, 2079-12-31	•Daily at 00:00
		•Recording time period: 00:00 to 24:00	•When measurement stops
		•Delete file after FTP transfer: ON	•When the time-axis file reaches 20
		•Folder/file name setting: Automatic	MB
PQ3198 (*2)	POWER QUARITY	•Actual time control: Exactly	•Daily at 00:00
	ANALYZER	•Repeat recording: 1 day	•When measurement stops
		•Start time: 00:00; end time: 00:00	(Files cannot be sent while an event
		•Repeat count: Unlimited (configurable only in	is occurring.)
		GENNECT)	
		•Delete file after FTP transfer: ON	
		•Folder/file name setting: Automatic	
PW3360, PW3365 (*3)	CLAMP ON POWER	•Recording measurement start method: Repeat	•When an event occurs as defined
	LOGGER	•Recording repeat interval: 2000-01-01 to	by conditions set with instrument
		2079-12-31	•Daily at 00:00
		•Recording repeat time: 00:00 to 24:00	•When measurement stops
		•Delete file after FTP transfer: ON	•When the time-axis file reaches 20
		•When folder division is OFF, change it to	MB
		DAY.	
		•Save file/folder name: AUTO-NAME	
PW8001	POWER ANALYZER	Auto-save operation: ON	•When measurement stops
		•Delete files after upload: ON	•When [DATA RESET]
		•Manual save settings - Save to FTP server:	•When the file size reaches 500MB
		OFF	When waveform is saved
			When saving a setting file
			When saving a screen copy
			(*Manually saved measurement
			data is not compatible with File
			Transfer (AUTO).
LR8400,LR8401,LR8402	MEMORY HILOGGER	•Recording time setting: Continuous recording	•When the time set as the
LR8410	WIRELESS LOGGING	•Automatic save setting: Waveform or CSV	segmented save time is reached
	STATION	(numerical files not supported)	•When measurement stops
		•Delete save: ON	

		•Segmented save: ON*/regular	
		*Changes as follows:	
		Segmented save: Regular	
		Segment time: 1 day	
		Reference time: 00:00	
LR8450, LR8450-01	MEMORY HILOGGER	•Recording time setting: Continuous recording	•When the time set as the
		•Automatic save setting: Waveform or CSV	segmented save time is reached
		(numerical files not supported) or MDF format	•When measurement stops
		•Delete save: ON	
		•Segmented save: ON*	
		*Changes as follows:	
		Segment time: 1 day	
		Reference time: Start time	
		[Automatic FTP data transmission settings]	
		•Connection protection: OFF	
		•Delete sent file:ON	
LR8101, LR8102	DATA LOGGER	Recording Time Setting: Continuous	•When the time set as the
		recording	segmented save time is reached
		•Automatic save setting: ON, MEM format	•When measurement stops
		(*1)	*1: Depending on the recording
		•Delete save: ON	interval and the number of channels
		•Segmented save: ON	used, the Auto-Save setting may no
		- Segment time: 1 day	be able to be turned ON. For more
		- Reference time: 0:00	details, please refer to the
		•Connection protection: OFF	instrument's user manual.
		•Delete sent files: ON	
MR6000	MEMORY HiCORDER	•Real-time saving: OFF	•When measurement completes
		•Delete save: ON*	according to the instrument's settin
		*Changes as follows when the automatic save	conditions using the automatic save
		setting target is disabled:	function
		Waveform save: ON	(Automatic transfer of files
		Save type: Binary	generated by real-time saving is no
		Save method: Delete	supported.)
		File segments: 64 MB	
		•Segmented save setting	
		If 0 when setting is binary: Changes to 64.	
		If 0 when setting is text: Changes to	
		1000000.	
		•Save filename: AUTO	

\*1: Starting from GENNECT One v5.40, the PQ3100 will start file transfer without changing the auto save setting in the following cases

- · When the recording start method is "Time specified" and the recording stop method is "Manual".
- When the recording start method is "Repeat".

The "Folder/file name setting " will be changed to "automatic" even in the above settings.

\*2: Starting from GENNECT One v5.40, PQ3198 will start file transfer without changing the auto save setting in the following cases • When the Time Start is set to "Exactly" and Repeat Record is set to "1 day".

- When the Time Start is set to "Time" and the Repeat Record is "OFF" or "1 day".
- \*3: Starting from GENNECT One v5.40, PW3360 and PW3365 will start file transfer without changing the auto save setting in the following cases.
  - When the recording start method is "TIME" and the recording stop method is "MANUAL".
  - When the recording start method is "REPEAT".

## List of error codes

In the event you are unable to configure setting when starting file transfer (AUTO), refer to the corresponding error code and message and configure the setting manually.

Error code	Message	Solution (manual setting) *Requires administrator privileges.
001	Failed to create FTP user.	•Right-click [Local Users and Groups] under [Control Panel]-[System and Security]-
		[Administrative Tools]-[Computer Management]-[System Tools] and select [New
		User].
		Username: ONE_FTP
		Password: P@SSW0RD00
		•Deselect the [User must change password at next logon] checkbox.
		•Deselect the [Password never expires] checkbox.
002	Failed to set FTP user	•[Control Panel]-[System and Security]-[Administrative Tools]-[Computer
	password.	Management]-[System Tools]-[Local Users and Groups]
		-If ONE_FTP does not exist, refer to the solution for error 001 to create the user.
		-If ONE_FTP exists, right-click and select the [Password never expires] checkbox.
003	Failed to change FTP user	•[Control Panel]-[System and Security]-[Administrative Tools]-[Computer
	settings.	Management]-[System Tools]-[Local Users and Groups]
		-If ONE_FTP does not exist, refer to the solution for error 001 to create the user.
		•Right-click on ONE_FTP and select [Users] under [Properties]-[Group] and select
		[Delete]. Verify that [Users] has been deleted and click [OK].
004	Failed to change FTP folder	•Go to the GENNECT One installation path (default path: C:¥Program Files
	settings.	(x86)¥HIOKI¥HIOKI GENNECT Cross¥FTP) and right-click on the "hioki_one_ftp"
		folder.
		•Select [Properties]-[Edit].
		•If there is no ONE_FTP group or user name, select [Add], enter [ONE_FTP] under
		[Enter name of selected object], and click [OK].
		•Select ONE_FTP and select the [Full control] checkbox under [Permissions].
005	Failed to configure Windows	•Select the receive rule and then select [New Rule] under [Control Panel]-[System and
	Firewall (for FTP use).	Security]-[Windows Firewall]-[Advanced Settings].
		Rule type: [Port]

		Protocol: [TCP]
		Target: [Specific local port], [21]
		Operation: [Allow the connections]
		Profile application: [Domain], [Private], [Public] (select all three)
		Name: [GENNECT One] and [Complete]
006	Failed to configure Windows	•Select the receive rule and then select [New Rule] under [Control Panel]-[System and
	Firewall (for PASV mode use).	Security]-[Windows Firewall]-[Advanced Settings].
		Rule type: [Port]
		Protocol: [TCP]
		Target: [Specific local port], [65000 to 65020]
		Operation: [Allow connections]
		Profile application: [Domain], [Private], [Public] (select all three)
		Name: [GENNECT One (PASV)] and [Complete]
007	Failed to set the config folder.	•If the FTP server has not yet been installed, set after successfully installing the FTP
		server (refer to error code 101 below).
		•Double-click "C:¥Windows¥System32¥inetsrv¥config."
		(If an access permission dialog box is displayed, click [Continue].)
		•Right-click the "config" folder and select [Properties]-[Security]-[Edit].
		•If "Everyone" is not included as a group or user name, select [Add].
		•Enter [Everyone] under [Enter name of selected object], and click [OK].
		•Select [Everyone] and select the [Full control] checkbox under [Permissions].
		(If a security dialog box is displayed, click [Yes].)
101	Failed to deploy the FTP server.	•Select [Control Panel]-[Programs and Functions]-[Enable or Disable Windows
		Functionality].
		•Select the [FTP Server], [FTP Service], [Web Management Tools], and [IIS
		Management Console] checkboxes under [Internet Information Services] and click
		[OK].
102	Failed to set up the FTP server.	•Select [Control Panel]-[System and Security]-[Administrative Tools]-[Internet
		Information Services (IIS) Manager].
		•Select [Site] and then choose [Add FTP site].
		•Set the FTP site name to "one.hioki.co.jp," the physical path to " <gennect one<="" td=""></gennect>
		installation path>¥hioki_one_ftp" (default path: C:¥Program Files
	1	1
		(x86)¥HIOKI¥HIOKI GENNECT Cross¥FTP¥hioki_one_ftp) and click [Next].
		<ul><li>(x86)¥HIOKI¥HIOKI GENNECT Cross¥FTP¥hioki_one_ftp) and click [Next].</li><li>Set SSL to [Enable] (the default setting is not enabled) and click [Next].</li></ul>
		•Set SSL to [Enable] (the default setting is not enabled) and click [Next].
103	Failed to set the FTP server	<ul> <li>Set SSL to [Enable] (the default setting is not enabled) and click [Next].</li> <li>Set authentication to [Basic] and access permissions to [Specified users]. Specify</li> </ul>

		•Expand [Sites], right-click on [one.hioki.co.jp], and select [Manage FTP site/advanced
		settings].
		•Set the physical path to " <gennect installation="" one="" path="">¥hioki_one_ftp" (default</gennect>
		path: C:\Program Files (x86)\HIOKI\HIOKI GENNECT Cross\FTP\hioki_one_ftp)
		and click [OK].
104	Failed to configure SSL	•Launch [Control Panel]-[System and Security]-[Administrative Tools]-[Internet
	connections for the FTP server.	Information Services (IIS) Manager].
		•Expand [Sites], right-click on [one.hioki.co.jp], and select [FTP SSL settings].
		•Select the [Allow SSL connections] checkbox as the SSL policy and click [Apply].
105	Failed to enable FTP server	•Launch [Control Panel]-[System and Security]-[Administrative Tools]-[Internet
	connections.	Information Services (IIS) Manager].
		•Expand [Sites], right-click on [one.hioki.co.jp], and select [FTP Ipv4 address and
		domain restrictions].
		•Click [Edit function settings], set [Access to unidentifiable clients] to [Allow], and
		click [OK].
106	Failed to configure FTP server	Launch [Control Panel]-[System and Security]-[Administrative Tools]-[Internet
	authentication.	Information Services (IIS) Manager].
		•Expand [Sites], right-click on [one.hioki.co.jp], and select [FTP authentication].
		•Click [Basic authentication] and then click [Enable].
107	Failed to configure FTP server	Launch [Control Panel]-[System and Security]-[Administrative Tools]-[Internet
	authentication rules.	Information Services (IIS) Manager].
		•Expand [Sites], right-click on [one.hioki.co.jp], and select [FTP approval rules].
		•Click [Add permission rule] and select the [Specified users] checkbox.
		Enter[ONE_FTP], select both the [Read] and [Write] access privilege checkboxes, and
		click [OK].
108	Failed to set the FTP server's	Launch [Control Panel]-[System and Security]-[Administrative Tools]-[Internet
	firewall port.	Information Services (IIS) Manager].
		•Click the local host at the top of the connections and then double-click [FTP firewall
		support].
		•Enter [65000-65020] as the [Data channel port range] and click [Apply].
109	Failed to set the FTP server's	Launch [Control Panel]-[System and Security]-[Administrative Tools]-[Internet
	firewall IP address.	Information Services (IIS) Manager].
		•Expand [Sites], right-click on [one.hioki.co.jp], and select [FTP firewall support].
		Enter the PC's IP address in the [Firewall's external IP address] field and click
		[Apply].
110	Failed to set the FTP server's	Launch [Control Panel]-[System and Security]-[Administrative Tools]-[Internet
	log fields.	Information Services (IIS) Manager].

		•Click [Select W3C fields]. Select the [Date], [Time], [Client IP address (c-ip)],				
		[Method (cs-method)], and [Full path (x-fullpath)] checkboxes and click [Apply].				
111	Failed to set the FTP server's	•Launch [Control Panel]-[System and Security]-[Administrative Tools]-[Internet				
	log save folder.	Information Services (IIS) Manager].				
		•Expand [Sites], right-click on [one.hioki.co.jp], and select [FTP log].				
		•Click [Browse] under [Directory] and select [ <gennect installation<="" one="" td=""></gennect>				
		path>¥ftpLog] (default path: C:¥Program Files (x86)¥HIOKI¥HIOKI GENNECT				
		Cross¥FTP¥ftpLog) (if folder does not exist, add it by clicking [New folder]) and clicking				
		[Apply].				
201	Communications ports are	•Select [Receive rules] under [Control Panel]-[System and Security]-[Windows				
	limited by Windows Firewall.	Firewall]-[Advanced Settings].				
		•Disable the rule restricting port numbers 21 and 65000 through 65020.				
301	Unable to communicate with	•Launch [Control Panel]-[System and Security]-[Administrative Tools]-[Internet				
	the FTP server.	Information Services (IIS) Manager].				
		•Select [Sites]. Select sites whose status is shown as [Started (ftp)] and then click				
		[Stop]. Select [one.hioki.jp] and click [Start].				

## Manually Acquiring Files from an Instrument (File Acquisition [MANUAL])

•Acquire files from an instrument's external storage or external media.

•With the exception of the PQ3100, files cannot be acquired from an instrument's internal memory.

• While the measurement device is under recording (automatic saving), it may affect the measurement of the main unit of the measurement device. Stop the recording (automatic saving) of the measurement device before acquiring the file with this function.

## **Supported Instruments**

•The manual file acquisition function supports the following instruments.

Model	Name	Firmware version		
PQ3100	POWER QUARITY ANALYZER	Ver. 2.30 or later		
PQ3198	POWER QUARITY ANALYZER	Ver. 1.10 or later		
PW3360	CLAMP ON POWER LOGGER	Ver. 3.20 or later		
PW3365	CLAMP ON POWER LOGGER	Ver. 2.10 or later		
PW3390	POWER ANALYZER	Ver. 2.01 or later		
PW6001	POWER ANALYZER	Ver. 3.02 or later		
PW8001	POWER ANALYZER	Ver. 1.00 or later		
LR8400, LR8401, MEMORY HiLOGGER		Ver. 1.28 or later		
LR8402				
LR8410	WIRELESS LOGGING STATION	Ver. 1.42 or later		
LR8450, LR8450-01	MEMORY HILOGGER	Ver. 1.20 or later		
LR8101, LR8102	DATA LOGGER	V1.00 or later		
MR6000	MEMORY HICORDER	Ver. 2.12 or later		

## Limitations

Limitations on manual file acquisition

Item	Limitation	Remarks
Number of instruments from which files can be acquired simultaneously	1	
Communications interface	LAN	
Communications protocol	FTP	PW3390 uses communication
		commands.

## Limitations on communications

Item	Limitation	Remarks
Interface	LAN	
Network range for automatic search	2 to254	
	*Automatic search is limited to the same network range as the computer.	
DHCP	Not supported	

#### Workflow

Set up communication between the computer and the instruments (LAN)

## Start manual file acquisition (p.42)

### Start manual file acquisition

1. Select the [Console] tab on the main screen.

Import(I) Settings( Data Function	5) Langua	ae(L) Window					
Data Function			(W) Information	(H)			
	s Conso	le Launcher					
Update							* ?
LAN							
Remo	e Control	File Transfer (AUTO)	File Acquisition (MANUAL)	IP Address	Instrument		
<b>·</b>	$\sim$	OFF	A	92.168.1.50	PW3360	PW3360-11#130622960,V3.21	
<b>- 1</b>	$\sim$	OFF		192.168.1.56	LR8410	LR8410#130317911,V1.41	Initial settings when controlling a logger (LR8
				Set IP Address here.		<ul> <li>&lt;- Select the instrument</li> </ul>	
LAN							
							26

- 2. Select the [LAN] navigation bar.
- 3. Click the [File Acquisition (MANUAL)] button (
- 4. If authentication has been enabled for the instrument's FTP server, the [FTP Authentication] screen will be displayed.

Enter the username and password and click the [OK] button.

-	-IP Authentication						
ł	Enter the user name and password.						
	Username : HIOKI						
	Password : *****						
	OK Cancel						

5. The [File Acquisition (MANUAL)] screen will open.

•You can use this screen to acquire files from an instrument's external storage or external media.

<b>Section</b> File Acquisition (MANUAL)	-		×	
Save destination <ul> <li>GENNECT One</li> </ul>	O User-selected folder C:\tmp		Save Cancel	
				:

## Note

\*This example describes how to select and manually acquire files from a PW3360.

6. Click the "ftp://192.168.1.50" root folder in the tree on the left side of the screen to expand the folder. Next, expand other folders in the hierarchy and select the measurement (date) folder.

File Acquisition (MANUAL)	PW3360-11#130622960			-		×
		Name 20081900.SET 0819000.CSV	File	Size 573 bytes 159 KB		
Save destination	O User-selected fol	der			Save	
	C:\tmp				Cancel	
						.:

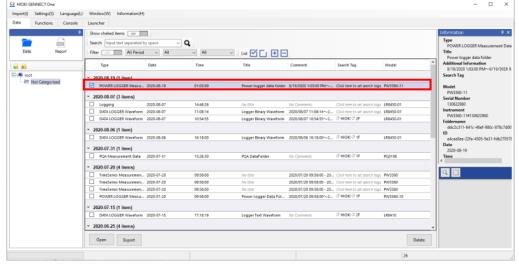
## Note

\*See "List of Target Files" below for more information about the types of measurement files that can be selected for each instrument.

7. Select [GENNECT One] under [Save destination] and click the [Save] button. Note

\*You may be unable to select [GENNECT One] as the [Save destination] for some file types. For more information, please see below.

- > Supported Files
- 8. The measurement data will be saved in the data list on GENNECT One's [Data] tab.



## Note

\*You can save the measurement data folder in the desired folder by selecting [User-selected folder] as the [Save destination] and clicking the [Save] button.

\*You can compress the measurement data folder as a ZIP file and save it in the desired folder by selecting the [ZIP format] checkbox when [User-selected folder] is selected as the [Save destination].

\*The type of data that is saved (file or folder) varies by instrument. See "List of Target Files" below for more information.

## Using the Import Menu / Drag & Drop

You can import measurement data saved on the local PC into GENNECT One.

- •You can select multiple folders/files.
- •A LAN connection between the measuring instrument and the PC is not required.
- •For the types of files that can be imported into GENNECT One, please refer to the following.
- Supported Files

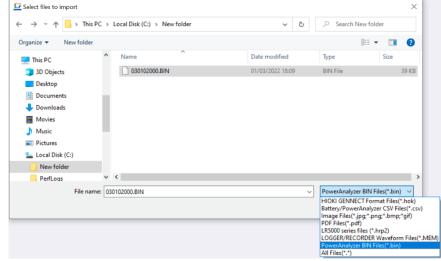
#### Using the Import Menu

### **For Files**

1. Select the menu [Import] - [File/Folder] - [File].



2. In the file selection screen, change the filter according to the type of file you want to import.



- 3. Select the file and click [Open].
  - Once the import is complete, the imported data will be displayed in the data list.

_	1	1 /					
	Туре	Date	Time	Title	Comment	Search Tag	Model
-	2022-03-01 (1 item)						
	Power Analyzer measurement data	2022-03-01	17:51:51	030102000.BIN (Power Anal	2022-03-01 17:51:51 - 2022	Click here to set search tags.	PW8001-16

#### For Folders (PW3360, PW3365, PQ3100, PQ3198)

1. Select the menu [Import] - [File/Folder] - [Folder].

Import(l)	Settings(S)	l	Language(L)	Window(W)	Information(H)
Files/	Folders(F)	١.	File(F)		
Instru	ments(l)	×	Folder	(PW3360, PW33	65, PQ3100, PQ3198)(D)

2. In the folder selection screen, choose the measurement data folder you want to import and click the [Select Folder] button.

← → • ↑ <mark> </mark> «	tmp → tn	np1 > data2 >	ٽ ~	,○ Search data2	
Organize 🔻 New fo	older			8	· ()
💷 This PC	^	Name	^	Date modified	Туре
3D Objects		18032704		5/27/2021 9:50 AM	File folde
Desktop					
Documents	- 11				
Downloads					
Movies					
Music					
Pictures					
🏪 Local Disk (C:)					
	. *	<			
Fo	lder: 1803	2704			

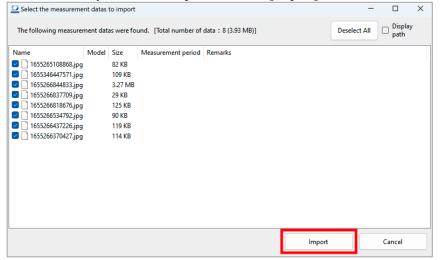
3. Once the import is complete, the imported data will be displayed in the data list.

## **Drag & Drop Files/Folders**

1. Select the file or folder and drag & drop it into GENNECT One.

		All Period V All	~ All	Y    Li			
	Туре	Date	Time	Title	Comment	Search Tag	Model
20	21-07-14 (14 it	tems)					
	Logging	2021-07-14	16:43:49	No title	2021-07-14 16:43:4	Click here to set sear	LR8450-01, PW3360.
	Logging	2021-07-14	16:43:06	No title	2021-07-14 16:43:0	Click here to set sear	LR8450-01, PW3360.
	Logging Logging	C Select Folde	r				×
	Logging Logging	← → × /	r 🦲 « tmp » tr	mp1 → data2 →	ٽ ×	, Search data	a2
	Logging	Organize 🔻	New folder				E • ?
	Logging	💻 This PC	^	Name	^	Date modified	Туре
	Logging	🇊 3D Obj	ects	18032704		5/27/2021 9:50 A	M File folde
	Logging	Deskto	p				
_							

2. If you drag & drop multiple files or folders, the [Select the measurement data to import] screen will appear. Check the data you want to import and click [Import].



3. Once the import is complete, the imported data will be displayed in the data list.

## Import data from Battery Tester (BT3554/BT3554-01/BT3554-50)

- 1. Connect the Battery Tester with the computer.
- \* To communicate with the Battery Tester by USB connection cable, the USB driver package must be installed on the computer.
- See **<u>INSTALL THE USB DRIVER PACKAGE</u>** for how to install the USB driver of BT3554 series.
- \* See the instruction manual for how to install the USB driver of the earlier product 3554.
- X Please note that the earlier product 3554 is NOT supported by Windows 8 or later.
- 2. Open GENNECT One.



3. Select [Console] tab. Choose the [USB] interface and then click [Update] button.

SENNECT One				- 🗆	×
Settings( <u>S</u> )	Language(L)	Window( <u>W</u> ) Informati	on( <u>H</u> )		
Functions	Console	Launcher			
odate					
mport	Settings	Instrument	Serial No.	COM	
				8	
	Settings( <u>S</u> ) Functions odate	Settings(S) Language(L) Functions Console	Settings(S) Language(L) Window(W) Informati Functions Console Launcher adate	Settings(S)     Language(L)     Window(W)     Information(H)       Functions     Console     Launcher       odate	Settings(S)       Language(L)       Window(W)       Information(H)         Functions       Console       Launcher         odate

4. To start the instrument setting, choose the connected instrument from the list and then click

an.

o bitari			setting, ci		connec		115010	AIII
🖸 НІОКІ G	ENNECT One							×
lmport( <u>l</u> )	Settings( <u>S</u> )	Language( <u>L</u> )	Window( <u>W</u> )	Information( <u>H</u> )				
Data	Functions	Console	Launcher					
Up	date							
JSB								
lr	mport	Settings	Instrument	t	Serial No.	CO	М	
	A	<b>*</b>	BT3554-50		200988890	CON	136	
		]						
USB								
LAN								
						8	_	

5. [Import from Battery Tester] window is displayed. Click [Import] button, after choosing the memory unit to import and selecting [Database] for the destination.

Import Memory Select Unt (1) Select Destination (2) Database O Database O CV File Folder Path : C:\Users \k_kawamura\Desktop Browse Filename : C.Sv	Import from Battery Tester			
G H J Flename :	Import Memory		(2)	
а н ј		d E F		Browse
		G H J	Filename :	.CSV
L n P		L n P		
Select All (3)		Select All		
Cancel Close		<b>Import</b> Cancel		Close Status

\* If the [CSV File] is selected for the destination, the data in not save in GENNECT One. The data is saved as a CSV file.

6. The data that has been imported from Battery Tester are saved in the data list of [Data] and the [Not Categorized] group.

Data	PDE       Report	Test	tegorized			
Туре	Date	Time	Title	Comment	Search Tag	Model
▼ 2016-11-15 (1 item)						
Battery	2016-11-15	20:49:14	2015 Battery November	No Comments	HIOKI	BT3554-01
▼ 2016-08-10 (1 item)						
Battery	2016-08-10	20:49:14	2016 Battery August	HIOKI B3F	HIOKI	BT3554-01
▼ 2016-04-19 (1 item)						
Battery	2016-04-19	14:36:23	No Title	No Comments	Click here to set TAGs.	BT3554-01

# **View Data**

You can view and analyze measurement data imported into GENNECT One using the dedicated viewer. For the steps on how to import data into GENNECT One, please refer to the following.

Import Data

Depending on the type of data (data format) imported into GENNECT One, the corresponding viewer may differ. For details, please refer to the next section.

\*Data format refers to the classification of data defined within GENNECT One. It may differ from the classification name used in the measuring instrument itself.

# **Corresponding Viewers**

Data format (Type)	Category	Model name	Supported Viewers
Logging	File (.hok)	Data obtained through the Logging/Dashboard function	Time-series Viewer (*1) (Old Logging Viewer)
PQA Measurement Data	Folder	PQ3100 PQ3198	PQ ONE (*2)
Power logger data folder	Folder	PW3360 PW3365	•Time-series Viewer (*1) •Power Logger Viewer SF1001 (*3)
Logger Binary waveform	File (.MEM)	LR8400, LR8401, LR8402 LR8410, LR8416 LR8450, LR8450-01(*8) LR8101, LR8102	•Time-series Viewer (*1) •Logger Utility (*4)
PowerAnalyzer Measurement data	File (.BIN)	PW8001	•Time-series Viewer (*1)
PowerAnalyzer Measurement data	File (.CSV)	PW3390 PW6001 PW8001	•PW Assistant(*1)
Memory HiCorder Waveform	File (.mem, .rec)	MR6000 MR8875 MR8847A	•Waveform Viewer Wv (*5) •Wave Processor 9335 (*6) •MR6000Viewer (*7)
LR5000 series measurement data	File (.hrp2)	LR5001, LR5011, LR5021 LR5031 LR5041, LR5042, LR5043 LR5061	•Time-series Viewer (*1)
Battery	File (.hok)	BT3554, BT3554-01, BT3554-50, 3554	•Battery Viewer
General Measurement Logging(GENNECT Cross format)	File (.hok)	GENNECT Cross-compatible instruments	•HOK Viewer •General Measurement Viewer •Logging Viewer
Other than the above	-	_	The default viewer program on your PC will launch for other formats.

\*1: This is the dedicated viewer for GENNECT One. It is automatically installed when GENNECT One is installed.

\*2: This must be installed separately. For installation instructions, please refer to the user manual for the Power Quality Analyzer PQ3100.

\*3: This must be installed separately. For installation instructions, please refer to the user manual for the Power Logger Viewer SF1001. The version of the Power Logger Viewer supported by GENNECT One is V4.50.0 or later. If you are using a version earlier than V4.00.0, please update to the latest version.

\*4: This must be installed separately. For installation instructions, please refer to the user manual for the Data Logger.

\*5: This must be installed separately. For installation instructions, please refer to the user manual for the MR8875 Memory HiCorder.

\*6: This must be installed separately. For installation instructions, please refer to the user manual for the Wave Processor 9335.

\*7: This must be installed separately. For installation instructions, please refer to the user manual for the MR6000 Memory HiCorder.

- \*8:
- Only files saved with the firmware version V1.50 or later of the LR8450 main unit are supported.
- Measurement files (.mem) saved using the CAN unit U8555 or the wireless CAN unit LR8535 can only be viewed using the Time Series Viewer. They cannot be viewed using LoggerUtility.

### Procedure

- 1. [Select the [Data] tab.
- Choose the data you want to view from the data list and click [Open], or double-click the selected data.

Import(I)	Settings(S)	Language(L	) Wi	indow(W)	Information	(H)		
Data	Functions	Console	Lau	incher				
		<del>.</del>	Sho	w cheked ite	ems OFF	Search	Input text separated by space	
		PDF	Filte	f OFF	All Perio	d ~ All	~ All	~
Data	Data Report			Туре		Date	Time	
				Time-series	measurem	2020-12-10	09:15:00	
🖃 👰 root	⊡₁≣ root			POWER LO	GGER Meas	2020-12-10	09:15:00	
	🛅 Not Categorized			DATA LOG	SER Wavefo	2020-12-10	09:13:27	
	HIOKI Electrica	al Room		DATA LOG	SER Wavefo	2020-12-10	09:13:27	

- 2. The corresponding viewer for the selected data will automatically start.
- 3. If multiple viewers are available, the [Select Viewer] window will appear with a list of available viewers. Select the desired viewer and click [Open].

Selection	t Viewer	×
Select a	viewer to open data.	
	Viewer	
	DATA LOGGER Viewer	
	POWER LOGGER Viewer	r
НІОКІ	Time series viewer	
		Open

## Viewing Measurement Data with the Time-series Viewer

•The Time Series Viewer is a dedicated viewer for GENNECT One.

•By importing measurement data into the Time Series Viewer format, you can plot measurement data from different instruments on the same time series, enabling viewing and analysis.

•To open measurement data in the Time Series Viewer, you must first import the measurement data into the GENNECT One data list. For the steps to import measurement data into the GENNECT One data list, please refer to the following.

### > <u>Import Data</u>

For the data formats (types) that can be viewed in the Time Series Viewer, please refer to the following.Corresponding Viewers

#### Limitations

Time-series Viewer Limitations

Item	Limitation	Remarks
Measurement parameters	Up to 512	
(loadable)		
Measurement parameters (graph	Up to 32	
display)		
Number of graph display views	Up to 8	
Number of graph display	Up to 2	
divisions		

## Workflow

Selecting Measurement Data (p.51)

Selecting Measurement Parameters and Opening Them with the Time-series Viewer (p.53)

Using the Time-series Viewer (p.55)

## **Selecting Measurement Data**

1. Select the [Data] tab on the main screen.

🖸 нюкі с	ENNECT One				
Import(l)	Settings(S)	Language(L)	Window(W)	Information(H)	
Data	Functions	Console	Launcher		
		ф.	Show cheked i	items OFF	Sea
	7	PDF	Filter OFF	All Period	$\sim$

2. Select data in one of the formats supported by the Time-series Viewer from the Data List.

🖸 НІОКІ GI	G HIOKI GENNECT One					
Import(l)	Settings(S) Language	L) Wi	ndow(W) Information	(H)		
Data	Functions Console	Lau	incher			
	Ф.	Sho	w cheked items OFF	Search Input tex	t separated by space	
	PDF	Filte	r OFF All Period	H ~ All	✓ All ✓	
Data	Report		Туре	Date	Time	
- 🛃 📩			Time-series measurem	2020-12-10	09:15:00	
🖃 👰 root	t		POWER LOGGER Meas	2020-12-10	09:15:00	
	Not Categorized		DATA LOGGER Wavefo	2020-12-10	09:13:27	
	HIOKI Electrical Room		DATA LOGGER Wavefo	2020-12-10	09:13:27	

Note

\*For more information about the data formats supported by the Time-series Viewer, see the following:
 Corresponding Viewers

\*Measurement data must be added from the Instrument to GENNECT One data list before it can be opened using the Time-series Viewer. For more information about how to add measurement data to the GENNECT One Data List, see the following:

<u>"Manually Acquiring Files from an Instrument (File Acquisition [MANUAL])"</u>
 <u>"Automatically receive instrument files (File Transfer [AUTO])"</u>

LR5000 measurement data must be added to the GENNECT One Data List before it can be opened using the Time-series Viewer. For more information about how to add LR5000 measurement data to the GENNECT One Data List, see the following:

"Loading LR5000 Series Measurement Files"

2. Click the [Open] button.

Note

\*If the data is supported by viewers other than the Time-series Viewer, the [Select Viewer] screen will appear. Either double-click [Time-series Viewer] or select [Time-series Viewer] and click the [Open] button.

- Jeleo					
Select a	Select a viewer to open data.				
	Viewer				
l P	DATA LOGGER Viewer				
	POWER LOGGER Viewer				
HIOKI	Time series viewer				
	Open				

\*To cancel conversion to the Time-series Viewer format, click the [Cancel] button.

3. The [Import Measurement Files] screen will be displayed.

Import Measurement Files			-		×
Selected items: 10 / 512					
GENNECT One	•	2↓ 📼			
🚊 🔲 📄 12100000.CSV	~	Misc			~
🚊 💷 PW3360#121101517		Conversion Offset	0		
Status		Conversion Ratio	1		
		Conversion Requir	False		
UI_Avg (RMS voltage / Average)				g (Frequence	v
	>	Headers	Headers		
$\nabla$ Udeg1_Avg (Voltage fundamental wave phase angle / Average) $\nabla$ 11 Avg (RMS current / Average)	-	ID	0eefc6b	e-68a2-4e8	15
$\sim$ $\sqrt{1}$ $\sqrt{1}$ Avg (Kivis current / Average)		ID Name	Freq_Ave	1	
$\sim$ V Indeg1_Avg (Current fundamental wave value / Average)		Interval (s)	300	,	
$\nabla$ V lacging Arg (content randomic nation wave phase angle / Average)		Measurement Data	2 169		
$\sqrt{1 - Arg}$ (cente power / Atelage)		Model No.	PW3360		
Q1_Avg (Reactive power / Average)		Plot Type	LINE		
PF1 Avg (Power factor / Average)		Serial No.	1211015	17	-
WP+1 (Active energy (Consumption))					-
WP-1 (Active energy (Regeneration))	Co	nversion Offset			
↓ WQLAG1 (Reactive energy (Lag))					
Preview time-series data after import					
Yes     No		Import			
The measurement file was loaded.					
The measurement the was loaded.					

## Selecting Measurement Parameters and Opening Them with the Time-series Viewer

- 1. Expand the tree on the left side of the [Import Measurement Files] screen.
- 2. Select the measurement parameters you wish to convert to the Time-series Viewer format (up to 512).

G Import Measurement Files				-		$\times$
Selected items: 10 / 512						
🖃 🔲 🖸 GENNECT One 🧖	•	•	2↓ 📼			
🖕 🔲 📔 12100000.CSV		~	Misc			^
🚊 🔳 🎞 PW3360#121101517			Conversion Offset	0		
□ √ Status			Conversion Ratio	-		
			Conversion Requir			
U1_Avg (RMS voltage / Average)					(Frequen	~
Ufnd1_Avg (Voltage fundamental wave value / Average)		\$	Headers	Headers	) (i requei	-y.
✓ V Udeg1_Avg (Voltage fundamental wave phase angle / Average)			ID	measure	-68a2-4e	85
·····································			ID Name	Freq Avo		5.
				300	1	
·····································			Interval (s) Measurement Data			
P1_Avg (Active power / Average)						_
$\sim 10^{\circ}$ S1_Avg (Apparent power / Average)			Model No.	PW3360		
Q1_Avg (Reactive power / Average)			Plot Type	LINE		
$\sim \Box \sqrt{PF1_Avg}$ (Power factor / Average)			Serial No.	1211015	17	~
$-\Box \sqrt{WP+1}$ (Active energy (Consumption)) $-\Box \sqrt{WP-1}$ (Active energy (Regeneration))	1	Co	nversion Offset			
WQLAG1 (Reactive energy (Lag))     \[     \]     WOLFAD1 (Reactive energy (Lag))     \[     \]	-					
Preview time-series data after import			Incore			
			Import			
The measurement file was loaded	<u>.</u>					

#### 3. Click the [Import] button.

The selected measurement parameter(s) will be converted to the Time-series Viewer format. Once the import operation is complete, the following message will be displayed: "Import operation completed."

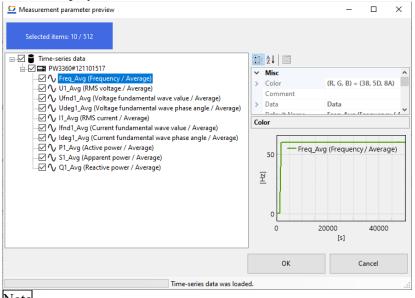
## Note

\*If you selected [No] under [Preview time-series data after import], the Time-series Viewer will open after the import operation completes.

\*If you selected [Yes] under [Preview time-series data after import], the process will proceed to the next step.

- 4. The [Measurement Parameter Preview] screen will be displayed.
- 5. Expand the tree on the left side to display a list of imported measurement parameters.

(If a comment is stored for each channel in the data logger, the comment will appear in parentheses after the channel display name.)



## Note

\*Click a measurement parameter to display a preview of the waveform that has been converted to the Timeseries Viewer format at the bottom right of the screen.

\*Deselect the checkbox to the left of any measurement parameter you do not wish to load into the Timeseries Viewer.

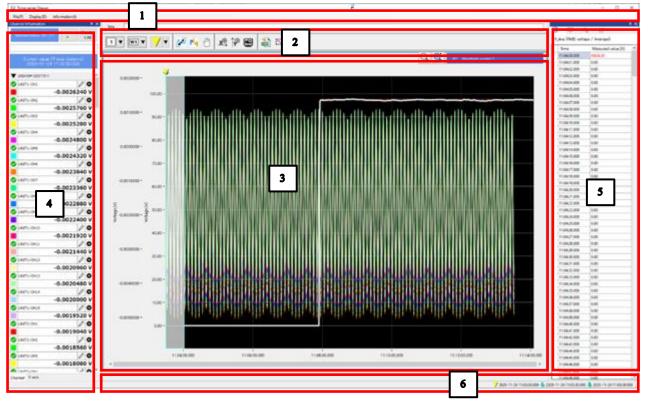
6. Click the [OK] button to open the selected measurement parameters in the Time-series Viewer.

### Note

\*Click the [Cancel] button to cancel the measurement parameter preview and return to the [Import Measurement Files] screen.

## Using the Time-series/Logging Viewer

## Interface element names



No.	Name	Description	Details
Ξ	Menu bar	The menu bar provides access to the menus used by the application.	p.55
[2]	Waveform tool buttons	These buttons provide access to tools for displaying and manipulating waveforms.	p.56
3	Waveform display screen	This part of the window displays waveforms. It allows you to zoom in and out, scroll, and otherwise interact with waveforms.	p.62
4	Channel Information panel	The channel information panel allows you to select measurement parameters (channels) and display and edit measured values and settings.	p.64
5	Data analysis panel	The data analysis panel allows you to analyze measurement data with functionality including the measurement Data List, Event List, waveform search, statistical analysis, and AB Cursor Value List.	p.69
6	Status bar	The status bar displays cursor information.	p.77

### 🛙 Menu Bar

The application provides the following menu commands:

Item			Description	
File	Save		Saves the current state of the Time-series Viewer.	
	Exit		Exits the Time-series Viewer.	
Display	Waveforms	Highlighting	Toggles waveform highlighting on and off.	
			On: Highlight the waveform with focus.	
			Off: Do not highlight the waveform with focus.	
		Number of Views	Changes the number of views on the waveform display screen.	
	Window		Toggles display of the following windows:	
			Channel information	
			•Data analysis	
			•Status bar	
	Cursors		Toggles display of the following cursors:	
			•A and B cursors	
			<ul> <li>Horizontal A and B cursors</li> </ul>	
	Events		Toggles display of the following events:	

		•User events •Search events
Information	Version Information	Displays version information for the application.

## 2 Waveform Tool Buttons

These buttons provide access to tools for displaying and manipulating waveforms.

	Name	Description	Details
1 ▼	Number of Waveform Views	Changes the number of views on the waveform display screen. You can choose from the following settings: 1 view (no splitting of the	
<b>W1</b> ▼	Switch Windows	screen), 2 views. Switches the active window on the waveform display screen among W1 through W8. For more information about window switching, see:	p.57
<b>\</b>	Toggle Cursor	<ul> <li>Switching Windows (p.57)</li> <li>Switches the active cursor among the following: trace cursor, A cursor, and B cursor.</li> </ul>	p.57
	Display All	For more information about how to move cursors, see: <ul> <li>Moving Cursors (p.57)</li> </ul> Displays waveforms on the waveform display screen in their entirety.	
~~	Display All	Displays wavelorms on the wavelorm display select in their entirety.	
P.	Adjust Position	Adjusts the position of the vertical axis of the waveforms being displayed on the waveform display screen. For more information about adjusting the position, see: Adjusting the Position of the Waveform's Vertical Axis (p.63)	p.63
d the	Move	Toggles move mode on and off.         On:       Dragging the mouse's left button moves (scrolls) the waveform.         Off:       Dragging the mouse's left button enlarges the waveform's rectangle.	
X	Display Time Axis	Switches the method used to display the time axis.         Absolute time:         Switches the time axis display method to absolute time.         The absolute time display uses the following format:         Waveform's overall       Waveform's overall	
		duration         minimum interval           1 day or more         1 second or more         yyyy-MM-dd HH:mm:ss	
		Less than 1 second         yyyy-MM-dd HH:mm:ss.fff           Less than 1 day         1 second or more           HH:mm:ss	
		Less than 1 second HH:mm:ss.fff	
	Distant	Relative time (auto):         Switches the time axis display method to elapsed time using the start position of each measurement parameter's waveform as the zero point. The elapsed time is displayed using units that are determined automatically based on the waveform's overall duration.         Relative time (seconds):         Switches the time axis display method to elapsed time using the start position of each measurement parameter's waveform as the zero point. Elapsed time is displayed in seconds.         Relative time (point):         The display method of the time axis changes to the number of data points starting from the start position in the waveform of each measurement item.	
<b>₩</b>	Display Numerical Axis	Switches the method used to display the numerical axis. Separate axis for each channel: Displays a separate numerical axis for each measurement parameter (channel). Single axis for all channels: Displays a single numerical axis for all displayed measurement parameters (channels).	
Ē	Display Settings	Configures display settings for the waveforms being displayed on the waveform display screen. For more information about display settings, see: Configuring Waveform Display Settings (p.58)	p.58
CSVE	Output CSV	Outputs measurement data in CSV format. For more information about CSV output, see: Outputting Measurement Data as a CSV File (p.60)	p.60

~	Save Waveform Image	Copies an image of the waveforms being displayed on the waveform display screen to the clipboard. Saves an image of the waveforms being displayed on the waveform display screen to a file. For more information about saving waveform images, see: Saving Waveform Images (p.61)	p.61
	Power analysis mode	Opens the [Power analysis mode] window. This button will be displayed if PW8001 measurement data contains harmonic data. For more information about power analysis mode, see Displaying Power Analysis Mode (p.78).	p.78

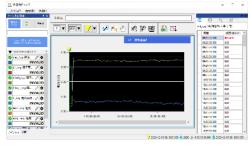
#### **Switching Windows**

This section describes how to switch the active window on the waveform display screen among W1 through W8. The Time-series Viewer can maintain up to eight windows with combinations of different waveforms in different display states (displayed measurement parameters or display range). By switching windows, you can call up each window's display state.



Example 1 : With one waveform view

•With W1 as the active window



### Example 2: With two waveform views •With W1 as the active window

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1	14.14	
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AMPROV.			-
-Language Allighting	all sell it all to all to all to all to all to all to all the all the little all the all the all the	1.001	- Contraction -
•		1-48-1	10.00
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America I MUNIMUM	WINDOW PARTY AT THIS WAS AN ALL WAS A DOWN TO A DATA AND	1.01	( ballowed
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A ANTTON			-
	ting the ting ting ting	1000	10000
And			
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and synthesis 740		1000	10000
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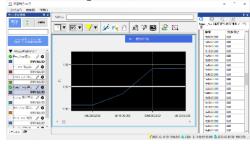
## **Moving Cursors**

This section describes how to switch the active cursor among the following: trace cursor, A cursor, and B cursor.



	Types of cursors	Description
<b>_</b>	Trace cursor	This cursor is used to trace measured values.
🐣 📢	A cursors	These cursors are used to set ranges. There are two types: •A and B cursors (used to set a range in the time axis direction) •Horizontal A and B cursors (used to set a range in the numerical axis direction)
a) B)	B cursors	Note The horizontal A and B cursors set a range in the numerical axis direction for each measurement parameter.

•When switching the active window to W3



#### •When switching the active window to W3

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Cursors can be moved using either of the following two methods:

Method 1: Drag the cursor mark or cursor line with the left mouse button.

\*The cursor will track measurement points for the currently active measurement parameter as it moves.

Method 2: Switch cursors with the [Toggle Cursor] button and then click the top part of the waveform display area.

\*The cursor will move to the measurement point for the measurement parameter (channel) that currently has focus that is closest to the position at which you clicked.

\*The horizontal A and B cursors cannot be moved using this method.

#### **Configuring the Display**

This section describes how to configure display settings for the waveforms being displayed on the waveform display screen.

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		Display parameters
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See the tables below for settings available on each screen.

■[General] tab

## GENNECT One User's Manual

Setting		Description
Display	Legend	Specifies whether to display the legend on the waveform display screen.
Background	Color	Specifies the background color to use for the waveform display screen.
Legend	Display area	Specifies where to display the legend. Inside plot region
		Outside plot region
	Font	Specifies the font size and style to use for the legend.
	Display parameters	Specifies what to show in the legend. (Multiple values can be selected.) Instrument name (model#serial number) Channel display name Unit

## ■[Time axis (X)] tab

Setting		Description
Axis	Display	Specifies whether to display the axis.
	Display format	Specifies the display format to use for the axis.
		Absolute time
		Relative time
Axis title	Display	Specifies whether to display the axis title.
	Font	Specifies the font size, style, and color to use for the axis title.
Scale	Display	Specifies whether to display the scale.
	Display position	Specifies where to display the scale.
		Outside: Display outside the time axis.
		Inside: Display inside the time axis.
		Intersection: Display so that the scale intersects with the time axis.
	Color	Specifies the color to use for the scale.
Scale labels	Font	Specifies the font size and style to use for the scale label.
Grid lines Display Line width		Specifies whether to display grid lines.
		Specifies the thickness to use for grid lines.
	Line type	Specifies the line type to use for grid lines.
	Color	Specifies the color to use for grid lines.
Margins	Between scale labels and scales	Specifies the margin to leave between the scale label and scale line.
	Between axis titles and scale labels	Specifies the margin to leave between the axis title and scale label.
Operation	Display entire graph when adding a	On: Change to the overall display in the time axis direction when the selected
	channel.	measurement parameter changes.
		Off: Do not change to the overall display in the time axis direction when the
		selected measurement parameter changes.
	Relative time	Sets the reference position for displaying 0s when the time axis format is
		"relative time".
		Trigger position as 0s
		The beginning as 0s

## ■[Numerical axis (Y)] tab

Setting		Description		
Axis Display		Specifies whether to display the axis.		
	Display format	Specifies the display format to use for the axis.		
		Per channel: Display a separate numerical axis for each measurement parameter		
		(channel).		
		Same for all channels: Display a single numerical axis for all displayed		
		measurement parameters (channels).		
Axis title	Display	Specifies whether to display the axis title.		
	Font	Specifies the font size, style, and color to use for the axis title.		
Scale	Display	Specifies whether to display the scale.		
	Display position	Specifies where to display the scale.		
		Outside: Display outside the time axis.		
		Inside: Display inside the time axis.		
		Intersection: Display so that the scale intersects with the time axis.		
	Color	Specifies the color to use for the scale.		
	Display the auxiliary scale.	Specifies whether to display the auxiliary scale.		
Scale labels	Angle	Specifies the angle at which to display the scale label.		
	Font	Specifies the font size and style to use for the scale label.		
Grid lines	Display	Specifies whether to display grid lines.		
	Line width	Specifies the thickness to use for grid lines.		
	Line type	Specifies the line type to use for grid lines.		
	Color	Specifies the color to use for grid lines.		
Auxiliary grid Display lines		Specifies whether to display auxiliary grid lines.		
	Line width	Specifies the thickness to use for auxiliary grid lines.		
	Line type	Specifies the line type to use for auxiliary grid lines.		
	Color	Specifies the color to use for auxiliary grid lines.		
Margins	Between scale labels and scales	Specifies the margin to leave between the scale label and scale line.		

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	Between axis titles and scale labels	Specifies the margin to leave between the axis title and scale label.
Operation	Display entire graph when adding a channel.	On: Change to the overall display in the value axis direction when the selected measurement parameter (channel) changes. Off: Do not change to the overall display in the value axis direction when the selected measurement parameter (channel) changes.

### ■[Channel] tab

Setting		Description
Shared settings Line width		Specifies the line with to use when displaying waveforms on the waveform display
		screen.
	Highlighting	Specifies whether to highlight the waveform for the measurement parameter (channel)
		with focus.
	HighlightingSpecification	Automatic: Use the application defaults for highlighted waveforms' line width and
	method	display color.
		User: Specify the line width and display color to use for highlighted waveforms.
	HighlightingLine width	Specifies the line with to use for highlighted waveforms.
	HighlightingColor	Specify the color to use for highlighted waveforms.
Channel	Channel	Specifies the measurement parameter (channel) to which to apply the settings.
	Display	Specifies the selection state of the measurement parameter (channel).
	Color	Specifies the waveform display color to use for the measurement parameter (channel).
	Instrument name	Displays the instrument name for the measurement parameter (channel).
		*This setting cannot be changed.
	Display name	Specifies the display name for the measurement parameter (channel).

### ■[Cursors] tab

Setting		Description
Trace cursor Display		Specifies whether to display trace cursors and the line width, line type, and color to use when displaying them.
	Operation	Specifies whether to display cursor values in the plot region.
A and B cursors	Display	Specifies whether to display the A and B cursors and the line width, line type, and color to use when displaying them.
	Operation	Specifies whether to display cursor values in the plot region.
Horizontal A and B Display cursors		Specifies whether to horizontal A and B cursors and the line width, line type, and color to use when displaying them.
	Operation	Specifies whether to display cursor values in the plot region.
Display parameters	Display parameters	Specifies the parameters to display as cursor values. (Multiple values can be selected.) Instrument name (model#serial number) Channel display name Cursor location value (unit)

## ■[Events] tab

Setting		Description
User events DisplayDisplay		Specifies whether to display user event marks.
	DisplayDisplay	Specifies the parameters to display as user event mark information. (Multiple values
	parameters	can be selected.) Time Comment
	Operation	Specifies whether to enable operation related to user event marks. (Multiple values can
		be selected.)
		Display information about event marks on mouseover.
		Enter a comment when adding an event marker.
Search events DisplayDisplay		Specifies whether to display search event marks.
	DisplayDisplay	Specifies the parameters to display as search event mark information. (Multiple values
	parameters	can be selected.)
		Analysis type Threshold value Instrument name (model#serial number)
		Channel display name Time Comment
Trigger point marks	Display	Specifies whether to display trigger marks.
	DislayDisplay	Specifies the parameters to display as trigger point mark information. (Multiple values
	parameters	can be selected.)
		Trigger type Time

## Outputting Measurement Data as a CSV File

This section describes how to output measurement data in the CSV format.



Output CSV						×
Output settings						
Channel	Displayed channels	~				
Output range	All data	$\sim$				
Time axis format	Absolute time					
Data completion	None	~				
Data thinning	1	(*A valu	e of 1 indicates no	o thinning. Specify th	inning with a valu	e of 2 or greater.)
Comment						
				Output CSV	Cancel	Close

Item		Description		
Output settings	Channel	Specifies the measurement parameters (channels) to output as a CSV file.         Displayed channels:         Of the measurement parameters (channels) loaded in the Time-series Viewer, output the measurement parameters (channels) that are being displayed on the waveform display screen.         All channels:       Output all measurement parameters (channels) loaded in the Time-series Viewer.		
	Output range	Specifies the time range to output as a CSV file. All data: Output the entire time range. Between A and B cursors: Output the time range defined by the A and B cursors.		
	Time axis format	Indicates whether the time format being output to the CSV file is absolute or relative. *This setting can be changed using the [Display Numerical Axis] button on the waveform toolbar. *This setting cannot be changed on this screen.		
	Data completion	Specifies whether to complete measured values for times for which there is no measurement data before outputting data with measurement parameters (channels) with different interval times in the data being output. No: Do not complete measured values for times without measurement data. Complete using last measured data: Complete measured values using the last measured value for times without measurement data.		
	Data thinning	Specifies whether to thin intermediate data points when outputting the data to a CSV file. This setting is not available when there are measurement parameters (channels) with different interval times in the data being output. Example: 1: No data thinning 2: Outputting 1 point for every 2 points 3: Outputting 1 point for every 3 points 		
	Number of decimal places	Specifies the number of decimal places applied to measured values.		
	Comment	Specifies a comment to include in the CSV comment header.		
[Output CSV] button		Outputs the data to a CSV file.		
[Cancel] button		Cancels the CSV output operation.		
[Close] button		Closes the dialog box.		

#### **Outputting Waveform Images**

•This section describes how to copy an image of the waveforms being displayed on the waveform display screen to the clipboard.

•It also describes how to save an image of the waveforms being displayed on the waveform display screen to a file.



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Save Image			×
Output format			
PNG format	○ EMF format		
	Save Image	Copy to Clipboard	Close

Item	Description	
Output format	Specifies the format to use when outputting the image.	
	PNG format: Specifies PNG as the image output format.	
	y: Specifies EMF (enhanced metafile) as the image output format.	
[Save Image] button	Saves the image to the file.	
[Copy to Clipboard] button	Copies the image to the clipboard.	
[Close] button	Closes the dialog box.	

### **3** Waveform Display Screen

This area of the screen displays waveforms. It allows you to zoom in and out, scroll, and otherwise interact with waveforms.

#### Zooming in / Zoom out / Move Waveform

This section describes how to zoom in / zoom out /move a waveform.

Operations	Descriptions
Zoom in/out	Zoom in/out
(Mouse wheel)	- Rotate the mouse wheel on the waveform screen to expand and contract the entire waveform both vertically and horizontally.
	■Zoom in/out horizontally
	<ul> <li>Rotate the mouse wheel on the bottom 5% of the waveform screen to zoom in/out the entire waveform horizontally.</li> </ul>
	- Rotate the mouse wheel on the time axis (X-axis) to zoom in/out the entire waveform horizontally.
	■Zoom in/out vertically
	- Rotate the mouse wheel on the 5% left side of the waveform screen to zoom in/out the entire waveform vertically.
	- Rotate the mouse wheel on the value axis (Y-axis) to zoom in/out vertically the entire waveform of the channel belonging to the value axis.
Zoom in	Zoom in
(Rectangle area)	Drag the left mouse button on the waveform screen to zoom in the entire waveform with the rectangle area .
	■Zoom in horizontally
	Drag the left mouse button on the bottom 5% of the waveform screen to zoom in the entire waveform with the
	rectangle area horizontally.
	Drag the left mouse button on the time axis (X-axis) to zoom in the entire waveform with the rectangle area horizontally.
	■Zoom in vertically
	Drag the left mouse button on the 5% left side of the waveform screen to zoom in the entire waveform with the rectangle area vertically.
	Drag the left mouse button on the value axis (Y-axis) to zoom in with the rectangle area the entire waveform of the channel that belongs to the value axis.
	■Restore rectangular expansion
	Click the right mouse button on the waveform screen, and then click Restore Rectangle expansion
	( Restore rectangular expansion. ), you can return the rectangle magnification that was executed just before.
Display All	Click on the Display All ( button to display the entire waveform.
	Double-click the left mouse button on the waveform screen to display the entire waveform.
	Input [ESC] key to display the entire waveform.
Zoom in and out	Zoom in and out horizontally.
( button)	• ( Click the button to zoom in horizontally (time axis direction).

	• ( Click the button to shrink the image horizontally (in the time axis direction).		
Zoom in and out	■Zoom in and out horizontally.		
(List)	Click the right mouse button on the waveform screen and click "Time Axis Expansion" to expand the waveform in the horizontal direction (time axis direction).		
	Click the right mouse button on the waveform screen and click the "Time Axis Shrink" button to shrink the		
	waveform in the horizontal direction (time axis direction).		
	Click on a time value displayed by clicking on the time axis, the section of the time value is displayed as a waveform.		
	Whole		
	25		
	Time axis expansion.		
	500ms		
	Time axis reduction. 200ms		
	Time axis   100ms		
Moving (Scroll bar)	■Move horizontally Move the scroll bar at the bottom of the waveform screen to move the waveform horizontally.		
Moving (Konstantantan)	Move the entire waveform by keystrokes.		
(Keystrokes)	■Move horizontally		
	[Shift]+ $[\rightarrow]$ key: Move the entire waveform to the right.		
	$[Shift]+[Ctrl]+[\rightarrow]$ keys: Move the entire waveform to the right in fine increments.		
	$[\text{Shift}]+[\leftarrow]:$ Move the entire waveform to the left.		
	[Shift]+[Ctrl]+[←] keys: Move the entire waveform to the right in fine increments.		
	■Move vertically		
	$[Shift]+[\uparrow]$ keys: Move the entire waveform upwards.		
	[Shift]+[Ctrl]+[1] keys: Move the entire waveform upwards in fine increments.		
	[Shift]+[↓] keys: Move the entire waveform downwards. [Shift]+[Ctrl]+[↓] keys: Move the entire waveform downward in fine increments.		
	[Shint]+[Cut]+[] keys. Move the entire wavelorin downward in the increments.		

## **Displaying the Entire Waveform**

This section describes how to display waveforms in their entirety.



■Click the [Display All] button

Click the [Display All] button on the waveform toolbar.

The entire waveform will be displayed on the waveform display screen.

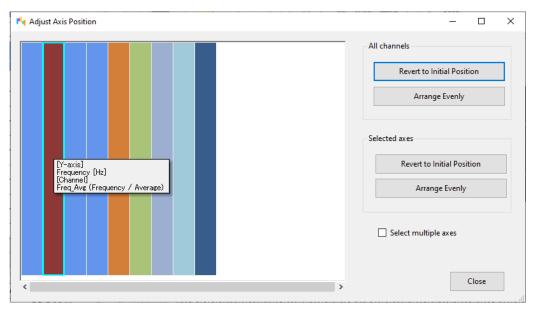
■Double-click the mouse

Double-click the left mouse button within the plot area of the waveform display screen. The entire waveform will be displayed on the waveform display screen.

#### Adjusting the Position of the Waveform

This section describes how to adjust the position of the waveform displayed on the waveform display screen using the [Adjust Position] button on the waveform toolbar.





Item		Description
Axesl position adjustment area		This area has a set of scroll bars for adjusting the display range and the display position of numerical axes in the vertical direction.
		<ul> <li>Adjusting the display range</li> <li>Drag the scroll bar with the left mouse button to select a measurement parameter (channel). (The selected scroll bar will gain focus and turn light blue.)</li> <li>Adjust the display range in the numerical axis direction by rotating the mouse wheel over the selected scroll bar.</li> </ul>
		<ul> <li>Adjusting the display position</li> <li>Drag the scroll bar with the left mouse button to select an axis. (The selected scroll bar will gain focus and turn light blue.)</li> <li>Adjust the display position in the numerical axis direction by dragging the left mouse button above the selected scroll bar.</li> </ul>
All axes	Revert to Initial Position	Resets the display range and display position in the vertical direction to the full display for all axes.
	Arrange Evenly	Automatically arranges the display range and display position in the vertical direction for all axes so that they are spaced evenly.
Selected axes	Revert to Initial Position	Resets the display range and display position in the vertical direction to the full display for the selected axes.
	Arrange Evenly	Automatically arranges the display range and display position in the vertical direction for selected axes so that they are spaced evenly.
[Select multiple channels] checkbox		On: Allow multiple axis to be selected. You'll be able to adjust the position of multiple axes within the axes position adjustment area at the same time. Off: Allow only one axis to be selected at a time.
[Close] button		Closes the dialog box.

### Adding, Editing, and Deleting User Event Marks

This section describes how to add, edit, and delete user event marks. Click the right mouse button within the plot area on the waveform display screen or over a user event mark to display a context menu providing access to this functionality.

Context menu command	Description	
Add a user event.	Adds a user event mark at the click location.	
Edit a user event.	Edits the comment of the specified user event mark.	
Delete a user event.	Deletes the specified user event mark.	
Delete all user events.	Deletes all user event marks on the waveform display screen.	

#### **4**Channel Information Panel

The channel information panel allows you to select measurement parameters (channels) and display or edit

measured values and settings.

Item	Description
Channel Information Selected items: 32 / 32 Deselec t All	<ul> <li>Number of selected items         Displays the number of measurement parameters (channels) that have been selected on         the waveform display screen. You can select up to 32 measurement parameters         (channels).     </li> <li>Selected items: 10 / 10</li> </ul>
Cursor value (Trace cursors) 2020–11–24 11:09:07	<ul> <li>Display only selected channels</li> <li>Displays only selected measurement parameters (channels).</li> </ul>
VINIT1-CH1     V     VINIT1-CH2     VINIT1-CH2     VINIT1-CH2     VINIT1-CH2     V     VINIT1-CH2     V     VINIT1-CH2     V     VINIT1-CH2     V     VINIT1-CH2     V     VIII	<ul> <li>Deselect All</li> <li>Deselects all selected measurement parameters (channels).</li> <li>Deselect t All</li> </ul>
✓ UNIT1-CH3 ✓ 0.0016850 V	■Refine Refines the parameters shown on the channel Information panel by measurement parameter display name (channel display name).
	■Cursor value display Displays cursor values for trace cursors and A/B cursors. Cursor value (Trace cursors) 2019-01-02 12:00:14.000
	<ul> <li>Instrument panel</li> <li>Displays measurement parameters (channels) grouped by instrument.</li> <li>You can collapse and expand the list of associated measurement parameters by clicking an instrument.</li> <li>         PW3360#161224839     </li> </ul>
[Without focus]	<ul> <li>Checkbox</li> <li>On: Display the waveform on the waveform display screen.</li> <li>Off: Do not display the waveform on the waveform display screen.</li> </ul>
[With focus]         VINIT2-CH7         -0.0007730 V	<ul> <li>Channel display name</li> <li>Displays the display name of the measurement parameter (channel).</li> <li>Freq_Avg (Frequency / Ave)</li> <li>(If a comment is stored for each channel in the data logger, the comment will appear in parentheses after the channel display name.)</li> </ul>
	•Measured value Displays the measured value and measurement unit at the cursor location.          60.044 Hz         (If the measured value has a maximum value and a minimum value, the two values will be displayed.)
	<ul> <li>Edit channel display name</li> <li>Allows you to edit the display name of the measurement parameter (channel).</li> </ul>
	<ul> <li>Channel settings Configures the measurement parameter (channel).</li> <li>For more information, see "Configuring Channels" (p.XX).</li> </ul>

## **Configuring Channels**

This section describes how to configure measurement parameters (channels).

60.044 Hz			
nnel settings			
Aeasured value			
w W			
Unit prefix	None	~	
Display format	t		
Number	er of significant d〇 Exp	ponent	
Maximum reso	olution 1.0 * 10	0^ -4 🗘 W	
Number of De	cimal Places	4	
Preview			
0.1234 W			1
0.1234 **			
0.1254 11			
0.1234 W			
Details			
		Value	
Details		Value da35de04-8ef6-4a1f-beac-eb78ae97df	ai
Details			ai
Details Item Channel ID		da35de04-8ef6-4a1f-beac-eb78ae97df	ai
Details Item Channel ID Display name		da35de04-8ef6-4a1f-beac-eb78ae97df UNIT1-W1	ai
Details Item Channel ID Display name Channel displ	ay color	da35de04-8ef6-4a1f-beac-eb78ae97df UNIT1-W1 #FFA23F3C	ai
Details Item Channel ID Display name Channel displ Model	ay color	da35de04-8ef6-4a1f-beac-eb78ae97df UNIT1-W1 #FFA23F3C LR8450	ai
Details Item Channel ID Display name Channel displ Model Serial number	ay color splay name	da35de04-8ef6-4a1f-beac-eb78ae97df UNIT1-W1 #FFA23F3C LR8450 000000038	ai
Details Item Channel ID Display name Channel displ Model Serial number Instrument di	ay color splay name start time	da35de04-8ef6-4a1f-beac-eb78ae97df           UNIT1-W1           #FFA23F3C           LR8450           00000038           LR8450#00000038	

Item		Description
Measured value	Unit	Displays and sets the measured value unit.
	Unit prefix	Displays and sets the measured value unit and unit prefix.
	Maximum resolution	Displays and sets the maximum resolution for measured values.
	Number of decimal places	If the display format is set to [Number of significant digit]
		Specifies the maximum resolution for measured values regardless of the unit prefix.
		Specifies the value x in $1.0 \times 10^{x}$ .
		If the display format is set to [Exponent]
		Specifies the number of decimal places for the mantissa of measured values expressed
		as exponents.
		<u>1.2345</u> E+03
		Mantissa
	Display format	Specifies the display format to use for measured values.
		Numuber of significant digitl: Example: 0.001
		Exponent: Example: 1.000E-03
	Preview	Displays a preview of how measured values will be displayed using the current
		settings.
		For more information about displayed measured values, see:
		<ul> <li>Measured Value Settings and Displayed Measured Values (p.67)</li> </ul>
Details		Provides detailed information about the measurement parameter (channel).

### Measured Value Settings and Displayed Measured Values

This section provides several examples of the relationship between measured value settings and displayed measured values.

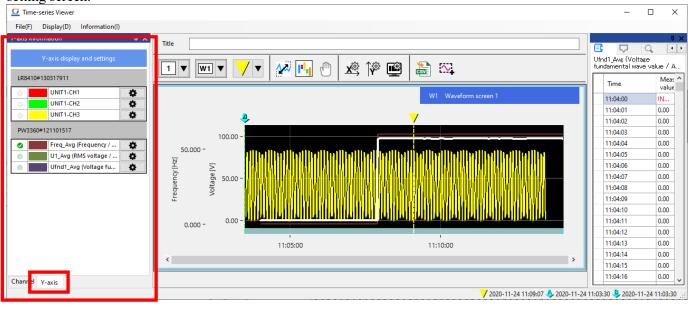
	Measured value (*1)	Measured value settings		Displayed measured value
Example	123.45 V	Unit prefix	None	123.5 V
1		Display format	Decimal	
		Maximum resolution	-1	
Example	1234.56 W	Unit prefix	None	1234.6 W
2		Display format	Decimal	
		Maximum resolution	-1	
Example	1234.56 W	Unit prefix	k	1.2346 kW
3		Display format	Decimal	
		Maximum resolution	-1	
Example	0.123456 V	Unit prefix	None	123.46E-03 V
4		Display format	Exponent	
		Number of decimal places	2	
Example	0.123456 V	Unit prefix	m	123.46E+00 mV
5		Display format	Exponent	
		Number of decimal places	2	

\*1 Indicates measured values regardless of the unit prefix.

#### Changing the display of value axes (vertical axes).

This section describes how to change the display of the vertical axes.

Click the [Y-Axis] tab of the [Channel Information] screen to display the [Y Axis Settings] screen. You can also right-click on the waveform screen and select [Display Y-axis setting] in the menu to display the setting screen.



Operations	Descriptions
Show multiple vertical axes	Select the check box of the channel which you want to display new vertical axis.
	All groups of channels that belong to the same vertical axis as the selected channel are selected.
	The vertical axes are displayed in the waveform screen.

	Title
	Channel Y-axis
Change the display settings for	* You cannot turn off the display of the vertical axis that has the current focus on the waveform screen. Click the [Settings] button .
the vertical axis	The [Vertical Axis Settings] screen is displayed.
	Y-axis settings U1_Avg (RMS voltage / Average)     ×
	Y-axis name Voltage
	Y-axis auxiliary unit None V
	Y-axis unit V
	Y-axis upper/lower limits
	Automatic scaling
	O Fixed scaling
	Upper 113.274 V
	Lower -15.624 V
	OK Cancel
	Change the vertical axis name and/or other settings. Click the OK button to change the vertical axis display settings.

### Grouping of vertical axis

In this viewer, the vertical axes are grouped by the settings of each channel. See below for the relationship between each channel's settings and the vertical axes.

For auto	matic scale		
Channe	el settings	Corresponding features	Vertical axis
-1.	Axis name	Vertical Axis Configuration (p.67)	Consider all channels that match settings
-2.	Unit prefix	Vertical Axis Configuration (p.67)	to be on the same value axis.
		Channel settings (p.66)	
-3.	Unit	Vertical Axis Configuration (p.67)	
		Channel settings (p.66)	
-4.	Display format	Channel settings (p.66)	
	(Significant Digits / Exponent)		
-5.	Resolution	Channel settings (p.66)	
-6.	Number of Decimal Places	Channel settings (p.66)	
For a f	ixed scale		
Channe	el settings	Corresponding features	Vertical axis
-1.	Axis name	Vertical Axis Configuration (p.67)	Consider all channels that match settings
-2.	Unit prefix	Vertical Axis Configuration (p.67)	to be on the same value axis
		Channel settings (p.66)	

-3.	Unit	Vertical Axis Configuration (p.67) Channel settings (p.66)
-4.	Display format (Significant Digits / Exponent)	Channel settings (p.66)
-5.	Resolution	Channel settings (p.66)
-6.	Number of Decimal Places	Channel settings (p.66)
-7.	Upper limit	Vertical Axis Configuration (p.67)
-8.	Lower limit	Vertical Axis Configuration (p.67)

#### **5** Data Analysis Panel

The data analysis panel allows you to analyze measurement data with functionality including the measurement Data List, Event List, waveform search, statistical analysis, and AB Cursor Value List.

	E 🔽 Q 🔬 E 🖓	(二) 余		
UNET1-W1	- Display - Search rang		-Analysis scope	UNETT-CH1
Time Measured value [W]	Event mark Display ~ Search range	ge All data ∨	Analysis scope All data   Perform a statistical analysis by moving the A and B cursors.	Ch 8 8 9-4 0.006 Unit 0.101 0.006 Unit 0.101 0.006
12:00:15:000 51:8000 12:00:14:000 51:7600	Refine Search met	hod		15:12:39.713 15:12:39.713 0.0000 V UNIT1-CH1 -0.0002150 -0.0002150 0.0000000 V
12:00:13:000 51.8800		hod Time ~	Analysis type Average value Peak to peak Maximum value	UNIT1-CH2 0.0021685 0.0021685 0.000000 V UNIT1-CH3 0.0018380 0.0018380 0.0000000 V
12:00:12.000 51.6800	line		🗆 Maximum value 📄 Minimum value 📄 Minimum value	UNITI-CH4 0.0019480 0.0019480 0.0000000 V
12:00:11.000 51.6800 12:00:10.000 51.4600	Analysis type All v Channel	UNITI-ALM1 ~	On" time Off time Number of "off"  Number of "off"  Standard Integration	UNITI-CHS 0.0016665 0.0016665 0.0000000 V UNITI-CH6 0.0017330 0.0017330 0.0000000 V
12:00:09.000 51.2600	Time	2019 01 - 02 12 x00 :10 .000 🗘	Area value integration	UNITI-CH7 0.0038135 0.0036135 0.0000000 V UNITI-CH8 0.0023850 0.0023850 0.0000000 V
12:00:08.000 51.3400 12:00:07.000 51.6200	Vent List		- Therhold value	UNIT1-CH9 0.0020910 0.0020910 0.0000000 V
12:00:05:000 51:7000	Model Time Instrument Ch Ey: User Events 12:00:10:000		Otennel UNITI-WT	UNITI-CH10 0.0025425 0.0025425 0.0000000 V UNITI-CH11 0.0024275 0.0024275 0.0000000 V
12:00:05.000 51.6600	EV. User Events 12/00/11/000		Threshold vel 5.15/00+01 W	UNITI-CH12 0.0027875 0.0027875 0.0000000 V UNITI-CH13 0.0011560 0.0011560 0.0000000 V
	٤	Q Search	Apply the noise filter to threshold judgment.	UNIT1-CH14 0.0000275 0.0000275 0.0000000 V
				UNIT1-CH15 0.0002360 0.0002360 0.0000000 V

Panel name	Description
Measurement Data List	Displays measurement data for each measurement parameter (channel) as a list. Measurement data for the measurement parameter (channel) that currently has focus on the waveform display screen or channel information screen will be shown.
Event List	Allows you to display, edit, search for, and delete events added with the Time-series Viewer. For more information about the Event List, see: * Displaying, Editing, Searching for, and Deleting Events (p.69)
Search	Searches the waveform for each measurement parameter (channel) being displayed on the waveform display screen. For more information about search functionality, see: * Searching Waveforms (p.71)
Analysis	Performs statistical analysis for the measurement parameters (channels) being displayed on the waveform display screen. For more information about analysis functionality, see: * Performing Statistical Analysis (p.74)
AB Cursor Value List	AB Cursor Value List Displays the AB cursor value of the measurement item (channel) displayed on the waveform display screen. The channel name, A cursor value, B cursor value, B-A value, and unit are displayed. For more information about the AB Cursor Value List, see * AB Cursor Value List (p.77).

#### Displaying, Editing, Searching for, and Deleting Events

This section describes how to display, edit, search for, and delete events added with the Time-series Viewer. For more information about how to add event marks to the Time-series Viewer, see:

\* Adding, Editing, and Deleting User Event Marks (p.64)

\* Searching Waveforms (p.71)

## GENNECT One User's Manual

E	<b>V</b> Q	d	ĥ	ĄŖ		
Display						
Event	mark	Displa	у			$\sim$
Refine						
Kenne						
Chan	nel	All				~
Event	type	All				$\sim$
Searc	h type	All				$\sim$
Com	ment					
Event Li	ist					
	Model		Time		Instrument	Cha
Ey	User Events	5	14:5	Jump te	o This Event	
Ey	User Events	5	14:5		is Event's Commen	+
					his Event to Curso	-
				Move 1	his Event to Curso	r B
					This Event	
					All Events	
<						>
						/
Inform	ation					
Type: I Time: Comn	14:59:55.700					
	Copy to Cli	pboard			Output CSV	

Item		Description
Display	Event mark	Toggles display of event marks on the waveform display screen.
Refine	Channel	Refines the Event List by measurement parameters (channels).
	Event type	Refines the Event List by event type. All User events Analysis events
	Analysis type	Refines the Event List by analysis type. All Time Maximum position Minimum position Maximum local position Minimum local position Level Window Amount of change
	Comment	Refines the Event List by comment.
Event List	Event List	Displays events as a list. The list includes each event's type, time, instrument name, channel display name, analysis type, and comment.
	Context menu	The following context menu commands are available for the Event List: Jump to This Event Jumps to the selected event position on the waveform display screen. Edit This Event's Comment Edits the comment for the selected event. Move Cursor A to This Event Moves the A cursor to the selected event position. Move Cursor B to This Event Moves the B cursor to the selected event position. Delete This Event Deletes the selected event. Delete All Events Deletes all events in the Event List.
Information		Displays information about the selected event.
[Copy to clipboard	d] button	Copies information about the selected event to the clipboard.
[Output CSV] but	ton	Output information about the selected event to the CSV file.

## User Event Marks and Search Event Marks

Item		Description
Ey	User event mark	<ul> <li>This mark indicates events that are set at a user-specified location on the waveform display screen.</li> <li>A separate Event List is maintained for user events on each of the waveform windows (W1 through W8).</li> <li>Time and comment information is stored for each event.</li> <li>*Switching between [Relative time] and [Absolute time] under the [Time axis display] settings causes all user events for the window in question to be deleted. For more information about how to add user event marks to the Time-series Viewer, see:</li> <li>Adding, Editing, and Deleting User Event Marks (p.64)</li> </ul>
Ал	Search event mark	This mark indicates events that are set for individual measurement parameters. Time, instrument, channel, analysis type, and comment information is stored for each event. For more information about how to add search event marks to the Time-series Viewer, see: Searching Waveforms (p.71)

### This section describes user event marks and analysis event marks.

#### **Searching Waveforms**

This section describes how to search the waveform for each measurement parameter (channel) being displayed on the waveform display screen.

	្ម ពីព័ 🛛	АР.		
Search range				
Search range All data ~				
Search method				
Search method	Local maximur	n position 🗸 🗸 🗸 🗸 🗸 🗸 🗸		
-Local maximum	position			
Channel	UNIT1-CH1	~		
Search	n Last	Search Next		
Search	ı Last	Search Next		
	Last Trace cursors	Search Next		
- Search location -		~		
Search location – Cursor type	Trace cursors Move cursor to	~		
- Search location Cursor type	Trace cursors Move cursor to Create a search eve	v this location.		
- Search location Cursor type	Trace cursors Move cursor to Create a search eve	> this location.		

Item	Description
Search range	Specifies the search range. All data: Output the entire time range. Between A and B cursors: Search the time range defined by the A and B cursors.
Search method	Specifies the search method. The following methods can be specified:         Time Maximum position Minimum position Maximum local position Minimum         local position Level Window         Amount of change         For more information about search methods, see:         Search Methods (p.72)

Search location	Cursor type	Specifies the cursor type. Trace cursor A cursor B cursor
	[Move Cursor to This Location] button	Moves the cursor to the search location.
	[Create Search Event at This Location] button	Creates an search event at the search location.
	[Delete Position Information and Redo] button	Deletes the search position information and repeats the search.

### **Search Methods**

## ∎Time

Item	Description	
Channel	Specifies a measurement parameter (channel).	
	You can select any measurement parameter (channel) displayed on the waveform display screen.	
Time	Specifies a time.	
[Search] button	Performs the search.	
	A search point (flag mark 💙) will be created at the specified time position.	

### ■Maximum position, minimum position

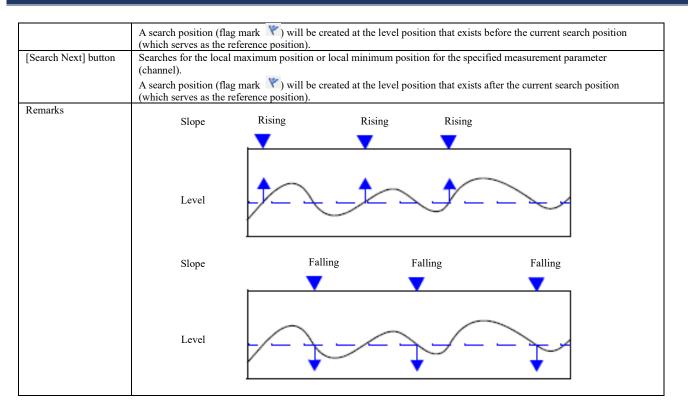
Item	Description	
Channel	Specifies a measurement parameter (channel).	
	You can select any measurement parameter (channel) displayed on the waveform display screen.	
[Search] button	Performs the search.	
	A search point (flag mark 🏋) will be created at the maximum position or minimum position for the specified measurement parameter (channel).	

## ■Local maximum position, minimum maximum position

Item	Description
Channel	Specifies a measurement parameter (channel).
	You can select any measurement parameter (channel) displayed on the waveform display screen.
[Search Last] button	Searches for the local maximum position or local minimum position for the specified measurement parameter (channel). A search position (flag mark ) will be created at the local maximum position or local minimum position that exists before the current search position (which serves as the reference position). Search loca Reference position
[Search Next] button	Searches for the local maximum position or local minimum position for the specified measurement parameter (channel). A search position (flag mark ) will be created at the local maximum position or local minimum position that exists after the current search position (which serves as the reference position).
	Reference pos Search location

#### ∎Level

Item	Description
Channel	Specifies a measurement parameter (channel).
	You can select any measurement parameter (channel) displayed on the waveform display screen.
Level	Sets the level (threshold value).
	You can also set the level by moving the position of the horizontal A cursor on the waveform display screen.
Slope	Sets the slope.
	Rising: Search for the position at which the waveform crosses the specified level in the rising direction.
	Falling: Search for the position at which the waveform crosses the specified level in the falling direction.
[Search Last] button	Searches for the position at which the waveform crosses the specified measurement parameter (channel) level.



#### ■ Window

Item	Description
Channel	Specifies a measurement parameter (channel).
	You can select any measurement parameter (channel) displayed on the waveform display screen.
Upper limit value	Sets the upper limit value.
	You can also set the upper limit value by moving the position of the horizontal A cursor on the waveform display
	screen.
Lower limit value	Sets the lower limit value.
	You can also set the lower limit value by moving the position of the horizontal B cursor on the waveform display
	screen.
In/out	Searches for the position at which the specified measurement parameter (channel) enters (exits) the window area
	specified by upper and lower limit values.
	In: Searches for the position at which the waveform enters the window area.
	Out: Searches for the position at which the waveform exits the window area.
[Search Last] button	Searches for the position at which the waveform crosses the specified measurement parameter (channel) level.
	A search position (flag mark 🕅) will be created at the window position that exists before the current search position
	(which serves as the reference position).
[Search Next] button	Searches for the local maximum position or local minimum position for the specified measurement parameter
[bearen read] oution	(channel).
	A search position (flag mark ) will be created at the window position that exists after the current search position
	(which serves as the reference position).
Remarks	(which serves as the reference position).
Kemarks	
	In
	Window
	Out
	Window

## ■Amount of change

Item	Description		
Channel	Specifies a measurement parameter (channel).		
	You can select any measurement parameter (channel) displayed on the waveform display screen.		
Amount of change	Sets the amount of change.		
	Searches for a position at which the waveform has changed by an amount that is greater than or equal to the amount of		
	change specified during one interval.		
Interval	Displays the interval time for the specified measurement parameter (channel).		
	This setting cannot be changed.		
Increase/decrease	Specifies the type (increase/decrease).		
	Increase: Searches for the position at which the waveform has increased by an amount that is greater than or equal to		
	the specified amount of change.		
	Decrease: Searches for the position at which the waveform has decreased by an amount that is greater than or equal to		
[0] 1 T (21 ()	the specified amount of change.		
[Search Last] button	Searches for a position at which at which the specified measurement parameter (channel) has changed by an amount		
	that is greater than or equal to the amount of change.		
	A search position (flag mark ຶ) will be created at the change position that exists before the current search position		
[0 1 N d1 #	(which serves as the reference point).		
[Search Next] button	Searches for the local maximum position or local minimum position for the specified measurement parameter (channel).		
	A search position (flag mark ) will be created at the change position that exists after the current search position (which serves as the reference point).		
Remarks	(which serves as the reference point).		
Kelliaiks			
	Increase/decrease /		
	ВХ		
	Amount of change		
	A.		
	$\leftrightarrow$		
	Interval time		

## **Performing Statistical Analysis**

This section describes how to perform statistical analysis for the measurement parameters (channels) being displayed on the waveform display screen.

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	ମୁମ୍ AB		
J • •	111 114		
Analysis scope			
Analysis scope All data 🗸			
Perform a statistical analysis by moving the A and B cursors.			
Analysis type			
Average value	Peak to peak	Maximum value	
Maximum value	🗹 Minimum value	Minimum value	
🗌 "On" time	"Off" time	Number of "on"	
Number of "off"	Standard	Integration	
Area value	Integral		
- Threshold value			
Channel	UNIT1-CH1	$\sim$	
Threshold value	0.0000E+00		
Apply the noise	filter to threshold judgm	ent.	
	ရှိမှို Analyze		
Channel     UNITI-CH1       Threshold value     Image: Comparison of the state			

Item		Description
Analysis scope	Analysis scope	Specifies the analysis scope. All data: Analyze the entire time range. Between A and B cursors: Analyze the time range defined by the A and B cursors.
	The statistical analysis is performed by moving the A and B cursors.	On: Perform a statistical analysis at the time to which the A and B cursors were moved. Off: Perform a statistical analysis at the time the [Analyze] button was clicked.
Analysis type	2	Specifies the type of analysis to perform. The following analyses can be specified:         Average value       Peak-to-peak value       Maximum value       Maximum value time         Minimum value       Minimum value       Minimum value       Minimum value       Minimum value         Yon" time       Number of "off" events       'Off" time       Standard deviation       Integration         Area value       Integral         For more information about analysis types, see:       Types of Statistical Analysis (p.75)
[Analyze] bu	tton	Performs a statistical analysis using the specified range and analysis type.

# **Types of Statistical Analysis**

Model	Description
Average value	Calculates the average value of the waveform data. $AVE = \frac{l}{n} \sum_{i=1}^{n} di \qquad AVE : Average value$ $n : Number of data points$ $di : ith data point$
Peak-to-peak value	Calculates the value between the maximum value and the minimum value (peak-to-peak value). Maximum value Minimum value Minimum value
Maximum value	Calculates the maximum value of the waveform data.

Maximum value time	Calculates the time at which the waveform data reached the maximum value.		
Minimum value	Calculates the minimum value of the waveform data.		
Minimum value time	Calculates the time at which the waveform data reached the minimum value.		
Number of "on"	Counts how many times the waveform data's measured value rose above the threshold value.		
events			
"On" time	Calculates the time for which the waveform data's measured value rose above the threshold value.		
Number of "off" events	Counts how many times the waveform data's measured value fell below the threshold value.		
"Off" time	Calculates the time for which the waveform data's measured value fell below the threshold value.		
Standard deviation	Calculates the standard deviation for the waveform data.		
	$\sigma$ : Standard deviation		
	$\sigma = \sqrt{\frac{1}{n} \sum_{i=1}^{n} (di - AVE)^2} \qquad \frac{AVE}{n} :  \text{Average value} \\ n : \qquad \text{Number of data points}$		
	$\int_{1}^{n} \sum_{i=1}^{n} (u_{1} - u_{i}) n  \text{Number of data points}$		
	di: <i>i</i> th data point		
Integration	Calculates the integrated value for the waveform data.		
	$SUM = \sum di$ SUM : Integrated value		
	$SUM = \sum di$ n : Number of data points		
	i = 1 $di$ : <i>i</i> th data point		
Area value	Calculates the area enclosed by the waveform data's zero position and the waveform. When the A and B cursors have been specified, calculates the area between the A and B cursors. $S = \sum_{i=1}^{n}  di  \cdot h \qquad n \qquad : \qquad \text{Number of data points} \\ di \qquad : \qquad ith \text{ data point} \\ h = \Delta t \qquad : \qquad \text{Interval time} \\ \hline \qquad \qquad$		
Integral value	Calculates the integral for the waveform data.		
	$INT = \sum di \times \Delta t$ $n$ : Number of data points		
	$INT = \sum_{i = 1}^{n} di \times \Delta t \qquad n \qquad : \qquad \text{Number of data points}$ $di \qquad :  i\text{th data point}$		

## ■Setting Threshold Values

When calculating the number of "on" events, "on" time, number of "off" events, and "off" time, you must set a threshold for each measurement parameter (channel).

Item	Description
Channel	Specifies the channel (measurement parameter) for which the threshold is being set.
Threshold value	Specifies the threshold for the specified channel. You can also set the upper limit value by moving the position of the horizontal A cursor on the waveform display screen.
Apply the noise filter to threshold judgment.	On: Once the measured value crosses the threshold, do not perform on/off judgment again until the measured value has not crossed the

threshold for 10 intervals
Off: Perform on/off judgment whenever the measured value crosses the threshold.
J

### **AB** Cursor Value List

Displays the AB cursor value of the measurement item (channel) displayed on the waveform display screen.

Ch	A 2021-10-07 15:12:39.713	B 2021-10-07 15:12:39.713	B-A 0.000s	Unit
UNIT1-CH1	-0.0002150	-0.0002150	0.0000000	V
UNIT1-CH2	0.0021685	0.0021685	0.0000000	v
UNIT1-CH3	0.0018380	0.0018380	0.0000000	V
UNIT1-CH4	0.0019480	0.0019480	0.0000000	V
UNIT1-CH5	0.0016665	0.0016665	0.0000000	v
UNIT1-CH6	0.0017330	0.0017330	0.0000000	v
UNIT1-CH7	0.0036135	0.0036135	0.0000000	v
UNIT1-CH8	0.0023850	0.0023850	0.0000000	V
UNIT1-CH9	0.0020910	0.0020910	0.0000000	v
UNIT1-CH10	0.0025425	0.0025425	0.0000000	v
UNIT1-CH11	0.0024275	0.0024275	0.0000000	v
UNIT1-CH12	0.0027875	0.0027875	0.0000000	v
UNIT1-CH13	0.0011560	0.0011560	0.0000000	v
UNIT1-CH14	0.0000275	0.0000275	0.0000000	v
UNIT1-CH15	0.0002360	0.0002360	0.0000000	V
UNIT1-CH16	-0.0003545	-0.0003545	0.0000000	V
UNIT1-CH17	-0.0012225	-0.0012225	0.0000000	v
UNIT1-CH18	-0.0014310	-0.0014310	0.0000000	v
UNIT1-CH19	-0.0015185	-0.0015185	0.0000000	V

AB Cursor Value List	Displays the channel name, A cursor value, B cursor value, B-A value, and unit. (If the measured value has a maximum value and a minimum value, the two values will be displayed in two lines.
Copy to clipboard	Copies the contents of the AB Cursor Value List to the clipboard.
Output CSV	Outputs the contents of the AB Cursor Value List to a file.

## **6**Status Bar

The status bar displays cursor information.

✔ 2019-08-22 18:35:11.000 🕹 2019-08-22 14:08:01.000 👙 2019-08-22 14:08:01.000

## **Displaying Power Analysis Mode (PW8001 only)**

You can view data in power analysis mode if the measurement data loaded by the Time-series Viewer contains harmonic measurement data.

To use power analysis mode, you must be using GENNECT One Ver. 5.20 or later.

1. Click the [Power Analysis] tool button in the Time-series Viewer.



2. Select how to open the power quality analyzer measurement data.

How to load power file	×
How to load a power file into a time series viewer	
O Viewer up to 512 channels (last selected channel), power analysis mode 512 channels or more possible	
<ul> <li>Viewer up to 512 channels (new channel selection), power analysis mode 512 channels or more possible</li> </ul>	
Viewer up to 512 channels (new channel selection), power analysis mode is not supported (Converted to time series measurement data format)	
OK Cancel	

Option	Description
Last selected channel	Displays the measurement parameters selected when power
	analysis mode was last opened in the Time-series Viewer.
	All harmonic data saved in the power quality analyzer
	measurement data will be displayed in power analysis mode.
New channel selection	Allows you to select new parameters for up to 512 channels to
(up to 512 channels)	display in the Time-series Viewer.
	All harmonic data saved in the power quality analyzer
	measurement data will be displayed in power analysis mode.
New channel selection	Allows you to select new parameters for up to 512 channels to
(Converted to time	display in the Time-series Viewer.
series measurement	This selection is not supported in power analysis mode.
data format)	

3. Select the measurement parameters you wish to import to the Time-series Viewer.

Regardless of which parameters are selected here, you can review saved harmonic data on the power analysis function screen.

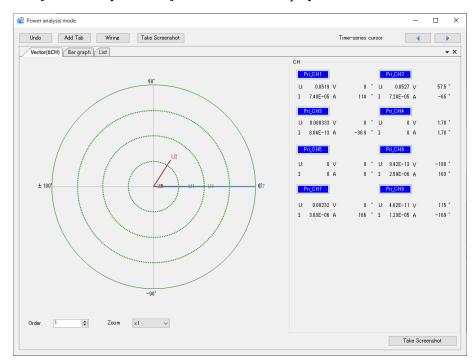
PW8001 measurement parameters are shown on the [Basic measurement parameters] and [Harmonic measurement parameters] tabs.

For optically synchronized data, primary-side measurement parameters are shown on the [Basic measurement parameters (Pri)] and [Harmonic measurement parameters (Pri)] tabs, while secondary-side measurement parameters are shown on the [Basic measurement parameters (Sec)] and [Harmonic measurement parameters (Sec)] tabs. (The PW8001's optically synchronized measurement function is

available in firmware versions Ver. 2.00 and later.)

Import Measurement Files				
Selected items: 62 / 512				
Normal MeasItems(Pri) Harmoni	ic Measltems(Pri)	Normal MeasItems(Sec)	Hai 🔸 🕨	21 ¢1 🛛
🛓 🔽 🔨 Urms				<ul> <li>Misc</li> </ul>
🖶 🔽 🔨 Umn				Count
📋 🔽 🔨 Uac				
🗄 🔽 🔨 Udc				
🗄 🔽 🔨 Ufnd				
Pupk				
🗄 🔽 🔨 Mupk				
🕀 🔽 🔨 Uthd				
🕀 🔽 🔨 Urf				
in the second s				
in the second s				
in a v V nind				
in v impr				
in vitera				
Pfnd				
🗄 🔽 🔨 s				
🗄 🔽 🔨 Sfnd				
🗄 🔽 🔨 Q				Count
🗄 🔽 🔨 Qfnd				
🖳 🔽 🔨 PF			•	
Preview time-series data after impo	rt			
💿 Yes 🔘 No				Import
		The measurement file w	as loaded	

4. The [Power analysis mode] window will be displayed.



#### Supported model(s)

Power Quality Analyzer PW8001

#### Notes

•This function button will not be displayed if the BIN file for the loaded PW8001 power quality analyzer measurement data does not contain harmonic data.

Harmonic data not saved in the BIN file will be treated as being in a "data empty" state and will not be displayed by the power analysis function. Only saved parameters and orders will be displayed.

•This function button will not be displayed if BIN files for multiple sets of PW8001 power quality analyzer measurement data have been selected in the data list.

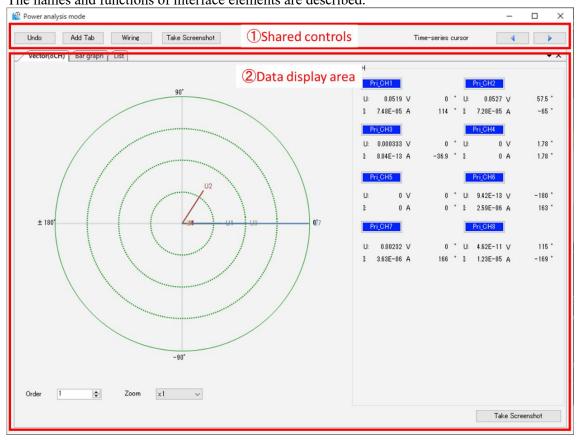
*•This function button will not be displayed if time-series measurement data created with GENNECT One was opened.* 

*•If the connection settings differ from the power quality analyzer's connection settings, the application will not be able to generate an accurate display. Wiring settings will be automatically applied for BIN files saved by PW8001 firmware Ver. 1.53 and later.* 

*Processing to open large files is time-consuming.* 

## Window Layout

The window layout shown below is used for power analysis mode. The names and functions of interface elements are described.

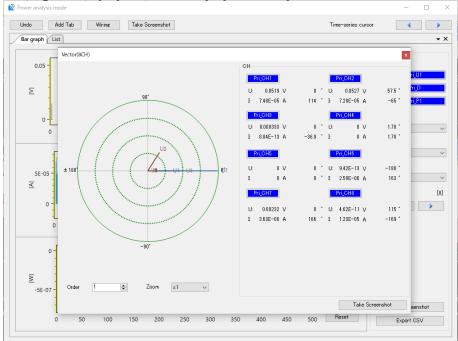


Name	Functionality	
(1) Shared controls	Displays shared controls for the [Power analysis mode] window.	
	Use these controls to configure connection settings, add data display tabs,	
	revert data display tabs to their previous positions, and make cursor	
	movements in the Time-series Viewer.	
	For more information, see the following:	
	Configuring connection Settings	
② Data display area	Displays harmonic data from the loaded power quality analyzer	
	measurement data.	
	The display includes harmonic vectors, harmonic bar graphs, and a list of	
	harmonic values. The harmonic data window can be positioned as desired.	
	For more information, see the following:	
	Viewing Harmonic Vectors	

#### Undocking a Data Display Tab from the Main Window

You can undock a data display tab from the main window and display it as a separate window.

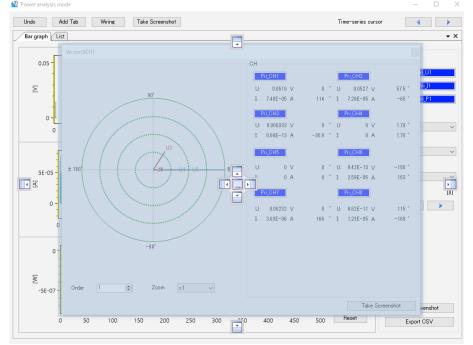
Click the data display tab you wish to display as a separate window and drop it onto the main window to create a floating data display tab that is displayed as a separate window.



#### Docking a Data Display Tab in the Main Window

You can dock a floating data display tab in the main window.

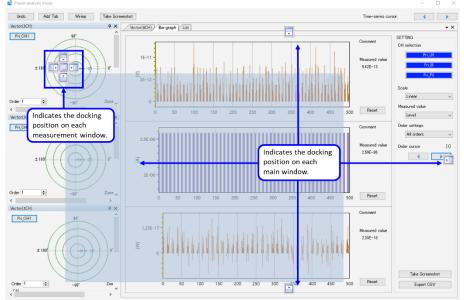
Drag a floating data display tab and drop it in the center of the main window to dock it in the data display area.



#### Specifying Where to Dock a Data Display Tab

You can specify where in the main window to dock a data display area tab.

Drag a data display area tab and drop it on the cursor shown in the main window to dock it at the desired position. You can position tabs freely by aligning the vector, bar graph, and list windows as you wish.



#### **Reverting Window Positions**

Click the [Undo] button in the shared controls to undock all docked and floating tabs and revert all data displays to tabs.

#### **Configuring connection Settings**

If the data shown in power analysis mode was saved by a PW8001 operating on firmware earlier than Ver. 153, you'll need to configure the wiring settings. If the settings differ from the power quality analyzer's wiring settings, the application will not be able to generate an accurate display. Wiring settings do not need to be configured for PW8001 firmware Ver. 1.53 or later since they will be applied automatically. 3. Proceed to the synchronization source settings.

1. Click the [Connection settings] button to configure the power quality analyzer's connection settings.

Name	Description
Primary (Pri)	Describes the channel configuration and associated data when making
	measurements with one PW8001.
Secondary	Describes the secondary channel configuration and associated data
(abbreviation:	when two PW8001s performed optically synchronized measurement.
Sec)	(The PW8001's optically synchronized measurement function is
	available in firmware versions Ver. 2.00 and later.)

 Once the [Connection settings] window opens, select the connection for each PW8001 channel with the [Wiring] field. Specify the connection corresponding to the loaded data.
 Only connections supported by the PW8001 can be specified (1P2W, 1P3W, 3P3W2M, 3V3A, 3P3W3M, and 3P4W).

СН	Wiring		Sync.Source	Comment
Pri_CH1	1P2W	~	U1	
Pri_CH2	1P2W 1P3W		U1	
Pri_CH3	3P3W2M		U1	
Pri_CH4	- 3V3A 3P3W3M		U1	
Pri_CH5	3P4W	~	U1	
Pri_CH6	1P2W	~	U1	
Pri_CH7	1P2W	~	U1	
Pri_CH8	1P2W	$\sim$	U1	

3. In the [Sync.Source] field, select the synchronization source for each connection selected in Step 2. The selected synchronization source will be displayed in the harmonic data display area.

Select synchronization source					
UNITs Option					
U1	U2	U3	U4		
U5	U6	U7	U8		
DC					
I1	I2	I3	I4		
15	I6	17	I8		

- You can enter comments concerning the selected connection in the [Comment] field.
   Entered comments will be shown on the bar graph screen.
   Maximum number of characters that can be entered: 50 Single-byte characters
- 5. Click the [OK] button to close the connection settings.

## Note

If the configured connections differ from the loaded data's connections, the application will not be able to generate an accurate display.

Adding a Data Displa	ıy Tab	
This section describes	the name and functionality of each data display area screen.	
Name and Icon	Functionality	
Vector (8)	Displays eight channels of voltage and current harmonic data as a vector	
	diagram and measured values.	
	Maximum number of additional tabs: 4	

 Vector (3)
 Displays three channels of voltage and current harmonic data as a vector diagram and measured values.

 Maximum number of additional tabs: 4

Bar graph	Displays harmonic data for each parameter as a bar graph. You can check measured values for specific orders using the cursor function. Maximum number of additional tabs: 3
List	Displays harmonic data for each parameter as a list of values. Maximum number of additional tabs: 3

- 1. Click the [Add Tab] button.
- 2. Click the button for the screen you wish to add on the window that opens.

Add tab			×
Vector	⊘8	⊘3	
Bar graph			
List			

3. The selected screen will be added to the data display area.

#### Saving the Displayed Screen (Screenshot)

This section describes how to save or copy the contents of the power analysis window to the clipboard as a PNG image.

- 1. Click the [Take Screenshot] button.
- 2. Select whether to save or copy the displayed screen.

Take Screenshot			×
Save Image(PNG)	Copy to Clipboard	Close	

#### **Controlling the Time-series Viewer Cursor**

The power analysis window displays the harmonic data at the Time-series Viewer cursor's position. You can control the Time-series Viewer's cursor from the power analysis window.

1. Click the  $[\bullet]$  or  $[\bullet]$  button for the Time-series Viewer cursor to move it.

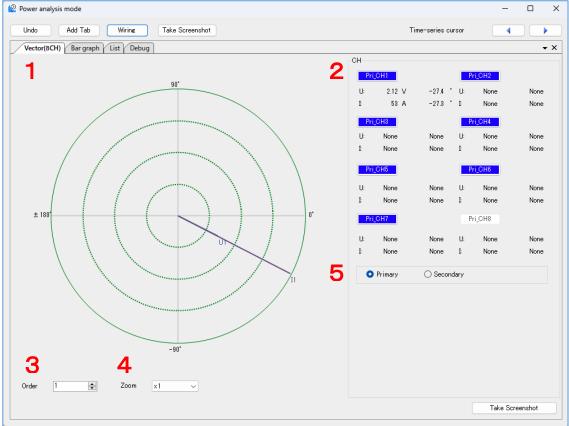
2. The data shown in the data display area will be updated to show the data at the Time-series Viewer cursor's position.

When the shared control buttons are selected, you can also control the Time-series Viewer's cursor using the left and right arrow keys on the keyboard.

#### **Viewing Harmonic Vectors**

The harmonic vector screen displays harmonic data measured with the power quality analyzer as a vector diagram.

Select [Vector] from the [Add Tab] button on the [Power analysis mode] window to add a [Vector] tab to the data display area.



- Select the [Vector] tab on the [Power analysis mode] window.
   [Vector8] represents a screen displaying voltage and current vectors as well as measured values for 8 channels, while [Vector3] represents a screen displaying voltage and current vectors as well as measured values for 3 channels.
- 2. You can change which channels are displayed by clicking the [CH] buttons.
  On the [Vector8] tab, turning off a CH button will hide the vectors for that channel.
  On the [Vector3] tab, turning off a CH button will hide the vectors for that channel.
- Specifying an order will display the voltage and current vectors as well as measured values for that order.
   Data cannot be displayed for orders that do not exist in the loaded data. (The screen will display "Data

Empty.")

- 4. You can change the size of the vectors in the vector diagram by selecting [Zoom].
- 5. If the loaded data consists of optically synchronized data, you can select whether to display the primary-side data or the secondary-side data. (PW8001 Ver. 2.00 or later)

### Viewing Harmonic Bar Graphs

The harmonic bar graph screen displays harmonic data measured with the power quality analyzer as a series of bar graphs.

Select [Bar Graph] from the [Add Tab] button on the [Power analysis mode] window to add a [Bar Graph] tab to the data display area.

You can enlarge a bar graph by dragging and dropping the mouse on top of it, and you can scroll a bar graph by moving the mouse cursor left or right while right-clicking on it.



- 1. Select the [Bar Graph] tab on the [Power analysis mode] window.
- Click a [CH selection] button to display the [CH selection] window.
   From the [CH selection] window, select the parameter for which to display a bar graph.

U1	U2	U3	U4	U5	U6	U7	U8
I1	12	13	I4	15	I6	17	18
P1	P2	P3	P4	P5	P6	P7	P8
P12	P23	P34	P45	P56	P67	P78	
P123	P234	P345	P456	P567	P678		

Selecting [OFF] will hide the bar graph.

You cannot set all three graphs to [OFF] at the same time.

You cannot select channels that do not exist on the PW8001.

## 3. Configure the [Scale] setting.

Option	Description
Linear	Generates a linear display. The display will include low levels.
	When [Phase angle] is selected for [Measured value], the vertical axis
	cannot be changed from [Linear].
Log	Generates a logarithmic display.

#### 4. Set the [Measured value].

Option	Description
Amplitude	Displays levels for each order's harmonics.
Content percentage	Displays each order's harmonics as percentages, where the fundamental wave component is 100%.
Phase angle	Displays the harmonic active power phase angle, defined as the difference between the harmonic current and voltage phases.

5. Select the order to display with [Order settings].

Option	Description
All orders	Displays all orders (0 to 500).
Odd orders	Displays the 0th order and odd orders 1 through 499.
Even orders	Displays the 0th order and even orders 2 through 500.

- 6. Move the order cursor displayed on the bar graphs with [Order cursor].
- [▶] button

Moves the order cursor to the right.

When the  $[\bullet]$  button is in the active state, you can move the order cursor to the right using the keyboard's right arrow key.

② **[◄**] button

Moves the order cursor to the left.

When the  $[\bullet]$  button is in the active state, you can move the order cursor to the left using the keyboard's left

arrow key.

## ③ Mouse operation

You can move the order cursor by aligning the mouse cursor with the order cursor and dragging and dropping it.

# 7. Display comments.

Comments specified under connection settings will be shown in this field.

## 8. [Reset]

Reverts any bar graphs that have been zoomed in or out to their initial zoom factor.

# > About Interharmonics

When the data is saved in IEC standard mode and there is interharmonic data,

The [Interarmonics] (ON/OFF) button is displayed on the bar graph screen.

When [ON] is selected, the RMS values of current and voltage, and the interharmonic components of the content are displayed in a light blue graph.

With the order cursor, the cursor moves in 0.5-order increments to check the values of the interharmonics.

Since there is no interharmonic measurement item in the power measurement item, only the harmonic components are displayed.

Also, when [Measured Value] is set to [Phase Angle], [Interharmonics] is set to [OFF].

## Viewing the Harmonic List display

The harmonic list screen displays harmonic data measured with the power quality analyzer as a list of values. Select [List] from the [Add Tab] button on the [Power analysis mode] window to add a [List] tab to the data display area.

[None] will be used for display and CSV output if there is no data to display in the loaded file.

Power analysis mode					>
Undo Add Tab Vector(8CH) Bar graph	Wiring Take Scr	eenshot		Time-series cursor	4
0:0[V]	1				SETTING
1 : 9.42E-13	11 : 3.3E-12	21 : 3.8E-12	31 : 4.16E-12	41 : 5.67E-12	2 <sup>CH</sup> Pri <u>.</u> CH6
2 : 3.77E-12	12 : 1.88E-12	22 : 3.88E-12	32 : 9.42E-13	42 : 7.6E-12	3 Item U ∽
3 : 4.21E-12	13 : 7.77E-12	23 : 4.21E-12	33 : 6.79E-12	43 : 1.88E-12	Level ~
4 : 7.6E-12	14 : 1.88E-12	24 : 3.77E-12	34 : 5.96E-12	44 : 4.21E-12	0 50 ∽ 6 Order settings
5 : 4.11E-12	15 : 1.41E-12	25 : 2.83E-12	35 : 7.6E-12	45 : 6.79E-12	All orders 🗸 🗸
6 : 1.88E-12	16 : 4.44E-12	26 : 7.54E-12	36 : 8.13E-12	46 : 1.41E-12	
7 : 1.88E-12	17 : 5.65E-12	27 : 9.42E-13	37 : 4.21E-12	47 : 3.3E-12	
3 : 2.66E-12	18 : 3.77E-12	28 : 5.96E-12	38 : 3.77E-12	48 : 1.88E-12	
9:3.77E-12	19 : 7.77E-12	29 : 6.79E-12	39 : 5.96E-12	49 : 2.66E-12	
10 : 1.88E-12	20 : 7.6E-12	30 : 3.88E-12	40 : 3.77E-12	50 : 7.77E-12	Z Export CSV

- 1. Select the [List] tab on the [Power analysis mode] window.
- Click a [CH selection] button to display the [CH selection] window.
   From the [CH selection] window, select the parameter for which to display the list.

SELECT CH							×
Primary Secondary							
Pri_CH1 Pri_CH2	Pri_CH3	Pri_CH4	Pri_CH5	Pri_CH6	Pri_CH7	Pri_CH8	

You cannot select channels that do not exist on the PW8001.

3. Set [U/I/P].

Options: U/I/P

4. Set the [Measurement parameter].

Option	Description
Amplitude	Displays levels for each order's harmonics.
Content percentage	Displays each order's harmonics as percentages, where the fundamental wave component is 100%.
Phase angle	Displays the harmonic active power phase angle, defined as the difference between the harmonic current and voltage phases.

5. Set the [Displayed orders].

Selects the orders to display on one screen. You can view data by scrolling horizontally. Options: 50/100/200

6. Select the order to display with [Order settings].

Option	Description
All orders	Displays all orders (0 to 500).
Odd orders	Displays the 0th order and odd orders 1 through 499.
Even orders	Displays the 0th order and even orders 2 through 500.

7. Exports the data as a CSV file.

Outputs the displayed harmonic parameters as a CSV file.

# About Interharmonics

When the data is saved in IEC standard mode and there is interharmonic data,

The [Interharmonics] (ON/OFF) button is displayed on the list screen.

When [ON] is selected, the RMS values of current and voltage, and the interharmonic components of the content are displayed next to the harmonic measurements.

Items for which the interharmonic list can be displayed are the RMS values of voltage and current and the content ratio.

When other items are selected, [Interharmonics] is set to [OFF].

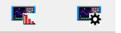
## Display harmonics graph/list and settings information for PW3360/PW3365 data

The following screens can be displayed when PW3360 and PW3365 data are included in the measurement data loaded by the Time- series Viewer from V5.70.

- •Harmonics graph/list (only if harmonic data is saved)
- ·Settings information at measurement

When each screen can be displayed, the following icons appear on the toolbar.

Click on the icon to display the screen. (Left: Harmonics graph/list icon, Right: Settings display icon)

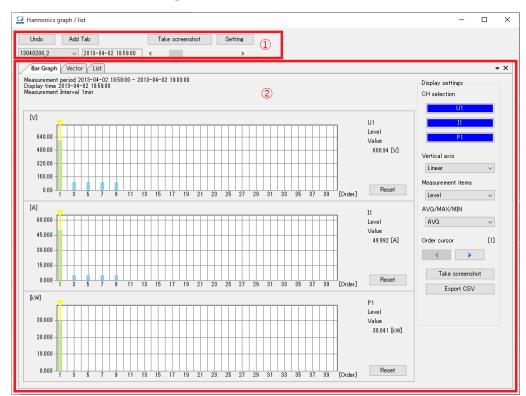


#### Harmonic graph/list screen

The Harmonics graph/list screen can display harmonic bar graphs, harmonic vector diagrams, and harmonic lists of PW3360/PW3365 measurement data.

This section describes the names and functions of each part of the screen.

\* The PW3360 series (with harmonic function) can measure harmonics up to 40th order, and the PW3365 series can measure harmonics up to 13th order.



Name	Function
① Common controls	This is the common control section of the Harmonics graph/list screen. In addition to selecting the data to be displayed and the display time, you can add data display tabs, undo the placement of data display tabs, take screenshots of the data display section, and configure screen settings.

	For more information, see the following: Common controls
② Data display area	<ul> <li>Displays the harmonic data of the PW3360/PW3365 measurement data that has been read.</li> <li>Bar graphs, vector diagrams, and lists can be displayed, and the harmonic data window can be positioned as desired.</li> <li>For more information, see the following:</li> <li>Data display area</li> </ul>

## **Common controls**

The following operations can be performed in the common settings section.

1 Undo	2 Add Tab		3	Take screenshot	4 Setting
<b>4</b> 8040208_2	~ 2013-	04-02 18:59:00 🄇	6		>

Name	Function
① [Undo] button	Clicking the [Undo] button undocks or unfloats the data display tabs and returns all data displays to the tabbed view. See below for docking and floating operation of the data display tabs. Undocking / Docking data display tabs
② [Add tab] button	<ul> <li>Bar graph, vector diagram, and list tabs can be added to the data display area.</li> <li>When the button is clicked, the Add Tab dialog is displayed, and when the button of the display tab you want to add is clicked, the selected tab is added to the data display area.</li> <li>Add tab</li> <li>We tor</li> <l< td=""></l<></ul>
③ [Take screenshot] button	Saves the entire tab of the currently displayed Harmonics graph/list screen as a PNG image or copies it to the clipboard. (This includes the display settings on the right side of the screen.) Please make your selection on the screenshot selection screen that appears when you click on the button.
④ [Setting] button	Opens the Harmonics graph/list screen display settings. For more information, see the following: <u>Display Settings</u>
<ul><li>Selection of Display</li><li>Data</li></ul>	<ul> <li>Select the data to be displayed in the Harmonics graph/list screen.</li> <li>The data that can be selected are subject to the following conditions.</li> <li>Data checked at the time of time series measurement data creation (when the Time Series Viewer is newly opened)</li> <li>PW3360 or PW3365 measurement data and harmonic measurement</li> </ul>

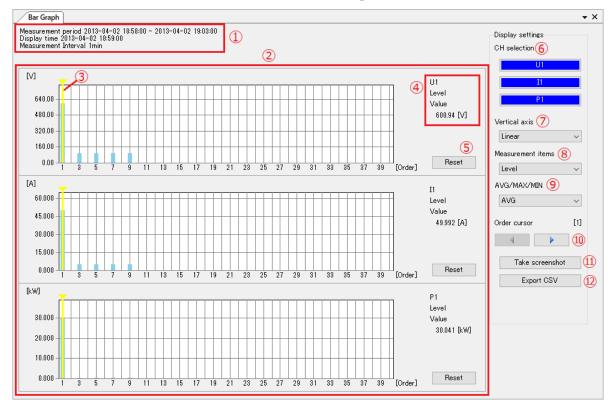
	data are saved
<ul><li>⑥ Display Time</li><li>Setting</li></ul>	Use the scroll bars to set the display time for the Harmonics graph/list screen. The scroll bar range is automatically set from the selected data. * It is not possible to set the display time by directly entering a numerical value. * Due to the specifications of PW3360/PW3365, the first time data may be blank.

## Data display area

The data display area can show harmonic bar graphs, harmonic vector diagrams, and harmonic lists. The functions are explained screen by screen.

• Harmonic bar graphs

Display the harmonic data at the time set in Display Time as the bar graph. This section describes the names and functions of each part of the screen.



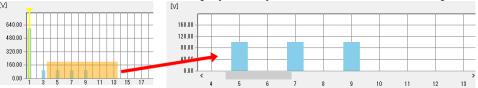
Name	Function
① Data information	Displays measurement data information (measurement period, display
	time, and measurement interval) for the currently displayed graph.
② Graph area	Displays harmonic graphs (Max. 3 graphs) for the measurement item
C	selected by CH selection.
	The graph can be zoomed in using the mouse. (*1)
	The vertical axis range setting for graphs, color specification, display
	auxiliary units, number of decimal places, and other settings are set on the
	Display Settings screen.
	Display Settings
③ Order cursor	The order cursor appears on the graph and displays the measured value of
	the selected order as the cursor value.
	The cursor can be moved by clicking on the order cursor button or on the

	graph. The cursor is displayed to the same order on all graphs, and can be shown or hidden in the [Cursor] menu that appears when right-clicking on a
	graph.
	* Hiding the cursor only makes the cursor line disappear, but the cursor value is still displayed.
④ Cursor value	Displays the measured value information (selected channel name, measurement item name, and measured value) for the order selected with the order cursor.
⑤ [Reset] button	Resets the graph to its initial state. You can return each graph to its initial state.
6 CH selection	You can show/hide the graph and switch the display channel. There are three CH selections, which are linked to the graph display position.
	Clicking on the CH selection display brings up the channel selection screen, so select the channel you wish to display. If OFF is selected, the corresponding graph will be hidden.
	Image: Non-Show/Hide of the graph is indicated by the background color of the CH
	<ul> <li>selection (Show: blue, Hide: white).</li> <li>U1</li> <li>U1</li> <li>U1</li> <li>Hide the graph</li> <li>* The channels that can be selected depend on the wiring settings at the</li> </ul>
	time of measurement.
⑦ Vertical axis	<ul> <li>When the measurement item is [Level] or [% of Fnd](content percentage), the vertical axis display of the graph can be set.</li> <li>The vertical axis setting is the same for all graphs.</li> <li>Linear : Displays on a linear axis.</li> </ul>
	• Log : Displays on a logarithmic axis. $M_{100000}$ $M_{10000}$ $M_{10000}$ $M_{10000}$ $M_{10000}$ $M_{10000}$ $M_{10000}$ $M_{10000}$ $M_{10000}$ $M_{10000}$ $M_{10000}$ $M_{10000}$ $M_{10000}$ $M_{10000}$ $M_{10000}$ $M_{10000}$ $M_{10000}$ $M_{10000}$ $M_{1000}$
	<ul> <li>Linear axis display</li> <li>* When the measurement item is [Phase] (phase angle), the display is fixed to Linear axis.</li> </ul>
8 Measurement item	<ul> <li>Measurement item can be set.</li> <li>The measurement item setting is the same for all graphs.</li> <li>Level: Displays the harmonic level.</li> </ul>
	<ul> <li>% of Fnd : Displays the harmonic content percentage.</li> <li>Phase : Displays the harmonic phase angle.</li> </ul>
(9) AVG/MAX/MIN	Displays the type of data (Average value (AVG) / Maximum value (MAX)

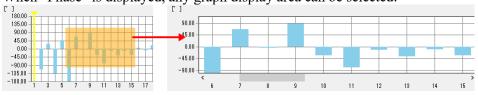
	<ul><li>/ Minimum value (MIN)).</li><li>When the measurement data storage setting is [Average Only], the setting is fixed to AVG.</li></ul>	
10 Order cursor	Operate button to move the cursor. The number in [] represents the order value currently indicated by the cursor.	
① [Take screenshot] button	Saves the contents of the currently displayed bar graph as a PNG image or copies it to the clipboard. Unlike the [Take screenshot] button at the top of the screen, only the graph display portion is saved and copied.	
<ul><li>(12) [Export CSV]</li><li>button</li></ul>	Unspire         Outputs the measured values of the currently displayed graph to CSV.           Output example :         #DataName, "13040208_2"           #DataTime, 2013-04-02_18:59:00"         #MeasuredItem, "Level"           #MeasuredItem, "Level"         Order, UI[V], 11[A], P1[LW]           1,600.94,49.992,30.041         2,0.12,0.004,0.000           3,100.15,5.008,0.494         4,0.02,0.002,-0.000	

#### \*1 How to zoom in on a bar graph with a mouse

Drag the mouse on the graph to zoom in on the graph display area. When "Level" or "% of Fnd" is displayed, only area selection based on 0 is possible.

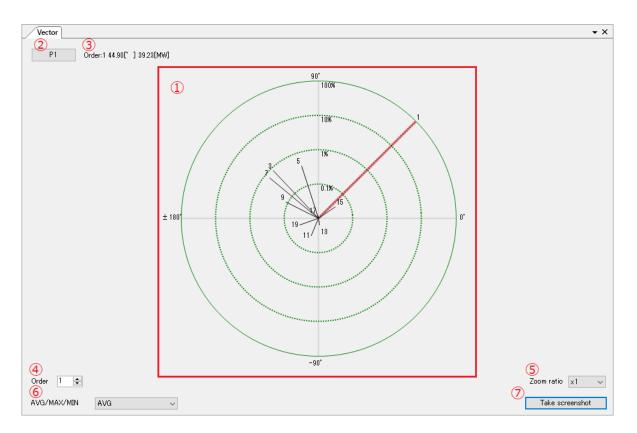


When "Phase" is displayed, any graph display area can be selected.



## • Harmonic vector diagrams

Display the harmonic data at the time set in Display Time as the vector diagram. This section describes the names and functions of each part of the screen.



Name	Function		
① Vector diagram area	<ul> <li>Displays a vector diagram according to the currently selected display time and CH selection.</li> <li>The display axis is the logarithmic axis, and the number displayed at the tip of the line represents the order.</li> <li>The color of the diagram, the display auxiliary units for the cursor value, and the number of decimal places can be set on the Display Settings screen.</li> <li>Display Settings</li> </ul>		
② CH selection	The display channel of the graph can be switched. Click CH Select Display to display the channel selection screen and select the channel you wish to display. CH selection × IIII IIIIIIIIIIIIIIIIIIIIIIIIIIIIIII		
③ Cursor value	Displays the measured value information (selected channel name, order, phase angle value, and level value) for the order selected with the order cursor.		
④ Specify the order	Select the order to highlight. The line representing the selected order is highlighted and displayed as a cursor value. * The highlighting cannot be hidden.		
5 Zoom ratio	Change the size of the vectors. "x1", "x10", and "x100" can be selected, and the outermost circle will be "100%", "10%", and "1%" respectively.		

6 AVG/MAX/MIN	Displays the type of data (Average value (AVG) / Maximum value (MAX) / Minimum value (MIN)). When the measurement data storage setting is [Average Only], the setting is
	fixed to AVG.
⑦ [Take screenshot]	Saves the contents of the currently displayed a vector diagram as a PNG image or copies it to the clipboard.
button	Unlike the [Take screenshot] button at the top of the screen, only the vector diagram display portion is saved and copied.

# • Harmonic lists

Display the harmonic data at the time set in Display Time as the numerical values.

This section describes the names and functions of each part of the screen.

	( <b>1</b> ) A	ctive power (SUM)			Active p	ower	>	Display settings
Order		Psum			P1		P2	CH selection (2)
	k₩	%	*	k₩	%	*	kW	🖂 СН1 🖂 СН2 🖂 СН3
1	-0.040	-100.00	-100.93	30.041	100.00	0.65	-30.08	
2	0.000	0.00	-86.01	0.000	0.00	-17.37	-0.00	Display items 3
3	0.001	2.17	-83.67	0.494	1.64	10.23	-0.49	Psum P
4	-0.000	-0.00	155.87	-0.000	-0.00	-176.40	0.00	⊡ u ⊡ I
5	0.002	4.27	-82.29	0.494	1.64	10.16	-0.49	Measurement items 4
6	-0.000	-0.00	155.48	-0.000	-0.00	-174.31	-0.00	🗹 Level
7	0.003	6.95	-80.91	0.494	1.65	10.11	-0.49	🗹 % of Fnd
8	-0.000	-0.00	122.35	-0.000	-0.00	178.84	0.00	🗹 Phase
9	0.004	9.32	-80.51	0.495	1.65	10.07	-0.49	avg/max/min (5)
10	-0.000	-0.00	-137.77	-0.000	-0.00	-150.42	0.00	AVG 🗸
11	-0.000	-0.00	168.83	-0.000	-0.00	-110.24	-0.00	Displayed orders 6
12	-0.000	-0.00	-122.42	-0.000	-0.00	-107.13	0.00	40
13	0.000	0.00	-65.07	-0.000	-0.00	153.90	0.00	
14	-0.000	-0.00	-104.57	-0.000	-0.00	-102.91	0.00	Order settings (7)
15	-0.000	-0.00	92.43	0.000	0.00	26.33	-0.00	All orders ~
16	0.000	0.00	-57.06	-0.000	-0.00	-130.86	0.00	THD Display ( 8)
17	0.000	0.00	-82.97	0.000	0.00	48.32	-0.00	None 🗸 🗸 🗸 🗸
18	0.000	0.00	-13.99	0.000	0.00	32.52	-0.00	Take screenshot
19	-0.000	-0.00	-100.38	-0.000	-0.00	153.63	0.00	
20	-0.000	-0.00	153.06	-0.000	-0.00	-107.32	0.00	Export CSV
21	-0.000	-0.00	124.15	-0.000	-0.00	132.54	0.00	
22	0.000	0.00	35.94	0.000	0.00	54.63	-0.00	
23	0.000	0.00	-86.21	0.000	0.00	6.76	-0.00	
24	0.000	0.00	-54.97	0.000	0.00	36.16	0.00	
25	-0.000	-0.00	-179.77	-0.000	-0.00	-102.25	-0.00	
<							*	

Name	Function
① List area	Displays a list according to the currently selected display time and display settings.
	The lists are presented in the following order
	• Display items are displayed in the order of Psum/P/U/I.

		• Channels are displayed in the order of CH1/CH2/CH3 in the Display items.
		• Measurement items are displayed in order of "Level" / "% of Fnd" / "Phase" in the Display items / Channels.
		Settings such as display auxiliary units and the number of decimal places
		are set on the Display Settings screen.
		Select the channels you wish to display.
2	CH selection	Psum (Active power (sum)) is not affected by CH selection.
		* The channels that can be selected depend on the wiring settings at the
		time of measurement.
		* If all checks are unchecked, the list will be blank.
3	Display items	Select the display items you wish to display.
$\odot$	Display Items	Items can be selected from Psum (Active power (sum)), P (Active power),
		U (Voltage), and I (Current).
		* The channels that can be selected depend on the wiring settings at the
		time of measurement.
		* If all checks are unchecked, the list will be blank.
4	Measurement items	Select the measurement items you wish to display.
<u> </u>		Items can display "Level" (harmonic level), "% of Fnd" (harmonic content
		percentage), and "Phase" (harmonic phase angle), and the column names
		of the items are expressed in units.
		* If all checks are unchecked, the list will be blank.
5	AVG/MAX/MIN	Select the type of data (Average value (AVG) / Maximum value (MAX) /
		Minimum value (MIN)).
		When the measurement data storage setting is [Average Only], the setting
		is fixed to AVG.
6	Displayed orders	Select the maximum number of orders to be displayed in the list.
		* The maximum number of displayed orders that can be selected depends
$\sim$		on the data read.
$\bigcirc$	Order settings	When the measurement item is [Level] or [% of Fnd](content percentage), the vertical axis display of the graph can be set.
		The vertical axis setting is the same for all graphs.
		<ul> <li>All orders : Displays all orders.</li> </ul>
		<ul> <li>Odd orders : Displays only odd-numbered orders.</li> </ul>
		<ul> <li>Even orders : Displays only even-numbered orders.</li> </ul>
	THE 1' 1	Select whether to display THD-F/THD-R values in the list.
8	THD display	None: THD value is not displayed.
		<ul> <li>Upper side : Displays THD values in the top row of the list.</li> </ul>
		<ul> <li>Lower side : Displays THD values in the top tow of the list.</li> <li>Lower side : Displays THD value in the bottom row of the list.</li> </ul>
		The THD value is displayed in the "% of Fnd" column of the U/I item.
		Order         U1         I1           V         %         *         A         %         *
		THD-F         3335         20.04
		1 600.94 100.00 0.00 49.992 100.00 0.65
		2         0.12         0.02         -111.42         0.004         0.01         89.84           3         100.15         16.67         29.31         5.008         10.02         39.54
		* Only one of THD-F/THD-R is displayed according to the setting at the
		time of measurement.
$\bigcirc$	[Talza general +1]	Saves the contents of the currently displayed list as a PNG image or copies
9	[Take screenshot]	it to the clipboard.
	button	Unlike the [Take screenshot] button at the top of the screen, only the list
		display portion is saved and copied.
(10)	[Export CSV]	Outputs the measured values of the currently displayed list to CSV.
UU)		Output example :
	button	- *

#DataName.″13040208_2″ #DataTime.″2013-04-02_18:59:00″
#MeasuredValue, "AVG" Order,Active power (SUM),,,Active power,,,,,,Voltage,,,Current,,,,,,,,,
Psum,,,P1,,,P2,,,U1,,,I1,,,I2,,,I3,,,
, kw,%, `, kw,%, `, kw,%, `, k,%, `, k,%, `, A,%, `, A,%, `, A,%, ` 1,-0.040,-100.00,-100.93,30.041,100.00,0.65,-30.081,-100.00,-178.96,600.94,1
2,0.000,0.00,-86.01,0.000,0.00,-17.37,-0.000,-0.00,-114.57,0.12,0.02,-111.42 3,0.001,2.17,-83.67,0.494,1.64,10.23,-0.493,-1.64,-168.87,100.15,16.67,29.31

## **Display Settings**

Various settings related to the display of the Harmonics graph/list screen can be made on the screen displayed by clicking the [Settings] button.

The [Upper], [Middle], and [Lower] tabs are settings for each harmonic bar graph.

The [Vector] tab is for vector diagrams, and the [Common] tab is for settings common to all displays. Setting items are described for each screen.

• Common to all screens

This section describes the behavior common to all tabs when a button is clicked.

Button name	Description		
[Initialize] button	Clicking the button will display a message confirming that you want to initialize		
	the settings of the tabs displayed.		
	Information × Initialize the selected tab [Upper]. Are you sure? OK キャンセル		
	Clicking the [OK] button on the message screen will initialize the settings for the tabs displayed. * You must click the [OK] button in the lower left corner of the screen to		
	confirm the change.		
[OK] button	Clicking the button closes the screen, reflecting the settings changed in all tabs.		
[Cancel] button	Clicking the button closes the Graph settings screen without reflecting the		
	changed settings.		

• [Upper], [Middle], [Lower] tab

The display settings can be changed for each graph in the harmonics bar graph display. All setting items in the [Upper], [Middle], and [Lower] tabs are the same. Clicking on the color (line color) display area displays the color setting screen. Each setting is described below.

Setting	×
Upper Middle Lower Vector Common	
Bar graph color setting	
Off-Graph Area	
Background	
Bar graph	
Grid lines (Vertical axis) ☑ ☑ Display	
Grid lines (Horizontal axis)	
Cursor	
Reference line	
Color Display	
Value 0.00	
Vertical axis range	
Automatic	
Upper limit 0.00	
Initialize OK Cancel	1
	-

Settings		Description
Bar graph color setting	Off-graph Area	Sets the color around the graph display area.
	Background	Sets the background color of the graph.
	Bar graph	Sets the color of the bar graph.
	Grid lines	Sets the color of the vertical axis grid lines.
	(Vertical axis)	When the [Display] checkbox is checked, the grid line is displayed.
	Grid lines	Sets the color of the horizontal axis grid lines.
	(Horizontal axis)	When the [Display] checkbox is checked, the grid line is displayed.
	Cursor	Sets the cursor color.
Reference line	Color	Sets the color of the reference line.
		When the [Display] checkbox is checked, the reference line is displayed.
	Value	Specifies the position of the reference line.
		Specifies the numerical value of the vertical axis excluding units and auxiliary units.
Vertical axis range	Automatic	On: The vertical axis display range is automatically calculated and determined from the data.
		Off: The vertical axis display range is fixed to the value specified for the upper limit.
	Upper limit	Specify the vertical axis display range when the Automatic checkbox is unchecked.
		Specifies the numerical value of the vertical axis excluding units and auxiliary units.
		When "Level" (harmonic level) or "% of Fnd" (harmonic content percentage) is displayed and
		the graph is drawn on the minus side, set the lower limit value to the minus value specified for
		the upper limit value.
		When "Phase" (harmonic phase angle) is displayed, the lower limit value is the minus value of
		the value specified in the upper limit value.

# • [Vector] tab

The display settings for harmonic vector diagrams can be changed. Clicking on the color display area displays the color setting screen.

## Each setting is described below.

Setting	×
Upper Middle Lower Vector Common	
Background color	
Line color of circle	
Vector color	
Color of selected vector	
Text color of scale	
Text color of order	
Initialize OK Capcel	
Initialize OK Cancel	

Settings	Description
Background color	Sets the background color of a vector diagram.
Line color of circle	Sets the color of the circular line of the vector diagram.
Vector color	Sets the color of the vector line.
Color of selected vector	Sets the highlight color of the cursor-selected vector line.
Text color of scale	Sets the scale text color.
Text color of order	Sets the text color of the order.

## • [Common] tab

The display settings for the numerical notation that affects all of the Harmonic graph/list screens can be changed.

Graph axis display, cursor value display, list display values, CSV output format, etc. are linked. Each setting is described below.

Setting	×
Upper Middle Lower Vector [ Measured value	Common
Power level (P Level) Number of decimal places Auxiliary unit	2 🔹 None 🗸
Voltage level (U Level) Number of decimal places Auxiliary unit	2 🚖
Current level (I Level) Number of decimal places Auxiliary unit	2 🔹
Content percentage (% of Fru Number of decimal places	d) 2
Phase angle (Phase) Number of decimal places	2
Initialize	OK Cancel

Settings		Description		
Automatic		On: Automatically determines the number of decimal places and auxiliary units.		
		Off: Displays the number of decimal places and auxiliary units in the specified format notation.		
Power level	Number of decimal	Specifies the number of decimal places of the number displaying "P Level".		
(P Level)	places			
	Auxiliary unit	Specifies the auxiliary unit of the number displaying "P Level".		
Voltage level	Number of decimal	Specifies the number of decimal places of the number displaying "U Level".		
(U Level)	places			
	Auxiliary unit	Specifies the auxiliary unit of the number displaying "U Level".		
Current level	Number of decimal	Specifies the number of decimal places of the number displaying "I Level".		
(I Level)	places			
	Auxiliary unit	Specifies the auxiliary unit of the number displaying "I Level".		
Content percentage	Number of decimal	Specifies the number of decimal places of the number displaying "% of Fnd".		
(% of Fnd)	places	* Auxiliary units cannot be specified for "% of Fnd".		
Phase angle	Number of decimal	Specifies the number of decimal places of the number displaying "Phase".		
(Phase)	places	* Auxiliary units cannot be specified for "Phase".		

## Undocking / Docking data display tabs

The Harmonics graph/list screen allows data display tabs to be separated (floating) or incorporated (docking) in the same way as the PW8001 Power Analysis screen.

See below for details on how it operates.

- Undocking a Data Display Tab from the Main Window
- **Docking a Data Display Tab in the Main Window**
- Specifying Where to Dock a Data Display Tab

# View POWER ANALYZER CSV Data (PW Assistant)

•PW Assistant is a dedicated viewer for CSV data from the Power Analyzers PW3390, PW6001, and PW8001.
•PW Assistant allows you to create graphs using Microsoft Excel from the CSV data saved by the power analyzers PW3390, PW6001, and PW8001. In order to view graphs using Microsoft Excel, you need to have Microsoft Excel installed on your computer.

• In order to view the power analyzer CSV data in "PW Assistant", the version of GENNECT One needs to be V4.30 or later.

#### Notes

•Microsoft Excel is a registered trademark or a trademark of Microsoft Corporation in the United States and other countries.

•CSV data saved or edited by other than Power Analyzer cannot be read by PW Assistant.

•The maximum size of CSV data that can be opened by PW Assistant is 500MB. It is not possible to open data larger than that. Also, when opening large files in Microsoft Excel, it will take some time to process the data.

## **Open Measurement Data**

Select the CSV data of the measurement data measured by the power analyzer (PW3390, PW6001, and PW8001) and make the necessary settings for graph display, and the graph of the measurement data will be displayed in Microsoft Excel.

1. Select [Data] and a data group, then select [Power Analyzer measurement data] by checking data on the data list, and click [Open] button.

HIOKI GENNECT One Import(I) Settings(S) I Data Functions	anguage(L) Window(W) Information(H) Console Launcher	×
Data	Show cheked items Gr≠ Search Input text separated by space Filter Gr≠ All Period All All Itist List	Information 4 > Type Power Analyzer n Title W800100100.CSV
🐱 📩	Type Date Time Title Comment Search Tag Model	Additional Informa
Root	Power Analyzer 2021-11-19 10:26:12 W800100100.CS No Comments Click here to set se PW8001-15	Search Tag
- Horenegonized	▼ 2021-11-18 (1 item)	
	Power Analyzer 2021-11-18 20:50:23 F33900~1.CSV( No Comments Click here to set se PW3390-01	Model PW8001-15
	· · · · · · · · · · · · · · · · · · ·	Serial Number
		210651562 Instrument
	▼ 2021-11-09 (1 item)	PW8001-15#210 Date
	2021-11-05 (Titlefin)     Power Analyzer 2021-11-09 13:18:20 W800100000.CS No Comments Click here to set se PW8001-15	2021-11-19
	▼ 2021-11-08 (5 items)	Time 10:26:12
	Power Analyzer 2021-11-08 12:44:09 F3390000.CSV(J No Comments Click here to set se PW3390-01	<
	Power Analyzer 2021-11-08 11:02:57 11080400.CSV( 2021/11/08 11:0 Click here to set se PW3390-01	
	Power Analyzer 2021-11-08 10:01:17 11080300.CSV( 2021/11/08 10:0 Click here to set se PW3390-01	
	Power Analyzer 2021-11-08 09:29:38 11080200.CSV( 2021/11/08 09:2 Click here to set se PW3390-01	
	Power Analyzer 2021-11-08 09:25:18 11080100.CSV[ 2021/11/08 09:2 Click here to set se PW3390-01	
	▼ 2021-10-29 (1 item)	
	Power Analyzer 2021-10-29 14:41:45 10290000.CSV( 2021/10/29 14:4 Click here to set se PW3390-01	
	✓ 2021-10-27 (2 items)	
	Open Export Delete	
	Cancel 26	

2. The setting screen is displayed in [PW Assistant]. Set the graph display contents.

PW Assistant		- 🗆 X		
Graph Settings_11100000.CSV				
<ol> <li>Graph Type</li> </ol>	Line Graph(0)	Bar Graph(0)		
	∎ Urms ^	∎-□Urms ^		
	⊕⊡Umn	∎-□Umn		
	⊪⊡Uac	Uac		
	⊪⊡Uunb	Uunb		
	∎⊡Irms	∎⊡Irms		
<ol> <li>Axis X</li> </ol>	Arrange the time axis at	equal		
Data Section	2021/11/10 13:09:39 ~ 2	2021/11/10 13:09:51		
③ Output range	Start 2021/11/10 13:09:39			
	Stop 2021/11/10 13:09:51	in the second se		
	4 5	6		
	Create a graph Add a	CSV File Open CSV File		

① Set the type of the graph.

The maximum number of graphs that can be displayed is 16 for both [Line graph] and [Bar graph]. You cannot select more than 16 items.

② Set the X axis.

Checking [Arrange the time axis at equal] will display a graph with a constant time interval for the X-axis setting when the measurement data saved by the power analyzer is manually saved data. Applies when the selected graph is a line graph only.

③ Set the Output range.

The set section is the graph display range and CSV output range. Both the start time and stop time cannot be set outside the displayed data section.

④ [Create a graph] button

After setting ① to ③, click this button to launch Microsoft Excel and create a new Excel book. A new Excel book will be created and the graph will be displayed.

In the [Data] sheet, copy the data from the imported CSV file.

In the [Graph] sheet, create and display a graph based on the settings in the Graph Settings column.

#### Notes

The graph display function creates and displays a graph in Microsoft Excel. You need to have Microsoft Excel installed on your computer to use this function.
Some items in the output data, such as Status data, will not be copied.

5 [Add a CSV File] button

After setting ① to ③, click this button to output the measurement items selected in the graph type and the data range set in the graph display section to a CSV file.

#### Notes

•Some items in the output data, such as Status data, will not be copied.

6 [Open CSV File] button

Copy the CSV data selected in the PW Assistant to the specified location and open it in the CSV viewer.

## **Open Waveform Data**

Select the CSV data of the waveform data, FFT data, and noise data measured by the power analyzer (PW3390, PW6001, and PW8001), and select the items required for graph display to display the graph of the measurement data in Microsoft Excel.

9. Select [Data] and a data group, then select [Power Analyzer waveform data] by checking data on the data list, and click [Open] button.

HIOKI GENNECT One		– 🗆 🗙
Import(I) Settings(S) L	Language(L) Window(W) Information(H)	
Data Functions	Console Launcher	
Data V	Show cheked items OF Search Input text separated by space Filter OF All Period All All Itst V I + -	Information 4 × Type Power Analyzer me Title
🔜 😠	Type Date Time Title Comment Search Tag Model ^	W800100100.CSV ( Additional Informat
Not categorized	Power Analyzer 2021-11-19 10:26:12 W800100100.CS No Comments Click here to set se PW8001-15	Search Tag
- norcategonica	▼ 2021-11-18 (1 item)	
	Power Analyzer 2021-11-18 20:50:23 F33900~1.CSV[ No Comments Click here to set se PW3390-01	Model PW8001-15 Serial Number
	2021-11-10 (1 item)     Power Analyzer 2021-11-10 13:09:39 11100000.CSV( 2021/11/10 13:0 Click here to set se PW3390-01	210651562 Instrument PW8001-15#21065
	2021-11-09 (1 item)     Power Analyzer 2021-11-09     13:18:20     W800100000.CS No Comments     Click here to set se PW8001-15	Date 2021-11-19 Time
	✓ 2021-11-08 (5 items)	10:26:12
	Power Analyzer 2021-11-08 12:44:09 F3390000.CSV(J No Comments Click here to set se PW3390-01	<
	Power Analyzer 2021-11-08 11:02:57 11080400.CSV( 2021/11/08 11:0 Click here to set se PW3390-01	
	Power Analyzer         2021-11-08         10:01:17         11080300.CSV(         2021/11/08         10:01:01         Power Analyzer         2021-11-08         09:29:38         11080200.CSV(         2021/11/08         09:20:         Click here to set set.         PW3390-01	
	Power Analyzer 2021-11-08     09:25:18     11080100.CSV( 2021/11/08 09:2 Click here to set se PW3390-01	
	✓ 2021.10-29 (1 item)	
	Power Analyzer 2021-10-29 14:41:45 10290000.CSV[ 2021/10/29 14:4 Click here to set se. PW3390-01     V 2021-10-27 (2 items)     V	
	Open Export Delete	
	Cancel 26	

10. The setting screen is displayed in [PW Assistant].

Set the graph display contents.

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BW Assistant		_		х
Graph Settings_W800100100.CSV				
	W8001-15 IG SPEED 15 MHz 5000			
<ol> <li>Graph Type</li> </ol>		Bar Graph(0)	<b>^</b>	
	2     3       Create a graph     Add a CSV	(4) V File Open CSV	File	

④ Set the type of the graph.

The maximum number of graphs that can be displayed is 16 for both [line graphs] and [bar graphs]. You cannot select more than 16 items.

(5) [Create a graph] button

After setting ①, click this button to launch Microsoft Excel and create a new Excel book.

A new Excel book will be created and the graph will be displayed.

In the [Data] sheet, copy the data from the imported CSV file.

In the [Graph] sheet, create and display a graph based on the settings in the Graph Settings column.

## Notes

•The graph display function creates and displays a graph in Microsoft Excel. You need to have Microsoft Excel installed on your computer to use this function.

6 [Add a CSV File] button

After setting ①, click this button to output the measurement items selected in the graph type and the data range set in the graph display section to a CSV file.

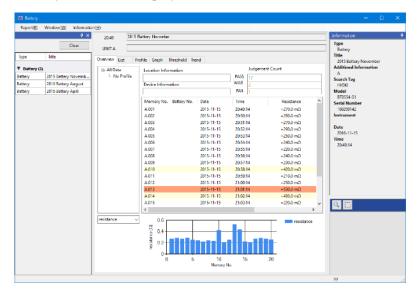
## ⑦ [Open CSV File] button

Copy the CSV data selected in the PW Assistant to the specified location and open it in the CSV viewer.

# View Battery data

# Open data

- 1. Select [Data] and a data group, then select [Battery] data by checking data on the data list.
- 2. [Battery] window is displayed.



## Add data

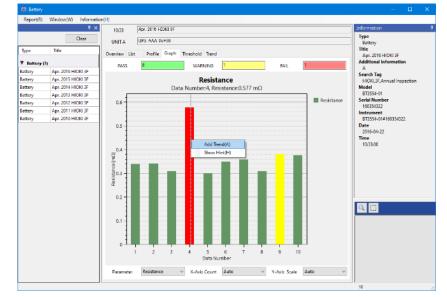
1. Select [Data] and a data group, then select [Battery] data by checking data on the data list.

Туре	Date	Time	Title	Comment	Search Tag	Model
▼ 2016-11	-15 (1 item)					
Battery	2016-11-15	20:49:14	2015 Battery Nove	No Comments	HIOKI	BT3554-01
▼ 2016-08	-10 (1 item)					
Battery	2016-08-10	20:49:14	2016 Battery Aug	HIOKI B3F	HIOKI	BT3554-01
▼ 2016-04	-18 (5 items)					
	-18 (5 items) 2016-04-18	20:49:14	2016 Battery Aplil	HIOKI B3F	HIOKI	BT3554-01
Battery	2016-04-18	20:49:14 17:04:31	2016 Battery Aplil Memo	HIOKI B3F No Comments	Click here to set TA	
✓ Battery ✓ Memo Im	2016-04-18 age 2016-04-18					BT3554-01 No model informati CM4372,BT3554-01
<ul> <li>Battery</li> <li>Memo Im</li> </ul>	2016-04-18 age 2016-04-18	17:04:31	Memo	No Comments	Click here to set TA	No model informati.

- 2. Drag and drop the checked data to [Battery] window.
- 3. Data is added to the data management list in [Battery] window.

	Clear		
Туре	Title		
▼ Memo Image (1)			
Memo Image	Memo		
▼ Battery (4)			
Battery	2015 Battery November		
Battery	2015 Battery November		
Battery	2016 Battery August		
Battery	2016 Battery Aplil		

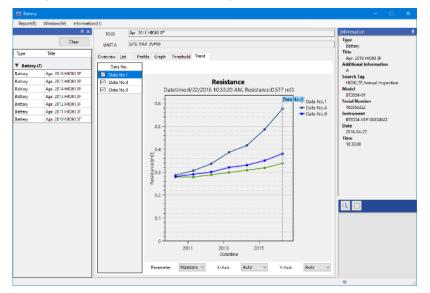
#### Check the trend of the measured data



1. Select [Add Trend] in the right-click menu of the graph in [Graph] tab.

\*You can also select [Add Trend] in the right-click menu of the measured data list in [List] tab.

2. Select [Trend] tab. The measured values of the selected data number are displayed in time series for all the battery data that are read into [Battery] window.



\*In the example above, you can understand that the resistance value of the data number 4 increases gradually as time process.

\*To check the trend of the measured data, you need to load more than two [Battery] measurement results that are measured in different times.

\*To check the trend of the battery cell, the measurement results loaded need to be of the identical battery block.

# **Create Battery Data Report**

1. Select one data in the data management list of [Battery] window.

	Clear
Туре	Title
Memo Image	(1)
Memo Image	Memo
-	Wento
Battery (3)	Mento
-	2015 Battery November
Battery (3)	

\*Select [Battery] data to create report. All the images loaded in the [Battery] window are also available in [Create Report] window.

2. Select [Report]-[Create Report] in the menu.



- 3. [Create Report] window is displayed. Set the cover format of the report in [Cover Format].
- 4. Set the type of list and graph to output in [Data], [Graph] and [Trend Graph].
- 5. To include images loaded in [Battery] window on report, add images from [list of images] to [Images to add the report].

tting Data Se	ection Display		
Cover Format	ection Display		
Cover Format	-		
Subtitle	Measurement Report		
	No subtitile		
Destination	Japan Power		
Author	HIOKI		
ogo Image			
Default (HIOKI	Logo)	Edit	Clear
Data			
Resistance	☑ Voltage	Temperature	
Graph			
Resistance	Voltage	Temperature	
Trend Graph			
Resistance	Voltage	Temperature	
Images			
List of images	Images to add the report		
No title	No title		
cm			
	>		
	<	memo	
		men"	
		V'	

6. Select the data on the [Data Selection] tab.

😫 Create Report		- 🗆	×
Setting Data Selection Display			
Selected Item(s) Battery Data #1 data without profile	Select dataset to draw Graph and Trend Data display option(s) Battery Data #1 Onit empty data Onit empty data	o one list	
<ul> <li>Battery Data ≠2</li> <li>Lata without profile</li> <li>Battery Data ≠3</li> <li>Lata without profile</li> <li>Battery Data ≠4</li> <li>Lata without profile</li> <li>Battery Data ≠5</li> <li>Lata without profile</li> <li>Battery Data ≠6</li> <li>Lata without profile</li> <li>Battery Data ≠7</li> <li>Lata without profile</li> <li>Battery Data without profile</li> <li>Battery Data without profile</li> <li>Battery Data without profile</li> </ul>	Battery Data ≠1       "bt" @2017-01-19 11:23:16         Profile No.       Location Info.         Ørefile No.		<
	Battery Data #2     "No title" @2017-01-13 11:12:34       Profile No.     Location Info.       Device Info.		
Items Count: 7 / 20	Battery Data #3 "No title" @2016-11-11 16:35:38 Profile No. Location Info. Device Info.		~
< Back	Close	Next >	

7. Select [View] tab. After a little while, the preview of the report is displayed.

😫 Create Report		×
Setting Data Selection Display		
[K 4 1 of 8 ▶ №   + ⊗ 🚱   🖳 - 100% - Find   Next		
		^
Japan Power		
Measurement Report		
HIOKI		
ΗΙΟΚΙ		
HIUKI		
< Back Close	Next	

8. Click [Export] button and choose the export format. After selecting the export destination, the report is exported.

😫 Create Report		
Setting Data Selection Display		
4 4 1 of 8 ▶ ▶   4 ⊗ ③ ↓   100% - Find   Next		
Excel		^
PDF		
Word		

\*You can choose from three formats: Excel, PDF, and Word.

# View Data Acquired with GENNECT Cross

You can view data acquired with the HIOKI mobile app GENNECT Cross for field measuring instruments and create reports using GENNECT One.

Note: Data must be imported into GENNECT One beforehand. For details, please refer to the following.

Import Data

Viewer Name	Supported Data Formats (Types)	Notes
HOK Viewer	Event records, Harmonic analysis, Harmonic analysis logging, Photos/photographic measurements, Illuminance measurements, Electricity theft checks, Vector, Pass/Fail	(*1) PC internet connection is required
	judgment	
General	General measurements, Image data	View General Measurement data
Measurement		
Viewer		
Battery Viewer	Battery, Image data	View Battery data
Logging Viewer	Logging (GENNECT Cross format), Image data	<u>View Logging (GENNECT Cross</u> <u>format) data</u>

Note: If you select image data (such as photos or drawing measurements) not listed in the table, the default viewer on your PC will open.

# View General Measurement data

 Select [Data] and a data group, then select [General Measurement] data by checking data on the data list. Click [Open] button.

1

Туре	Date	Time	Title	Comment	Search Tag	Model
▼ 2016-11-15 (1 ite	m)					
Battery	2016-11-15	20:49:14	2015 Battery Nov	No Comments	HIOKI	BT3554-01
▼ 2016-08-10 (1 ite	m)					
Battery	2016-08-10	20:49:14	2016 Battery Aug	HIOKI B3F	HIOKI	BT3554-01
▼ 2016-04-18 (6 ite	ms)					
Battery	2016-04-18	20:49:14	2016 Battery Aplil	HIOKI B3F	HIOKI	BT3554-01
Memo Image	2016-04-18	17:04:31	Memo	No Comments	Click here to set TA	No model informati
Logging	2016-04-18	14:15:01	No Title	No Comments	Test	CM4372,BT3554-01
Logging	2016-04-18	14:15:01	No Title	No Comments	Test	CM4372,BT3554-01
📝 General Measureme	ent 2016-04-18	14:13:14	HIOKI B3F	No Comments	Test	CM4372,BT3554-01
📝 General Measureme	ent 2016-04-18	14:13:14	HIOKI B3F	No Comments	Test  HIOKI	CM4372,BT3554-01

2. [General Measurement] window is displayed.

レポート( <u>R</u> )		4.5		14:13 HIDK	1 B2F							
	[	017	No.	日付	0410	36/F		根語-8	No.	18K		947 
917	知由			2816-04-18	14.13.14			CM4372#150723856	1	0.0	πV	81FA
212	21138		2	2016-04-18	14:13:15			BT3554-11#160233142				HEOKI B2F SHIDHANG
▼ メモ病保(1)			8	2016-04-18	14 18:25							20.00100.000
代面換	Memo		4	2016-04-18	14 18:27							キーワード
-			5	2016-04-18	141828							Test 距名
7 儒学譜定(7)	100.10		6	2016-04-18	141829							CM4372.8T3554-01
3月年	HIOKI BS		7	2016-04-18	141830							製造番号
<b>洋利定</b>	mJUKI BS	-	8	2016-04-18	141831							150721856,160259142
			9	2016-04-18	141832							CM4372#150723855.BT1554-01#160295
			10	2018-04-18	141333							日付
			11	2018-04-18	14:13:34							2018-84-18
			12	2018-04-10	14:12:35		_					14:13:14
			13	2016-04-10	14:13:35		-1					
			14	2016-04-18	14:13:38							
			15	2016-04-18	14:13:37							
			16	2016-04-18	14:13:38		-1					
			17	2016-04-18	14:13:40		-1					
			18	2016-04-18	14:13:41		-1					a, iii
			19	2016-04-18	141842		-1					
			20	2016-04-18	14 18 43		-1					
			21	2016-04-18	141344		-1					
			22	2016-04-18	14 13 44		-1					
			28	2016-04-18	14:13:45	-	-1					
			24	2016-04-18	14:1345		-1					
			25	2016-04-18	14:13:47		-1					
			20	2018-04-10	14:13:49		-1					
			27	2018-04-10	14:13:49	-	-1					
						-	-1					
			29	2016-04-18	14:13:51		-1					

# Add data

- 1. Select [Data] and a data group, then select [General Measurement] data by checking data on the data list. Drag and drop the checked data to [General Measurement] window.
- 2. Data is added to the data management list in [General Measurement] window.

Title
Memo
HIOKI B3F
HIOKI B3F
HIOKI B3E

# **Create General Measurement Data Report**

1. Select one data in the data management list of [General Measurement] window.

	Į×
	Clear
Туре	Title
Memo Image (1)	
Memo Image	Memo
General (2)	
General	HIOKI B3F
General	HIOKI B3F

\*Select [General Measurement] data to create report. All the images loaded in the [General Measurement] window are available in [Create Report] window.

2. Select [Report]-[Create Report] in the menu.

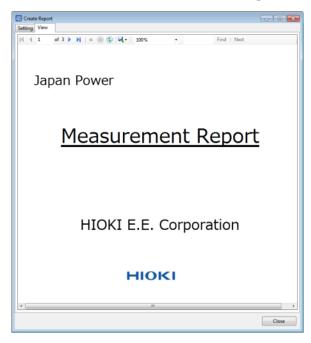
Report(R)	Window(W)
Create	Report(R)

3. [Create Report] window is displayed. Set the cover format of the report in [Cover Format].

Create Report Setting View				
Cover Format				
Title	Measurement Repor	ŧ		
Sub Title	No Sub Title			
Destination	Japan Power			
Creator	HIOKI			
Logo Image				
Default (HIOKI	Logo)		Ed	lit Clear
List of images	>	Images to add the report Memo	Memo	Memo
				Close

\*To include images loaded in [General Measurement] window on report, add images from [list of images] to [Images to add the report].

4. Select [View] tab. After a little while, the preview of the report is displayed.



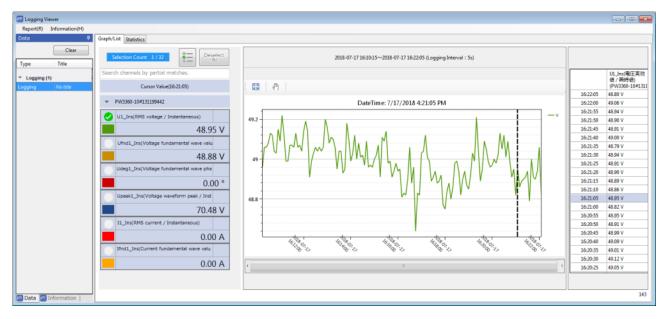
5. Click [Export] button and choose the export format. After selecting the export destination, the report is exported.

Create	e Report						
Setting	View						
M 4	1	of 3 🕨	<del>(</del> )	) 🚱 🔍 - 🛛 100%	-	Find   Next	
				Excel			
				PDF			
				Word			

## View Logging (GENNECT Cross format) data

 Select [Data] and a data group, then select [Logging(GENNECT Cross)] data by checking data on the data list. Click [Open] button and select [Logging].

[Logging] window is displayed.



# **Create Logging Data Report**

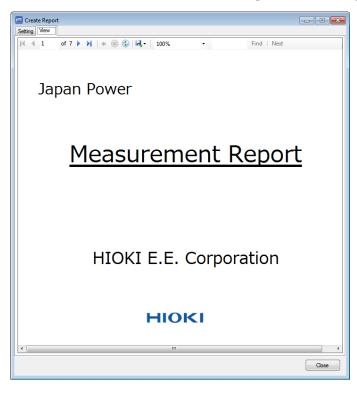
1. Select [Report]-[Create Report] in the menu.



2. [Create Report] window is displayed. Set the cover format of the report in [Cover Format].

🚝 Create Report			-		Х
Setting Display					
Cover Format					
Title	Measurement Report				
Subtitle	No subtitle				
Destination	Japan Power				
Creator	HIOKI E.E. Corporation				
Logo Image Default (HIOKI L	ogo)	Edit		Clear	
Data	_				
Graph	🗹 Data List	Statistics			
Output Range					
All data	O Between A and B cursors				
				Close	•

3. Select [View] tab. After a little while, the preview of the report is displayed.



4. Click [Export] button and choose the export format. After selecting the export destination, the 117eport is exported.

🔄 Crea	te Repoi	t					
Setting	View						
M 4	1	of 7 🕨	H   + 🛞 🤅	) 🔍 -   100%	-	Find   Next	
				Excel			
				PDF			
				Word			

\*You can choose from three formats: Excel, PDF, and Word.

# **Organize data**

# **Operate Groups**

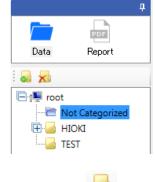
You can organize the data imported into GENNECT One by group using the Data Switch Window.

To organize the data, create a new group and move the data by dragging and dropping. The groups can be managed in a tree structure.

# Add the data group

Here explains how to add a new group under the [root] as an example.

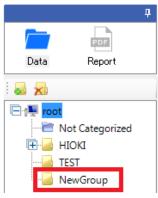
1. Select a data group.



2. Click [Add] button. Rename(R) Add(A) Delete(D)

\*The data group is also added by selecting [Add] in the right-click menu.

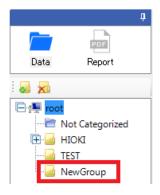
3. A new data group has been added under the [root].



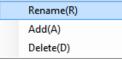
\*You cannot add any data group under the [Not Categorized] group.

## Rename the data group

1. Select a data group.



2. Select [Rename] in the right-click menu.



\*You cannot rename the [root] group.

\*You cannot rename the [Not categorized] group.

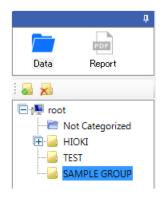
3. Input text as the group name.

\*You cannot set the empty text.

\*You cannot set the text that has only white spaces.

\*You cannot set the special characters like [\(backslash)], [. (period)], [\* (asterisk)] and ['(apostrophe)].

4. The data group has been renamed.



# Move data to the data group

Here explains how to move data from the [Not Categorized] group to the [SAMPLE GROUP] group as an example.

1. Select the [Not Categorized] group.

	<b>4</b>	Search Input text se	parated by space.	- Q Fil	ter OFF All Period	▼ All	▼ All	•	
	PDF	Show cheked items	OFF	MDIEE					
Data	Report	Туре	Date	Time	Title	Comment	Search Tag	Model	
<b>a</b> 📩		▼ 2016-11-15 (1 ite	m)						
🖹 (📕 roc	+	Battery	2016-11-15	20:49:14	2015 Battery Novem	No Comments	HIOKI	BT3554-01	
	Not Categorized HIOKI	▼ 2016-08-10 (1 ite	m)						
	TEST	Battery	2016-08-10	20:49:14	2016 Battery August	HIOKI B3F	HIOKI	BT3554-01	
	SAMPLE GROUP	▼ 2016-04-18 (6 items)							
		Battery	2016-04-18	20:49:14	2016 Battery Aplil	HIOKI B3F	HIOKI	BT3554-01	
		Memo Image	2016-04-18	17:04:31	Memo	No Comments	Click here to set TAGs.	No model information	
		Logging	2016-04-18	14:15:01	No Title	No Comments	Test	CM4372,BT3554-01	
		Logging	2016-04-18	14:15:01	No Title	No Comments	Test	CM4372,BT3554-01	
		🔲 General Measureme	2016-04-18	14:13:14	HIOKI B3F	No Comments	Test	CM4372,BT3554-01	
		General Measureme	2016-04-19	14:13:14	HIOKI B3F	No Comments	Test HIOKI	CM4372,BT3554-01	

- 2. Check the data to move in the data list.
- 3. With the left button of the mouse pressed down, move the mouse pointer toward the [SAMPLE GROUP] group. (drag operation)
- 4. As the mouse pointer approaches the [SAMPLE GROUP] group, the mouse cursor allow appears. Move

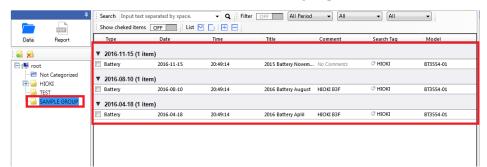
the cursor to the [SAMPLE GROUP] group and release the left button of the mouse. (drop operation)

	д	Search Input text sep	arated by space.	👻 🔍 🕴 Filter 🔤	OFF All Period	▼ All	▼ All	•
	PDF	Show cheked items	OFF List 🗹					
Data	Report	Туре	Date	Time	Title	Comment	Search Tag	Model
		▼ 2016-11-15 (1 item	)					
🖃 🖳 root		Battery	2016-11-15	20:49:14	2015 Battery Novem	No Comments	HIOKI	BT3554-01
	ot Categorized OKI	▼ 2016-08-10 (1 item	)					
П ТЕ		Battery	2016-08-10	20:49:14	2016 Battery August	HIOKI B3F	HIOKI	BT3554-01
SA 🔤	MPLE GROUP	▼ 2016-04-18 (6 item	s)					
咨		Battery	2016-04-18	20:49:14	2016 Battery Aplil	HIOKI B3F	HIOKI	BT3554-01
		Memo Image	2016-04-18	17:04:31	Memo	No Comments	Click here to set TAGs.	No model information
		Logging	2016-04-18	14:15:01	No Title	No Comments	Test	CM4372,BT3554-01
		Logging	2016-04-18	14:15:01	No Title	No Comments	Test	CM4372,BT3554-01
		General Measureme	2016-04-18	14:13:14	HIOKI B3F	No Comments	Test	CM4372,BT3554-01
		General Measureme	2016-04-18	14:13:14	HIOKI B3F	No Comments	Test	CM4372,BT3554-01

\*Move the tip of cursor to the folder icon or the text of the group.

\*You cannot move data to the [root] group.

5. Data has been moved to the [SAMPLE GROUP] group.



# Delete the data group

1. Select a group.

		<b>џ</b>			
	PDF				
Data	Report				
- 🛃 🔊					
🖃 👰 roc	ot				
``	Not Categorized				
🕀 🎑 HIOKI					
	TEST				
	SAMPLE GROUP				

2. Click the [Delete] button.

Rename(R)
Add(A)
Delete(D)

\*The data group is also deleted by selecting [Delete] in the right-click menu.

\*You cannot delete the [root] group.

\*You cannot delete the [Not Categorized] group.

3. The confirmation message is displayed. Click [OK] button to delete the group.



\*If a group is deleted, the data that is included in the group are also deleted.

# Manipulate data list

In the data list of the main window, you can see the detailed information on the data, search/ refine the data, edit the comment/title/search tags.

Here explains basic function for manipulating the data list.

🗄 List 🗹 🚺 🛨 🕒 Show checked items 🖙 📕 Search Input text separated by space 🔍 🔍 Filter 🖙 🗖 All Period 🗸 All 🗸 All							
	Туре	Date	Time	Title	Comment	Search Tag	Model
- 202	24-11-19 (1 item)						
	Photo	2024-11-19	20:52:09	Sample.png	No Comments	Click here to set	No model information

## Check/Uncheck data

By checking the data in the data list, you can select the data for actions such as opening, deleting, moving, or exporting.

Button	Function
	Changes the check state of the data.
	Selects all measurement data displayed in the data list.
L.	Deselects all measurement data displayed in the data list.
[Show checked items]	On: Filters and displays only the selected measurement data in the data list. Off: Displays all measurement data in the data list, regardless of whether it is selected.

# **Collapse/Expand data list**

The data list is grouped by date and displayed.

Button	Function	
<b>N V</b>	Expands or collapses the group by date.	
P 4	Type Date Time Title Comment Search Tag Model ^	
	► 2015-12-17 (2 items)	
	Type Date Time Title Comment Search Tag Model ^	
	▼ 2015-12-17 (2 items)	
	Memo Image         2015-12-17         18:19:26         No Title         comment:VdkjHt         Click here to set TAGs.         DT4252,CM4374	
	Waveform Image 2015-12-17 18:19:23 No Title comment:Upn6u Click here to set TAGs. CMT291,CM4374	
<b>⊞</b>	Expands all groups by date.           Type         Date         Time         Title         Comment         Search Tag         Model         ^	
	▼ 2015-12-17 (2 items)	
	Memo Image 2015-12-17 18:19-26 No Title comment/VdkjHt Click here to set TAGs. DT4252,CM4374	
	Waveform Image 2015-12-17 18:19:23 No Title comment/Upn66u Click here to set 7AGs CM7291_CM4374	
	▼ 2015-12-16 (1 item)  logging Image 2015-12-16 10:19:26 No Title comment:449ht Click here to set TAGs. CM4374_DT4251	
	▼ 2015-12-15 (1 item)	
	Picture 2015-12-15 11:19-23 No Title comment:H55ub5 Click here to set 7AGs. D14252	
	Collapses all groups by date.	
	Type Date Time Title Comment Search Tag Model	
	► 2015-12-17 (2 items)	
	► 2015-12-16 (1 item)	
	► 2015-12-15 (1 item)	

# **Filter Data**

You can filter the data displayed in the data list by specifying filter conditions.

Button	Function
[Filter]	On: When you click the [Search] button or change the dropdown for [Date],
CN OFF	[Data Type], or [Instrument Model], this button will turn "ON". Off: Clears all the filter conditions and displays all measurement data.

[Search] Input text separated by space	Text Search: Enter keywords to filter the displayed measurement data on the data list. If you want to use multiple search terms, separate them with a half-width space. Tag Search: Use search tags to filter the displayed data.
Q	The measurement data that partially matches the text entered in the [Search] box will be displayed.
[Date] Select Dropdown	All Dates: Displays the measurement data without filtering by date. Today: Displays measurement data from the past day based on the last updated timestamp. This Week: Displays measurement data from the past week based on the last updated timestamp. This Month: Displays measurement data from the past month based on the last updated timestamp. Specify Date: Allows you to specify a custom date range to filter the measurement data within that period. By default, All Dates is selected.
[Data Type (Category)] Select Dropdown	Filters and displays the measurement data by [Data Type (Category)]. By default, All is selected.
[Model] Select Dropdown	Filters and displays the measurement data by the [Model]. By default, All is selected.

# Search data by search tag

You can select search tags to search the data list. Note: Search tags must be set or edited in advance.

- Click ▼mark on the text box of the [Search].
   Search Input text separated by space.
- 2. Select [Search by tag] from the drop-down list. Search Search by text Search by Tag
- 3. [Select Tags] window is displayed. Click [OK] button, after selecting the tags to search by checking.

J Sele	ct rags		
<b>V</b>	0	HIOKI	
	0	Test	
		Cancel	ОК
		Cancel	OK

\*If you set multiple tags, the search is performed by "AND" condition.

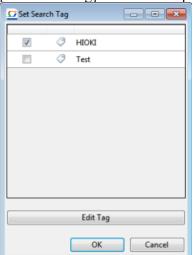
4. The result of a search is displayed in the data list.

Search Input text separate	ed by space. 👻	Q Filter ON	All Period -	tery - All	<ul> <li>Show cheke</li> </ul>	d items OFF
i List 🗹 🚺 🕀 🗖						
Туре	Date	Time	Title	Comment	Search Tag	Model
▼ 2016-11-15 (1 item)						
Battery	2016-11-15	20:49:14	2015 Battery November	No Comments	HIOKI	BT3554-01
▼ 2016-08-10 (1 item)						
Battery	2016-08-10	20:49:14	2016 Battery August	HIOKI B3F	HIOKI	BT3554-01
▼ 2016-04-18 (1 item)						
Battery	2016-04-18	20:49:14	2016 Battery Aplil	HIOKI B3F	HIOKI	BT3554-01

## Set/ Edit search tag

You can set search tags to the data in the data list.

- 1. Select a data in the data list.
- 2. Click a cell of the [Search Tag] column.
- 3. [Set Search Tag] window is displayed. Click [OK] button, after selecting tags to set by clicking.



\*If you would like to add new tags or delete the existing tags, click [Edit Tag] button.

- 4. The tags are set to the data.
- 5. To add or delete search tags, click the [Edit Tag] button.

C Set Search	Tag		
	٢	HIOKI	
	~ 0		
	~	Test	
		C.C. T.	
	_	Edit Tag	
	1	OK	Cancel
		511	

6. [Edit Search Tag] window is displayed. To add a new tag, click [Add Tag] button after setting a tag text.

To delete the existing tag, click the [Delete]  $\boxed{1}$  icon.

Edit Search Tag	Edit Search Tag
HIOKI     Test	♂     HIOKI       ♡     Test
	SAMPLE
SAMPLE Add Tag	SAMPLE Add Tag
Ciose	Close

\*Even after the existing tag in the [Edit Tag] window, the tag that is set to the data in the data list still exists

\*Tags that is deleted in the [Edit Tag] window are not used for searching.

# **Delete data**

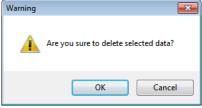
1. Select the data to delete by checking data on the data list.

	Туре	Date	Time	Title	Comment	Search Tag	Model
v	2016-11-15 (1 iter	m)					
	Battery	2016-11-15	20:49:14	2015 Battery Nove	No Comments	HIOKI	BT3554-01
¥	2016-08-10 (1 iter	m)					
	Battery	2016-08-10	20:49:14	2016 Battery Aug	HIOKI B3F	HIOKI	BT3554-01
•	2016-04-18 (5 iter					/3.170/7	
•	2016-04-18 (5 iter Battery	m <b>s)</b> 2016-04-18	20:49:14	2016 Battery Aplil	HIOKI B3F	HIOKI	BT3554-01
▼ 			20:49:14 17:04:31	2016 Battery Aplil Memo	HIOKI B3F No Comments	Click here to set TA	
<ul> <li></li> &lt;</ul>	Battery	2016-04-18					BT3554-01 No model informati CM4372,BT3554-01
_	Battery Memo Image	2016-04-18 2016-04-18	17:04:31	Memo	No Comments	Click here to set TA	No model informati.

2. Click [Delete] button.

Open	Export	Delete
------	--------	--------

3. <u>The confirmation message is displayed</u>. Click [OK] button to delete the data.



# **Export Data**

You can automatically or manually export data from GENNECT One to any folder on your PC.

# **Automatic Export**

Measurement values displayed in real-time via the logging or dashboard features can be automatically exported daily or hourly. Available output formats are CSV or Excel (.xlsx). For detailed instructions:

- > Configuring detailed settings for automatic output (daily/weekly/monthly reports)
- Configuring detailed settings for automatic output (CSV)

Enable Automatic Export for Daily, Weekly, Monthly Reports (CSV) via the [Logging] feature.

Configure the logging settings

Enable Automatic Export for Daily, Weekly, Monthly Reports (CSV) via the [Dashboard] feature.

Start or Stop the Measured Value Monitor

# **Manual Export**

Export selected data from the data list to the desired file format. The available export formats vary depending on the data type. For more details, refer to the following sections.

## **Supported Output Formats**

Output Format	Description
CSV/Image format	•Converts data into a time-series CSV file and exports it. (*1)
	* Different from the CSV file saved by the instrument itself.
	* Data exceeding 512 channels can also be exported as CSV.
	•Exports image data in any image format (png/bmp/jpg/gif). (*2)
HOK format	Exports data in HIOKI GENNECT Format (.hok).
	This format can be used for data sharing with GENNECT One on another PC or for data backup purposes.
ZIP format	Exports data in ZIP format.
PDF format	Exports data in PDF format.
	X Only data with the "Report" type and a PDF extension can be selected.
Reports	Reports are created based on the logging format data saved in the data list.
(Daily/Weekly/Monthly)	

#### (\*1) Supported CSV Export Data Formats

Data format	Category	Supported instruments	Remarks
Data logger waveforms (binary)	File(.mem)	LR8400 series	—
		LR8410	
		LR8101,LR8102	
		LR8450,LR8450-01	Ver. 1.50 or later
Power logger measurement data (measurement	Folder	PW3360	—
data folders)		PW3365	
Power Analyzer measurement data (binary)	File(.bin)	PW8001	Ver. 1.00 or later
LR5000 series measurement data (HRP2 format)	File(.hrp2)	LR5000 series	—
General Measurement	—	GENNECT Cross	—
		Compatible	
		Instruments	
Battery	—	BT3554, BT3554-01,	—
		BT3554-50	
Time-Series Measurement Data	l —	GENNECT One	-
		Compatible	
		Instruments	

#### (\*2) Supported Image Export Data Formats

Photo, Image Memo, General Measurement Screenshot, Logging Image, Battery Image, Waveform Screenshot

## Procedure

1. Select [Data] and a data group, then select data by checking data on the data list and click [Export] button.

2016-11-15 (1 item)     2016-08-10 (1 item)     2016-04-18 (6 items)     Battery 2016-04-18     Memo Image 2016-04-18     Logging 2016-04-18     Logging 2016-04-18		2016 Battery Aplil	HIOKI B3F		BT3554-01
2016-04-18 (6 items)           Battery         2016-04-18           Memo Image         2016-04-18           Logging         2016-04-18			HIOKI B3F	HIOKI	BT3554-01
Battery         2016-04-18           Memo Image         2016-04-18           Logging         2016-04-18			HIOKI B3F	HIOKI	BT3554-01
Memo Image 2016-04-18 Logging 2016-04-18			HIOKI B3F	HIOKI	BT3554-01
Logging 2016-04-18	8 17:04:31				
		Memo	No Comments	Click here to set TAGs.	No model information
Logging 2016-04-18	8 14:15:01	No Title	No Comments	Test	CM4372,BT3554-01
	8 14:15:01	No Title	No Comments	Test	CM4372,BT3554-01
General Measureme 2016-04-18	8 14:13:14	HIOKI B3F	No Comments	Test	CM4372,BT3554-01
General Measureme 2016-04-18	3 14:13:14	HIOKI B3F	No Comments	Test	CM4372,BT3554-01

2. [Export Format] window is displayed. Select [CSV/Image Format] and click [OK].



3. [Select destination to export] window is displayed. Click [Save] button, after specifying the file.

Organize 👻 N	ew folder				
<ul> <li>Documents</li> <li>Music</li> <li>Pictures</li> <li>Videos</li> </ul>	^ Name	A	Date mod No items match you	.,,-	Size
<ul> <li>Computer</li> <li>Local Disk (C</li> <li>Removable D</li> <li>Network</li> </ul>					
File <u>n</u> ame:	20160418141314_general				
	CSV Files(*.csv)				

- ※ 複数のデータを選択して出力することもできます。
- ※ 複数の画像データを選択して出力する場合は、画像データの拡張子はすべて PNG ファイルとして保存されます。

## Manually Outputting Reports (Daily, Weekly, and Monthly Reports)

Reports (daily, weekly, and monthly reports) can be generated automatically from logging data using the logging/dashboard function.

See below for example output.

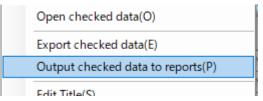
## Basic report specifications

Procedure

1. Select the [Data] and [Group], and then select logging data to display a pop-up menu.

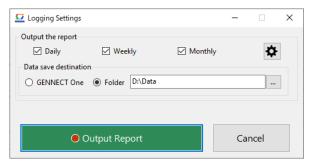
	Туре	Date	Time	Title	Comment	Search Tag	Model
	Logging	2023-11-19	23:31:05	No title	2023-11-19 23:31:05 - 2023-11-19 2	Click here to set	PW3365-10,PW3360-1
	Logging	2023-11-19	00:00:00	No title	2023-11-19 00:00:00 - 2023-11-19 2	Click here to set	PW3360-10,PQ3198
- 20	23-11-18 (1 item)						
	Logging	2023-11-18	00:00:00	No title	2023-11-18 00:00:00 - 2023-11-18 2	Click here to set	PW3360-10,PQ3198
<b>~ 20</b>	▼ 2023-11-17 (7 items)						
	Logging	2023-11-17	14:57:40	No title	2023-11-17 14:57:40 - 2023-11-17 2	Click here to set	PW3360-10,PQ3198
	Logging	2023-11-17	12:48:16	No title	2023-11-17 12:48:16 - 2023-11-17 1	Click here to set	PW3360-10,PQ3198
	Logging	2023-11-17	12-28-47	No title	2023-11-17 12:28:47 - 2023-11-17 1	Click here to set	DO3108 DW3360-10

- X You can also select multiple sets of data to output.
- X If you select data other than logging data, no report will be generated.
- X If you select multiple sets of logging data, no report will be generated unless all selected data satisfies the following conditions:
  - All data is associated with the same instrument and serial number.
  - ·All logging measurement parameters are the same.
  - There is no overlap in the logging data's measurement period.
  - ·All data has the same logging interval.
- 2. Select [Generate report from selected data] from the pop-up menu.



3. When the screen with report output settings is displayed, specify the output format, folder, and other information and then click [Output Report].

Click the [\*] button to configure detailed settings such as the output filename.



- \* For more information about detailed report output settings, see below.
- Configuring detailed settings for automatic output
- 4. A file in the selected format will be generated in the specified folder.
- \* The report (daily, weekly, and monthly) output function performs the same processing whether it is invoked automatically or manually. Consequently, filename rules and operation such as whether the file is backed up

are the same as for automatically generated files.

For more information about filename rules, see below.

> <u>Configuring [General] settings</u>

# Changing instrument settings (instrument configuration modification function)

·Acquire the current settings from the instrument.

·Change the instrument settings.

•The time when the settings are acquired (when launching [Instrument Settings]) is used as the time, which cannot be changed.

\*If an instrument's settings cannot be changed due to its status, for example because it is recording (automatically saving data), make changes after placing it in a state that allows settings to be changed. \*Refer to the following for information on the battery tester's setting functions.

Settings for Battery Tester BT3554/BT3554-01/BT3554-50

# **Supported instruments**

The instrument configuration modification function supports the following instruments:

Model	Name	Firmware version
PW3360	Clamp On Power Logger	Ver. 3.21 or later
PW3365	Clamp On Power Logger	Ver. 2.10 or later
PW3335	Power Quality Analyzer	Ver. 1.11 or later
PW3336	Power Quality Analyzer	Ver. 1.23 or later
PW3337	Power Quality Analyzer	Ver. 1.23 or later
BT5525	Battery Insulation Tester	V1.02 or later
BT6065, BT6075	Precision Battery Tester	V1.01 or later
DM7275, DM7276	Precision DC Voltmeter	V1.09 or later
LR8450, LR8450-01	MEMORY HILOGGER	V2.21 or later
LR8101, LR8102	DATALOGGER	V1.50 or later

# Limitations

Instrument configuration modification function has following limitations.

feature	limitation	remarks
Number of units that can be operated simultaneously.	1 unit	
Number of units that can be set for other devices	1 unit	
simultaneously.		

## Instrument configuration modification function has following limitations about the network configuration.

feature	limitation	remarks
Interface	LAN	
Network range for auto instrument detection.		
	% The network range must be in the same range as the	
	computer.	
DHCP	Not supported	

# Workflow

Set up communication between the computer and the instruments (LAN)

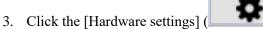
# Change the instrument's settings (p.132)

# Change the instrument's settings

1. Select the [Console] tab on the main screen.

	🖸 нюк	(I GENNECT One									-		×
	Import(	() Settings( <u>S</u> )	Langua	age(L)	Window(	<u>M)</u> Information	(H)					Log ir	h
ſ													
	Data	Functions	Con	sole	Launcher								
		Update										\$	?
	LAN												
		Remote	Control	File Tra (AUTO)		File Acquisition (MANUAL)	Instrument settings	IP Address	Instrument				
	Ę	<b>4</b>	$\sim$				*	192.168.1.11	PW3335	PW3335-02#140833796,V1.11			
	Ļ	<b>4</b>	$\sim$				₽	192.168.1.33	PW3335	<ul> <li>PW3335#210107489,V1.11</li> </ul>			
								Set IP Address here.		<ul> <li>&lt;- Select the instrument</li> </ul>			
	USB												
	LAN												
					Cano	el				840			

2. Select the [LAN] navigation bar.



- ) button.
- 4. The [Instrument Settings] screen will open. The model and serial number of the selected instrument will be shown. When the settings from an instrument are acquired and the window is opened, the instrument's settings will be displayed.

Instrument settings					- [	×
Instrument PW3335-02 Serial No. 140833796	Initialize setting:	3				Close
Current range selection	Current z	ero crossing threshold	1	Synchronous source	D	/A
Measure	Voltage	Voltage range s	election/zer	o crossing threshold	Curr	ent
Frequency range Averaging times	100Hz 1 time		~			
Multiple unit control	OFF		~			
Integration time Integrate auto range	0000	) : 00	~	1 minute to 9999 hours a	and 59 minute	25
Harmonic analysis order limit		50		2~50		

However, a warning message will be shown if the instrument is in a state that does not allow settings to be configured (for example, when recording is in progress).

	Warning ×
	Put the recording in stop state Are you sure you want to stop recording?
	Yes <u>N</u> o
	To change the instrument's settings, select [Yes] ( Yes ) to place the instrument in a state that allows changes to settings.
5.	You can initialize the instrument by clicking the [Initialize settings] button ( Initialize settings).
6.	For more information about instrument settings, position the cursor over the box for changing a setting to display
	a description of the setting in question. A description is shown to the right of some settings boxes. Positioning
	the cursor over a setting for which the caution mark ( <b>D</b> ) is shown will display precautionary information
	concerning the setting.
	To change the settings page, click one of the tabs (for example,
	MEAS 1 MEAS 2 REC 1 REC 2 SYS FTP PULSE
	Instrument settings are configured by either selecting an option (for example,
	500A   ) or entering text (for example,   0001.00   ). To
	configure a setting that involves selecting an option, click the setting to display the options and then select one to configure the instrument accordingly. To configure a setting that involves entering text, click the setting to
	open an input window, enter the desired text, and click the [Accept] button ( Accept ) to configure the instrument accordingly.
	Once the setting has been applied to the instrument, a message indicating that fact
	(The setting has been saved.) will be shown to the right of the settings box.
7.	To save the current instrument settings, click the button for saving the settings as a file (

133 / 342

File] window opens, specify the destination folder and filename and save the file.

8. To load a previously saved file of instrument settings, click the button for loading a settings file (

the [Load File] window opens, specify the file and filename and load the settings, which will be applied to the instrument. In general, you must use settings with an instrument of the same hardware configuration. However, when loading a settings file with an instrument like the PW337 whose functionality varies with the

installed options, note the following:

•When you load a settings file saved for an instrument not equipped with an option on an instrument that is equipped with that option, settings for the option will not change.

9. If the settings shown in the application no longer match those shown on the [Instrument Settings] screen because

the instrument has been operated directly, click the button for reacquiring all settings (**L**). The instrument's settings and the settings shown on the [Instrument Settings] screen will then match.

10. If there are multiple instances of the same instrument to connect to, other instruments' settings will be shown on the [Instrument Settings] screen.

Instrument settings			– 🗆 🗙
Instrument         PW3335-02         Initial           Serial No.         140833796         😂	e settings Destination serial nu	umber 210107489 V	Close
Current range selection	Current zero crossing threshold	Synchronous source	D/A
Measure Voltage	Voltage range selection/z	ero crossing threshold	Current
Frequency range Averaging times Multiple unit control	500Hz ~		
Integration time Integrate auto range	0000 : 00 OFF ~	1 minute to 9999 hours a	and 59 minutes
Harmonic analysis order limit	50	2~50	

To use the instrument's settings to configure another instrument, select the serial number of the instrument

you wish to configure and click the [Send] button (<u>Send</u>). Once the settings have been applied to the specified instrument, a message indicating that fact will be shown.

Serial No.210107489 X	
The settings have been sent to the instrument.	
ОК	

However, when configuring an instrument like the PW337 whose functionality varies with the installed options, note that only the settings shown in the instrument settings will be applied to the instrument.

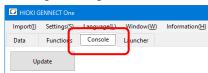
11. Click the [Close] button (Close) to exit the [Instrument Settings] screen.

# Settings for Battery Tester BT3554/BT3554-01/BT3554-50

- 1. Connect the Battery Tester with the computer.
- \* To communicate with the Battery Tester by USB connection cable, the USB driver package must be installed on the computer.
- \* See **INSTALL THE USB DRIVER PACKAGE** for how to install the USB driver of BT3554 series.
- \* See the instruction manual for how to install the USB driver of the earlier product 3554.
- **Please note that the earlier product 3554 is NOT supported by Windows 8 or later.**
- 2. Open GENNECT One.



3. Select [Console] tab.

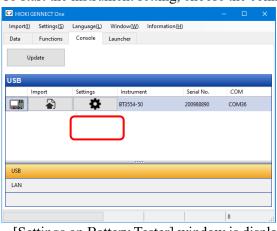


4. Choose the [USB] interface and then click [Update] button.

	SENNECT One							
Import()	Settings( <u>S</u> )	Language(L)	Window(W)	Information(H)				
Data	Functions	Console	Launcher					
Uţ	pdate							
USB								
1	Import	Settings	Instrume	nt	Serial No.	COM		
							_	
USB								
LAN								
						8		

5. To start the instrument setting, choose the connected instrument from the list and then click





5. [Settings on Battery Tester] window is displayed.

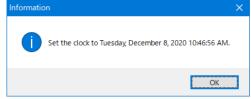
Delete Memory mport Threshold Manage Threshold Tuesday, December 8, 2020 10:44:24 AM	Delete Memory mport Threshold Manage Threshold mport Profile Tuesday, December 8, 2020 10:44:24 AM	😫 Settings on Battery Tester	-	- 🗆	
Manage Threshold Tuesday, December 8, 2020 Import Profile 10:44:24 AM	Import Threshold Manage Threshold Import Profile Tuesday, December 8, 2020 10:44:24 AM	Set Clock			
Import Profile 10:44:24 AM	Manage Threshold Tuesday, December 8, 2020 Import Profile 10:44:24 AM	Delete Memory			
Tuesday, December 8, 2020 Import Profile 10:44:24 AM	Tuesday, December 8, 2020 Import Profile 10:44:24 AM	Import Threshold			
Import Profile 10:44:24 AM	Import Profile 10:44:24 AM	Manage Threshold	Tuesday, December 8, 2020		
Manage Profile Set	Manage Profile Set	Import Profile			
		Manage Profile	Set		
				Close	3
Close	Close				

# Set the clock on instrument

1. Select [Set Clock].

🛅 Settings on Battery Tester	-		) ×
Set Clock			
Delete Memory			
Import Threshold			
Manage Threshold	Tuesday, December 8, 2020		
Import Profile	10:44:24 AM		
Manage Profile	Set		
		(	Close

2. \_Click [Set] button. The clock of the battery tester is set by the computer.



## **Delete Memory on instrument**

1. Select [Delete Memory].

Settings on Battery Test	ster				
Set Clock	Select Unit				
Delete Memory	Α	Ь	С		
Import Threshold		-			
Manage Threshold	d	E	F		
Import Profile	G	Н	J		
Manage Profile					
	L	n	Р		
	Select	t All			
					<b>D</b> I I
					Delete

2. Select the memory unit to delete. And click [Delete] button.

😫 Settings on Battery Test	er		-	- 0
Set Clock	Select Unit			
Delete Memory	A b C			
Import Threshold				
Manage Threshold	d E F			
Import Profile	G H J			
Manage Profile				
	L n P			
	Select All			
		Delet	Delete	Delete Clos

3. The selected memory unit is deleted.

Warning	×	Information	$\times$
	Are you sure to delete the selected memory data?	Deleted unit(s) A,B	
	<u>Y</u> es <u>N</u> o	OK	

# **Import Threshold**

1. Select [Import Threshold].

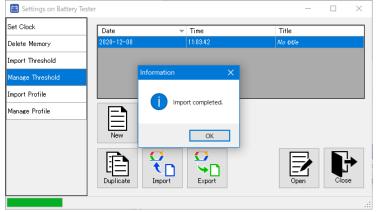
🛅 Settings on Battery Tes	iter			
Set Clock				
Delete Memory	Select Source			
Import Threshold	BT3554-50			
Manage Threshold	⊖ Files			
Import Profile				
Manage Profile				
	Import Cancel		Clo	se

2. Select the import source. Here, select BT3554-50 Battery Tester as the source.

🔁 Settings on Battery Tes	ter		
Set Clock			
Delete Memory	Select Source		
Import Threshold	BT3554-50		
Manage Threshold	⊖ Files		
Import Profile			
Manage Profile			
	Import Cancel	Clos	e
			.:

\*If you would like to import threshold from GENNECT Cross for Android/iOS, select [File] as the source.

3. Click [Import] button to import threshold.

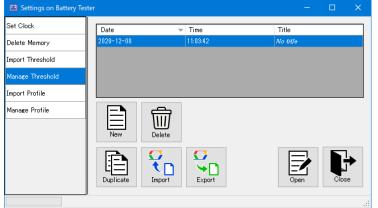


How to share and manage threshold tables in the cloud (GENNECT Cloud Standard/Pro subscribers can use this feature), please refer to the following

- Share battery tester thresholds in the cloud (GENNECT Cloud Standard / Pro plans)
- Manage battery tester thresholds in the cloud (GENNECT Cloud Standard / Pro plans)

## Create the new threshold table

1. Select [Manage Threshold]. The list of threshold tables is displayed.



2. Click [New] button. [Input Table Name] window pops up. Set the name of the new threshold table.

input lable Name		
Input table name.		
	OK	Cancel

3. [Edit Threshold Table] window is displayed.

					Data No.			March N			
		< Prev			1			Next >			
N	ame										
R-Ran	ge 3mS	2 ~	R-Warning	0.0	100		mΩ R-Fai	0.000		mΩ	
V-Ran	ge 6V	$\sim$	V-Warning	0.0	100		V 🗌 Inc	lude polarity	chec	k (BT3554-8	50
			0 '	,	Wa	rning				Set	
		1	1	r	<mark>الا</mark>	alue				000	
1	Pass		Warn	ing			Pass				
	1000						1000				
					1		1				_
No. N	lame	R-Range	R-Warning		R-Fail		V-Range	V-Warning		Voltage Judgement	ł
1 N	o name	3mΩ	0.000	mΩ	0.000	mΩ	6V	0.000	V.		ſ
2 N	o name	3mΩ	0.000	mΩ	0.000	mΩ	6V	0.000	V		
3 /V	o name	3mΩ	0.000	mΩ	0.000	mΩ	6V	0.000	V		
4 //	o name	3mΩ	0.000	mΩ	0.000	mΩ	6V	0.000	V		
5 /V	o name	3mΩ	0.000	mΩ	0.000	mΩ	6V	0.000	V		
	a name	3mΩ	0.000	mΩ	0.000	mΩ	6V	0.000	V		
7 N	o name	3mΩ	0.000	mΩ	0.000	mΩ	6V	0.000	V		
	a name	3mΩ	0.000	mΩ	0.000	mΩ	6V	0.000	V		
		3mΩ	0.000	mΩ	0.000	mΩ	6V	0.000	V		
		3mΩ	0.000	mΩ	0.000	mΩ	6V	0.000	V		
		3mΩ	0.000	mΩ	0.000	mΩ	6V	0.000	V		
12 I N	o name	3mΩ	0.000	mΩ	0.000	mΩ	6V	0.000	V		
13 N		3mΩ	0.000	mΩ	0.000	lmΩ	6V	0.000	N.		

4. Click [Close] button to save threshold table.

ester			
Date		Title	
2020-12-08	11:07:42	AAA	
2020-12-08	11:03:42	Na title	
New C	elete elete		
		Open	
	2020-12-08 2020-12-08	Date         ▼         Time           2020-12-08         11:07.42         2020-12-08         11:03.42           Image: Second	Date         Time         Title           2020-12-08         11:07.42         AAA           2020-12-08         11:03.42         No étéc           Image: New         Image: Delete         Image: Delete         Image: Delete           Image: New         Image: Delete         Image: Delete

How to share and manage threshold tables in the cloud (GENNECT Cloud Standard/Pro subscribers can use this feature), please refer to the following

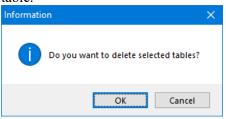
- Share battery tester thresholds in the cloud (GENNECT Cloud Standard / Pro plans)
- Manage battery tester thresholds in the cloud (GENNECT Cloud Standard / Pro plans)

## Delete the threshold table

1. Select [Manage Threshold]. The list of threshold tables is displayed.

Set Clock	Date	▼ Time	Title	
Delete Memory	2020-12-08	11:07:42	AAA	
Import Threshold	2020-12-08	11:03:42	Νο τίτιο	
Manage Threshold				
Import Profile				
Manage Profile	New	Delete		
		Import	Open	

2. Click [Delete] button. The confirmation message is displayed. Click [OK] button to delete the threshold table.

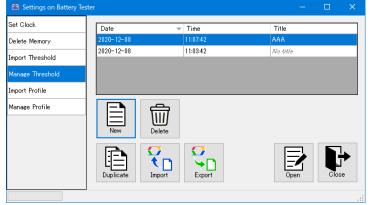


How to share and manage threshold tables in the cloud (GENNECT Cloud Standard/Pro subscribers can use this feature), please refer to the following

- Share battery tester thresholds in the cloud (GENNECT Cloud Standard / Pro plans)
- Manage battery tester thresholds in the cloud (GENNECT Cloud Standard / Pro plans)

# Transfer the threshold table to Battery Tester

1. Select [Manage Threshold]. The list of threshold tables is displayed.



2. Click [Open] button. [Edit Threshold Table] window is displayed.

					Data No.						
1		< Prev			1			Next >			Ľ
	Name										
	Range 3m	iΩ ~	R-Warning		)00		mΩ R-Fai	0.000		mΩ	
V-F	Range 6V	~	V-Warning	0.0	000		V 🗌 Inc	lude polarity	cheo	ek (BT3554-	50
			0	v		rning alue				Set	1
					, v						
	Pass		Warn	ing			Pass				
									_	Voltage	
No	. Name	R-Range	R-Warning		R-Fail		V-Range	V-Warning		Judgement	J
1	No name	3mΩ	0.000	mΩ	0.000	mΩ	6V	0.000	V		
2	No name	3mΩ	0.000	mΩ	0.000	mΩ	6V	0.000	V		
3	No name	3mΩ	0.000	mΩ	0.000	mΩ	6V	0.000	V		
						-					
	No name	3mΩ	0.000	mΩ	0.000	mΩ	6V	0.000	V		
4 5	No name	3mΩ	0.000	mΩ	0.000	mΩ	6V	0.000	V		
5 6	No name No name	3mΩ 3mΩ	0.000	mΩ mΩ	0.000	mΩ mΩ	6V 6V	0.000	V		
5 6 7	No name No name No name	3mΩ 3mΩ 3mΩ	0.000 0.000 0.000	mΩ mΩ mΩ	0.000 0.000 0.000	mΩ mΩ mΩ	6V 6V 6V	0.000 0.000 0.000	V V V		
5 6 7 8	No name No name No name No name	3mΩ 3mΩ 3mΩ 3mΩ	0.000 0.000 0.000 0.000	mΩ mΩ mΩ mΩ	0.000 0.000 0.000 0.000	mΩ mΩ mΩ mΩ	6V 6V 6V 6V	0.000 0.000 0.000 0.000 0.000	V V V V		
5 6 7 8 9	No name No name No name No name No name	3mΩ 3mΩ 3mΩ 3mΩ 3mΩ	0.000 0.000 0.000 0.000 0.000	mΩ mΩ mΩ mΩ	0.000 0.000 0.000 0.000 0.000	mΩ mΩ mΩ mΩ mΩ	6V 6V 6V 6V 6V	0.000 0.000 0.000 0.000 0.000	V V V V		-
5 6 7 8 9	No name No name No name No name No name No name	3mΩ 3mΩ 3mΩ 3mΩ 3mΩ 3mΩ	0.000 0.000 0.000 0.000 0.000 0.000 0.000	mΩ mΩ mΩ mΩ mΩ	0.000 0.000 0.000 0.000 0.000 0.000	mΩ mΩ mΩ mΩ mΩ mΩ	6V 6V 6V 6V 6V 6V	0.000 0.000 0.000 0.000 0.000 0.000 0.000	V V V V V		
5 6 7 8 9 10 11	No name No name No name No name No name No name	3mΩ 3mΩ 3mΩ 3mΩ 3mΩ 3mΩ 3mΩ 3mΩ	0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	mΩ mΩ mΩ mΩ mΩ mΩ	0.000 0.000 0.000 0.000 0.000 0.000 0.000	mΩ mΩ mΩ mΩ mΩ mΩ mΩ	6V 6V 6V 6V 6V 6V 6V 6V	0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	V V V V V V		
5 6 7 8 9	No name No name No name No name No name No name	3mΩ 3mΩ 3mΩ 3mΩ 3mΩ 3mΩ	0.000 0.000 0.000 0.000 0.000 0.000 0.000	mΩ mΩ mΩ mΩ mΩ	0.000 0.000 0.000 0.000 0.000 0.000	mΩ mΩ mΩ mΩ mΩ mΩ	6V 6V 6V 6V 6V 6V	0.000 0.000 0.000 0.000 0.000 0.000 0.000	V V V V V		

3. Click [Transfer] button. All data in the threshold table (From No.1 to No.200) will be transferred to Battery Tester.



# Edit the threshold table

1. Select [Manage Threshold]. The list of threshold tables is displayed.

Settings on Battery	Tester		—	
Set Clock	Date		Title	
Delete Memory	2020-12-08	11:07:42	AAA	
Import Threshold	2020-12-08	11:03:42	Na title	
Manage Threshold				
Import Profile				
Manage Profile	New De			
	Duplicate	iport	Open	Close

- 2. You can duplicate the table in the list by clicking the [Duplicate] button.
- 3. You can import from a file (hok format) by clicking the [Import] button.
- 4. You can export to a file (hok format) by clicking the [Export] button.
- 5. Click [Open] button. [Edit Threshold Table] window is displayed.

	tTable										
_					Data No.						
		< Prev			1			Next >			
	Name										]
R-F	Range 3m	1Ω ~	R-Warning	0.0	000		mΩ R-Fai	il 0.000		mΩ	
V-F	Range 6V	· ~	V-Warning	0.0	)00		V 🗆 Inc	lude polarity	cher		50
		· ·									ľ
			0 '	V	wa \	arning /alue				Set	
	Pass	•	Warn	ing			Pass				
No.	Name	R-Range	R-Warning		R-Fail		V-Range	V-Warning		Voltage Judgement	1
1	No name	3mΩ	0.000	mΩ	0.000	mΩ	6V	0.000	V		ľ
2	No name	3mΩ	0.000	mΩ	0.000	mΩ	6V	0.000	V		
3	No name	3mΩ	0.000	mΩ	0.000	mΩ	6V	0.000	V		
4	No name	3mΩ	0.000	mΩ	0.000	mΩ	6V	0.000	V		
	No name	3mΩ	0.000	mΩ	0.000	mΩ	6V	0.000	V		
5	No name										
•	No name	3mΩ	0.000	mΩ	0.000	mΩ	6V	0.000	V		
6				mΩ mΩ	0.000 0.000	mΩ mΩ	6V 6V	0.000	V		
5 6 7 8	No name	3mΩ	0.000								
- 6 7	No name No name	3mΩ 3mΩ	0.000	mΩ	0.000	mΩ	6V	0.000	V		
6 7 8	No name No name No name	3mΩ 3mΩ 3mΩ	0.000 0.000 0.000	mΩ mΩ	0.000 0.000	mΩ mΩ	6V 6V	0.000	V		
6 7 8 9 10 11	No name No name No name No name	3mΩ 3mΩ 3mΩ 3mΩ	0.000 0.000 0.000 0.000 0.000	mΩ mΩ mΩ	0.000 0.000 0.000	mΩ mΩ mΩ	6V 6V 6V	0.000 0.000 0.000 0.000 0.000	V V V V		
- 6 7 8 9 10	No name No name No name No name No name	3mΩ 3mΩ 3mΩ 3mΩ 3mΩ	0.000 0.000 0.000 0.000 0.000 0.000	mΩ mΩ mΩ mΩ	0.000 0.000 0.000 0.000	mΩ mΩ mΩ mΩ	6V 6V 6V 6V	0.000 0.000 0.000 0.000	V V V V		
6 7 8 9 10	No name No name No name No name No name No name	3mΩ 3mΩ 3mΩ 3mΩ 3mΩ 3mΩ	0.000 0.000 0.000 0.000 0.000 0.000 0.000	mΩ mΩ mΩ mΩ mΩ	0.000 0.000 0.000 0.000 0.000	mΩ mΩ mΩ mΩ mΩ	6V 6V 6V 6V 6V	0.000 0.000 0.000 0.000 0.000	V V V V		

6. Select the threshold to edit by clicking.

_	tTable				Data Na						_
ſ		< Prev			1	1		Next >			ה
U		(116)			Ľ						Y
	Name					_					1
	-	1Ω ~	R-Warning		)00		mΩ R-Fai			mΩ	
V-F	Range 6V	~	V-Warning	0.0	000		V 🗌 Inc	lude polarity	cheo	k (BT3554-	50
			0	V		rning Alue				Set	1
	Pass		Warn	ing			Pass				
No	Name	R-Range	R-Warning		R-Fail		V-Range	V-Warning		Voltage	
NU.				-			_			Judgement	٦
1	No name	3mΩ	0.000	mΩ	0.000	mΩ	6V	0.000	V		J
2 3	No name No name	3m52 3mΩ	0.000	mΩ	0.000 0.000	mΩ	6V	0.000	V		
0 4	No name	omsz 3mΩ	0.000	ms2 mΩ	0.000	mΩ	6V	0.000	V		
*	Na name	3mΩ	0.000	mΩ	0.000	mΩ	6V	0.000	v		-
5	No name	3mΩ	0.000	mΩ	0.000	mΩ	6V	0.000	V		-
5 6				mΩ	0.000	mΩ	6V	0.000	v		-
5 6 7	No name	l3mΩ	0.000						1.		-
6	No name No name	3mΩ 3mΩ	0.000	mΩ	0.000	mΩ	6V	0.000	V		
6 7							6V 6V	0.000	V		1
6 7 8	No name	3mΩ	0.000	mΩ	0.000	mΩ					-
6 7 8 9	No name No name	3mΩ 3mΩ	0.000	mΩ mΩ	0.000	mΩ mΩ	6V	0.000	V		-
6 7 8 9	No name No name No name	3mΩ 3mΩ 3mΩ	0.000 0.000 0.000	mΩ mΩ mΩ	0.000 0.000 0.000	mΩ mΩ mΩ	6V 6V	0.000	V		-

\*Data is also selected in number order, by clicking.

\*Data is also selected by setting data number.

7. Click [Set] button, after setting Name, R Range, R Warning, R Fail, V Range, V Warning and Voltage Judgement (BT3554-50).

Edit	Table										
					Data No.						
		< Prev			2			Next >			
	Name										1
R-R	ange 3m	iΩ V	R-Warning	2			mΩ R-Fai	3		mΩ	
	ange 6V		V-Warning	5				lude polarity	- 1		503
V-IN	ange 6V	~	v-warning	0			v v Inc	iude polarity	cne	CK (B13004-	9U)
			0	/	War Və	ning lue				Set	
			Warning				Pass				
No.	Name	R-Range	R-Warning		R-Fail		V-Range	V-Warning		Voltage Judgement	^
1	No name	3mΩ	0.000	mΩ	0.000	mΩ	6V	0.000	V		1
2	No name	3mΩ	0.000	mΩ	0.000	mΩ	6V	0.000	V		
3	No name	3mΩ	0.000	mΩ	0.000	mΩ	6V	0.000	V		
4	No name	3mΩ	0.000	mΩ	0.000	mΩ	6V	0.000	V		
5	No name	3mΩ	0.000	mΩ	0.000	mΩ	6V	0.000	V		
0			0.000	L ~	0.000	mΩ	6V	0.000	V.		
	No name	3mΩ	0.000	mΩ	0.000	mar	••				
6	No name No name	3mΩ	0.000	mΩ mΩ	0.000	mΩ	6V	0.000	V		
6 7 8			0.000				6V 6V	0.000	V		
6 7 8 9	No name	3mΩ 3mΩ 3mΩ	0.000 0.000 0.000	mΩ	0.000 0.000 0.000	mΩ	6V 6V 6V	0.000	v V		
6 7 8 9 10	No name No name	3mΩ 3mΩ 3mΩ 3mΩ	0.000 0.000 0.000 0.000	mΩ mΩ mΩ mΩ	0.000 0.000 0.000 0.000	mΩ mΩ mΩ mΩ	6V 6V 6V 6V	0.000 0.000 0.000	v v v		
6 7 8 9 10 11	No пате No пате No пате	3mΩ 3mΩ 3mΩ 3mΩ 3mΩ	0.000 0.000 0.000 0.000 0.000	mΩ mΩ mΩ mΩ mΩ	0.000 0.000 0.000 0.000 0.000	mΩ mΩ mΩ mΩ mΩ	6V 6V 6V 6V 6V	0.000 0.000 0.000 0.000 0.000	V V V V		
6 7 8 9 10 11 12	Na name Na name Na name Na name	3mΩ 3mΩ 3mΩ 3mΩ 3mΩ 3mΩ	0.000 0.000 0.000 0.000 0.000 0.000 0.000	mΩ mΩ mΩ mΩ mΩ	0.000 0.000 0.000 0.000 0.000 0.000 0.000	mΩ mΩ mΩ mΩ mΩ	6V 6V 6V 6V 6V 6V	0.000 0.000 0.000 0.000 0.000	V V V V		
6 7 8 9 10 11	No name No name No name No name No name	3mΩ 3mΩ 3mΩ 3mΩ 3mΩ	0.000 0.000 0.000 0.000 0.000	mΩ mΩ mΩ mΩ mΩ	0.000 0.000 0.000 0.000 0.000	mΩ mΩ mΩ mΩ mΩ	6V 6V 6V 6V 6V	0.000 0.000 0.000 0.000 0.000	V V V V		

8. The threshold has been set to the data of No.2.

Edit	Table										
_					Data No.	_					
< Prev					2 Next >						
	Name										]
R-R	lange 3m	iΩ ~	R-Warning	2.0	)00		mΩ R-Fai	1 3.000		mΩ	
V-R	ange 6V	~	V-Warning	5.0	000		V 🖂 Inc	lude polarity	che		50
		*				rning			01101		
		1	0 '	۷	wa Vi	alue				Set	
			Warning				Pass				
No.	Name	R-Range	R-Warning		R-Fail		V-Range	V-Warning		Voltage Judgement	ľ
1	No name	3mΩ	0.000	mΩ	0.000	mΩ	6V	0.000	V		
2	No name	3mΩ	2.000	mΩ	3.000	mΩ	6V	5.000	V	Polarity C	
3	No name	3mΩ	0.000	mΩ	0.000	mΩ	6V	0.000	V		
ŧ.	No name	3mΩ	0.000	mΩ	0.000	mΩ	6V	0.000	V		
	No name	3mΩ	0.000	mΩ	0.000	mΩ	6V	0.000	V		
5					0.000		6V	0.000	V.		
	No name	3mΩ	0.000	mΩ	0.000	mΩ	οv	0.000	V		
6	No name No name	3mΩ 3mΩ	0.000	mΩ mΩ	0.000	mΩ mΩ	6V	0.000	V		
6 7						-			· ·		
6 7 8	No name	3mΩ	0.000	mΩ	0.000	mΩ	6V	0.000	V		
6 7 8 9	No name No name	3mΩ 3mΩ	0.000	mΩ mΩ	0.000 0.000	mΩ mΩ	6V 6V	0.000	V		
5 6 7 8 9 10 11	No name No name No name	3mΩ 3mΩ 3mΩ	0.000 0.000 0.000	mΩ mΩ mΩ	0.000 0.000 0.000	mΩ mΩ mΩ	6V 6V 6V 6V 6V	0.000 0.000 0.000 0.000 0.000	· V V V V		-
6 7 8 9	No name No name No name No name	3mΩ 3mΩ 3mΩ 3mΩ	0.000 0.000 0.000 0.000	mΩ mΩ mΩ mΩ	0.000 0.000 0.000 0.000	mΩ mΩ mΩ mΩ	6V 6V 6V 6V	0.000 0.000 0.000 0.000 0.000 0.000 0.000	V V V V V		
5 7 3 9 10	Na name Na name Na name Na name Na name	3mΩ 3mΩ 3mΩ 3mΩ 3mΩ	0.000 0.000 0.000 0.000 0.000 0.000	mΩ mΩ mΩ mΩ mΩ	0.000 0.000 0.000 0.000 0.000	mΩ mΩ mΩ mΩ mΩ	6V 6V 6V 6V 6V	0.000 0.000 0.000 0.000 0.000	· V V V V		

# Import Profile (BT3554-50)

1. Select [Import Profile].

🛅 Settings on Battery Te	ter	—		×
Set Clock				
Delete Memory	Select Source			
Import Threshold	BT3554-50			
Manage Threshold	◯ Files			
Import Profile				
Manage Profile				
	Import Cancel		Clo	se
				:

2. Select the import source. Here, select BT3554-50 Battery Tester as the source.

🔁 Settings on Battery Test	er			
Set Clock				
Delete Memory	Select Source			
Import Threshold	BT3554-50			
Manage Threshold	◯ Files			
Import Profile				
Manage Profile				
	Import Cancel		Clos	e

\*If you would like to import profile from GENNECT Cross for Android/iOS, select [File] as the source.

3. Click [Import] button to import profile.

et Clock	Date		▼ Time	Title	
elete Memory	2020-12-08		12:26:48	Na titla	
nport Threshold		_			
lanage Threshold		Information	×		
nport Profile			port completed.		
lanage Profile			port completed.		
	New		ОК		
	Duplicate	Import	Export	Open	Close

How to share and manage profiles tables in the cloud (GENNECT Cloud Standard/Pro subscribers can use this feature), please refer to the following.

- Share battery tester profiles in the cloud (BT3554 only, GENNECT Cloud Standard / Pro plans)
- Manage battery tester profiles in the cloud (BT3554 only, GENNECT Cloud Standard / Pro plans)

#### Create the new profile table (BT3554-50)

1. Select [Manage Profile]. The list of profile tables is displayed.

Settings on Battery	Tester			—		×
Set Clock	Date	~	Time	Title		
Delete Memory	2020-12-08		12:26:48	No title		
Import Threshold						
Manage Threshold						
import Profile						
Manage Profile	New	Delete				
	Duplicate	Import	Export	Open	Clos	

2. Click [New] button. [Input Table Name] window pops up. Set the name of the new profile table.

Input Table Name	
Input table name.	
	OK Cancel

### 3. [Edit Profile Table] window is displayed.

		Profile No.		Ne	ext >	
Location Information						0 /72 by
Battery No.	$\begin{array}{c} 0 & \sim & 0 \\ \hline & \downarrow & \downarrow \\ 0 & \sim & 0 \end{array}$ Please enter a Battery No, value	e between 1 and 500			[	Clear 🧯 Set 🗸
No. Location Info.	Device Info.	Batt. No. (Start)	Batt. No. (End)	Mem. Unit	Mem. No. (Start)	Mem. No. (End)
1		0	0		0	0
2		0	0		0	0
3		0	0		0	0
] 4		0	0		0	0
			0		0	0
] 5		0	U		1.5	
5		0	0		0	0
						0
6		0	0		0	
6 7		0	0		0	0
6 7 8 9		0 0 0	0 0 0		0 0 0	0
] 6 ] 7 ] 8 ] 9 ] 10		0 0 0 0	0 0 0 0		0 0 0 0	0
] 6 ] 7 ] 8 ] 9 ] 10		0 0 0 0 0 0	0 0 0 0 0 0		0 0 0 0 0	0 0 0 0
6       7       8       9       10       11		0 0 0 0 0 0 0	0 0 0 0 0 0 0		0 0 0 0 0 0	0 0 0 0 0 0

4. Click [Close] button to save profile table.

Settings on Battery T	ester	– 🗆 X
Set Clock	Date Time	Title
Delete Memory	2020-12-08 14:09:51	AAA
Import Threshold	2020-12-08 12:26:48	No title
	-	
Manage Threshold		
Import Profile		
Manage Profile		
	New Delete	
	UEI 🤾 n 🔾	
	Duplicate Import Expo	ort Open Close
		-

How to share and manage profiles tables in the cloud (GENNECT Cloud Standard/Pro subscribers can use this feature), please refer to the following.

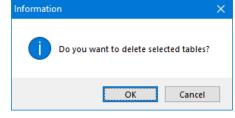
- Share battery tester profiles in the cloud (BT3554 only, GENNECT Cloud Standard / Pro plans)
- Manage battery tester profiles in the cloud (BT3554 only, GENNECT Cloud Standard / Pro plans)

### Delete the profile table (BT3554-50)

3. Select [Manage Profile]. The list of profile tables is displayed.

lock	Date	▼ Time	Title
e Memory	2020-12-08	14:09:51	AAA
rt Threshold	2020-12-08	12:26:48	No title
ge Threshold	-		
rt Profile			
ge Profile	New Del	ete	
	Duplicate		

4. Click [Delete] button. The confirmation message is displayed. Click [OK] button to delete the profile table.

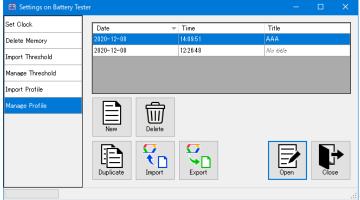


How to share and manage profiles tables in the cloud (GENNECT Cloud Standard/Pro subscribers can use this feature), please refer to the following.

- Share battery tester profiles in the cloud (BT3554 only, GENNECT Cloud Standard / Pro plans)
- Manage battery tester profiles in the cloud (BT3554 only, GENNECT Cloud Standard / Pro plans)

### Transfer the profile table to Battery Tester (BT3554-50)

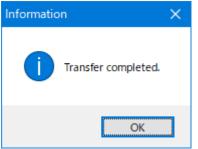
1. Select [Manage Profile]. The list of profile table is displayed.



2. Click [Open] button. [Edit Profile Table] window is displayed.

Edit Table <		Profile No.		N	ext >	
Location Information Device Information Battery No. 0 Memory No. 9	↓ ~ 0 ↓ ↓ ~ 0	between 1 and 500.				0 /72 by 0 /72 by Clear 6
No. Location Info.	Device Info.	Batt. No. (Start)	Batt. No. (End)	Mem. Unit	Mem. No. (Start)	Mem. No. (End)
1		0	0		0	0
2		0	0		0	0
3		0	0		0	0
4		0	0		0	0
5		0	0		0	0
6		0	0		0	0
7		0	0		0	0
38		0	0		0	0
9		0	0		0	0
] 10		0	0		0	0
] 11		0	0		0	0
] 12		0	0		0	0
] 13		0	0		0	0

3. Click [Transfer All] or [Transfer Selected] button. Data in the profile table will be transferred to Battery Tester.



# Edit the profile table (BT3554-50)

1. Select [Manage Profile]. The list of profile table is displayed.

🛅 Settings on Battery	Tester		-	□ ×
Set Clock	Date		Title	
Delete Memory	2020-12-08	14:09:51	AAA	
Import Threshold	2020-12-08	12:26:48	Na title	
Manage Threshold				
Import Profile	_			
Manage Profile	New D	) Welete		
		mport	Open	

- 2. You can duplicate the table in the list by clicking the [Duplicate] button.
- 3. You can import from a file (hok format) by clicking the [Import] button.

4. You can export to a file (hok format) by clicking the [Export] button.

<	Prev	Profile No.		Nex	t>	
Location Information					0 /	72
Device Information					0 /	72
Battery No.					Clear	-
Memory No.	O     Please enter a Battery No. value	ie between 1 and 500			Set	
No. Location Info.	Device Info.	Batt. No. (Start)	Batt. No. (End)	Mem. Unit	Mem. Mem. No. No. (Start) (End)	
		0	0		0 0	
2		0	0		0 0	
3		0	0		0 0	
4		0	0		0 0	
		0	0		0 0	
5		ů.				
5 6		0	0		0 0	
-			0		0 0 0 0	
6		0				
6 7		0	0		0 0	
□ 6 □ 7 □ 8		0 0 0	0		0 0 0 0	
6           7           8           9		0 0 0 0	0 0 0 0 0		0 0 0 0 0 0	
6       7       8       9       10		0 0 0 0 0	0 0 0 0		0 0 0 0 0 0 0 0	
6       7       8       9       10       11		0 0 0 0 0 0	0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0	

# 5. Click [Open] button. [Edit Profile Table] window is displayed.

6. Select the profile to edit by clicking.

	< Prev		Profile No. 2		Ne	xt≻		
	tion Information						0 /721	
	ary No.	$0 \rightarrow 0$ $\downarrow \qquad \downarrow$ $0 \rightarrow 0$ Please enter a Battery No. value	between 1 and 500	1			Clear 💧	
	o. Location Info.	Device Info.	Butt. No. (Start)	Batte No. (End)	Mon Unit	Mem. No. (Start)	Mem. No. (End)	
1			0	0		0	0	
2			0	0		0	0	
3			0	0		0	0	
4			0	0		0	0	
5			0	0		0	0	
6			0	0		0	0	
7			0	0		0	0	
			0	0		0	0	
8			0	0		0	0	
_			0	0		0	0	
9			0	0		0	0	
] 9 ] 10			0	0		0	0	
9 10			0	0		0	0	
] 10 ] 11			U					

\*Data is also selected in number order, by clicking.

\*Data is also selected by setting data number.

Click [Set] button, after setting Location Information, Device Information, Battery No. (Start), Battery No. (End), Memory Unit and NO.

Edit Table <		Profile No.		N	lext >	
Location Information HIOKI Device Information UPS1						5 /72 byte 4 /72 byte
Battery No. [ Memory No. A ~	1 ~ 10 ↓ ↓ 1 ~ 10					Clear 🍐 Set 🗸
No. Location Info.	Device Info.	Batt. No. (Start)	Batt. No. (End)	Mem. Unit	Mem. No. (Start)	Mem. No. (End)
1		0	0		0	0
2		0	0		0	0
3		0	0		0	0
] 4		0	0		0	0
5		0	0		0	0
6		0	0		0	0
7		0	0		0	0
8		0	0		0	0
9		0	0		0	0
] 10		0	0		0	0
] 11		0	0		0	0
] 12		0	0		0	0
] 13		0	0		0	0
Transfer to Battery Tester		10	10		- 10	

\*To clear the contents, click the [Clear] button.

8. The profile has been set to the data of No.2.

Table Name         Profile No.         2       Next>         Location Information       HDXI       5 /72 bytes         Device Information       UPS1       4 /72 bytes         Battery No.       1       10         Memory No.       A       1         No.       Location Info.       Device Info.         Device Info.       Device Info.       Eatt. No.         Info.       Device Info.       Eatt. No.         No.       Location Info.       Device Info.         Info.       Device Info.       Eatt. No.         Info.       Device Info.       Info.         Info.       Device Info.       Info. <tr< th=""><th>😆 Edit Profile Table</th><th></th><th></th><th></th><th></th><th>-</th><th>· □ ×</th></tr<>	😆 Edit Profile Table					-	· □ ×
Image: Prev         2         Next >           Location Information         HDXI         5 /72 bytes           Device Information         UPS1         4 /72 bytes           Battery No.              •              •           Memory No.              •              •           No.         Location Info.              Device Info.              Batter, No. Statt, No.							
Device Information       UPS1       4 /72 bytes         Battery No. <ul> <li></li></ul>	< Prev				N	ext >	
No.         Location Info.         Device Info. <thdevice info.<="" th="">         Device Info.</thdevice>	Device Information UPS1	↓					4 /72 bytes Clear
2         HDKI         UPSI         1         10         A         1         10           3         0	No. Location Info.	Device Info.	Batt. No. (Start)	Batt. No. (End)	Mem. Unit	No.	No.
3       0       0       0       0         4       0       0       0       0       0         5       0       0       0       0       0         7       0       0       0       0       0         8       0       0       0       0       0         9       0       0       0       0       0         11       0       0       0       0       0         12       0       0       0       0       0         Transfer to Battery Tester			0	0		0	0
4       0       0       0       0       0         5       0       0       0       0       0         6       0       0       0       0       0         7       0       0       0       0       0         8       0       0       0       0       0         9       0       0       0       0       0         10       0       0       0       0       0         12       0       0       0       0       0         Transfer to Battery Tester	2 HIOKI	UPS1					10
5       0       0       0       0         6       0       0       0       0       0         7       0       0       0       0       0         9       0       0       0       0       0         10       0       0       0       0       0         12       0       0       0       0       0         13       0       0       0       0       0         Transfer to Battery Tester         Transfer All       Transfer Selected	3		0	0		0	0
6       0       0       0       0       0         7       0       0       0       0       0         8       0       0       0       0       0         10       0       0       0       0       0         11       0       0       0       0       0         12       0       0       0       0       0         13       0       0       0       0       0         Transfer to Battery Tester         Transfer All       Transfer Selected	4		0	0		0	0
7       0       0       0       0         8       0       0       0       0       0         9       0       0       0       0       0         10       0       0       0       0       0         11       0       0       0       0       0         12       0       0       0       0       0         13       0       0       0       0       0         Transfer to Battery Tester         Transfer Salected	5		0	0		0	0
0         0         0         0         0           9         0         0         0         0         0           10         0         0         0         0         0           11         0         0         0         0         0           12         0         0         0         0         0         0           13         0         0         0         0         0         0         0           14         0         0         0         0         0         0         0         0         0	6		0	0		0	0
9       0       0       0       0       0         10       0       0       0       0       0       0         11       0       0       0       0       0       0         12       0       0       0       0       0       0         18       0       0       0       0       0       0         Transfer to Battery Tester         Export Colspan="2">Close Export	7		0	0		0	0
10       0       0       0       0       0         11       0       0       0       0       0       0         12       0       0       0       0       0       0       0         13       0       0       0       0       0       0       0       0         Transfer to Battery Tester       Image: Close Control on the second seco	8		0	0		0	0
11         0         0         0         0         0           12         0         0         0         0         0         0           18         0         0         0         0         0         0         0           Transfer to Battery Tester         0         0         0         0         0         0         0	9		0	0		0	0
12         0         0         0         0         0           13         0         0         0         0         0         0           Transfer to Battery Tester           Transfer All         Transfer Selected         Export C         Olse         Olse	10		0	0		0	0
Transfer to Battery Tester Transfer All Transfer Selected Close Cl	11		0	0		0	0
Transfer to Battery Tester Transfer All Transfer Selected Close	12		0	0		0	0
Transfer to Battery Tester Transfer All Transfer Selected Close	13		0	0		0	
Transfer All Transfer Selected			0	0		0	° ×
		Export	<b>7</b> • 🗋				Close C

# Configure IP addresses for LR8101 and LR8102 DATA LOGGER

By launching this tool from GENNECT One, you can discover multiple LR8101 and LR8102 DATA LOGGERs connected to the PC with LAN cable and set the IP address and subnet mask of the [LAN1] interface of LR8101 and LR8102 at once.

### Note

- When using this tool, connect the PC and the [LAN1] interface of the LR8101,LR8102 with a LAN cable and turn on the instrument.
- If the IP address of the PC and that of the LR8101,LR8102 overlap, the instrument cannot be discovered. It is recommended that the IP address of the PC be set in advance to an IP address other than the factory default IP address (192.168.1.2) of the LR8101,LR8102.

#### **Supported Instruments**

Model	Name	Firmware version
LR8101, LR8102	DATA LOGGER	Ver 1.00 or later

### Launching

Select the [Launcher] tab in GENNECT One and click [LR8101,LR8102 DATALOGGER IP Address Configuration Tool].

	ENNECT One							-		×
Import(I)	Settings(S)	Language(L)	Window(W)	Information(H)					Log in	
			Launcher							
Data	Functions	Console	Launcher							_
ST4030		Impulse \	Winding Te	əster Sampl	e Applicat	ion				
LR8101,LF	88102	LR8101,L	_R8102 D	ATALOGGE	R IP Addr	ess Confi,	guration Too			
			Cancel					1293		:

# **Function Description**

LR8101,LR					
	8102 DATALOGGER IP Ad	Idress Configuration To	ol		- 0
nformation(	H) (1) Menu				
Network Inf	formation (Computer) —	(2) Network	Information (Com	outer)	
Subnet Mas MAC Addre	net	ction (11) I219-LM			
	Timeout (ms) 1000		Search		Search
Status	Model No.	Serial No.	IP Address	Subnet Mask	MAC Address
0	LR8102	230817291	192.168.1.40	255.255.255.0	00:01:67:20:65:87
Ø		230817291	192.168.1.40	255.255.255.0	00:01:67:20:65:87
0		Address (List)	192.168.1.40 P Address (Send Se		00:01:67:20:65:87

# (1) Menu

Item	Item	Description	
Information	Version	Displays version information of this tool.	

# (2) Network Information (Computer)

Item	Description
Network Information (Computer)	Displays network connection information where LR8101 and LR8102 were discovered.

# (3) Search

Item	Description
Search Timeout (ms)	Sets the search result waiting time in milliseconds for LR8101 and LR8102.
[Search] button	Searches for the LR8101 and LR8102 connected to the PC via LAN cable and displays them in the list under
	[IP Address Setting (Instrument)]. The list also displays the communication status of the LR8101 and
	LR8102.

# (4) IP Address Settings (List)

Item	Edit	Description	
Status	_	Displays an icon indicating communication status.	
		See Communication Status for details.	
Model No.	—	Displays the model number.	
Serial No.	_	Displays the serial number.	
IP Address	Yes	Display and edit the IP address.	
Subnet Mask	Yes	Display and edit the subnet mask.	
MAC Address	_	Displays the MAC address.	

# (5) IP Address Settings (Send Settings)

Item	Description
[Send Configuration]	Send the IP address and subnet mask settings to LR8101 and LR8102. Then, a communication check is
button	performed and is reflected in the communication status display.

# (6) Termination

Item	Description
[Register for GENNECT One]	ON: The connection information of LR8101 and LR8102 with communication status of 🔮 is
checkbox	registered in the instrument list in the [Console] tab of GENNECT One and exits this tool.
	OFF: Exits this tool without registering the connection information of LR8101 and LR8102 to
	GENNECT One.
[Close] button	Exits this tool.

# **Communication Status**

Icon	Description			
১	Communication with the measuring instrument was comfirmed.			
	Communication with the measuing instrument cloud not be confirmed.			
8	Note			
	- Mouse over the icon to display the message. When establishing communication between the instrument and the			
	PC, pay attention to the message and set the IP address and subnet mask of the instrument.			
	- Immediately after changing the IP address by [Send Configuration] button, the communication between the			
	computer and the instrument may not be confirmed due to the cache data held by the computer. In this case,			
	please wait for about 30 seconds until the cache data is updated, and then click [Search] button.			

# Display and record measurement values in real time on a PC

# Measured values with the logging feature (Logging Function [LAN])

•[Logging] feature monitors or log measured values with measurement channels and logging interval specified.

•This feature saves the measurement files in the application's database.

- \* This feature supports the real-time measurement via LAN communication.
- \* See the following sections to see the measured data or to export measured data in the CSV format.
- View Data
- Export Data

See the following sections for details on how to use the Time-series(Logging) Viewer

- ≻
- Using the Time-series/Logging Viewer

#### X Since V5.10, logging can be started up to 8 times at the same time.

#### **Supported instruments**

[Logging] (real-time measurement) feature supports following instruments.

Model Name	Product Name	Firmware Ver.	Remarks
PQ3100	POWER QUARITY ANALYZER	V2.10 or Later	*1
PQ3198	POWER QUALITY ANALYZER	V1.10 or Later	*1, *2
PW3335	POWER METER	V1.11 or later	*2, *3, *6
PW3336	POWER METER	V1.23 or later	*2, *3, *6
PW3337	POWER METER	V1.23 or later	*2, *4, *6
PW3360	CLAMP ON POWER LOGGER	V3.10 or Later	*1
PW3365	CLAMP ON POWER LOGGER	V2.00 or Later	*1
PW3390	POWER ANALYZER	V2.00 or Later	*2
PW6001	POWER ANALYZER	V3.02 or Later	*2
PW8001	POWER ANALYZER	V1.00 or later	*2, *4, *5, *7
LR8400, LR8401, LR8402	MEMORY HILOGGER	V1.21 or Later	*1
LR8410	WIRELESS LOGGING STATION	V1.42 or Later	*1
LR8450, LR8450-01	MEMORY HILOGGER	V1.20 or Later	*1, *8
LR8101, LR8102	DATA LOGGER	V1.00 or Later	*1, *8
MR6000	MEMORY HICORDER	V2.12 or Later	*1
BT5525	BATTERY INSULATION TESTER	V1.00 or Later	*1
BT4560-50 *1	BATTERY IMPEDANCE METER	V1.00 or Later	*1, Models with LAN interface only
BT6065, BT6075 *1	PRECISION BATTERY TESTER	V1.00 or Later	*1
ST5680	DC HIPOT TESTER	V1.00 or Later	*1,
IM3523A	LCR METER	V1.02 or Later	*1, Models with LAN interface only
RM3545A	RESISTANCE METER	V1.00 or Later	*1, *9, LAN communication port only supports the default value of 23)
DM7275, DM7276	PRECISION DC VOLTMETER	V1.09 or Later	*1, LAN communication port only supports the default value of 23

\*1 If the measurement of instrument is stop state when the measurement is started by this function, it will shift to the start state.

\*2 If the measurement of instrument is stop state when the measurement is started by this function, it will shift to the start state.

\*3 All of the analysis data of the measurement instrument is reset by starting the measurement with this feature. It is recommended to use this

feature after the recording and analysis of the measurement data has been completed (Data reset state).

\*4 All of the integrated data of the measurement instrument is reset by starting the measurement with this feature. It is recommended to use this feature after the recording and analysis of the integration data has been completed (Data reset state).

\*5 If the setting of integration by each wiring is enabled on the instrument when measurement is started using this function, The setting is changed to integration by all wires.

\*6 If the version of this application is less than V5.10, acquisition of harmonic items is not supported. Please upgrade this application to V5.10 or later.

\*7 Do not use "," or ";" as a unit when setting the user-defined function (UDF) of the main unit. \*8 Do not use "," or ";" as a unit when setting the waveform calculation and scaling functions of the main unit.

\*9 The RM3545A does not support measurement time longer than 1 minute, so reduce the measurement SPEED, AVERAGE, DELAY, OVC, and number of channels so that the measurement time is less than 1 minute.

### Limitations

[Logging] (real-time monitoring/logging) feature has following limitations.

feature	limitation	remarks
Number of concurrent logging executions	8	Since V5.10
Maximum number of channels	512 channels + 16 channels	Up to 32 channels can be displayed on the graph and the
	(inter-channel calculation	data list.
	channels)	* When multiple logging is executed, the total number of logging channels must not exceed the limit.
Maximum number of instruments	30 instruments	<ul> <li>* When multiple logging is executed, the number of logging connected measuring instruments must not exceed the limit.</li> <li>* When multiple logging is executed, the same instrument cannot be specified for multiple logging.</li> </ul>
Interface	LAN	
Logging Interval	1/2/5/10/30 s	The application determines the minimum logging interval
	1/2/5/10/30 min	by measuring the time for getting measured values of
	1 hour	selected channels.
Maximum number of inter-channel calculation channels	16 (Z1 to Z16)	* When multiple logging is executed, the total number of channels for inter-channel calculations must not exceed 16 channels.
Data segmentation	1 day/1 hr.	
Automatic output (daily report) save interval	l day	<ul> <li>When logging is enabled:</li> <li>→ Automatically generated daily at 23 hr. 59 min. 59 sec.</li> <li>When logging stopped:</li> <li>→ Automatically generated when logging stops</li> </ul>
	1 day/1 hr.	When logging is enabled:
Automatic output (CSV) save interval	*As determined by data	$\rightarrow$ 1 day: Automatically generated daily at 23 hr. 59 min. 59 sec.
	segmentation setting	$\rightarrow$ 1 hr.: Automatically generated daily at XX hr. 59 min. 59 sec. When logging stopped:
		$\rightarrow$ Automatically generated when logging stops
Automatic output (daily report) format	Excel	

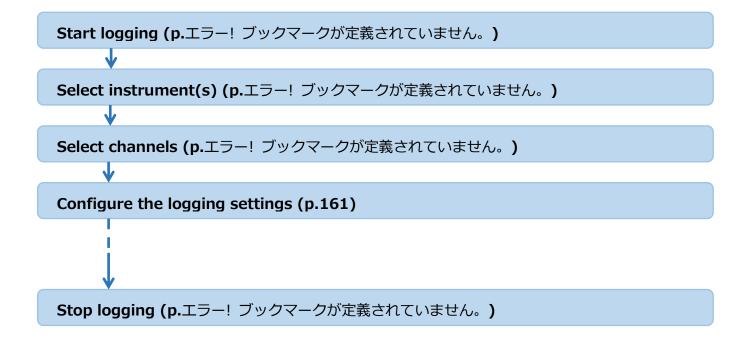
#### [Logging] (real-time monitoring/logging) feature has following limitations about the network configuration.

feature	limitation	remarks
Interface	LAN	
Network range for auto instrument detection.	<ul><li></li></ul>	
	computer.	
DHCP	Not supported	

#### **Overview of the measurement**

Follow the steps below to start or stop logging.

Set up communication between the computer and the instruments (LAN)



### **Start logging**

#### **Start logging**

1. Click [Measurement], then click [Logging].

🖸 HIOKI GEN	NECT One						
Import(l)	Settings(S)	Language(L)	Window(W	/) Information(H)			
Data	Functions	Console	Launcher				
Measuren	nent Functio	ns					
PW3360/P	PW3360/PW3365/PW3390/PW6001/PQ3100/PQ3198/LR8400 series/LR8410/LR8416/MR6000						
Logging							

#### Select instrument(s)

[Select Instrument] window is displayed.
 "Searching instruments" message will be displayed until the application finishes searching the instruments connected to the computer.

IP Address Instrument Processing × Searching instruments.	Select Instrument				-		×
Processing ×				Update autor	natically		0
Processing ×	AN						
Searching instruments.		IP Address	Inst	rument			
		Processin	9	×			
		Sec. 1	Searching in	struments.			
LAN			mm				_
	LAN						
Start Close						Clos	e

6. The instruments found in the step 1 will be listed.

natically		
aucany	ý	?
0#0000	000000,1	/2.30
60-11#1	1612248	39,V3.21
0#1303	17911,V	1.41
lect the	instrun	nent.
_	_	
	Clo	se
	60-11#1 0#1303	0=000000000, \ 60-11#1612248 0#130317911, V lect the instrum

- \* To search instruments again, click Update button.
- When the "Update Automatically" checkbox is turned OFF, automatic search for measuring instruments is not performed when this screen is opened.
   When the "Update Automatically" checkbox is checked ON, automatic search for measuring instruments is performed when this

screen is opened.

X If the found instrument has never connected in this application, the instrument will be listed like following.

			IP Address	Instrument		
		?	172.19.114.230	•	<- Select the instrument.	
If yo	ou w	ant to	connect this instrum	ent, select the	instruments' model in	n the [instrument] combo box.
			IP Address	Instrument		
			172.19.114.230	PQ3100	PQ3100#00000000,V2.30	

- If you want to add the instrument that has not been found in the [Update], input the IP address directly in the [Set the IP address] textbox and select the instruments' model in the [instrument] combo box.

   Set IP Address here.
   < <->> Select the instrument.
- \* To check the connection, select [Check Connection] in the right click menu.

	IP Address	Instrument	I
	172.19.114.230	Delete (D)	
	 Set IP Address	Check Connection (C)	
	JELIF AUUIESS 9		1

It will become the following displays if the communication with the instruments is disrupted.

IT2.19.114.230 Select the instrument.	IP Address	Instrument	
	172.19.114.230	•	<- Select the instrument.

X To delete the instrument, select [Delete] in the right click menu.

	IP Address	Instrument
	172.19.114.230	Delete (D)
	Set IP Address	Check Connection (C)

7. Select the instruments for logging. Click [Start] to go to next step.

Select Ins	trument			-		×
Upda	te	🗹 Upd	ate a	utomaticall	y	0
AN						
	IP Address	Instrument				
	172.19.114.230	PQ3100	•	PQ3100#0	00000000	V2.30
2	172.19.114.231	PW3360	•	PW3360-1	1#161224	839,V3.2
	172.19.114.232	LR8410		LR8410#1	30317911,	V1.41
	Set IP Address here.		-	<- Select	the instru	ment.
LAN		1000	-			
- Cont						
			Sta		0	ose
			Sta	IT.	Ci	ose

The status with light-green color means that the instrument is discovered but not connected. To connect the instrument, doubleclick on the status icon or click [Start] button.

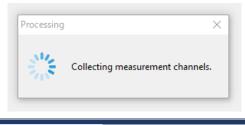
L	AN					
			IP Address	Instrument		
			172.19.114.230	PQ3100	•	PQ3100#00000000,V2.30
۵			172.19.114.231	PW3360	•	PW3360-11#161224839,V3.21
		?	172.19.114.232		•	<- Select the instrument.

Connected:	Green (
Discovered:	Light-green (
Disconnected:	Red (

#### Select channels (Setting Calculation Channels)

1. [Channel Selection] window is displayed.

"Collecting measurement channels." message will be displayed until the application finishes collecting the available channels of instruments.



2. Available channels are displayed in the list.



- % To search available channels again, click  $\bigodot$  button.
- In PQ3100,PQ3198,PW3360,PW3365,PW3335\*,PW3336\*,PW3337\*,PW8001 (with harmonics analysis only), you can select the harmonics measurement channels by selecting the drop down list of measurement items.

\*If the version of this application is less than V5.10, the acquisition of harmonic items for PW3335, PW3336, and PW3337 is not supported. Please upgrade this application to V5.10 or later.



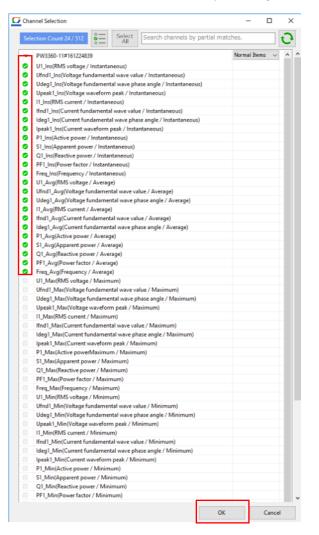
Measurement items of some instruments, such as PW3336, PW8001, PQ3198 are displayed with an identification name (e.g. PWP, MUpk). Please refer to the following for the correspondence between the identification name and the measurement item name.

> Identification name and measurement item name in Logging and Dashboard function

※ If the number of measurement parameters for normal items exceeds 1200, the page will be divided into multiple pages. In such a case, select the page to be displayed in the combobox and switch pages.

-	LR8450-01#000000055	Normal Items, page 1 🗸
0	UNIT1_CH1(UNIT1_CH1)	Normal Items, page1 Normal Items, page2
0	UNIT1_CH2(UNIT1_CH2)	

3. Select the measurement channels by clicking check-boxes. Click [OK].



#### **W** Up to 512 channels can be selected for logging measurement.

- X To filter the channels by channel name, input the filter text in the [Search channels by partial matches] text box.
- ※ To filter the channels to checked channels only, click button.
- \* To select all channels displayed or to deselect all channels displayed, click
- 4. To use selected measurement channels to perform an inter-channel calculation, select the [User inter-channel calculation] checkbox and click the [Enter Formula] button.

button.

- Ins(Apparent power / Instantaneous)

   Q1\_Ins(Reactive power / Instantaneous)

   PF1\_Ins(Power factor / Instantaneous)

   Frea Ins(Frequency / Instantaneous)

   ✓ Use inter-channel calculation

   Enter formula

   OK
- 5. To use selected measurement channels to perform an inter-channel calculation, set the formula on the [Formula Settings] dialog box.

See below for more information about the [Formula Settings] dialog box.

Configuring detailed settings for inter-channel calculations

<u>0</u> F	ormula settir	gs							- C	×		
	Z1									^		
Co	mment:							Unit:				
For	mula: C	01+C02										
											_	
	ormula settir	igs									- 0	×
Z1								Constant lis	t Channel list			
CO	1+C02								Model	Serial	Item	^
	unctions			 Numeral	s and Op	erators -		▶ C01	PW3360-11	130622960	U1_Ins	
	uncuons		·	territeron.				C02	PW3360-11	130622960	Ufnd1_Ins	
	ABS	SIN	FLOOR	BS	DEL	с		C03 C04	PW3360-11 PW3360-11	130622960 130622960	Udeg1_Ins	
								C04 C05	PW3360-11 PW3360-11	130622960	Upeak1_Ins U2_Ins	
	EXP	cos	CEIL	1			1	C06	PW3300-11	130022900	uz_ins	
	LAI			× .	· ·		Ľ	007		-		
	LOG	TAN	ROUND	7	8	9		COS				
	100	TAN	ROUND	1	8	l a	1 °	C09				
			1					C10				
	LN	ASIN		4	5	6	-	C11				
			1			<u> </u>		C12				
	SQR	ACOS		1	2	3	+	C13				
			1	⊢		<u> </u>		C14				
	CBR	ATAN		0		E	1	C15				
			-	L				C16 C17				
	PWR	ATAN2						C17				
			J					C19				
								(20				
F	ormula :	Z1 ~	input					C21				
								C22				
								C23				
									Setting the cha	annel	OK Can	cel

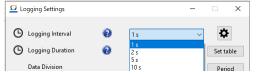
### Configure the logging settings

1. [Logging Settings] window is displayed.

"Measuring the time for data acquisition" message will be displayed until the application finishes measuring the time for data acquisition.

Logging Settings	-					
Logging Interval		<ul> <li>↓</li> </ul>				
🕒 Logging Duration 🛛 🔞		<ul> <li>Set table</li> </ul>				
Data Division	1 day	Period				
Automatic export settings Output the report						
Processing	Monthly	×				
Calculating how long i values	t will take to acquire measu	ired				
Folder D:\tem	p\HIOKI					
Start Logging     Cancel						

2. Select the logging interval from the [Logging Interval] combo box.



- \* Although the logging interval can be selected from 1s/2s/5s/10s/30s/1min/2min/5min/10min/30min/1hour., the minimum logging interval is determined by the application from the result of measuring the time for data acquisition.
- ※ [Data Division] will be changed if you select the [Logging Interval]. Logging data will be divided and saved when the time span has elapsed that is displayed in the [Data Division].

- Logging specified in the logging schedule must be less than 1 minute.Logging intervals exceeding 1 minute cannot be registered in the table.
- Select the logging duration in the [Logging Duration] combobox.
   Continuous: Continue logging until the logging is stopped manually.
   Specified Time: Specify the duration between 1s and 30days23hours59min59s.

Logging Settings			-	□ ×	
O Logging Interval	0	1 s	~	\$	
Logging Duration	0	Continuous	~	Set table	
Data Division		Continuous Specified Time		Period	

4. In [Data Division], select the interval at which the logging data is split and saved. Choose from 1 day / 1 hour for data dividing.

Logging Settings		-		×				
Logging Interval     Image: Comparison of the second	1 s Continuous	~	Set tab	le				
Data Division	1 day	$\sim$	Perio	d				
Automatic export settings Output the report								
Daily Weekly Monthly  Data save destination  GENNECT One  Folder  D:\temp\HIOKI								
Export a CSV file								
• Start Logging Cancel								

5. Configure settings related to the reports (Daily/Weekly/Monthly).

and .CSV automatic output under [Automatic Output Settings].

Item		Description							
Output	Daily/Weekly/	On: Automatically output the selected reports.							
report	Monthly *1	Off: Do not automatically output the selected reports.							
	Data save	Specifies where t	Specifies where to save the reports.						
	destination	GENNECT One:							
		·Save the reports in the GENNECT One data list.							
		Data Functions Consol	le Laun		Date	Time	Title	Comment	
		Deta Report	ų.	- 20	21-08-31 (1 ite	m)			
					Report	2021-08-31	10:43:09	Daily report(Excel)	2021-08-31 10:43
		Folder:							
		Save the reports in a user-selected directory. Click the [] button to select the directory in							e directory in
		which to save the	e reports						

		Image: TEST2       -       □       ×         ←       →       ↑       Image: Test2       √       Image: Test2       Image: Test2       √       Image: Test2       Image: Test2       √       Image: Test2       Image: Test2 <td< th=""></td<>						
	Detailed settings	AutoReport_2021-08-31       2021/8/31 10:42       XLSX File       50 KB         Configures detailed settings related to automatic output of the reports.						
	\$	<ul> <li>See below for more information about the settings.</li> <li><u>Configuring detailed settings for automatic output</u> (daily/weekly/monthly reports)</li> </ul>						
Output CSV	On/off	On: Automatically output CSV files based on the logging data segmentation time (1 day/1 hr.).         Off: Do not automatically output CSV files based on the logging data segmentation time (1 day / 1 hr.).						
	Data save destination	·CSV files are saved in a user-selected directory. Click the [] button to select the directory in which to save daily reports.						
	Detailed settings	Configures detailed settings related to automatic output of CSV files.         See below for more information about the settings.         >       Configuring detailed settings for automatic output (CSV)						

\*1 : If multiple logging or logging schedules are set to output the same file name at the same time, the file name may be changed and saved.

- 6. To specify the start and end time of logging, click the "Period" button and set the additional logging settings that will be displayed.
  - X Logging specified in the logging schedule must be less than 1 minute.

Logging intervals exceeding 1 minute cannot be registered in the table.

Logging Setting					
Cogging Settin	igs			_	- ^
C Logging Int		0 0	1 s Continuous	~	Set table
Data Divisio	on		1 day	~	Period
Start time Stop time	nging Settings Not specified Not specified		<ul> <li>2022/11/30</li> <li>2022/11/30</li> </ul>	<ul><li>▼ 15:32:</li><li>▼ 15:32:</li></ul>	
			ОК	Can	cel

Start time	Not specified : Logging starts immediately when the [Start Logging] button
	is clicked.
	Specify : Logging will start at the specified time when the [Start Logging] button is
	clicked.
Stop time	Not specified : Logging will not stop automatically.
	Specify : Automatically stops logging at the specified time.

7. To start logging, click [Start Logging].

[Logging] windows will be displayed and logging will be started.

Logging Settings		-						
<ul> <li>Logging Interval</li> <li>Logging Duration</li> <li>Data Division</li> </ul>	1 s Continuous	~	Set table					
Automatic export settings Output the report								
Daily Weekly Monthly  Data save destination      GENNECT One      Folder      D:\temp\\HIOKI								
Export a CSV file								
• Start Logging Cancel								

# **Stop logging**

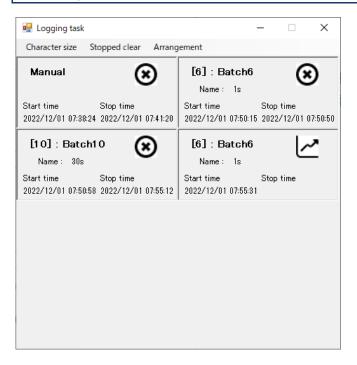
To stop logging, click [Stop Logging].
 Logging will be stopped and data will be saved in the data list of the application.

### **Display logging tasks**

When logging is started or the [Settings]-[Logging Task] menu is selected, the logging task screen is displayed.

- The logging task screen displays information on logging that is currently being performed and logging that has been completed.
- Double-clicking on the logging information displayed in the logging task screen activates the corresponding logging screen.

#### Screen layout





① Logging type

In case of normal logging start, "Manual" is displayed. If logging is started from a logging table, the batch number is displayed as "[1]:Batch1"

- ② Batch name (when logging is started from the logging table)Displays the batch name registered in the logging table.
- ③ Start time

Displays the time when logging was actually started.

④ End time

Displays the time when logging actually ended.

<sup>(5)</sup> Logging status icon

The icon is displayed while logging is in progress and after logging has stopped.

The *icon* is displayed while logging is in progress, and the *icon* is displayed after logging has stopped.

### About the Menu

The following menus are available on the logging task screen

Character size Stop		ped clear Arrangem		angement
	Small			Vertical
~	Standard	(X	~	2 rows
	Medium			4 rows
	Large	top time .022/12/01 0		Horizontal

Menu	Description			
Character size	You can select the size of the displayed characters from four types (small, standard,			
	dium, and large).			
	e screen size is also changed according to the character size.			
Stopped clear	Clears all display sections after logging has been stopped.			
Arrangement	You can select from four types of display arrangement (one vertical row, two columns, four			
	columns, or one horizontal row).			

Right-click on the display after logging has stopped, and the [Clear] menu will appear.

Selecting the [Clear] menu will clear only the specified display.

	C	lear		
itari 022	t time /12/01	09:33:53	Clear the	panel

Screen layout



① [Monitor]

•Displays the current measured value or the measured value that is selected in the data list. The measurement channels that has been checked in the [Monitor] will be displayed in the graph(1) and the data list (2).

- % Up to 32 channels can be displayed in the graph and the data list.
- % To change the channel name, click  $\checkmark$  button.
- Filter to checked button (E) : Filters the channels to checked channels only.
- Deselect all button ( Deselects all channels.
- Filter by channel name : filters the channels by channel name, input the filter text in the [Search channels by partial matches] text box.
- ② [Graph]

Graph up to 600 data points are displayed. If data points exceed 600, the track bar will be displayed for changing the graph area to display.

• Display all area button ( ): Reset the display area and change into the display mode that always show the latest value. Double-clicking on the graph or pressing down the [Esc] key has the same feature.

•Move button () : Changes the operation mode into the mode that moves the graph area when it is zoomed. Dragging with the mouse right button down has the same feature.

### ③ [Data List]

Moving the cursor over the graph will highlight the corresponding data line in the list.

④ [Title]

Input the title for the logging data.

# **Waveform Tool Buttons**

These buttons provide access to tools for displaying and manipulating waveforms.



	Name	Description
<b>V</b>	Toggle Cursor	Switches the active cursor among the following: trace cursor, A cursor, and B cursor.
<b>^~</b>	Display All	Displays waveforms on the waveform display screen in their entirety.
Phy.	Adjust Position	Adjusts the position of the vertical axis of the waveforms being displayed on the waveform display screen.
d the second sec	Move	Toggles move mode on and off.         On:       Dragging the mouse's left button moves (scrolls) the waveform.         Off:       Dragging the mouse's left button enlarges the waveform's rectangle.
X	Display Time Axis	Switches the method used to display the time axis.         Absolute time: Switches the time axis display method to absolute time.         The absolute time display uses the following format: "HH:mm:ss"         Relative time (auto):         Switches the time axis display method to elapsed time using the start position of each measurement parameter's waveform as the zero point. The elapsed time is displayed using units that are determined automatically based on the waveform's overall duration.         Relative time (seconds):         Switches the time axis display method to elapsed time using the start position of each measurement parameter's waveform as the zero point. Elapsed time is displayed in seconds.         Relative time (point):         The display method of the time axis changes to the number of data points starting from the start position in the waveform of each measurement item.
Ŷ	Display Numerical Axis	Switches the method used to display the numerical axis.         Separate axis for each channel:         Displays a separate numerical axis for each measurement parameter (channel).         Single axis for all channels:         Displays a single numerical axis for all displayed measurement parameters (channels).
	Display Settings	Configures display settings for the waveforms being displayed on the waveform display screen.
$\sim$	Save Waveform Image	Copies an image of the waveforms being displayed on the waveform display screen to the clipboard. Saves an image of the waveforms being displayed on the waveform display screen to a file.

# Manipulate the waveform

This section describes how to zoom in / zoom out /move a waveform.

Zoom in/out (Mouse wheel)	<ul> <li>Zoom in/out <ul> <li>Rotate the mouse wheel on the waveform screen to expand and contract the entire waveform both vertically and horizontally.</li> </ul> </li> <li>Zoom in/out horizontally <ul> <li>Rotate the mouse wheel on the bottom 5% of the waveform screen to zoom in/out the entire waveform horizontally.</li> <li>Rotate the mouse wheel on the time axis (X-axis) to zoom in/out the entire waveform horizontally.</li> </ul> </li> <li>Zoom in/out vertically</li> </ul>				
(Mouse wheel)	<ul> <li>and horizontally.</li> <li>Zoom in/out horizontally <ul> <li>Rotate the mouse wheel on the bottom 5% of the waveform screen to zoom in/out the entire waveform horizontally.</li> <li>Rotate the mouse wheel on the time axis (X-axis) to zoom in/out the entire waveform horizontally.</li> </ul> </li> <li>Zoom in/out vertically</li> </ul>				
	<ul> <li>Rotate the mouse wheel on the bottom 5% of the waveform screen to zoom in/out the entire waveform horizontally.</li> <li>Rotate the mouse wheel on the time axis (X-axis) to zoom in/out the entire waveform horizontally.</li> <li>Zoom in/out vertically</li> </ul>				
	horizontally. - Rotate the mouse wheel on the time axis (X-axis) to zoom in/out the entire waveform horizontally. <b>Zoom in/out vertically</b>				
	<ul> <li>Rotate the mouse wheel on the time axis (X-axis) to zoom in/out the entire waveform horizontally.</li> <li>Zoom in/out vertically</li> </ul>				
	■Zoom in/out vertically				
	<ul> <li>Rotate the mouse wheel on the 5% left side of the waveform screen to zoom in/out the entire waveform vertically.</li> </ul>				
	- Rotate the mouse wheel on the value axis (Y-axis) to zoom in/out vertically the entire waveform of the channel belonging to the value axis.				
Zoom in	■Zoom in Drag the left manage button on the waveform encounts to zoom in the artige waveform with the materials area				
(Rectangle area)	Drag the left mouse button on the waveform screen to zoom in the entire waveform with the rectangle area.				
	<b>Zoom in horizontally</b> Drag the left mouse button on the bottom 5% of the waveform screen to zoom in the entire waveform with the rectangle area horizontally.				
	Drag the left mouse button on the time axis (X-axis) to zoom in the entire waveform with the rectangle area horizontally.				
	■Zoom in vertically				
	Drag the left mouse button on the 5% left side of the waveform screen to zoom in the entire waveform with the rectangle area vertically.				
	Drag the left mouse button on the value axis (Y-axis) to zoom in with the rectangle area the entire waveform of the channel that belongs to the value axis.				
	■Restore rectangular expansion Click the right mouse button on the waveform screen, and then click Restore Rectangle expansion				
	(Restore rectangular expansion.), you can return the rectangle magnification that was executed just before.				
Display All	Click on the Display All () button to display the entire waveform.				
	Double-click the left mouse button on the waveform screen to display the entire waveform.				
	Press [ESC] key to display the entire waveform.				
Zoom in and out	Zoom in and out horizontally.				
( button)	• ( Click the button to zoom in horizontally (time axis direction).				
	• ( Click the button to shrink the image horizontally (in the time axis direction).				
Zoom in and out	Zoom in and out horizontally.				
(List)	Click the right mouse button on the waveform screen and click "Time Axis Expansion" to expand the				
	waveform in the horizontal direction (time axis direction). Click the right mouse button on the waveform screen and click the "Time Axis Shrink" button to shrink the				
	waveform in the horizontal direction (time axis direction).				
	Click on a time value displayed by clicking on the time axis, the section of the time value is displayed as a waveform.				
	Whole				
	25				
	The article sector 1s				
	Time axis expansion. 500ms				
	Time axis reduction. 200ms				
Moving					
Moving (Scroll bar)	■Move horizontally Move the scroll bar at the bottom of the waveform screen to move the waveform horizontally.				
Moving (Keystrokes)	Move the entire waveform by keystrokes.				
	■Move horizontally				
	$[Shift]+[\rightarrow]$ key: Move the entire waveform to the right.				
	$[Shift]+[Ctrl]+[\rightarrow]$ keys: Move the entire waveform to the right in fine increments. $[Shift]+[\leftarrow]$ : Move the entire waveform to the left.				
	$[Shift]+[Ctrl]+[\leftarrow]$ keys: Move the entire waveform to the right in fine increments.				
	■Move vertically				

<ul> <li>[Shift]+[↑] keys: Move the entire waveform upwards.</li> <li>[Shift]+[Ctrl]+[↑] keys: Move the entire waveform upwards in fine increments.</li> <li>[Shift]+[↓] keys: Move the entire waveform downwards.</li> <li>[Shift]+[Ctrl]+[↓] keys: Move the entire waveform downward in fine increments.</li> </ul>	
---	--

# Using the logging schedule

By using a logging schedule, logging can be started automatically with start and end times set in advance.

- The logging information to be registered in the schedule is managed in a logging table.
- The logging information registered in the logging table can be specified in a schedule, and up to eight logging events can be automatically started.
- Logging information registered in the logging table can be used to start normal logging.
- The conditions for logging to be activated in the logging table and schedule are the same as those for normal logging operation.

See below for conditions :

Limitations (Logging)

#### Workflow

Use the logging schedule in the following steps.

Set logging settings to logging table (p.エラー! ブックマークが定義されていません。)

Register logging settings set in the logging table as a logging schedule (p. $\pm \neg -!$ 

Start logging schedule (p.エラー! ブックマークが定義されていません。)

Logging automatically starts/stops at specified times

Stop logging schedule (p.エラー! ブックマークが定義されていません。)

### Logging table

Select [Settings]-[Logging Table] menu to display the Logging Table screen.

The Logging Table screen is used to manage logging information to be registered in the schedule.

• The following logging settings are not saved in the logging table.

It also cannot be specified in the logging run from the logging table.

Logging start time (fixed to "Not specified")

Logging stop time (fixed to "Not specified")

Logging duration time (fixed to "Continuous ")

• The logging interval must be 1 minute or less for logging that can be performed on a logging schedule. For this reason, logging interval settings exceeding 1 minute cannot be registered in the logging table.

#### Screen layout

	gging table					_		
No.	Batch name	Interval	Model	Channels	Remarks	Setting	Action	1
1	1 Sample01 🕥	2 s 🔇	PW3360-10:131199442	<sup>4</sup> (5)	6	Setting	🖒 Start 🌈	5
ע	2 Sample02 🥝	1 s 🕑	PQ3100:160699454	2		Setting	Start 🤇	2
	3	1 m	PQ3100:160699454	2		Setting	Start	
	4					Setting	Start	
	5	1 s	PW3360-10:131199442	6		Setting	Start	
	6 1s	1 s	PW3360-10:131199442	6		Setting	Start	
	7 2s	2 s	PW3360-10:131199442	6		Setting	Start	1
	8 5s	5 s	PW3360-10:131199442	6		Setting	Start	1
	9 10s	10 s	PW3360-10:131199442	6		Setting	Start	
1	0 30s	30 s	PW3360-10:131199442	6		Setting	Start	
1	1 1min	1 m	PW3360-10:131199442	6		Setting	Start	
• 1	2					Setting	Start	
1	3					Setting	Start	
1	4					Setting	Start	Ĩ
1	5					Setting	Start	Í
1	6					Setting	Start	Í
1	7					Setting	Start	Í
1	8					Setting	Start	Í
1	9					Setting	Start	Í
2	0					Setting	Start	
2	1					Setting	Start	

#### ① Batch No.

Batch number for table management.

The batch name can be edited on the table.

② Batch name

A name can be given to the logging settings registered in the logging table.

The batch name can be edited on the table.

③ Interval

The logging interval of the logging settings registered in the logging table is displayed.

4 Model

Displays the models used in the logging settings registered in the logging table in the "Model name : Serial number" format.

If multiple models are used, they are separated by commas.

(5) Channels

Displays the number of items (excluding inter-channel calculation channels) specified in the logging settings registered in the logging table.

6 Remarks

A character string can be set as batch information.

The Remarks column can be edited on the table.

#### ⑦ [Settings] button

Clicking the [Settings] button allows you to change some of the logging settings registered in the logging table.

Please refer to the following for detailed information on logging settings.

Configure the logging settings

```
Opening the automatic output settings
```

💀 Batch No.:1	-	×
Lorging Interval 2s Selected Channels PW3860-10#31199442: U1J.ne PW3860-10#31199442: Und I.ne PW3860-10#31199442: Ubdet [.ne PW3860-10#31199442: Ubdet [.ne		 ^
PW3860-10#131199442 : Upeak Tine PW3860-10#131199442 : Upeak Tine Data Division 1 day ~		
Automatic export settings Output the report Daily Weekly Monthly		
Data save destination O GENNECT One  Folder D:\temp\HIOKI		
Export a CSV file		
Schedule Color OK Cancel		

\* Logging intervals exceeding 1 minute cannot be set.

#### ⑧ [Start] button

Clicking the [Start] button starts normal logging using the logging settings registered in the logging table.

• When logging is started, the [Start] button changes to the [Stop] button and the [Settings"] button becomes inactive.

Setting	Action
Setting	Stop
Setting	Start

• When logging is stopped with the [Stop] button, whether the measurement of the measurement device is stopped or not depends on the "Instrument stops when logging stops" setting in the [Logging/Dashboard] tab of the Application Common Settings.

See below for details on the "Instrument stops when logging stops" setting.

- Configure the logging settings
- When logging is started, logging information is displayed in the logging task. See below for details on logging settings.
  - Display logging tasks
- 9 Toolbar

The following operations can be performed from the toolbar.

The operations available on the toolbar can also be selected in the pop-up menu.

Menu	Description

Сору	Copies the settings of the selected rows.
Paste	Copies the settings of the copied rows to the selected rows.
Clear	Clears the settings of the selected rows.
All clear	Clears all logging table contents.

#### **Register logging table**

Registration to a logging table is performed from the logging settings screen.

Click the "Set Table" button on the logging setup screen to display the logging table registration screen.

Logging Settings			—	
O Logging Interval	0	1 s	~	⇔
Logging Duration	0	Continuous	~	Set table
Data Division		1 day	~	Period

When an item is set in the logging table registration screen and the [Set to blank and close] or [Set and close] button is clicked, the logging settings will be registered in the logging table.

Register in the logging table	_		×
Register the currently set logging settings in a ta	able.		
Batch No. 1			
Batch Name			
Information			
Schadule Color Custom Bar Color 📄 Customize 📄 Text Color 📄 Customize 📄		Selected Selected	]
Set to blank and close Set and close		Cancel	

Item	Description
Batch No.	Specify the batch number to be registered.
	The initial value is the lowest number among the table's unregistered numbers.
Batch name	Name the logging information to be registered.
Remarks	You can enter supplementary information about the logging information to be registered.
Schedule Color	The color of logging schedule information displayed on the logging schedule screen can be specified
Setting	individually.
	If not specified individually, the information will be displayed in the overall color.
	When the "Customize" checkbox is ON, the logging schedule information is displayed in the color shown in
	the left frame.

The	The color can be changed on the color selection screen that opens when the "Select Color" button is clicked.		
Bar	Bar Color Set the display color of the logging schedule information before/while it		
		running.	
Text	tt Color	Set the text color of logging schedule information.	

# **Logging Schedule**

Screen layout

Select [Settings]-[Logging Schedule] to display the logging schedule screen.

The logging schedule screen allows you to register logging information managed in the logging table on the schedule to automatically start up to eight logging operations.

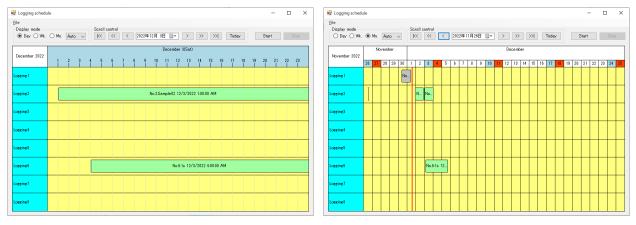
- \* When a logging schedule is executed, logging, dashboard, and remote operation modes cannot be executed. Similarly, logging schedule cannot be started while logging, dashboard, or remote monitoring mode is being executed.
- \* The contents of the logging table can be changed or overwritten after the schedule is registered. Please be careful when changing the logging table contents registered in the schedule.

Logging schedu	ule 6					– 🗆 X
ile	(	D				
Display mode O Day	O Mo. Auto ∨	OCIOII COITUOI	< November 3	29, 2022 🗸 🖒	>> >>  Today Sta	
	November 29(Tue)	November 30(Wed)	December 1(Thu)	December 2(Fri)	December 3(Sat) December 4(Sun)	December 5(Mon)
November 2022	6 12 18	6 12 18	6 12 18	6 12 18	6 12 18 6 12 18	6 12 18
.ogging 1		No.1:Sample	01 11/3			
.oeeine2				No.2:Sample02 12/	No.2:Sample02 12/	
.ogging3		2			2	
.ogging4		J				
.ogging5						
.ogging6					No.6:1s 12/3/2022 4:00:00	АМ
.ogging7						
ogging8						

① Schedule registration area

Displays the currently registered schedule status.

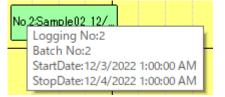
- Logging 1-8 indicates each logging schedule, and each logging schedule is processed in parallel.
- The area display range can be switched to 1 day, 1 week, or 1 month by changing the display mode.
- In the case of daily or weekly display, the date and time are displayed in the column headers.
- The red vertical line on the area indicates the current time.



② Logging schedule information before start/beginning of logging

This indicates the logging schedule information to be executed or the logging schedule information that is currently being executed.

• If the string is only halfway through the display, the information is displayed with a tooltip when the mouse cursor is placed on the string.



# ③ Logging schedule information after stop

This indicates the logging schedule information after the logging has been stopped.

Logging schedule information that has not been executed and the current time has passed the logging start time is also displayed in this way.

• If the string is only halfway through the display, the information is displayed with a tooltip when the mouse cursor is placed on the string.

### ④ Operation Controls

This control is used to switch the logging schedule display and to control the display range.

Item	Description		
Display mode	Display Switching Select the schedule display to 1-day, 1-week, or 1-month display.		
	🔿 Day 💿 Wk. 🔿 Mo.	The display period of the 1 month display follows the setting of the 1	
		month display period combo box on the right.	
		When in day display mode, the display period can be zoomed in/out. (*1)	

	Designation of 1 month display	Set the display period of 1 month.
	period	Auto:
	Auto 🗸	Displayed for the number of days in the month from the first day of the
		display.
		When the display range is changed, the display period is linked to the
		first day.
		28th/29th/30th/31st:
		The display range is fixed to the specified number of days.
Scroll control	Reference Date	Set the Reference date.
	November 29, 2022 🗸	Day display :
		The reference date is the display date.
		Week/Month display:
		The reference date is the display start date.
	< button	Change the reference date to one day earlier.
	button	Change the reference date to one week earlier.
	KK button	Change the reference date to one month earlier.
		The amount of change follows the designation of the one-month display
		period.
	button	Change the reference date to one day later.
	>>> button	Change the reference date to one week later.
	>>  button	Change the reference date to one month later.
		The amount of change follows the designation of the one-month display
		period.
	Today button	Set the reference date to today's date.
		Today's date follows the PC clock.

\*1 Zoom in/out in day display mode

When in day display mode, the display can be zoomed in or out. When in day display mode, a zoom in/out icon appears in the upper right corner of the screen.

€ €

(Left: Zoom in, Right: Zoom out)

# 5 [Start]/[Stop] button

Clicking the [Start] button starts the logging schedule.

When the [Stop] button is pressed, the logging schedule is stopped, and all logging in progress at that time is stopped.

• When logging is stopped with the [Stop] button, whether the measurement of the measurement device is stopped or not depends on the "Instrument stops when logging stops" setting in the [Logging/Dashboard] tab of the Application Common Settings.

See below for details on the "Instrument stops when logging stops" setting.

Configure the logging settings

#### 6 [File] menu

The following operations can be performed from the [File] menu.

Eile CSV Output

Menu	Description	
CSV Output	The schedule contents can be output in CSV format.	
	The output file cannot be read and the schedule cannot be reproduced.	
	The logging schedule is output in the following order: logging schedule No., batch No.,	
	start time, end time.	
	Output example :	
	ScheduleNo.,BatchNo.,StartTime,StopTime 3,3,2022-09-29 19:11:00,2022-09-30 20:00:00 5,5,2022-09-29 19:43:00,2022-09-29 20:00:00 6,1,2022-09-29 20:05:00,2022-09-29 20:06:00 5,2,2022-09-29 20:03:00,2022-09-29 21:00:00	

#### ⑦ [Display] menu

The following operations can be performed from the [Display] menu.

Display		
Text Size 🕨	~	Small
Delete schedule (without data)		Medium
Refresh the screen		Large

Menu	Description
Text size	Select from three sizes of display text size.
Delete schedule (without data)	Delete schedules for which no logging data exists in the schedule or for which no schedule
	has been executed.
	For more information on deleting a schedule, see the description below.
	> <u>Delete a schedule</u>
Refresh the screen	Refresh the schedule display to the latest information.
	It is recommended to update the display after deleting logging data in the data list.

#### **Designate Holidays for Schedules**

You can designate holidays other than Saturday and Sunday for schedule display.

October 7(Fri)	October 8(Sat)	October 9(Sun)	October 10(Mon)
6 12 18	6 12 18	6 12 18	6 12 18

From left: weekdays, Saturdays, Sundays, holidays

How to specify :

Create a "holidays.csv" file in the folder containing the executable file (GENNECTX.exe), enter the dates you wish to display as holidays, and save the file.

The format is "YYYYY-MM-DD, (comments as necessary)" on a line, and add the number of days as necessary.

Example)

It can be written as	2022-11-23, 2022-11-24, 2022-11-25, 2022-11-26, 2022-11-26, 2022-11-27,	07	2022-11-23, holiday 2022-11-24, holiday 2022-11-25, holiday 2022-11-26, holiday(Sat.) 2022-11-26, holiday(Sun.)
It can be written as	12022 11 21,	or	

#### **Register a schedule**

In the schedule registration area, left-click on the area where there is no logging schedule information, and the schedule registration screen will appear.

The schedule registration screen can also be displayed by selecting [Add new] from the pop-up menu.

- If you set the necessary items and click the [OK] button, the information will be displayed on the schedule screen as logging schedule information.
- If the start time is set before the current time, the schedule cannot be registered.
- The same instrument cannot be used in multiple schedules at the same time. The same instrument cannot be used in more than one schedule at the same time.
- Other logging conditions are the same as normal logging operation.

Please refer to the following for more information.

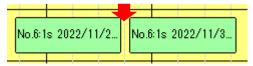
Schedule settings				×
Logging No.			New	
Period Batch No.	1:Sample01	~		
Start time	2022/12/04 🔲 🗸	03:00:00		
Stop time	2022/12/05 🔲 🗸	03:00:00		
		ОК	Cancel	

#### Limitations (Logging)

Item	Description		
Logging No.	The logging schedule No. is automatically set from the clicked position.		
Period	Batch No.	Specify the batch No. to be used.	

r		
		• The logging information currently registered in the logging table is
		displayed as a combo box item as "Batch No. : Batch name".
	Start time *1	Set the time to start logging.
		• The logging preparation state is usually entered 2 minutes before the
		start time, and measurement starts at the start time.
		• If the schedule is started later than 2 minutes before the start time,
		logging preparation will begin immediately, and if measurement can
		be started after the logging start time, measurement will begin at that
		time.
		• If the schedule is started after the start time, logging will not be
		performed.
	Stop time	Set the time to automatically stop logging.
		• The measurement of the instrument will be stopped when logging is
		stopped or not according to the "Instrument stops when logging stops"
		setting in the [Logging/Dashboard] tab of the Common Application
		Settings.

\*1 : For registration within the same logging schedule, the next start time must be at least 3 minutes after the previous end time.



### Change/copy a schedule

Left-click on logging schedule information in the schedule registration area to display the schedule change screen.

The Change Schedule screen can also be displayed when the [Edit] menu item in the pop-up menu is selected.

The Change Schedule screen allows you to copy the logging schedule.

- After setting the necessary items, click the "OK" button to change/copy the designated logging schedule information.
- If the start time is set before the current time, the schedule cannot be registered.
- Executed schedules cannot be edited or copied.

Schee	dule settings	×
Lo	esins No. 🛛 Change Period	
	Batch No. 2:Sample02 ~	
۲	Start time 2022/12/03 🗐 🔻 01:00:00 🔃	
	Stop time 2022/12/04	
0	Copy everyday everyday(excluding Saturdays and Sundays) every week Sunday Period 2022/12/01 (木) • - 2022/12/01 (木) • •	
	OK	

To change the schedule, select the upper radio button on the left side of the screen.

Item	Description		
Logging No.	The logging schedule No. is autom	The logging schedule No. is automatically set from the clicked position.	
Period	Batch No.	Specify the batch No. to be used.	
		• The logging information currently registered in the logging table is	
		displayed as a combo box item as "Batch No. : Batch name".	
	Start time	Set the time to start logging.	
		• The same conditions apply as for schedule registration.	
	Stop time	Set the time to automatically stop logging.	
		• The measurement of the instrument will be stopped when logging is	
		stopped or not according to the "Instrument stops when logging stops"	
		setting in the [Logging/Dashboard] tab of the Common Application	
		Settings.	

To make a schedule copy, select the lower radio button on the left side of the screen.

Item	Description		
Copy *1	everyday Select the copy method.		
	everyday (excluding Saturdays	For a multi-day schedule, only weekly can be selected.	
	and Sundays)	Everyday :	
	every week	Copy every day of the specified period.	
		Everyday (excluding Saturday and Sunday) :	
		Copy every day of the specified period except Saturday and Sunday.	
		Weekly :	
		Copies the schedule to the day of the week specified in the day of the	
		week combo box.	

Day of the week combo box	Specify the day of the week to copy if weekly is selected. When copying a multi-day schedule, the start time will be the specified day of the week.
Period	Set the copying period.
	If the copy period is before the current time, the schedule cannot be copied.

\*1 : The copy operation has the following conditions.

The copying period can be specified only after the copy-source time.

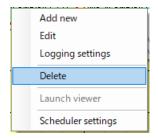
The copying period can be specified only after the current time.

The copy period can be specified only after the current time.

## Delete a schedule

There are three types of logging schedule information deletion: "Individual schedule deletion", "Logging schedule batch deletion", and "Logging schedule all deletion".

- \* Starting with V5.70, schedules with logging data cannot be deleted from the menu (or a confirmation message will appear) to prevent unintentional deletion of schedules with logging data. It is recommended to delete the schedule after deleting the target logging data in the data list.
- ① Individual schedule deletion
  - Select the [Delete] from the pop-up menu that appears when logging schedule information is selected, and the selected logging schedule information can be deleted.



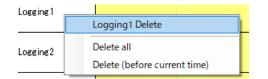
If you want to delete a schedule for which logging data exists, a confirmation message will appear.

\* Deleting a schedule does not delete logging data.



- 2 Logging schedule batch deletion
  - If you right-click on a row header in the schedule registration area and select [Logging X Delete] (X:1-8) from the pop-up menu, you can delete the logging schedule information (Only not-implemented schedules) in the schedule column displayed in the menu.

- ③ Logging schedule all deletion
  - If you right-click on a row header in the schedule registration area and select [Delete All] from the pop-up menu, you can delete logging schedule information (Only not-implemented schedules) registered in the schedule.
- ④ Deletion (before current time)
  - Delete all schedules prior to the current time for which logging data does not exist.



- 5 Schedule deletion (without data)
  - Select [Display]-[Delete schedule (without data)] to delete a schedule for which no logging data exists in the schedule, or a schedule that has not been implemented yet.

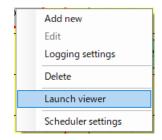
Display	
Text Size	•
Delete schedule (without data)	
Refresh the screen	

## Launch viewer

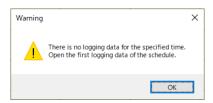
The results of an executed logging schedule can be viewed in the Logging Viewer.

Select the logging schedule information you wish to view and select [Launch viewer] from the pop-up menu to start the Logging Viewer.

If the logging results are split into multiple files, the first logging result saved will be displayed.



If there is logging data including the time calculated from the right-clicked position, the data will be opened; if not, the first saved logging data will be displayed after the message is displayed.



# Logging schedule color settings

The display color of the logging schedule screen can be changed.

- Select [Scheduler settings] from the pop-up menu, and the "Color of Logging Schedule" screen will appear.
- Click the [OK] button to apply the color change.
- Click the [Selected] button to open the color selection screen.

Color of Logging Schedule	-	
Sheet		Selected
Schedule (not implemented)		Selected
Schedule (without data)		Selected
Text		Selected
Schedule (with data)		Selected
Schedule Title		Selected
Header (top left)		Selected
Header (Weekday)		Selected
Header (Saturday)		Selected
Header (Sunday)		Selected
Header (Holiday)		Selected
Initialize	OK	Cancel

Item	Description	
Sheet	Set the background color of the schedule registration area.	
Schedule	Set the display color of the logging schedule information before starting/while running.	
(not implemented)	• This color can be specified for each batch, and if set, the batch setting will take precedence.	
Schedule	Set the display color of logging schedule information prior to the current time for schedules for which no	
(without data)	logging data exists.	
Text	Set the text color of logging schedule information.	
	• This color can be specified for each batch, and if set, the batch setting will take precedence.	
Schedule	Set the display color of the logging schedule information prior to the current time for which logging data	
(with data)	exists.	
Schedule Title	Set the display color of the "logging x" display area on the left of the screen.	
Header (Top left)	Set the display color for the upper left corner of the header (year and month display area).	

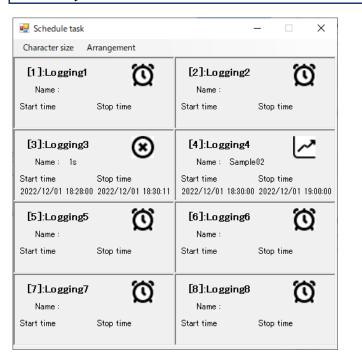
Header (Weekday)	Weekday) Sets the display color for weekdays in the header display area.	
Header (Saturday)     Sets the display color for Saturday in the header display area.		
Header (Sunday)     Sets the display color for Sunday in the header display area.		
Header (Holiday)     Sets the display color for holidays among the header display area.		

## **Display scheduled tasks**

When a logging schedule is started or the [Settings]-[Scheduled Tasks] menu is selected, the Scheduled Tasks screen will appear.

- The logging schedule status is displayed on the Scheduled Tasks screen.
- Double-clicking on the logging information display during logging activates the logging screen during logging.
- Double-clicking on the logging information display after logging has stopped will open the corresponding logging data in the logging viewer.
- If the logging data is divided and saved in multiple pieces, the first logging data will be opened.

#### Screen layout





① Logging schedule No.

Logging schedule No. is displayed as "[1]:Logging 1".

② Batch name

Displays the batch name of the batch No. specified in the logging schedule.

When a schedule is not specified, it is displayed blank.

③ Start time

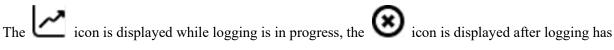
Displays the time when logging was actually started. When a schedule is not specified, it is displayed blank.

④ End time

While logging is in progress, the scheduled logging end time is displayed. After logging is finished, the actual time when logging is finished is displayed.

<sup>(5)</sup> Logging status icon

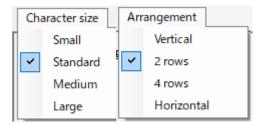
The icon is displayed while logging is in progress and after logging has stopped.



stopped, and the **O** icon is displayed when logging is not specified.

## About the Menu

The following menus are available on the scheduled tasks screen



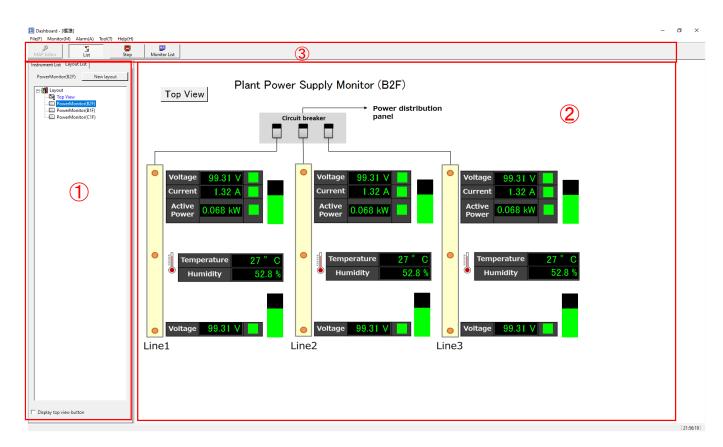
Menu	Description	
Character size	You can select the size of the displayed characters from four types (small, standard,	
	medium, and large).	
	The screen size is also changed according to the character size.	
Arrangement	You can select from four types of display arrangement (one vertical row, two columns, fou	
	columns, or one horizontal row).	

# Monitor Measured Values (Dashboard Function [LAN])

## Overview

•The dashboard function allows you to monitor the status of measurements in an easy-to-understand, visual manner by placing measured values on a user-specified background image.

•You can set a threshold value for each measurement item and save alarm information on the computer if the measured value exceeds the threshold range.



X Monitoring of measured values over a LAN is supported.

# ① Instrument list/layout list

- · Instrument list: Displays instruments registered in the Map Editor in a tree format.
- Layout list: Displays previously saved layouts in a tree format.

# **2** Layout area

Using background image and layout items, create the appearance of the monitoring system here.

# ③ Toolbar

- Map Editor: Allows you to search for instruments, select channels (measurement items), and configure advanced instrument settings.
- · List: Toggles display of the instrument and layout list.
- Monitor Start/Stop: Starts and stops monitoring of measured values.

- Monitor List: Displays a list of measured values for the channels (measurement items) being monitored.
- Top View: Switches the layout to the [Top View].

## **Supported Instruments**

•The real-time measurement function supports the following instruments.

Model	Name	Firmware version	Remarks
PQ3100 *1	POWER QUARITY ANALYZER	Ver. 2.10 or later	*1
PQ3198 *1,*3	POWER QUARITY ANALYZER	Ver. 1.10 or later	*1, *3
PW3335 *2,*4,*6	POWER METER	Ver. 1.11 or later	*2, *4, *6
PW3336 *2,*4,*6	POWER METER	Ver. 1.23 or later	*2, *4, *6
PW3337 *2,*4,*6	POWER METER	Ver. 1.23 or later	*2, *4, *6
PW3360 *1	CLAMP ON POWER LOGGER	Ver. 3.10 or later	*1
PW3365 *1	CLAMP ON POWER LOGGER	Ver. 2.00 or later	*1
PW3390 *2	POWER ANALYZER	Ver. 2.00 or later	*2
PW6001 *2	POWER ANALYZER	Ver. 3.02 or later	*2
PW8001 *2,*4,*5,*7	POWER ANALYZER	Ver. 1.00 or later	*2, *4, *5, *7
LR8400, LR8401, LR8402 *1	MEMORY HILOGGER	Ver. 1.21 or later	*1
LR8410 *1	WIRELESS LOGGING STATION	Ver. 1.42 or later	*1
LR8450, LR8450-01 *1,*8	MEMORY HILOGGER	Ver. 1.20 or later	*1,*8
LR8101, LR8102 *1,*8	DATA LOGGER	Ver. 1.00 or later	*1, *8
MR6000 <sup>*1</sup>	MEMORY HICORDER	Ver. 2.12 or later	*1
BT5525 *1	BATTERY INSULATION TESTER	V1.00 or Later	*1
BT4560-50 *1	BATTERY IMPEDANCE METER	V1.00 or Later	*1, (Models with LAN interface only)
BT6065, BT6075 <sup>*1</sup>	PRECISION BATTERY TESTER	V1.00 or Later	*1
ST5680 *1	DC HIPOT TESTER	V1.00 or Later	*1
IM3523A <sup>*1</sup>	LCR METER	V1.02 or Later	*1 (Models with LAN interface only)
RM3545A <sup>*1</sup>	RESISTANCE METER	V1.00 or Later	*1, *9 (LAN communication port only supports the default value of 23)
DM7275, DM7276 <sup>*1</sup>	PRECISION DC VOLTMETER	V1.09 or Later	*1 (LAN communication port only supports the default value of 23)

\*1. If the measurement of instrument is stop state when the measurement is started by this function, it will shift to the start state.

\*2. If the measurement of instrument is stop state when the measurement is started by this function, it will shift to the start state.

\*3. All of the analysis data of the measurement instrument is reset by starting the measurement with this feature. It is recommended to use this feature after the recording and analysis of the measurement data has been completed (Data reset state).

\*4. All of the integrated data of the measurement instrument is reset by starting the measurement with this feature. It is recommended to use this feature after the recording and analysis of the integration data has been completed (Data reset state).

\*5. If the setting of integration by each wiring is enabled on the instrument when measurement is started using this function, the setting is changed to integration by all wires.

\*6 If the version of this application is less than V5.10, acquisition of harmonic items is not supported. Please upgrade this application to V5.10 or later.

\*7 Do not use "," or ";" as a unit when setting the user-defined function (UDF) of the main unit.

\*8 Do not use "," or ";" as a unit when setting the waveform calculation and scaling functions of the main unit.

\*9 RM3545A does not support measurement time longer than 1 minute, so reduce the measurement SPEED, AVERAGE, DELAY, OVC, and number of channels so that the measurement time is less than 1 minute.

# Limitations

Item	Limitation	Remarks
Maximum number of channels	512 + 16 (inter-channel calculation channels)	
Maximum number of connected	30	
instruments		
Communications interface	LAN	
Monitor interval	1/2/5/10/30 sec.	The minimum logging interval is determined by measuring
	1/2/5/10/30 min.	the time required for the application to acquire measured
	1 hr.	values.

# Limitations on real-time measurement (logging/monitoring)

### Limitations on communications

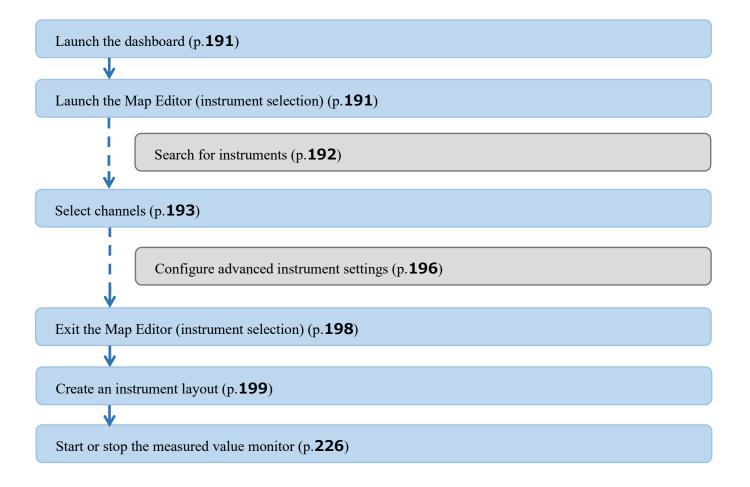
Item	Limitation	Remarks
Interface	LAN	
Network range for automatic	2 to254	
search	*Automatic search is limited to the same network	
	range as the computer.	
DHCP	Not supported	
Logging interval	1/2/5/10/30 sec.	*Only when monitor value saving (logging) is enabled
	1/2/5/10/30 min.	*Logging interval is linked to monitor interval.
	l hr.	
Maximum number of inter-channel	16 (Z1 to Z16)	
calculation channels		
Data segmentation	1 day/1 hr.	*Only when monitor value saving (logging) is enabled
Automatic output (daily report)	1 day	*Only when monitor value saving (logging) is enabled
save interval		When logging is enabled:
		$\rightarrow$ Automatically generated daily at 23 hr. 59 min. 59
		sec.
		When logging stopped:
		$\rightarrow$ Automatically generated when logging stops
Automatic output (CSV) save	l day/l hr.	*Only when monitor value saving (logging) is enabled
interval	*As determined by data segmentation setting	When logging is enabled:
		$\rightarrow$ 1 day: Automatically generated daily at 23 hr. 59 min.
		59 sec.
		$\rightarrow$ 1 hr.: Automatically generated daily at XX hr. 59 min.
		59 sec.
		When logging stopped:
		$\rightarrow$ Automatically generated when logging stops

Automatic output (daily report)	Excel	*Only when monitor value saving (logging) is enabled
format		

## Workflow

Start and stop the measured value monitor as described below.

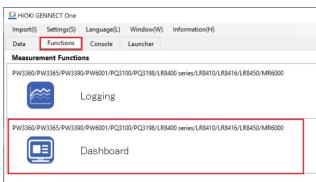
Set up communication between the computer and the instruments (LAN)



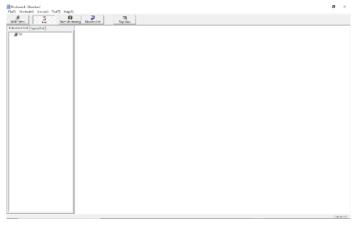
### Launch the Dashboard

#### Launch the Dashboard

1. Click the [Function] tab and then click [Dashboard].



2. The [Dashboard] screen will be displayed.



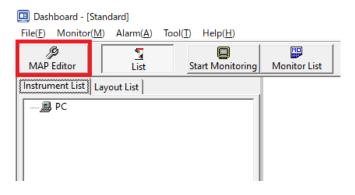
## Launch the Map Editor (instrument selection)

To monitor measured values, you must first choose which instruments and measurement items to monitor. This task is accomplished by launching [Map Editor (Instrument Selection)] under the [Dashboard Function]. The Map Editor (instrument selection) provides the following functionality:

Searching for instruments (p.192)
Choosing channels (p.193)
Configuring advanced instrument settings (p.196)

#### Launch the Map Editor (Instrument Selection)

1. Click the [Map Editor] button.



2. The [Map Editor (Instrument Selection)] screen will be displayed.

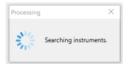
#### **Search for Instruments**

This section describes how to search for instruments whose measured values you wish to monitor. To use this function, you must have connected one or more instruments to the computer with LAN cables. For more information about how to connect instrument to the computer with LAN cables, see "To communicate with instruments by LAN cable" (p.エラー! ブックマークが定義されていません。).

1. The application will start searching for instruments when you open the [Map Editor (Instrument Selection)] screen.

You can search again for instruments after launching the [Map Editor (Instrument Selection)] screen by clicking the [Update] button.

The application will display a [Searching instruments] message while searching for instruments that are connected to the computer via the LAN.



2. A list of instruments found by the search will be displayed.

🖸 Ma	p Editor (inst	rument selection)			-		×		
	Update	Select Char	nnels	Update automatically					
LAN									
		IP Address	Instrument						
		192.168.1.11	LR8450	•	LR8450-01#0000000	Adva	nced		
		192.168.1.31	PQ3198	Ŧ	PQ3198#190222590	Adva	nced		
		Set IP Address here.		•	<- Select the instru	Adva	nced		
LAN									
LAN									
					Save	Clos	e		

## Select Channels(Setting Calculation Channels)

This section describes how to select the measurement items (measurement channels) whose measured values you wish to monitor.

To use this function, you must have connected one or more instruments to the computer with LAN cables.

1. Select the instruments whose measurement items (measurement channels) you wish to measure from the list.

🖸 Map	o Editor (inst	-				
	Update	Select Chan	nels			2
LAN						
		IP Address	Instrument			
		192.168.1.22	PW3360	•	PW3360-11#130622	Advanced
		192.168.1.29	LR8416	•	LR8416#170430297,	Advanced
		Set IP Address here.		٠	<- Select the instru	Advanced
LAN				_		
						Close

2. Click the [Select Channels] button.

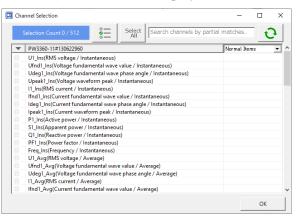
2 Ma	ap Editor (ins	trument selecti	on)		-	
	Update		Select Channels			6
AN.						
		IP Address	Instrument			
		192.168.1.22	PW3360	•	PW3360-11#130622	Advanced
7		192.168.1.29	LR8416	•	LR8416#170430297,	Advanced
		Set IP Addres	s here.	•	<- Select the instru	Advanced
LAN						
LAN						

3. The [Channel Selection] screen will be displayed.

A [Collecting measurement channels] message will be displayed.

Channel Selection				-		
Selection Count 0/512	0 0 0	Select			0	
	Processing		×			
	Sec.	Collecting measurement channels.				
				_	ОК	

4. A list of enabled measurement channels for the instruments selected on the [Map Editor (Instrument Selection)] screen will be displayed.

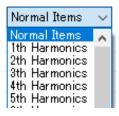


\*You can search again for measurement channels by clicking the 0 button.

\* In PQ3100,PQ3198,PW3360,PW3365,PW3335\*,PW3336\*,PW3337\*,PW8001 (with harmonics analysis only), you can select the

harmonics measurement channels by selecting the drop down list of measurement items.

\*If the version of this application is less than V5.10, the acquisition of harmonic items for PW3335, PW3336, and PW3337 is not supported. Please upgrade this application to V5.10 or later.



\* Measurement items of some instruments, such as PW3336, PW8001,PQ3198 are displayed with an identification name (e.g. PWP, Mupk). Please refer to the following for the correspondence between the identification name and the measurement item name.

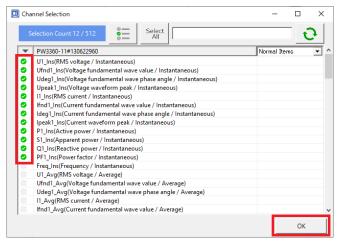
Identification name and measurement item name in Logging and Dashboard function

\* If the number of measurement parameters for normal items exceeds 1200, the page will be divided into multiple pages. In such a case, select the page to be displayed in the combobox and switch pages.

•	LR8450-01#000000055	Normal Items, page 1 🗸
0	UNIT1_CH1(UNIT1_CH1)	Normal Items, page1 Normal Items, page2
0	UNIT1_CH2(UNIT1_CH2)	

5. Select the checkboxes for the measurement channels you wish to monitor.

Click the [OK] button to exit the channel selection process.



\*You can select up to 512 channels.

\*You can refine the measurement channels shown in the list using the search box at the top of the window.

\*You can limit the measurement channels shown in the list to those channels that are already been selected by clicking the 🗾 button.

\*You can select or deselect all channels by clicking the button.

6. To use selected measurement channels to perform an inter-channel calculation, select the [User inter-channel calculation] checkbox and click the [Enter Formula] button.

	0	S1_Ins(Apparent power / In	stantaneous)			
	0	Q1_Ins(Reactive power / In	stantaneous)			
	0	PF1_Ins(Power factor / Inst	antaneous)			
	0	Frea Ins(Freauency / Instar	ntaneous)			×
6	🗸 Use	inter-channel calculation	Enter formula	ОК	Cancel	]

7. To use selected measurement channels to perform an inter-channel calculation, set the formula on the [Formula Settings] dialog box.

See below for more information about the [Formula Settings] dialog box.

$\succ$	Configuring	detailed	settings	for	inter-channel	calculation	IS

🔲 Form	mula settings												- 0	×
Comm Formu	nent:	02								Unit:		Upper limt: Lower limt:		
	Formula settings	5											- 0	×
Z1										Constant li	st Channel list			
C0	01+C02										Model	Serial	ltem	
_										▶ C01	PW3360-11	130622960	U1_Ins	
	Functions		,	יקר	Numerals	and Ope	erators			C02	PW3360-11	130622960	Ufnd1_Ins	
	ABS	SIN	FLOOR		BS	DEL	с			C03	PW3360-11	130622960	Udeg1_Ins	
		5			03	DEL	Č			C04	PW3360-11	130622960	Upeak1_Ins	
_										C05	PW3360-11	130622960	U2_Ins	
	EXP	COS	CEIL		(	)		/		C06				
					<u> </u>					C07				-
	LOG	TAN	ROUND		7	8	9	*		C08	_			
_										C09				-
	LN	ASIN			4	5	6	_		C10				
					Ľ.					C11				-
	600	4606								C12				-
_	SQR	ACOS			1	2	3	+		C13				-
		i	1		<u> </u>	í				C14				
	CBR	ATAN			0		E			C15 C16				-
			1							C16 C17				-
-	PWR	ATAN2							1	C17 C18				
			]							C18 C19				
	_			_						C19 C20				
F	ormula : Z	1 🔹	input							C20 C21				
	1									C21				-
										C22 C23				
										- (23				•
											Setting the cha	innel	OK Can	cel

### **Configure Advanced Instrument Settings**

The following tasks can be accomplished on the advanced instrument settings screen:

- •Editing instrument comments
- •Editing measurement item comments
- •Configuring measurement item thresholds

Before using this functionality, you must have searched for instruments and selected measurement channels.

1. Click the [Advanced] button.

🖸 Ma	Map Editor (instrument selection)									
Update Select Cha			inels				2			
LAN										
		IP Address	Instrument							
		192.168.1.22	PW3360	•	PW3360-11#130622	Adva	inced			
•		192.168.1.29	LR8416	•	LR8416#170430297,	Adva	inced			
		Set IP Address here.		•	<- Select the instru	Adva	inced			
LAN										
						Clos	e			

2. A screen allowing you to configure advanced instrument settings will be displayed.

W3360-11	
Model comment	
W3360-11#1306	22960
leasurement iter	n setting Alarm setting
Measurement	Comment
U1_Ins	U1_Ins(RMS voltage / Instantaneous)
1_Ins	I1_Ins(RMS current / Instantaneous)
P1_Ins	P1_Ins(Active power / Instantaneous)
-U1_Ins	mment UI.ins[RMS voltage / instantaneous)

3. Edit the instrument model and measurement item comments and configure threshold settings for measurement items.

PW	3360-11(PW3360-1	1#130622960)		PW3	360-11(F	W3360-11#130	622960)		
	PW3360-11				PW3360	-11			
	Model comment				Model o	omment			
	Line1				Line1				
	Measurement iten	n setting Alarm setting		L	Measure	ment item settir	ng Alarm setting		
	Measurement item	Comment			limit val	ues.	t items for which you wish to perform alarm judg		
	U1_Ins	Voltage			Alarm ju	idgment will be	performed on the computer while monitoring is monitor operation is stopped.	enabled. Alarm jud	gment will
	I1_Ins	I1_Ins(RMS current / Instantaneous)			not be p	Measurement		Lower	L Hanna
	P1_Ins	P1_Ins(Active power / Instantaneous)	_			item	Comment	Limit	Upper Limit
						U1_Ins	Voltage	95	
							11_Ins(RMS current / Instantaneous)		
						P1_Ins	P1_Ins(Active power / Instantaneous)		
	U1_Ins Co	mment [Voltage]			Voltag	ge er threshold valu	re 1931 V Upper threshold v	alue	, v
			ОК						ОК

4. Exit the advanced instrument settings screen by clicking the [OK] button.

ine1		
feasurement ite	m setting Alarm setting	
Measurement	Comment	
J1_Ins	Voltage	
1_Ins	Current	
1_Ins	Active power	
	omment <u>Visitage</u>	

Model comment	Displays the name used to identify the instrument. Enter an easy-to-understand
	comment.
Measurement item	Displays the name used to identify the measurement item. Enter an easy-to-
comment	understand comment.

## Exit the Map Editor (instrument selection)

1. Click the [Save] button to save the changes made in the [Map Editor (Instrument Selection)] screen, or click the [Close] button to discard the changes.

🖸 Ma	ap Editor (instrume	nt selection)			-			×
	Update Select Channels			ſ	Update automatic	ally		?
LAN								
	IP A	ddress	Instrument					
	192.	168.1.11	LR8450	٠	LR8450-01#0000000.		Adva	nced
	192.	168.1.31	PQ3198	•	PQ3198#190222590.	. [	Adva	nced
	Set I	P Address here.		•	<- Select the instru.		Adva	nced
LAN								
					Save		Clos	e

\*In V5.30 and earlier, when you click the [Close] button, you will get the message [Changes have not been saved. Save and exit?] will be displayed. In this case,

·Click [Yes] to save any changes you made to the Map Editor and exit.

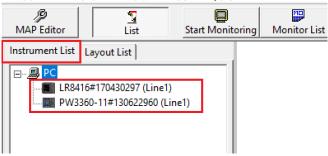
·Click [No] to discard any changes you made to the Map Editor and exit.

		×
Changes have not been sa	ived. Save and e	xit?
Yes	<u>N</u> o	Cancel

2. The [Map Editor (Instrument Selection)] screen will close, and any instruments registered in the Map Editor will be shown in the [Instrument List] tree.

#### 🛄 Dashboard - [Standard]

File(F) Monitor(M) Alarm(A) Tool(T) Help(H)



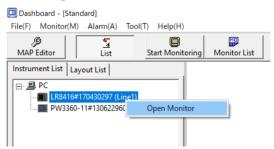
## **Create an Instrument Layout (Basic Instructions)**

This section describes how to create a layout as a way to display the status of measurement in an easy-tounderstand, visual manner.

These basic instructions describe how to create a layout for monitoring measured values easily using the Monitor Window.

To create a measured value layout, you must first select instruments and measurement channels as described in "Launch the Map Editor (Instrument Selection)" (p.191 to 198).

- 1. Select the instrument whose measured values you wish to monitor in the [Instrument List].
- 2. Select [Open Monitor] on the context menu displayed when you right-click the mouse.



3. The [Monitor Window] will be displayed in the layout area on the right.

Dashboard - [Sta File( <u>F)</u> Monitor( <u>M</u>	indard] [) Alarm( <u>A</u> ) Tool(	<u>]</u> Help( <u>H</u> )						
MAP Editor	List	Start Monito	oring	Monitor List			View	
Instrument List Li	ayout List		<	Line1				
□-      □ PC     □				Temperature Humidity	· ·	c		
					;	6		
		- 1						
		- 1						

- 4. Drag the [Monitor Window] with the left mouse button and position it in the desired location.
- 5. Repeat steps 1. through 4. for all instruments.

Dosisteneral - Standard			-		×
File() Monitor(2) Alem(2) Too(() Help(1)					
MAP Editor Lat Stort Monitoring Menitor List	Top View				
	Top View				
Induced Ind Lapout List					
H () R					
- LG6F1417041870(0.mc1) PW006_11816207900(0.mc1)					
- Province in the contract of the line of	s Linel	< limit			
	Transvolute	Totace			
	* 12	v			
		V Screent			
	ini, mikity	Germanik			
	*				
		Autora ponar			
		39			
1					
				17:23:2	15

## **Created an Instrument Layout (Advanced Instructions)**

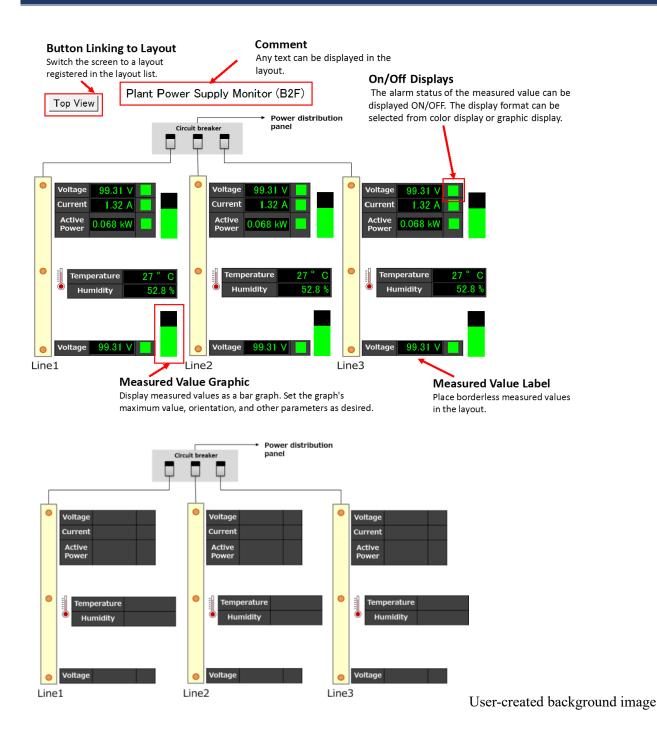
This section describes how to create a layout as a way to display the status of measurement in an easy-tounderstand, visual manner.

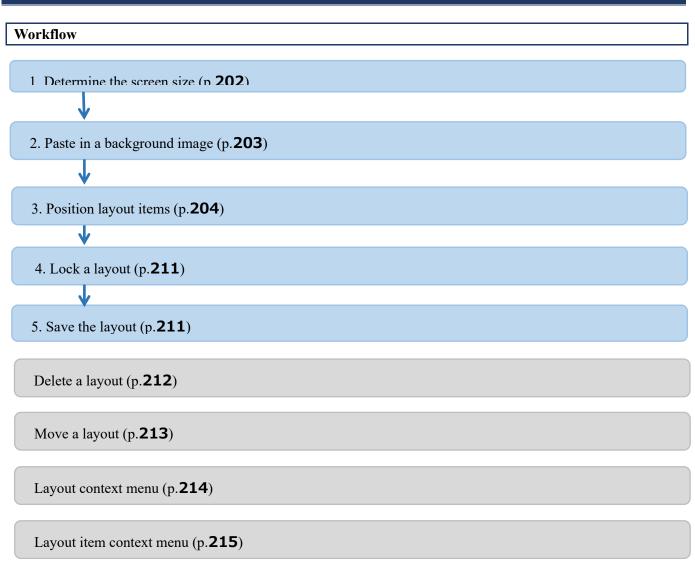
These advanced instructions describe how to create an even more visually pleasing layout.

To create a measured value layout, you must first select instruments and measurement channels as described in "Launch the Map Editor (Instrument Selection)" (p.191 to p.198).

### Layout overview

Using layout items, you can create a layout screen depicting the monitoring system as shown in the figure below.





## Determine the Screen Size (for Full Screen)

This section describes how to determine the layout screen size.

If you plan to display the entire layout screen, display the entire screen and then display the screen size.

- 1. Display the entire layout (full screen).
  - 1-1. Right-click the layout and select [Display Entire Screen].

Save Layout	
Display Entire Screen	
Screen Editing	>
Change Background Image	
Background color	
Add Layout Item	>
Amount of Grid Movement for Layout Items	>
Display Instrument Explorer	
Display Tool Window	
Clear Layout	>

1-2. The layout will be displayed so that it fills the screen.

Note: To return to the original size, select [Display Entire Screen] again or press the ESC key.

- 2. Display the screen size.
  - 2-1. Right-click the layout and select [Display Tool Window].

	Save Layout	
1	Display Entire Screen	
	Screen Editing	>
	Change Background Image	
	Background color	
	Add Layout Item	>
	Amount of Grid Movement for Layout Items	>
	Display Instrument Explorer	
	Display Tool Window	
	Clear Layout	>
	Exit Dashboard	

2-2. The [Tool Window] will be displayed. Select the [Screen Display] tab.

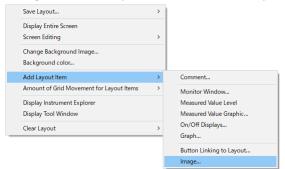
fool Window				×
Screen Displ	ay On/Off Displays			
Screen	size			
	Window Width	1440 ÷		
	Window Height	900÷		
	Layout screen width	1435 -		
	Layout screen height	896 -		
			L	Close

2-3. The [Window Width] and [Layout screen height] indicate the layout screen size (unit: px).

#### Paste in a Background Image

This section describes how to register a background image by setting the position and size of the created image.

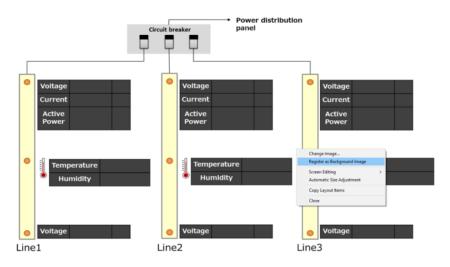
1. Right-click the layout and select [Add Layout Item]-[Image].



- 2. Select the image file you wish to paste and click [Open].
- 3. Using the mouse, change the position and size of the image.

You can change the size of the image while maintaining its aspect ratio by dragging the corner of the image with the mouse.

3. Once you have positioned the image as desired, right-click the image.



Select [Register as Background Image] to register the image as the background image.

\*For more information about the image context menu, see p.224.

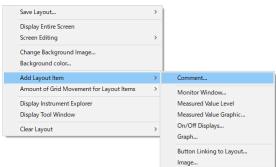
### **Position Layout Items**

This section describes how to position layout items on a background image.

#### **Position layout items (comments)**

This section describes how to display comments on the layout.

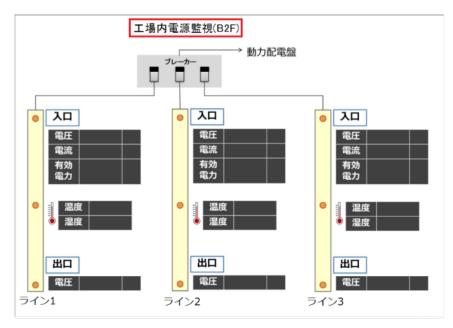
1. Right-click the layout and select [Add Layout Item]-[Comment].



2. Enter a comment and click [OK].

Comment	×
Select the characters to display.	OK
	Cancel
Plant Power Supply Monitor (B2F)	

4. Using the mouse, position the comment as desired.



\*For more information about the comment context menu, see p.215.

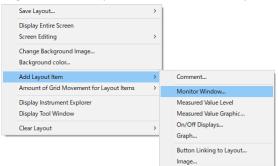
#### Position layout items (monitor windows)

This section describes how to place a [Monitor Window] in the layout.

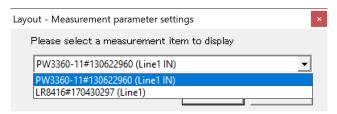
Note: The following applies to monitor windows and measured value labels.

Item type	Border	Display unit	Displayed parameter
Monitor windows	Yes	Instrument	Measurement item selected in [Channel Selection]
Measured value label	None	Measurement item	Measurement item selected in [Channel Selection]

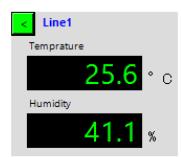
1. Right-click the layout and select [Add Layout Item]-[Monitor Window].



2. A window for adding a monitor window will be displayed. You can select any instrument included in the instrument list.



3. Using the mouse, position the monitor window as desired.



\*For more information about the monitor window context menu, see p.215.

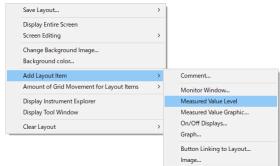
### Position layout items (measured value labels)

This section describes how to place a borderless [Measured Value Label] in a layout.

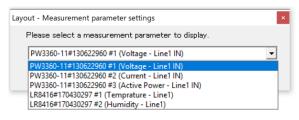
Note: The following applies to monitor windows and measured value labels.

Item type	Border	Display unit	Displayed parameter
Monitor windows	Yes	Instrument	Measurement item selected in [Channel Selection]
Measured value label	None	Measurement item	Measurement item selected in [Channel Selection]

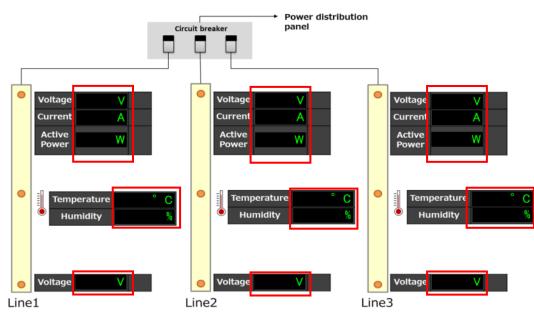
1. Right-click the layout and select [Add Layout Item]-[Measured Value Label].



2. A window for adding a measured value label will be displayed. You can select any measurement item included in the instrument list as long as it has also been selected in [Channel Selection]. Specify the measurement item to display and click [OK].



3. Using the mouse, position the measured value label as desired.

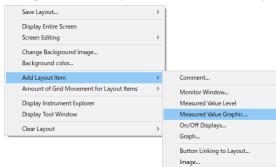


\*For more information about the measured value label context menu, see p.215.

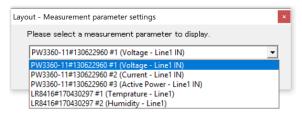
#### Position layout items (measured value graphics)

This section describes how to place a [Measured Value Graphic] in a layout.

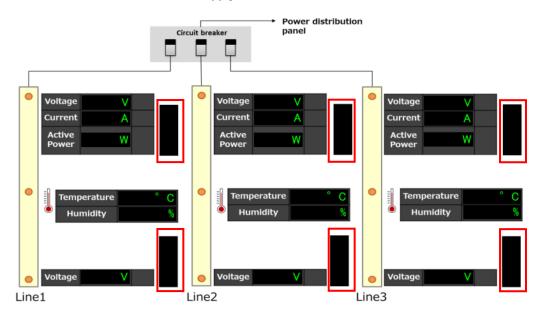
1. Right-click the layout and select [Add Layout Item]-[Measured Value Graphic].



2. A window for adding a measured value graphic will be displayed. You can select any measurement item included in the instrument list as long as it has also been selected in [Channel Selection]. Specify the measurement item to display and click [Settings].



3. Using the mouse, change the position and size of the measured value graphic as desired.



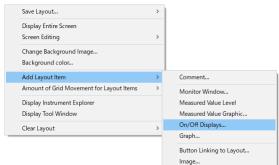
Plant Power Supply Monitor (B2F)

\*For more information about the measured value graphic context menu, see p.216.

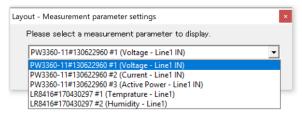
#### Position layout items (on/off displays)

This section describes how to place an [On/Off Display] in the layout.

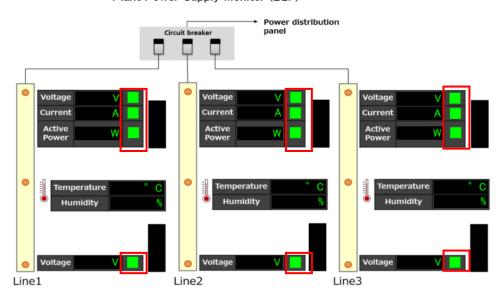
1. Right-click the layout and select [Add Layout Item]-[On/Off Display].



2. A window for adding an on/off display will be displayed. You can select any measurement item included in the instrument list as long as it has also been selected in [Channel Selection]. Specify the measurement item to display and click [Settings].



3. Using the mouse, position the on/off display as desired.



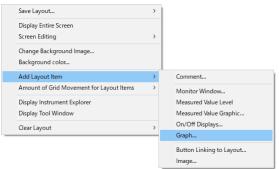
Plant Power Supply Monitor (B2F)

\*For more information about the on/off display context menu, see p.217.

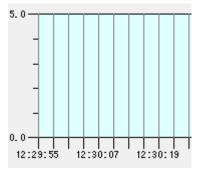
#### Position layout items (graph)

This section describes how to place an [graph] in the layout.

- \* The graph display automatically scrolls from right to left, and graph values that disappear from the display cannot be viewed later.
- 1. Right-click the layout and select [Add Layout Item]-[graph].



- 2. A window for adding a graph window will be displayed.
- 3. Using the mouse, position the graph window as desired.



\*For more information about the graph context menu, see p.218.

#### **Position layout items (images)**

This section describes how to place an [Image] in the layout.

4. Right-click the layout and select [Add Layout Item]-[Image].

Save Layout	>	
Display Entire Screen		
Screen Editing	>	
Change Background Image		
Background color		
Add Layout Item	>	Comment
Amount of Grid Movement for Layout Items	>	Monitor Window
Display Instrument Explorer		Measured Value Level
Display Tool Window		Measured Value Graphic
Clear Layout	>	On/Off Displays
	_	Graph
		Button Linking to Layout
		Image

- 5. Click the image file you wish to paste and click [Open].
- 6. Using the mouse, change the position and size of the image as desired.

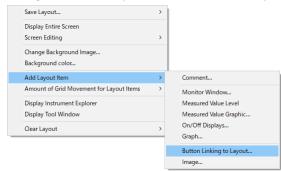
\*For more information about the image context menu, see p.224.

#### Position layout items (layout link buttons)

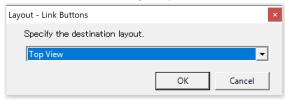
This section describes how to place a [Button Linking to Layout] in a layout so that you can switch among multiple screens for monitoring purposes.

Note: If you're only using a one-screen layout, there is no need to use layout link buttons.

1. Right-click the layout and select [Add Layout Item]-[Button Linking to Layout].

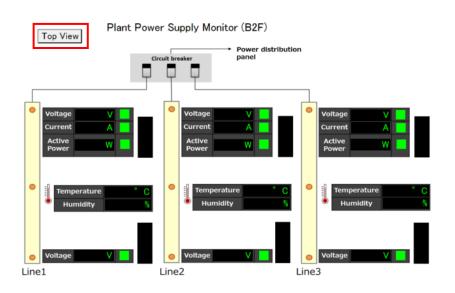


2. A window for adding a layout link button will be displayed. Specify the link destination and click [OK].



3. Using the mouse, position the layout link button as desired.

You can move to the link destination by clicking the layout link button.

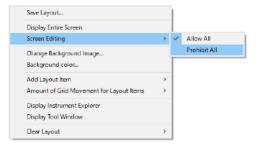


\*For more information about the layout link button context menu, see p.224.

#### Lock a Layout

This section describes how to lock the layout screen and disable editing of all layout items.

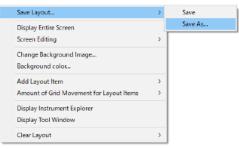
1. Right-click the layout and select [Screen Editing]-[Prohibit All].



2. Editing of all layout items in the layout will be prohibited.

#### Save a Layout

This section describes how to save a layout once you've finished populating it with layout items. Note: Always save a layout after making changes. 5. Right-click the layout and select [Save Layout]-[Save As...].



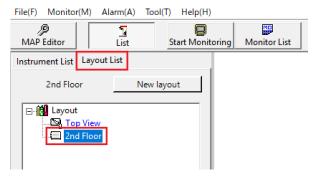
6. When the save screen is displayed, enter the [Current filename].

If you wish to use a shortcut key to switch among layouts, set the desired key (F1 to F7).

Layout: Save current state		
Save the current layout a	s a new layout name	2.
List of previously saved f	ilenames	
		-
Save the current layout a 2nd Floor	5	
4	Shortcut key	F2 💌
	Save	Cancel

7. Click the [Save] button.

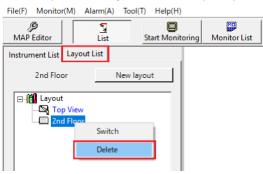
Once you save a layout, it will appear in the [Layout List].



### **Delete a Layout**

This section describes how to delete a previously created layout.

8. In the layout list, right-click the layout you wish to delete and select [Delete].



9. The layout and all layout items it contains will be deleted.

#### Switch to a Layout

This section describes how to switch among layouts.

Method 1 Double-click the layout you wish to view in the Layout List.

Method 2 Right-click the layout you wish to view in the Layout List and select [Go].
Method 3 Click a [Button Linking to a Layout] that has been placed in a layout\*1.
Method 4 Press a shortcut key that has been assigned to a layout (F1 to F7)\*2.

\*1 For more information about how to configure layout link buttons, see p.210

\*2 For more information about how to assign shortcut keys, see p.211.

### Note: Switching to the top view

The [Top View] in the Layout List is a special layout. You can display a button for switching to the top view in the toolbar. You can switch to the top view by clicking the top view button. How to display the top view button Select the [Display top view button] checkbox underneath the layout list.

File(F) Monitor(M)	Alarm(A) Tool(T) Help(H)			_
AP Editor	List Start Monit	toring Monitor List	Top View	
Instrument List Layo	out List			
Top View	New layout			
E Layout				
☑ Display top view b	utton			

# Layout Context Menu

The layout context menu offers the following commands:

Context menu command		Description
Save Layout	Save	Save the layout by overwriting the current layout.
	Save As	Save the current layout under a new name. (p.211)
Display Entire Screen		Display the layout so that it fills the screen (full screen). (p.202)
Screen Editing		Enable or disable movement of all monitor windows and editing of all layout items.
Change Background Im	age	Paste a background image into the layout. (p.203)
Background color		Set the background color.
Add Layout Item		Add a layout item. (p.204)
Amount of Grid Moven	ent for Layout Items	•Set the amount of movement for items in the layout.
		•You can align layout items by setting the amount of grid movement.
Display Instrument Exp	lorer	Display the Instrument Explorer. (p.213)
Display Tool Window		•Display the screen size. (p.202)
		•Configure operation of on/off displays. (p.246)
Clear Layout	Clear Background Image	Clear the layout's background image.
	Clear Monitors/Layout Items	Clear all monitor windows and layout items.
	Clear All	Clear the layout.
	Clear All Layout Item	Clear all settings of displayed measurement items in the [measured value labels], [measured
	Displayed Measurement	value graphics], and [on/off displays] parts among the layout items.
	Item Settings	

#### Layout Item Context Menus

#### Layout item (comment) context menu

The layout item (comment) context menu offers the following commands:

Context menu command	Description	
Change Comment	Change the comment.	
Screen Editing	Enable or disable editing of the comment.	
Text Display Position	Set the text display position.	
Automatic Size Adjustment	Automatically adjust the size.	
Font	Change the comment's font.	
Text Color	Change the comment's text color.	
Background Color	Change the comment's background color.	
Copy Layout Items	Create a copy of the comment.	
	*The copy will inherit the attributes of the copied comment (comment contents, text display position,	size,
	font, text color, and background color).	
Send to Back	Move the part to the backmost position.	
Close	Close the comment.	

#### Layout item (monitor window) context menu

#### The layout item (monitor window) context menu offers the following commands:

Context menu command	Description
Change Displayed Measurement Items	Change the measurement items shown in the monitor window.
Screen Size	Select the screen size.
Screen Editing	Enable or disable editing of monitor window.
Measured Value Color	Change the monitor value's text color.
Background Color	Change the monitor window's background color.
Display Digit Number Settings	Sets the auxiliary unit and the number of display digits (automatic, customized) for the measurement
Copy Monitor	Create a copy of the monitor window.
	*The copy will inherit the attributes of the copied monitor window (displayed parameters, screen size,
	measured value color, and background color).
Send to Back	Move the part to the backmost position.
Close	Close the monitor window.

#### Layout item (measured value label) context menu

The layout item (measured value label) context menu offers the following commands:

Context menu command	Description
Display Units	Set whether to display the measurement units.

## GENNECT One User's Manual

Change Displayed Measurement Item	Change the measurement item to display.
Screen Editing	Enable or disable editing of the measured value label.
Text Display Position	Set the text display position.
Automatic Size Adjustment	Automatically adjust the size.
Font	Change the measured value label's font.
Measured Value Color	Change the measured value label's text color.
Background Color	Change the measured value label's background color.
Display Digit Number Settings	Sets the auxiliary unit and number of display digits (automatic, customized) for measured values.
Copy Layout Items	Create a copy of the measured value label. *The copy will inherit the attributes of the copied measured value label (unit display status, displayed parameter, instrument settings, text display position, size, font, measured value color, and background color).
Send to Back	Move the part to the backmost position.
Close	Close the measured value label.

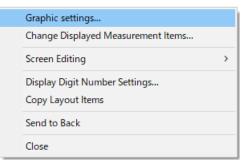
## Layout item (measured value graphic) context menu

The layout item (measured value graphic) context menu offers the following commands:

Context menu command	Description
Graphic Settings(*1)	Set the display range, upper and lower limit value display, and scale display.
Change Displayed Measurement Item	Change the measurement item displayed.
Screen Editing	Enable or disable editing of the measured value graphic.
Display Digit Number Settings	Sets the auxiliary unit and number of display digits (automatic, customized) for measured values.
Copy Layout Items	Create a copy of the measured value graphic.
	*The copy will inherit the attributes of the copied measured value graphic (graphic settings, displayed
	parameter, and instrument settings).
Send to Back	Move the part to the backmost position.
Close	Close the measured value graphic.

#### \*1: About graphic settings

1. Right-click the measured value graphic and select [Graphic Settings].



2. The [Graphic Settings] screen will be displayed.

Graphic settings		
Display Range Settings Maximum Minimum Upper threshold val Lower threshold val	1 0  95	v v v v
3 Graphic Bar Settings Direction of motion Width Height	Bottom to top 💌 100	Normal Color Alarm Color Back Color
Upper/lower limit value :	settings Display	Line color
5 Scale settings Number of scale divisions Number of auxiliary scale divisions	Display	Line color Back Color
	6 Update	Close

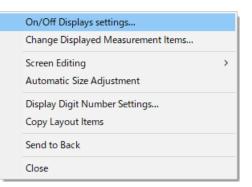
- ① Allows you to set the maximum and minimum values for the display range.
- ② Displays the upper and lower limit value settings. (The upper and lower limit value settings can be changed on the instrument advanced settings screen [p.196].)
- ③ Allows you to set the graphic bar's orientation, color, and size.
- ④ Allows you to set whether to display the upper and lower limit values.
- (5) Allows you to set the scale display.
- (6) Click the [Update] button to update the measured value graphic display.

#### Layout item (on/off display) context menu

The layout item (on/off display) context menu offers the following commands:

Context menu command	Description	
Configure On/Off Display	Define the on/off state and configure settings such as on/off images and colors.	
Change Displayed Measurement Item	Change the measurement items shown.	
Screen Editing	Enable or disable editing of the on/off display.	
Automatic Size Adjustment	Automatically adjust the size.	
Display Digit Number Settings	Sets the auxiliary unit and number of display digits (automatic, customized) for measu	red values.
Copy Layout Items	Create a copy of the on/off display.	
	*The copy will inherit the attributes of the copied on/off display (image settings, display	ayed parameters,
	and instrument settings).	
Send to Back	Move the part to the backmost position.	
Close	Close the on/off display.	

- \*1 About on/off display settings
- 1. Right-click the on-off display and select [Configure On/Off Display].



2. The [On/Off Display Settings] screen will be displayed.

Define the on/off state and configure settings such as on/off colors and images and the border style.

ON/OFF indicator settings	×	ON/OFF indicator settings	×
1/2: PQ3198#000025824 #1 (Urms_CH1(Urms_CH1) - PQ3198#000025824)	<b>`</b>	1/2: PQ3198#000025824 #1 (Urms_CH1(Urms_CH1) -       A different alam "on" image file can be set for each measurement item.         PQ3198#000025824)       Files are listed in order of priority.	
Operation setting (on/off definitions)		Operation setting (on/off definitions) Target Measurement item Image file	
Indicate on/off state based on measured value state		Indicate on/off state based on measured value state     P03198#000025824 #1 (Urms     Change     Clear	
(Alarm judgment status)		(Alarm judgment status) PQ3198#000025824 #2 (Irms Change Clear	
C Indicate on/off state based on operator alarm confirmation state (On from the time an alarm occurs until it is confirmed, then off once confirmed) C Indicate on/off based on the communication status of the instrument (ON when communication is disabled, OFF when communication is enabled)		<ul> <li>Indicate on/off state based on operator alarm confirmation state (On from the time an alarm occurs until it is confirmed, then off once confirmed)</li> <li>Indicate on/off based on the communication status of the instrument (ON when communication is disabled, OFF when communication is enabled)</li> </ul>	
Display Settings		Display Settings	
Use colors to indicate on/off state		C Use colors to indicate on/off state	
OFF Color Change		OFF Color Change	
ON Color Change		ON Color Change	
O Use images to indicate on/off state	۱ (	IVSe images to indicate on/off state	
"Off" image file	_	"Off" image file	
Change Cle	ar	Change Clear	
"On" image file Change Cle	ar	*On* image file Change Clear Change priority (move selected row)	
Boundary line style		Boundary line style	
OK Cance	el	OK	

\*The [Register multiple on images] checkbox (outlined in blue below) will only be displayed if the on/off display has been set up with multiple measurement items. To set up an on/off display with multiple measurement items, use the Instrument Explorer (p.239).

\*Selecting the [Register multiple on images] checkbox will cause the window to be expanded so that you can set an "on" image file for each measurement item.

\* See below for operation settings (ON/OFF definitions).

Configuring On/Off Display Operation

## Layout item (graph) context menu

The layout item (graph) context menu offers the following commands:

Context menu command	Description
Configure graph setting	Configure various settings for the graph display.
Vertical axis setting	Selects one of the displayed graph items as the basis for the vertical axis.

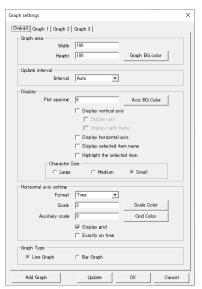
Screen Editing	Enable or disable editing of the on/off display.
Copy Layout Items	Create a copy of the graph display. *Copies of graph parts cannot be made during monitoring.
	*The copy will inherit the attributes of the copied graph display.
Send to Back	Move the part to the backmost position.
Close	Close the graph display.

- \*1 About graph display settings
- 1. Right-click the graph display and select [Graph settings].

Graph settings	
Vertical axis settings	>
Screen Editing	>
Copy Layout Items	
Send to Back	
Close	

2. The [Graph settings] screen will be displayed.

The [Overall] tab is used to configure the display settings for the overall graph.



Settings		Description
Graph	Width	Sets the width of the graph display area.
area		If a vertical axis is displayed, the width of the graph area will be larger than the specified value.
		The width can also be changed directly by mouse operation.
	Height	Sets the height of the graph display area.
		If the horizontal axis is displayed, the height of the graph area will be larger than the specified
		value.
		The height can also be changed directly by mouse operation.
	[Graph Background Color] button	Sets the graph background color.
		Clicking the button displays the [Color] dialog box.

Update	Interval (*1)	The graph update interval can be specified.
interval		If Auto, the graph display is updated at the same interval as the monitoring interval.
		If Imin to Ihour is specified, the representative value of the update interval is used as the graph
		display value.
		The representative value is set in "Graph Setting"-"Displayed Values" in the [Graph 1]-[Graph 8]
		tab.
Display	Plot spacing	Sets the plot spacing of the graph in pixels.
		The larger the value, the wider the plot spacing.
		* [1] means plotting with no spacing, [2] means plotting with 1 pixel spacing.
	Display vertical axis	On: The vertical axis is displayed on the left side of the graph display area.
		Off: The vertical axis is not displayed.
	Display unit	On: Displays the unit of measure for the selected item at the top of the vertical axis display.
		Off: The unit is not displayed.
		Effective when the vertical axis display is on.
	Display right frame	On: Display the right frame of the graph.
		Off: The right frame of the graph is not displayed.
		Effective when vertical axis display is on.
	Display horizontal axis	On: The horizontal axis is displayed at the bottom of the graph display area.
		Off: The horizontal axis is not displayed.
	Display selected item name	On: Displays the name of the selected item at the top of the graph.
		Off: The name of the selected item is not displayed.
	Highlight the selected item	On: The graph line of the item on which the vertical axis is based is displayed 2 pixels thicker
		than the specified value.
		Off: The graph line of the item on which the vertical axis is based is not highlighted.
	[Axis background color] button	Sets the background color of the vertical axis, horizontal axis, and the area around the graph
		display area.
		Clicking the button displays the [Color] dialog box.
Cł	naracter size	The size of the text displayed on the graph can be specified in three levels.
Horizonta	l Format	Scale labels can be selected for the horizontal axis.
axis		The display interval of labels is determined automatically.
setting		Time: Labels are displayed in time format (hh:mm:ss).
		Date: Labels are displayed in date/time format (yyyy/MM/dd hh:mm:ss).
		Point: Labels are displayed in the order of measurement data (from 1).
		Scale only: Displays only the scale without labels.
	Scale	Specifies numerical values for the scale interval.
	Auxiliary scale	Specifies numerical values for the auxiliary scale interval.
	Display grid	On: Vertical grid lines are displayed along the scale in the graph display area.
		Off: Vertical grid lines are not displayed in the graph display area.
	[Scale Color] button	Sets the color of the horizontal axis scale label.

		Clicking the button displays the [Color] dialog box.
	[Grid Color] button	Sets the color of the vertical grid lines.
		Clicking the button displays the [Color] dialog box.
	Exactly on time (*1)	On: Plots a graph from the delimited time. (*2)
		Off: Plots a graph from the monitor start time.
Graph	Line Graph	Displays all graphs as line graphs.
Туре	Bar Graph	Displays items in Graph 1 as a bar graph, and line graphs for all items except Graph 1.
[Add Grap	bh] button (*1)	Add a graph item.
		Clicking the button displays the [Layout-Measurement item settings] dialog box.
		Layout - Measurement item settings     X       Please select a measurement item to display.       PQ3198#000025824 #1 (Freq_CH1(Freq_CH1) - PQ3198#000025824)       OK         Cancel
		Select the measurement item you wish to display and press the [OK] button to add the [Graph x]
		(x:1-8) tab to the Graph Settings screen.
[Update] b	putton	Clicking the [Update] button will apply the changed settings to the graph display.
		Changes made to all tabs are reflected in the graph display.
[OK] butto	on	When you press the button, the changed settings will be reflected in the graph display and the
		graph setting screen will close.
[Cancel] b	putton	Press the button to close the graph setting screen.
		Changes made after pressing the [Update] button will not be reflected in the graph display.

\*1: Cannot be operated when the monitor is running.

\*2: About the "Exactly on time"

- The dashboard monitor start time is subject to the following conditions:
- •When the monitor interval is less than 1 minute:
  - The monitor starts at the timing when 00 seconds in seconds is measured.
  - Example: If the monitor interval is 5 sec, the monitor starts at the timing of 00 sec, 05 sec, 10 sec, ..., 50 sec, and 55 sec.
- •When the monitoring interval is 1 minute or longer:
- The monitoring starts at the timing when 00 seconds is measured.

For this reason, the "Exactly on time" setting is ignored if the monitor interval is specified to be 2 minutes or longer and monitoring is started because the timing of 00 minutes in minutes may not be measured due to the specification when the monitor interval is 2 minutes or longer.

Example: If monitoring is started at 08:00:30 with a monitoring interval of 2 minutes, monitor values are obtained as follows: 08:01:00, 08:03:00, ..., 08:59:00, 09:01:00, ... and therefore graphs cannot be drawn based on 9:00:00.

The [Graph x] (x:1-8) tab is used to set the display settings for each graph item.

Number of scale divisions         Image: Color divisions         Image: Color divisions         Image: Color divisio	
Maximum         I         V         Unit prefix         None           Minimum         -1         V         Number of decimal places         1           Upper limit          V         Number of scale divisions of accelery of divisions of accelery of divisions of accelery for divisions difference divisions of accelery for divisions divisions differen	•
Minimum     1     V     Number of decimal places     1       Upper limit      V     Vectoral places     1       Vertical axis settine     V     Vectoral places     1       Number of devicing at axis settine     Image: Constraint of the devices     Scale color       Number of devicing at axis settine     Image: Constraint of the devices     Constraint of the devices	•
Minimum     Image: Constraint of the con	÷
Upper limit Image	
Vertical axis setting Number of scale divisions Number of divisions of accelery scale for the scale scale setting for the scale set	
Number of scale divisions         Image: Color divisions         Image: Color divisions         Image: Color divisio	
Number of scale divisions of auxiliary scale 1	
Number of divisions of 1 Grid Color	
auxiliary scale	
Upper/Lower limit value settings	
Display     Line color	
Graph setting	
Display value Instantaneous 💌	
Line thickness 1	
Line type	_
Marker type None	
Marker size 1	

Settings		Description
Select this item		Set the item to be used as the basis for the vertical axis.
		One item is always selected.
		This can also be set in the [Vertical Axis Setting] menu of the right-click menu.
		On: This item is used as the basis for the vertical axis. When this item is turned on, the other items that
		were used as the basis for the vertical axis are turned off.
		Off: Indicates that this item is not the basis for the vertical axis. If you want to turn it off, please turn
		on other items.
[Delete] button (*1)		Deletes the item on the displayed tab from the graph display.
		If the deleted item was the basis for the vertical axis, Graph 1 is designated as the basis.
		If all items are deleted, the display returns to the initial view.
Item name		Displays the name of the selected measurement item.
		The measurement item cannot be changed on this screen.
Display range setting	Maximum	Sets the maximum value of the vertical axis display range.
	Minimum	Sets the minimum value for the vertical axis display range.
	Upper limit	The upper limit setting is displayed.
		To change the upper limit setting, go to the instrument advanced settings screen
		(p.196).
	Lower limit	The lower limit setting is displayed.
		To change the lower limit setting, go to the instrument advanced settings screen
		(p.196).
	Unit prefix	Specify the auxiliary units used in the graph display.
	Number of decimal	Specify the number of decimal places for numerical values used in the graph display.
	places	
Vertical axis setting	Display grid	On: Horizontal grid lines are displayed along the scale in the graph display area.
(*2)		Off: Horizontal grid lines are not displayed in the graph display area.

	Number of scale	Specifies numerically the number of scale divisions on the vertical axis.
	divisions	
	divisions	(Range: 1 to 99)
		* When I is specified, no scale is set between the maximum and minimum values.
	Number of divisions	Specifies numerically the number of auxiliary scale divisions on the vertical axis.
	of auxiliary scale	(Range: 1 to 99)
		When [] is specified, no auxiliary scale is provided between the scales.
	[Scale color] button	Sets the color of the vertical axis scale labels.
		Clicking the button displays the [Color] dialog box.
	[Grid color] button	Sets the color of the horizontal grid lines.
		Clicking the button displays the [Color] dialog box.
Upper/Lower limit	Display	On: Upper and lower limit lines are displayed in the graph display area.
value settings		Off: Upper and lower limit lines are not displayed in the graph display area.
	[Line color] button	Sets the color of the upper and lower limit lines.
		Clicking the button displays the [Color] dialog box.
Graph settings	Display value	Specify the graph representative value.
	(*1)(*3)	Instantaneous: The graph value is the instantaneous value acquired during the update interval.
		Average: The graph value is the average of the instantaneous values acquired during the update
		interval.
		Maximum: The maximum value of the instantaneous values acquired during the update interval is used
		as the graph value.
		Minimum: The minimum value of the instantaneous values acquired during the update interval is the
		graph value.
		* If the update interval is automatic or the update interval is the same as (or shorter than) the
		monitoring interval, the graph representative value is the instantaneous value.
	Line thickness	Specifies the numerical thickness of the graph line. (Range: 1 to 99)
		This setting is common for line graphs and bar graphs.
	Line type	You can select the line type for the graph from the following options.
	Line type	Solid, Dashed, Dotted, Single-dash, Double-dash
	Marker type	You can select a marker type for a line graph from the following options.
		None, Circle, Square, Triangle, Cross
	Marker size	Specifies the numerical size of the markers on a line graph. (Range: 1 to 99)
		If it is the same as (or smaller than) the line thickness, the marker will not be displayed.
	[Line color] button	Sets the colors of graph lines and markers.
		Clicking the button displays the [Color] dialog box.
[Copy settings] button (	(*1)	Copy the settings of other tabs to the tab you are viewing (Copy to).
		In the dialog box that appears when you click the [Copy settings] button, specify the "Copy from" tab
		name and the group of settings you wish to copy.

Copy settings X
Copy to Graph 2
Copy from Graph 1
Copy contents
✓ Display range setting
✓ Vertical axis setting
☑ Upper/Lower limit value settings
₩ Graph setting
OK Cancel
Clicking the [OK] button copies the settings in the "Copy from" tab to the displayed tab.
Clicking the [OK] button copies the settings in the "Copy from" tab to the displayed tab.

Please refer to the [General Settings] tab description for the [Add Graph], [Update], [OK], and [Cancel] button actions.

- \*1: Cannot be operated when the monitor is running.
- \*2: The units and number of decimal places used for the vertical axis of a graph display are not linked to the setting of the number of digits displayed in the monitor window, etc.
- \*3: Even if the display value settings are changed after the monitor is executed, the graph will display the data as it was at the time the monitor was executed.

The graph will be cleared the next time the monitor is started.

#### Layout item (image) context menu

Context menu command	Description	
Change Image	Load an image.	
Register as Background Image	Register an image as a background image.	
Screen Editing	Enable or disable editing of the image.	
Automatic Size Adjustment	Revert to the size of the image at the time it was loaded.	
Copy Layout Items	Create a copy of the image.	
	*The copy will inherit the attributes of the copied image (image and size).	
Send to Back	Move the part to the backmost position.	
Close	Close the image.	

The layout item (image) context menu offers the following commands:

### Layout item (layout link button) context menu

The layout item (layout link button) context menu offers the following commands:

Context menu command	Description
Change Link Destination	Change the link destination of the layout link button.
Change Text	Change the text of the layout link button.
Screen Editing	Enable or disable editing of the layout link button.
Text Display Position	Set the text display position.
Automatic Size Adjustment	Automatically adjust the size of the layout link button.
Font	Change the font used for the text of the layout link button.
Text Color	Change the text color of the layout link button.
Background Color	Change the background color of the layout link button.

Copy Layout Items	Create a copy of the layout link button.	
	*The copy will inherit the attributes of the copied button (link destination, text display position, size, font,	
	text color, and background color).	
Send to Back	Move the part to the backmost position.	
Close	Close the layout link button.	

## Start or Stop the Measured Value Monitor

This section describes how to start and stop the measured value monitor.

#### Start the measured value monitor

Verify that the tasks listed below have been completed before starting the measured value monitor. If any tasks remain incomplete, complete them as described in "Workflow" (p.190).

•The instrument has been connected to the PC with a LAN cable.

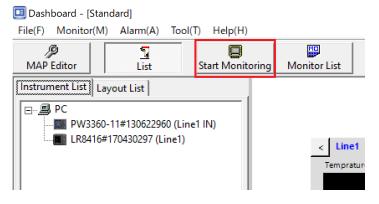
•A list of instruments is displayed on the [Map Editor (Instrument Selection)] screen.

•The instrument connection status is either "Connected" (shown in green) or "Found" (shown in light green).

•One or more measurement channels have been selected under [Channel Selection] on the [Map Editor (Instrument Selection)] screen.

•One or more layout items (monitor window, measured value label, etc.) have been placed in the layout.

1. Click the [Start Monitoring] button on the toolbar.

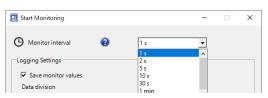


2. The [Start Monitoring] screen will be displayed.

After the [Start Monitoring] screen is displayed, the following message may be displayed: [Calculating how long it will take to acquire measured values...]. The application will automatically calculate the minimum monitor interval while the message is being displayed.

day	-		
day			
day			
day	-		
	<u> </u>		
		×	
l take to acquire	measured		
\HIOKI\		**	
		take to acquire measured	\$

3. Select the desired monitor interval from the [Monitor interval] drop-down list on the [Start Monitoring] screen.



4. Configure settings related to monitor value saving (logging), data segmentation, and daily report and .CSV automatic output under [Logging settings].

🛄 Start Monitoring			-		Х
() Monitor interval	0	1 s	•		
Logging Settings					
Save monitor values					
Data division		1 day	•		
Automatic output settin	gs				
Output the report				امقد	
🗖 Daily	C Week	y 🗌 Monthly		2	
Data save destination					
C GENNECT One	Folder	D:\temp\HIOKI\			
✓ Output a CSV File	Folder	D:\temp\HIOKI\		\$	
		1			
✓ Output graph display	y results to C	SV file		✿	
	Folder	D:\temp\HIOKI\			
Start Monitoring     Cancel					

Settings			Description		
Logging settings	Save monitor values (on/off)		On:		
			Save (logs) monitor values. Recorded measurement data will be saved in the		
			data list in the logging format.		
			Off:		
			Do not save monitor values. When the measured values in layout elements are		
			updated, only alarm information will be updated.		
	Data division		1 day: Segment and save logging data in 1-day blocks.		
			I hr.: Segment and save logging data in 1-hour blocks.		
Automatic	Output report	Daily/Weekly/	On: Automatically output the selected reports.		
output settings	Monthly     Off: Do not automatically output the selected reports.       Data save     Specifies where to save the reports.	Off: Do not automatically output the selected reports.			
		Specifies where to save the reports.			
		destination	GENNECT One:		
			·Save the reports in the GENNECT One data list.		
			Deta Functions Console Laun		
			Time         Time         Title         Comment           •         2021-08-31 (1 item)         •		
			Deta         Report         2021-08-31         10:43:09         Daily report[Excel]         2021-08-31         10:43:09		

			Folder:         •Save the reports in a user-selected directory. Click the [] button to select the directory in which to save the reports.         • TEST2       -       ×         • → * ↑       • This PC → Local Disk (C:) → TEST2       • ©       Search TE          Name       Date modified       Type       Size			
			□ AutoReport         2021/8/31 10:42         XLSX File         50 KB           □ AutoReport_2021-08-31         2021/8/31 10:42         XLSX File         50 KB			
		Detailed	Configures detailed settings related to automatic output of the reports.			
		settings	<ul> <li>See below for more information about the settings.</li> <li>Configuring detailed settings for automatic output (daily/weekly/monthly reports)</li> </ul>			
	Output CSV	On/off	On: Automatically output CSV files based on the logging data segmentation time (1 day/1 hr.).         Off: Do not automatically output CSV files based on the logging data segmentation time (1 day/1 hr.).			
		Folder	•CSV files are saved in a user-selected directory. Click the [] button to select the directory in which to save daily reports.			
		Detailed	Configures detailed settings related to automatic output of CSV files.			
		settings	See below for more information about the settings.			
		•	<ul> <li><u>Configuring detailed settings for automatic output (CSV)</u></li> </ul>			
CSV output of grap results	CSV output of graph display On/Off results		On: Graph values are automatically output to a CSV file. Off: Graph values are not output.			
Folder		Folder	•CSV files are saved in a user-selected directory. Click the [] button to select the directory in which to save daily reports.			
		Detailed	Configures detailed settings related to automatic output of CSV files.			
		settings	See below for more information about the settings.			
		\$	<ul> <li><u>Configuring detailed settings for automatic output (CSV)</u></li> </ul>			

5. Click the [Start Monitoring] button on the [Start Monitoring] screen.

🛄 Start Monitoring				-		×
() Monitor interval	0	1	;	•		
Logging Settings	- Weekl	y	lay	<b>,</b>	۵	
C GENNECT One	Folder	D:\temp			*	
🕒 Star	rt Monito	ring		Car	ncel	

6. Monitoring of measured values will start.

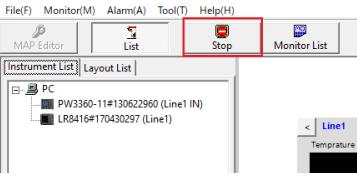
Once monitoring starts, the layout items (monitor windows, measured value labels, etc.) will be updated.
You can display the [Monitor List] screen by clicking [Monitor List] on the toolbar. The [Monitor List] screen displays a list of measurement items and monitor values.

Dashboard - [Standard]     File(F) Monitor(M) Alarm(A) Top (GD + 14 + 0.0)					
MAP Editor	Monitor List				
Instrument List Layout List	PW3360-11#130622960	< LR8410#130317911	Monitor List		
	U1_Ins(RMS voltage / Instantaneous)	CH1_1	ID	Model Comment	Measurement item
PW3360-11#130622960 (PW3360-11#13	72.53 v	-4.389 mV	PW3360-11#130622960	PW3360-11#130622960	U1_Ins(RMS voltage / Instantaneous)
LR8410#130317911 (LR8410#130317911 Inter-channel calculation	Ufnd1_Ins(Voltage fundamental wave value / Instantaneous)	CH1_2	PW3360-11#130622960	PW3360-11#130622960	Ufnd1_Ins(Voltage fundamental wave value / Instantaneous)
inter-channel calculation	96.7 v	-4.341 mV	PW3360-11#130622960	PW3360-11#130622960	Udeg1_ins(Voltage fundamental wave phase angle / instantaneo
			PW3360-11#130622960	PW3360-11#130622960	Upeak1_Ins(Voltage waveform peak / Instantaneous)
	Udeg1_ins(Voltage fundamental wave phase angle / instantaneous)	CH1_3	PW3360-11#130622960	PW3360-11#130622960	U2_Ins(RMS voltage / Instantaneous)
	0 •	-4.293 mV	LR8410#130317911	LR8410#130317911	CH1_1
	Upeak1_Ins(Voltage waveform peak / Instantaneous)	CH1.4	LR8410#130317911	LR8410#130317911	CH1_2
			LR8410#130317911	LR8410#130317911	CH1_3
	138.04 v	-4.245 mV	LR8410#130317911	LR8410#130317911	CH1_4
	U2_Ins(RMS voltage / Instantaneous)	CH1_5	LR8410#130317911	LR8410#130317911	CH1_5
	0.3 v	-4.197 mV	Inter-channel calculation	Inter-channel calculation	Z1(Calculation channel)
	Inter-channel calculation				
	Z1(Calculation channel)				

## Stop the Measured Value Monitor

1. Click the [Stop Monitoring] button on the toolbar.

🛄 Dashboard - [Standard]



2. Monitoring of measured values will stop.

### **Manage Instrument Lists**

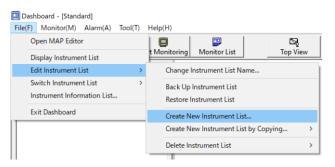
Instrument lists group together information about instruments, measurement items, layouts, and alarm settings. Although it is possible to create multiple instrument lists, by default there is a single instrument list with the name "Standard."

You can create new lists, create new lists by copying existing lists, delete lists, switch lists, back up lists, and restore lists. This section describes each of these operations.

#### **Create a New Instrument List**

This section describes how to create a new instrument list.

1. Select [Edit Instrument List]-[Create New Instrument List] in the [File] menu.

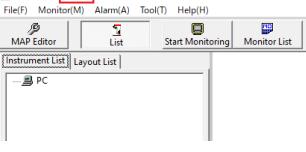


2. When the [Create New Instrument List] screen is displayed, enter a name for the instrument list and click the [OK] button.



3. The new instrument list will be created.

💷 Dashboard 🛛 [List1]



## Create a New Instrument List by Copying

This section describes how to create a new instrument list by copying an existing instrument list.

1. Select [Edit Instrument List]-[Create New Instrument List by Copying] in the [File] menu and select the name of the instrument list you wish to copy.

) Monitor(M) Alarm(A) Tool(T)	Help(H)		
Open MAP Editor			
Display Instrument List	t Monitoring Monitor List Top View	v	
Edit Instrument List	Change Instrument List Name		
Switch Instrument List >	Back Up Instrument List		
Instrument Information List	Restore Instrument List		
Exit Dashboard	Create New Instrument List		
	Create New Instrument List by Copying	>	Choose Copy Source
	Delete Instrument List	>	List1
		_	Standard

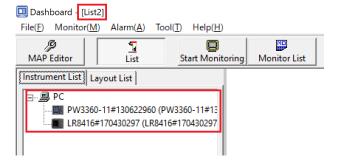
2. The [Create New Instrument List by Copying] screen will be displayed. Click [Yes].



3. When the [Create New Instrument List by Copying] screen is displayed, enter a name for the instrument list and click the [OK] button.



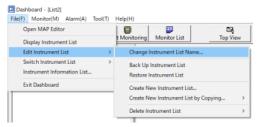
4. The new instrument list will be created.



#### **Rename an Instrument List**

This section describes how to rename the currently selected instrument list.

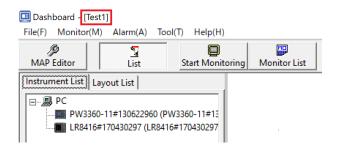
1. Select [Edit Instrument List]-[Change Instrument List Name] in the [File] menu.



2. When the [Change Instrument List Name] screen is displayed, enter a name for the instrument list and click the [OK] button.

Change Instrument List Na	×
Enter the new name.	ОК
Current: List2	Cancel
Test 1	

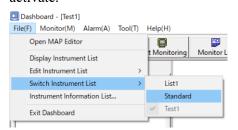
3. The instrument list's name will be changed



#### Switch Instrument Lists

This section describes how to switch instrument lists.

1. Select [Switch Instrument List] in the [File] menu and select the name of the instrument list you wish to activate.



2. The application will switch to the selected instrument list.

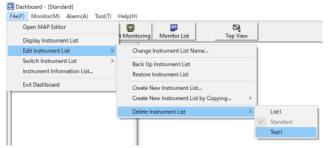
Dashboard - [Stand File(F) Monitor(M)		Tool(T)	Help(H)	
) MAP Editor	List	St	🔲 art Monitori	ing Monitor L
E	out List    1#13062296 70430297 (LF			

## **Delete an Instrument List**

This section describes how to delete an instrument list.

1. Select [Edit Instrument List]-[Delete Instrument List] in the [File] menu and select the instrument list you wish to delete.

\*You cannot select the currently selected instrument list. If you wish to delete the currently selected instrument list, switch to a different instrument list and then delete the desired instrument list.



2. The [Collecting measurement channels] message will be displayed.

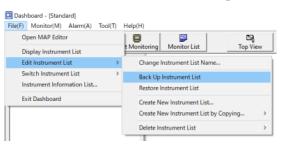
To delete the list, click [Yes].



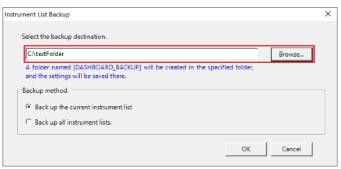
## **Back Up an Instrument List**

This section describes how to back up an instrument list.

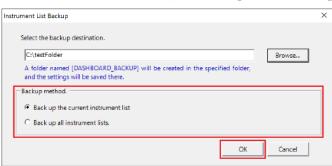
1. Select [Edit Instrument List]-[Back Up Instrument List] in the [File] menu.



2. When the [Instrument List Backup] screen is displayed, specify the save destination folder.

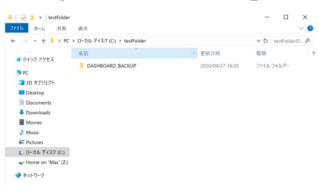


3. Select which instrument list(s) to back up under [Backup method] and click the [OK] button.



4. The instrument list(s) will be backed up in a file.

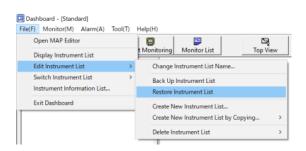
\*A backup folder named "DASHBOARD\_BACKUP" will be created in the specified save destination folder.



## **Restore an Instrument List**

This section describes how to restore an instrument list from a file.

1. Select [Edit Instrument List]-[Restore Instrument List] in the [File] menu.



2. When the [Instrument List Restore] screen is displayed, specify the folder in which the backup was saved.

\*Specify the backup folder named "DASHBOARD BACKUP."

Select the backup source.			
C:\testFolder\DASHBOARD_BACKUP			Browse
Part and a state of			
Restoration method			
<ul> <li>Restore the selected instrument list</li> </ul>			
Standard	- 4	10000 10000 PM	
Junio	4	1/27/2020 4:29:03 PM	
C Restore all instrument lists			

3. Select which instrument list(s) to restore under [Restoration method] and click the [OK] button.

Instrument List Restore		×
Select the backup source. C:\testFolder\DASHBOARD_BACKUP	Browse	
Restoration method  Restore the selected instrument list  Standard  C Restore all instrument lists	4/27/2020 4:29:03 PM	
	OK Cancel	

4. The instrument list(s) will be restored from the file.

### **Alarm Function**

## Overview

The alarm function saves alarm information in the event that a measured value exceeds the threshold range while the measured value monitor is being used.

Threshold values can be set for each measurement item on the instrument's advanced settings screen. Alarm judgment is performed by the computer.

Note: Measurement data cannot be used in alarm judgment if a communications error has occurred between the computer and the instrument.

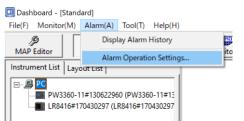
Note: In order to use alarm judgment, you must first configure the alarm settings on the instrument's advanced settings screen.

For more information about alarm settings, see "Configure Advanced Instrument Settings" (p.196).

## **Configure Alarm Operation**

This section describes how to configure alarm operation.

1. Select [Alarm Operation Settings] in the [Alarm] menu.



2. The [Alarm Operation Settings] screen will be displayed.

## [Alarm Operation Settings]-[Measurement Data] tab

Alarm Operation Settings	×
Measurement Data Mask Time Period	
3 E Beep when an alarm occurs	
-Sound file to play	
Test Browse	
<ul> <li>④ ☞ Generate the alarm again if it remains uncleared for a certain amount of time after being confirmed</li> <li>Time until alarm is generated again</li> <li>30 ↔ Minute (Range: 1 to 1440)</li> </ul>	
Automatically set alarms to confirmed when they are cleared	
☑ IF Display a pop-up notification when an alarm occurs OK Cancel	

Item	Description
1	Select if you wish to automatically set each alarm to the confirmed state when it is cleared.
2	Select if you wish to display a pop-up alarm history when an alarm occurs.
3	Select if you wish to play an audio alert when an alarm occurs and select the audio file to play.
	•Select if you wish to generate an alarm if an alarm has not been cleared after the set amount of time
4	has elapsed after it is confirmed.
	•Set the amount of time after which to generate the second alarm in the above instance.

## [Alarm Operation Settings]-[Mask Time Period] tab

					ask alarms s will be not	generated		ter tim	es ir	n 24-hou	r format.
Г	00:00	-	14	00:00		Г	00:00	- A-		00:00	
Г	00:00	-	÷	00:00	-	Г	00:00	+		00:00	-
Г	00:00	+	1	00:00	+	Г	00:00	+	•	00:00	-
Г	00:00	+	ŝ	00:00	-	Г	00:00	-	•	00:00	
Г	00:00		-	00:00		Г	00:00			00:00	

Item	Description	
1	Set the time period during which to suppress alarms.	

# Note

•The valid setting range is 00:00 to 23:59.

•The minimum setting unit is 1 min.

## **Use the Alarm Function**

This section describes how to start using the alarm function.

1. Click the [Start Monitoring] button on the toolbar.



Monitoring of measured values will start.

If alarm settings have been configured for a measurement item, an alarm will be deemed to have occurred if a measured value exceeds the threshold value.

When an alarm occurs, the monitor display for the measured value that triggered the alarm will change.

#### 2.

trument List Layout List	·	
PC PC	PW3360-11#130622900_Test	< LR8416#170430297
	U1_ins Udeg3_ins	CH1_1
PQ3100#161043980 (PQ3100#16104398		NO DATA m
	Ufnd1_ins Upeak3_ins	
		CH1_2
	Udeg1_Ins	NO DATA m
		CH1_3
	Upeak1_Ins	NO DATA "
		CH1_4
	U V	
	U2_Ins	NO DATA "
	<b>0</b> v	CH1_5
	Ufnd2_lns	NO DATA "

## Note

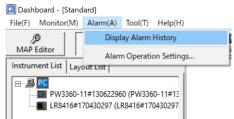
•Measurement data cannot be used in alarm judgment if a communications error has occurred between the computer and the instrument.

•If the alarm audio setting has been configured, the computer will play a sound when an alarm occurs. To mute the sound, click the alarm on the [Alarm log] screen. The alarm sound will stop once all alarms have been confirmed.

## **Display the Alarm History**

This section describes how to display the alarm history.

1. Select [Display Alarm History] in the [Alarm] menu.



2. The [Alarm log] screen will be displayed.

# Note

•Unconfirmed alarms are shown in yellow.

•Clicking an alarm will clear it, and the date and time will be entered into the [Time alarm confirmed] field.

•You can display the [Alarm log] screen as a pop-up window when an alarm occurs. For more information about this setting, see "Configure Alarm Operation" (p.236).

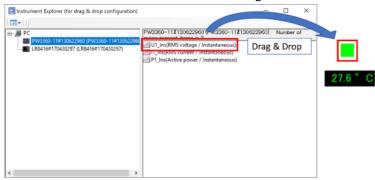
	Item	Description
1	Date	Allows you to select the date for which you wish to view alarms.
2	Time alarm occurred	Displays the time at which the alarm occurred.

3	Time alarm cleared	Displays the time at which the alarm was cleared.
4	ID	Displays the instrument name and serial number.
5	Model Comment	Displays the model comment that was set for the instrument (p.197).
6	Measurement item	Displays the measurement item comment that was set for the measurement item (p.197).
7	Information	Displays the monitor value (measured value) and alarm setting values (upper and lower limit values) at the time the alarm occurred.
8	Category	Displays [Measured value alarm] as the alarm category.
9	Time alarm confirmed	Records the confirmation time when you click a row describing an alarm.
10	Confirm All	Click to set all alarms for the day in question to "confirmed."

# **Other Functionality**

# Use the Instrument Explorer to Apply Settings to Layout Items

- 10. This section describes how to use previously registered instrument settings to easily set measurement items for layout items.1. Right-click the layout and select [Display Instrument Explorer].
  - 2. The [Instrument Explorer] will be displayed.
  - 3. Drag and drop settings onto layout items to configure measurement items.
  - Measurement items will be applied to layout items along with threshold values and other settings configured on
  - the measurement items' advanced settings screens.



\*You can review current displayed measurement items by moving the cursor to a layout item while the layout has focus.



Note: Configuring displayed measurement item settings with the Instrument Explorer

Item type	Able to configure displayed	Number of measurement items that can be
	measurement item settings with the	set (per item)
	Instrument Explorer?	
Monitor windows	No	
Measured value labels	Yes	1 only

Measured value graphics	Yes	1 only
On/off displays	Yes	Multiple (*1)
Graph	Yes	Multiple (*2)

\*1 If multiple measurement items have been set for an on/off display, OR logic will be applied to the "ON" judgment conditions.

\*2 Starting with v5.70, it is also possible to add items to graph parts using the Instrument explorer.

## **Replacing instruments**

When using an instrument whose serial number differs from the previously used instrument, you can continue to use the layout and other settings.

Although use of a different instrument ordinarily precludes inheriting layout, selected channels,

model/measurement parameter comments, alarm upper and lower limit values, and other settings, this function allows you to inherit settings as long as the new instrument has the same model name as the old instrument. It's convenient in situations like the following:

When you wish to replace an instrument but continue using a previously created layout

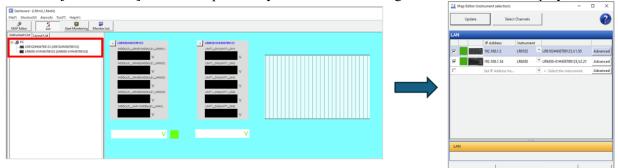
·When you wish to share a created layout with one computer and connect an instrument of the same model to use with another computer

## **Replaceable instruments**

If the measuring instrument model (such as PQ3100, LR8450) is the same and the settings and module configuration of the measuring instrument are the same, the measuring instrument can be replaced.
Replacement is possible even between measuring instruments with different firmware versions, but it is recommended to use the latest firmware version.

## **Operating Procedure**

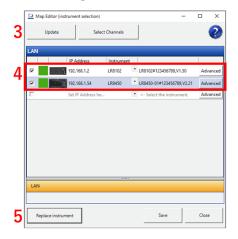
- 1. Launch the dashboard and display the list (layout) of the measuring instruments you want to replace.
- 2. Click on [MAP Editor]. The list of previously connected measuring instruments will be displayed.



3. Connect the new measuring instrument to the PC using a LAN cable. Select [Update] on the [Map Editor] screen and make sure all instruments are connected.

\*In this image, the same IP address is used for measuring instruments with the same model name, but different IP addresses can also be used without any issues.

- 4. Select the measuring instruments among the connected ones that you want to inherit the previous settings from, and check them. Multiple selections are possible.
- 5. Click the [Replace instruments] button.



6. if there's one or more instrument that could replace one of the connected instruments used last time, the [Instrument replacement settings] screen will be displayed.

					_							
<u>0</u>	Instrument replacement	settings							-			×
ala	rm upper and lower li	mit values, and o	instrument that was connected other settings can be inherited hose settings you wish to inhe	i.	nn	ected. If t	he instrument is	the same mode	I, the last selected chan	nels,	comme	nts,
Pre	evious connected instru	uments				Current c	onnected instrum	ients				
	IP Address	Instrument			[		IP Address	Instrument			Inherit setting:	s
	192.168.1.2	LR8102	LR8102#456789123,V1.50	Advanced			192.168.1.54	LR8450	LR8450-01#123456789,V2	.21		
	192.168.1.54	LR8450	LR8450-01#456789123,V2.21	Advanced								
					-					-		
									ОК		Cancel	

When you click on any measuring instrument in the [Previously Connected Instruments] list, the replaceable measuring instruments will be displayed in the [Currently Connected Measuring Instruments] section.

\*By clicking [Advanced], you can check the setting information such as selected channels, model comments, alarm upper and lower limits, etc., for the selected measuring instrument.

7. Check the [Inherit Settings] box for the measuring instrument you want to replace. After checking the box for all the measuring instruments you want to replace, click [OK].

0	Instrument replacement	settings							-		×
ala	m upper and lower lin	mit values, and o	instrument that was connecte other settings can be inherited hose settings you wish to inhe	d.	nnected. If	the instrument is	the same mod	el, the last selected ch	annels,	comr	ments,
Pre	vious connected instru	uments			Current	connected instru	nents				
Г	IP Address	Instrument				IP Address	Instrument			Inhe	
	192.168.1.2	LR8102	LR8102#456789123,V1.50	Advanced		192.168.1.54	LR8450	LR8450-01#123456789	V2.21	Ľ	
I	192.168.1.54	LR8450	LR8450-01#456789123,V2.21	Advanced							
								_			
								ок		Cano	el
									·		

8. A confirmation message will be displayed. If the content is correct, click [Yes].



\*Please note that when the replacement is executed, the layout parts assigned to the measurement items (channels) of the measuring instruments that were not set for replacement will behave as follows.

Monitor Window	This will be removed from the layout.
Others	The measurement items will remain unassigned and stay in the layout.
	Example of display for a measurement value label : ??

\*If there are one or more measurement items that were selected previously but could not be found in the currently connected measuring instruments, the replacement cannot be executed, and the following screen will be displayed.

Confirm		-		×		
Instrument replacement	could not be performed.					
The following channels	swere not found.					
Instrument	Measurement item	Comment				
LR8102#123456789	MODULE10_CH5	MODULE10_CH5(M	ODULE10	_CH5)		
	MODULE10_CH7	MODULE10_CH7(M	ODULE10	_CH7)		
	MODULE10_CH8	MODULE10_CH8(M	ODULE10	_CH8)		
	MODULE10_CH9	MODULE10_CH9(M	ODULE10	_CH9)		
	MODULE10_CH12	MODULE10_CH12(N	IODULE1	0_C		
	MODULE10_CH13	MODULE10_CH13(N	IODULE1	0_C		
	MODULE10_CH15	MODULE10_CH15(N	IODULE1	0_C		
Please check the settings of the measuring device.						

To execute the replacement of the measuring instruments, please check the following items and then click

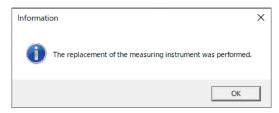
[OK] again on the [Instrument Replacement Settings] screen .:

-The settings of the measuring instruments are the same before and after the replacement.

-The module configuration is the same before and after the replacement.

-There are no issues with the LAN connection between the measuring instruments and the PC.

9. If the replacement is successful, a message saying "The replacement of measuring instrument was performed." will be displayed.



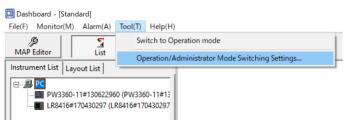
10. The measuring instrument will be replaced, and the layout and other settings will be inherited.

Dashboard - (LR8102_LR8450)			
File(F) Monitor(M) Alarm(A) Tool(T) Help(H)			
MAP Editor	List		
Instrument List Layout List			
<ul> <li>■ LEASON-113452789 (LESION-113455789)</li> <li>■ LEASON-113455789 (LESION-11472345789)</li> </ul>		Listebenit/2604799           Unit_CRUMPT_CPU           V           Unit_CRUMPT_CPU           V	

## Set Administrator Mode

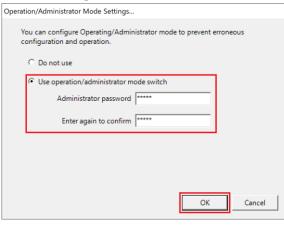
This function restricts the ability to change settings to users who know the password. Users who do not know the password are only able to access the measured value monitor.

1. Select [Operation/Administrator Mode Switching Settings] in the [Tool] menu.



2. The [Operation/Administrator Mode Switching Settings] screen will be displayed.

Select [User operation/administrator mode switch], enter the password twice, and click the [OK] button.



Operation mode	•This mode allows users (operators) who do not know the password to use dashboard
	functionality.
	•These users can only access the measured value monitor.
Administrator	•This mode allows users (administrators) who know the password to use dashboard
mode	functionality.

•These users have access to all functionality, including changing settings.

#### Switch from administrator mode to operation mode

1. Select [Switch to Operation Mode] in the [Tool] menu.

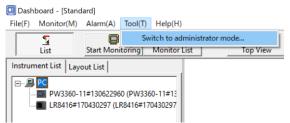
🛄 Dashboard - [Standa	ard]				
File(F) Monitor(M)	Alarm(A)	Tool(T) Help(H)			
Ø 3		Switch to Operation mode			
MAP Editor	List	Operation/Administrator Mode Switching Settings			
Instrument List Layo	ut List				
□         ■         PC           □         ■         PW3360-11#130622960 (PW3360-11#13           □         ■         LR8416#170430297 (LR8416#170430297					

2. The dashboard function will switch to operation mode.

Users will only be able to access the measured value monitor.

#### Switch from operation mode to administrator mode

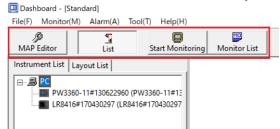
1. Select [Switch to Administrator] in the [Tool] menu.



2. The [Password entry] screen will be displayed. Enter the password and click the [OK] button.



3. The dashboard function will switch to administrator mode. Users will have access to all functionality.



#### Using demo mode

Demo mode allows you to display fictional measured values for previously created layout elements so that you can verify the function's operation.

It can be used even when no instruments are connected to the computer.

\*It's necessary to create a layout before using demo mode.

\*Starting demo mode does not start instrument recording.

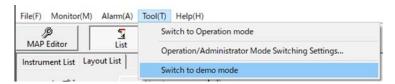
\*The monitor values shown in demo mode are not saved on the computer.

\*An alarm item that occurred during the demo mode is displayed with the classification [Measured value alarm

(DEMO)]. This item is deleted from the alarm history when the alarm history window is opened/closed or when the monitor/demo is started.



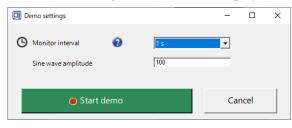
1. Select [Switch to demo mode] on the [Tool] menu.



2. The interface will switch to the demo mode toolbar. Click the [Start demo] button.



3. The [Demo settings] screen will be displayed. Configure demo mode and click [Start demo].



Monitor interval Sets the interval at which to update monitor values. ((1/2/5/10/30 sec., 1 min.)		Sets the interval at which to update monitor values. $((1/2/5/10/30 \text{ sec.}, 1 \text{ min.})$
	Sine wave Sets the sine wave amplitude to output in demo mode. (-3E+38 to +3E+38)	
	amplitude	

- 4. Fictional monitor values will be displayed in the layout elements.
- 5. Click [End demo] to stop monitor value updates.



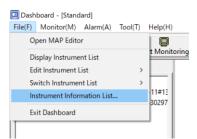
6. Select [Exit demo mode] on the [Tool] menu to exit demo mode.

File(F) Monitor	(M) Alarm(A)	Tool(T)	Help(H)
Þ	3	Sv	vitch to Operation mode
MAP Editor	List	Or	peration/Administrator Mode Switching Settings
Instrument List	Layout List	-	
		Ex	it demo mode
			• •

## **Review Instrument Information**

This section describes how to review instrument information on a single screen.

1. Select [Instrument Information List] in the [File] menu.



2. The [Instrument List] screen will be displayed.

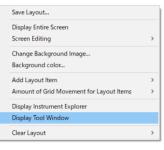
Instrument List			×
Instrument List		Export to csv file Total number of instruments : 2	
ID	Model	Model Comment	
PW3360-11#130622960	PW3360	PW3360-11#130622960	
LR8416#170430297	LR8416	LR8416#170430297	

ID	Indicates the instrument ID. A unique ID is automatically assigned to each instrument.
Model	Indicates the instrument model.
Model comment	Displays the instrument name as set on the instrument's advanced settings screen
	(p.197).

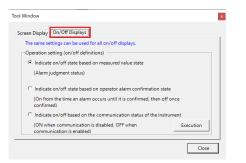
### **Configuring On/Off Display Operation**

This section describes how to use the same operation settings (on/off definition settings) for all on/off displays included in the layout.

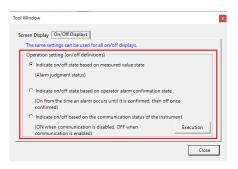
1. Right-click the layout and select [Display Tool Window].



2. The [Tool Window] will be displayed. Select the [ON/ OFF Displays] tab.



3. Choose the desired on/off display operation and click the [Execution] button.

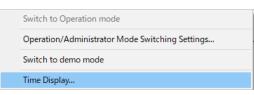


Indicate on/off state based on measured	•The display will turn on if the measured value exceeds the
value state	threshold range.
	•The display will turn on if the measured value falls beneath the
	threshold range.
Indicate on/off state based on operator	•The display will turn on if the measured value exceeds the
alarm confirmation state	threshold range.
	•The display will turn off if the operator alarm state is [Confirmed].
Indicate on/off based on the	• The display will turn on if the measurement values cannot be
communication status of the instrument	acquired.
	• The display will turn off if the measurement values are acquired.
	* The communication status of the instrument is determined by
	whether or not the measured values can be acquired.

## Display monitoring time information (Time Display dialog)

The start time, stop time, elapsed time, and layout switching time of monitoring can be displayed on the screen.

1. Select [Tools] - [Time Display].



2. The Time Display dialog appears.

Time Display	x		
Start time Stop time Elapsed time	 	Start time Stop time Elapsed time	:: :: 0day 00:00:00
Layout		Layout	

(Left : with title bar, Right : without title bar)

### 3. Right-click to display the menu.



Context menu command	Description				
Setting (*1)	Set the display item, color, text size, and display format.				
Show title bar	Shows/hides the title bar.				
Clear	Resets the display. Cannot be selected during monitoring.				
Automatic adjustment	Automatic adjustment of screen size.				

### \*1: About the setting

Time display setting	×								
Display mode									
✓ Start time of monitoring									
✓ Stop time of monitoring									
✓ Elapsed time since start of monitoring									
✓ Time switched to display layout									
Color setting									
Background									
Character Size	_								
⊙ Small ⊂ Medium ⊂ Large									
Format of elapsed time display									
⊙ d HH:mm:ss ⊂ HHHH:mm:ss									
Format of time display									
€ yyyy-MM-dd HH:mmss C M/d/yyyy h:mmss tt									
Initialize OK Cancel									

# GENNECT One User's Manual

Settings		Description						
Display mode	Start time of monitoring	Shows/hides the monitoring start time.						
	Stop time of monitoring	Shows/hides the monitoring stop time.						
	Elapsed time since start	Shows/hides the elapsed time since the start of monitoring.						
	of monitoring							
	Time switched to display	Shows/hides the time when the displayed layout is switched.						
	layout	When the monitor starts, the time is the same as the monitor start time.						
Color setting	Background	Sets the background color.						
	Text	Sets the text color.						
Character size		The size of the displayed text can be specified in three levels.						
Format of elapsed time dis	play	Specifies the display format for the elapsed time since the start of monitoring.						
		* d: days elapsed, H: hours, m: minutes, and s: seconds.						
Format of time display		Specify the display format for the monitoring start/stop time and the time switched to the display						
		layout.						
		* y: year, M: month, d: day, H: hour, m: minute, s: second.						

# Configuring detailed settings for inter-channel calculations

•The logging and dashboard functions allow you to perform calculations using predetermined formulas and display the calculation results. Up to 16 calculations can be performed simultaneously.

•See below for more information about the procedure for enabling inter-channel calculations with the logging function.

Select channels (Setting Calculation Channels)

•See below for more information about the procedure for enabling inter-channel calculations with the dashboard function.

Select Channels(Setting Calculation Channels)

# Setting a calculation formula

## Entering information about a calculation formula

Click the [Enter Formula] button on the logging or dashboard function's [Channel Settings] dialog box to display the [Formula Settings] dialog box.

🛄 Formula se	ettings		- 0	×
(L) <sub>z1</sub>				^
Comment:	01 (2) Unit: V (3)	Upper limt:	2000.0 5	-
Formula:	c01+c02 (4)	Lower limt:	-2000.0 6	
<b>▼</b> Z2				
Comment:	Formula02 Unit: W	Upper limt:		
Formula:	SQR(PWR(C03, 2)+PWR(C04, 2))	Lower limt:		
<b>▼</b> Z3				
Comment:	Formula03 Unit: W	Upper limt:		
Formula:	FLOOR(Z2*a, 2)	Lower limt:		
Z4				
Comment:	Unit:	Upper limt:		
Formula:		Lower limt:		
_ □ Z5				_
Comment:	Unit:	Upper limt:		
Formula:		Lower limt:		
Z6				_
Comment:	Unit:	Upper limt:		
Formula:		Lower limt:		
(Display the	settings saved by GENNECT One.)	ОК	Cancel	

#### ① Formula name checkbox

The formulas are named as follows: Z1 to Z16.

Calculation results for the formulas whose checkboxes have been selected will be displayed by the logging or dashboard function.

Each checkbox's selection status is saved separately by the logging and dashboard functions.

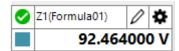
## ② Comment

### ③ Unit

Comments and units can be entered directly, and they're shown in the following format in the calculation results: "Formula name (comment)."

The same comment and one unit are saved by the logging and dashboard functions (the same pair of settings

apply to both).





# **④** Formula

The formula can be set on the [Formula Entry (Individual)] dialog box, which is displayed by clicking the formula display area.

Calculation results based on the set formula will be displayed by the logging or dashboard function. The same formula is used by both the logging and dashboard functions.

See below for more information about how to enter formulas.

Entering formulas

# **(5)** Upper limit value

## **(6)** Lower limit value

The upper and lower limit values are threshold value settings used by the dashboard's alarm function.

The upper and lower limit values are not displayed by the logging function.

Values can also be specified using exponents, and leaving a value blank means that no threshold value has been specified.

See below for more information about the alarm function.

Alarm Function

## ⑦ Formula settings file

You can save and load formula settings (formulas, constants, and channel settings) to and from files. Files are saved in the TSV (tab-delimited text file) format.

## **Entering a formula**

You can edit formulas on the [Formula Entry (Individual)] dialog box.

	-											- 1	⊐ ×	
Z2	(I)								Constant lis	t Channel list				
	(PWR(C03, 2)+	PWR(C04, 2))	2							Model	Serial	ltem	-	-
,	_		(2)					~	▶ C01	PQ3198	00000000	Freq_CH1		1
Fu	nctions 3	_		7 [ <sup>N</sup>	lumerals	and Ope	erators	(5)	C02	PQ3198	00000000	Freq_CH1		I
	ABS	SIN	FLOOR		BS	DEL	_		C03	PQ3198	00000000	Urms_CH2		I
	ADS	SIN	FLOOK		B2	DEL	С		C04	PQ3198	00000000	Urms_CH3	_	I
				i					C05	PQ3198	00000000	Urms_CH4	- 11	
	EXP	COS	CEIL		(	)		1	C06	PQ3198	00000000	Irms_CH1		
									C07	PQ3198	00000000	Irms_CH2	_	
	LOG	TAN	ROUND		7	8	9	*	C08	PQ3198	00000000	Irms_CH3	_	
									C09	PQ3198	00000000	Irms_CH4	_	
	LN	ASIN			4	5	6	_	C10	PW3360-10	200899918	U1_Ins	_	
					7	5		-	C11	PW3360-10	200899918	U2_Ins	_	
									C12	PW3360-10	200899918	U3_Ins	_	
	SQR	ACOS			1	2	3	+	C13	PW3360-10	200899918	l1_Ins	_	
									C14	PW3360-10	200899918	I2_Ins	_	
	CBR	ATAN			0		E	, I	C15	PW3360-10	200899918	13_Ins	_	
									C16	PW3360-10	200899918	Freq_Ins	_	
	PWR	ATAN2							C17				_	
	FVVIX	ATANZ							C18		6		_	
		-							C19				_	
For	mula : Z	1 🚽	input (4	<b>`</b>					C20				_	
101		· · · ·		)					C21				_	
									C22				_	
									C23				_	-
										Setting the ch	annel	ОК	Cancel	

## 1) Formula name

Displays the name of the formula being edited.

## ② Formula

Allows you to edit the formula that will be used to generate the calculation results displayed by the logging or dashboard function.

You can enter formulas either directly or using interface elements ③ through ⑥.

The following can be specified as part of a formula:

Numerical values (including in exponential notation), symbols (the four arithmetic operations,

parentheses, etc.), operators (function name and parameter combinations), formula names, channel names, and constant names

#### **③** Operator entry

Displays buttons for operators (function names) that can be used in formulas.

Click a button to insert the operator and an opening parenthesis into the formula.

See below for more information about operators.

List of operators

## **④** Formula name entry

Select the formula name in the drop-down menu and click the [Input] button to enter the specified formula name into the formula.

You can specify Z1 to Z16 as formula names, but the formula will be set so that it is not calculated if the formula cannot be finalized.

Example: If you set Z1 to Z3 and Z3 to Z1, the checkbox will be deselected so that no calculation is performed because the formula cannot be finalized.

#### **(5)** Numerical value and symbol entry

Click a button to enter the text of the button label (values, four arithmetic operations, etc.) into the formula. The comma symbol is used to specify function parameters, and the period is used as the decimal point symbol.

## **(6)** Constant and channel entry

You can specify constants or channels to use and enter them into the formula. Use the tabs to switch between the settings panels.

See below for more information about each panel.

<u>Setting a constant</u>
 <u>Setting a channel to use</u>

#### Setting a constant

You can assign constants to the lowercase letters a through p, for example when you wish to use a constant as a common value in multiple formulas.

Constant list Channel list				
a (1)-2.32E02 (2)		i	=	0
b = 0		j	=	0
c = 2		k	=	0
d = 0		Т	=	0
e = 8		m	=	0
f = 5		n	=	0
g =		o	=	0
h = 0		р	=	-01
- For constant	input	(3	0	
BS	DEL		с	
7	8		9	
	_			1
4	5		6	
1	2		3	
0	•		E	+-

### ① Constant name button

Click to enter a constant name (a through p) into the formula.

#### **②** Constant value entry

Allows you to directly edit the constant.

Values can also be specified using exponents, and leaving a value blank or entering an invalid value is the same as specifying the value 0.

#### **③** Value entry

Click a button to enter the text of the button label into the constant value field. Click the [+-] button to change the sign.

#### Setting a channel to use

You can assign channels for use in formulas.

A total of 99 channels (C01 to C99) can be specified.

If a channel that has not been selected on the logging or dashboard funct'on's [Channel Settings] dialog box is specified, the calculation results will be displayed as an invalid value.

**(4)** 

onstant lis	t Channel list			
	Model	Serial	ltem ^	Sele
C01	PQ3198	00000000	Freq_CH1	No. of selections 0/14
C02	$1^{PO3198}_{PO3198}$ (2)	00000000	Freq_CH1	Search for measurement channel (partial match)
C03	PQ3198	000000000	Urms_CH2	<b>V</b> PQ3198#00000000
C04	PQ3198	00000000	Urms_CH3	Channel display names
C05	PQ3198	00000000	Urms_CH4	Freq_CH1(Freq_CH1)
C06	PQ3198	00000000	Irms_CH1	Urms_CH1(Urms_CH1)
C07	PQ3198	00000000	Irms_CH2	Urms_CH2(Urms_CH2)
C08	PQ3198	00000000	Irms_CH3	Urms_CH3(Urms_CH3)
C09	PQ3198	00000000	Irms_CH4	Irms_CH1(Irms_CH1)
C10	PW3360-10	200899918	U1_Ins	Irms_CH2(Irms_CH2)
C11	PW3360-10	200899918	U2_Ins	Irms_CH3(Irms_CH3)
C12	PW3360-10	200899918	U3_Ins	<b>V</b> PW3360-10#200899918
C13	PW3360-10	200899918	I1_Ins	Channel display names
C14	PW3360-10	200899918	I2_Ins	<ul> <li>U1_Ins(RMS voltage / Instantaneous)</li> </ul>
C15	PW3360-10	200899918	I3_Ins	<ul> <li>U2_Ins(RMS voltage / Instantaneous)</li> </ul>
C16	PW3360-10	200899918	Freq_Ins	<ul> <li>U3_Ins(RMS voltage / Instantaneous)</li> </ul>
C17				<ul> <li>I1_Ins(RMS current / Instantaneous)</li> </ul>
C18				I2_Ins(RMS current / Instantaneous)
C19				I3_Ins(RMS current / Instantaneous)
C20				Freq_Ins(Frequency / Instantaneous)
C21				
C22				
C23				

### ① Channel name

Click a channel name (C01 to C99) to enter it into the formula.

### **②** List of channel settings

Displays a list of currently set channels. This list cannot be edited directly.

### **③** [CH Setting] button

Click the button to display the [Channel Settings] dialog box (4).

### **④** [Channel Settings] dialog box

Displays a list of the channels that have been selected on the logging or dashboard function's [Channel Settings] screen.

Selecting the checkbox of a channel you wish to use will add the selected channel information above the row selected in the list of channel settings.

▼ LR8450-01#00000055			Model	Serial	Item	
Channel display nan	es	C01				4
UNIT1_CH1(UNIT1_CH1)		C02	LR8450-01	000000055	UNIT1_CH1	٩.
UNIT1_CH2(UNIT1_CH2)		C03 C04	LR8450-01	000000055	UNIT1_CH2 UNIT1_CH3	-14
UNIT1_CH3(UNIT1_CH3)		C04	LF\0400-01	00000000		-1
UNIT1_CH4(UNIT1_CH4)		C06				-11
UNIT1_CH5(UNIT1_CH5)		C07				
PW3360-11#130622960		C08				
		C09				
		C10				

#### List of operators

	Operator name	Number of parameters Example	Calculation description
--	------------------	------------------------------------	-------------------------

	operator	
ABS	1	Returns the absolute value of parameter 1. (Negative values become
	ABS(x)	positive.)
EXP	1	Returns the exponent to which the base e must be raised to obtain
	EXP(x)	parameter 1 (parameter 1 as a power of <i>e</i> ).
LOG	1	Returns the base 10 logarithm of parameter 1, which must be positive.
	LOG(x)	
LN	1	Returns the natural logarithm of parameter 1, which must be positive.
	LN(x)	
SQR	1	Returns the square root of parameter 1.
	SQR(x)	
CBR	1	Returns the cube root of parameter 1.
	CBR(x)	
PWR	2	Returns the exponent to which the base parameter 1 must be raised to
	PWR(x, y)	obtain parameter 2.
		(The symbol ^ cannot be used.)
SIN	1	Returns the sine of parameter 1. (Specify the parameter in degrees.)
	SIN(x)	
COS	1	Returns the cosine of parameter 1. (Specify the parameter in degrees.)
	COS(x)	
TAN		Returns the tangent of parameter 1. (Specify the parameter in degrees.)
	TAN(x)	
ASIN		Returns the arc sine of parameter 1, which must be greater than or equal
	ASIN(x)	to -1 and less than or equal to 1, in the range of $-90^{\circ}$ to $90^{\circ}$ .
ACOS		Returns the arc cosine of parameter 1, which must be greater than or
	ACOS(x)	equal to -1 and less than or equal to 1, in the range of -90° to 90°.
ATAN		Returns the arc tangent of parameter 1 in the range of $-90^{\circ}$ to $90^{\circ}$ .
	ATAN(x)	
ATAN2	2	Returns the arc tangent of the value obtained by dividing parameter 2
FLOOD	ATAN2(x, y)	by parameter 1 in the range of $-90^{\circ}$ to $90^{\circ}$ .
FLOOR	$\begin{bmatrix} 2 \\ ELOOP(r, s) \end{bmatrix}$	Returns the value obtained by rounding down parameter 1 to the
СЕЦ	FLOOR(x, y)	number of decimal places specified by parameter 2.
CEIL	$\begin{array}{c} 2 \\ CEII (n, n) \end{array}$	Returns the value obtained by rounding up parameter 1 to the number of
DOLDID	$\frac{\text{CEIL}(\mathbf{x}, \mathbf{y})}{2}$	decimal places specified in parameter 2.
ROUND	-	Returns the value obtained by rounding off parameter 1 to the number
	ROUND $(x, y)$	of decimal places specified by parameter 2.

\*Formula examples included in the explanation use x to indicate the first parameter and y to indicate the second parameter.

**Configuring detailed settings for automatic output (daily/weekly/monthly reports)** 

•This section describes the basic specifications for automatic output (daily/weekly/monthly reports), along with detailed settings.

•See below for more information about the procedure for enabling automatic output (reports) with the logging function.

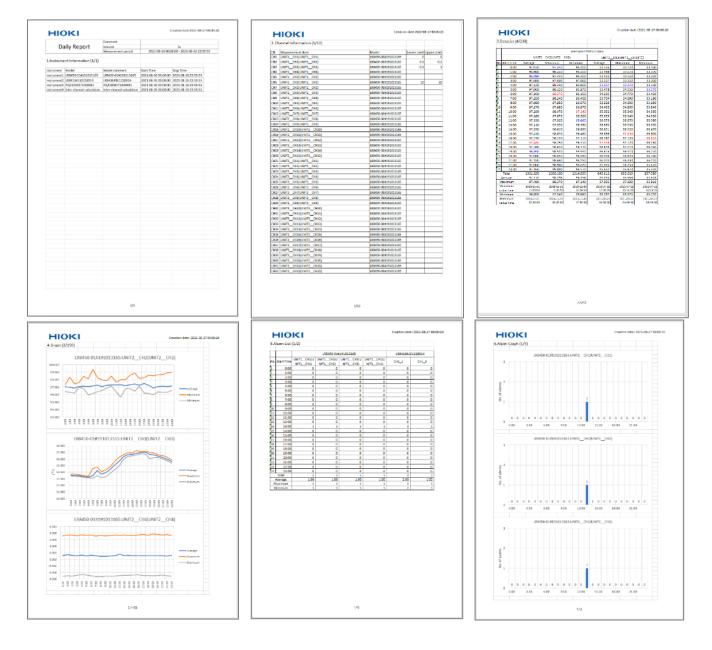
Configure the logging settings

•See below for more information about the procedure for enabling automatic output (reports) with the dashboard function.

Start or Stop the Measured Value Monitor

#### **Basic report specifications**

<Example of daily report output>



# GENNECT One User's Manual

ŀ	нок						Desta	n dete	1021-08-27 00:00 2
7.8	llerm History (1	/1)							
•	Timo alam occurred	Castan Castar	or and the second s	Monager or North		une		Lines	time at a million to the second se
	2021-05-05-05-05-05-25	2111-08-25 12:47 43		01.1 01.5 01.5	-0.55	h-	-100	18.00	
	2021-05-05 15:06 25 2021-03:30 45:40-05		INCOMEN 2	01.5	4.43		-0.10	8.90	-
-	2021-08-21 12-09 25	2011/06/05 10:40:40	inter and with	01.7	4.25	1	2.00	18.00	
1	2021-04-14-14-08-24		Inchange 12	04.30	413			11.60	
4	2022-09-24 25:40 25		Instances 1	UNITL_OK	54.5		0.00	8.00	
	2022-09-20 22-40 22		Instrument1	0.01_02	-5.33		-0.28		
8	2821-0824 12-0826 2821-08-14 12-0826		Instantal I	010_04	6.33	h.,	0.10	8.00	
	1071-36 54 52 46 70 2022-00-20 52 40 20		100 and 11	01.1	40.0	-	-1.09	100	
			test start?	05.5	-2.18		-100	1.00	
2	1011103-1410-00103	101100-0010-0100	nations will	014.7	-2.33		-2.00	28.00	-

Rep	ort contents	Description
1	Instrument information	Outputs information for all instruments selected in the [Channel Selection] dialog box as a table.
2	Channel Information	Outputs information for all channels selected in the [Channel Selection] dialog box as a table.
		If upper and lower limit values have been set for the channel, outputs the set values*1.
3	Data list	Calculates the average, maximum, and minimum values for each channel at the specified interval (30 min. or 1 hr.)
		and outputs them as a table.
4	Graph	Calculates the average, maximum, and minimum values for each channel at the specified interval (the same
		interval as the data list) and outputs them as a graph.
		Three graphs (for three channels) are output per page.
5	Alarm list*1	Outputs the number of alarm events during each channel's statistical interval (30 min. or 1 hr.) and outputs them as
		a table.
6	Alarm graph*1	Outputs the number of alarm events during each channel's statistical interval (the same interval as the alarm list)
		and outputs them as a bar graph.
		Three graphs (for three channels) are output per page.
7	Alarm history*1	Outputs information about all the alarms that occurred during the measurement period as a table in the order they
		occurred.

\*1: Output available only when using the dashboard function.

# **Opening the automatic output settings**

1. Click the button [\*] shown in the red rectangle below on the [Logging Settings] or [Start Monitoring] dialog box.

Ω Logging Settings	
	🔲 Start Monitoring - 🗆 🗙
🕑 Logging Interval 👔 1 s 🗸 🛠	
O Logging Duration	Monitor interval 👔 1 s 🔽
Data Division 1 day 🗸	Logging Settings
Automatic export settings	✓ Save monitor values
Output the report	Data division 1 day
🗹 Daily 🔽 Weekly 🗹 Monthly 🌩	-Automatic output settings
Data save destination	Output the report
○ GENNECT One ● Folder D:\temp	🔽 Daily 🗆 Weekly 🗆 Monthly
	Data save destination
Export a CSV file	C GENNECT One (* Folder D:\temp
Folder D:\temp	🔽 Output a CSV File
	Folder D:\temp
• Start Logging Cancel	Start Monitoring     Cancel

2. The [Automatic Report Output Settings] dialog box will open.

### Configuring detailed settings for automatic output

### **Configuring [General] settings**

- Utiput rep	ort (Daily)			HIOKI Creation date NUL	
				Daily Report Interval 51	
Data save de				Measurement period 2021-09-26-00-00-1023-00-2	23:59:55
GENNECT	Cillsers\HIOKI MNIyh\Desktop			1.Instrument information (1/1)	
			2	Instrumenti Model Model Communt Start Time Story Time Instrumenti UR459-034(336) UR459-034(336) UR459-034(336) 2021-08-26-00-00 2021-08-26-20	9.55
				Instrumenti U984384815228034 U984384181228034 2021/06.36.00:00 2021-06.26.21.9 Instrumenti P03100817900981 P031008179005881 2021-06.36.00.00.01 2021-08-26.21.9	
format	Excel			instruments inter-chaesel-calculation inter-chaesel-calculation 2023-08-24-00:00:00 2021-08-38-39-5	
method	Back up data 🔹				
ame	AutoReport				
ments					
D	HIOKI logo 🔹				
eport conte	nts				
		Graph			
✓ Instrume	nt information 🔽 Channel information 🛱 Data list 🖓	Graph Details			
7 Instrume	nt information 🔽 Channel information 🔽 Data list 🔽				
7 Instrume 7 Alarm list	nt information 🔽 Channel information 🔽 Data list 🔽				
7 Instrume 7 Alarm list isplay form	nt information 🗭 Channel information 🗭 Data list 🔗 : 🖗 Alarm graph 🖗 Alarm history at for measured values and statistical values				
7 Instrume 7 Alarm list isplay form	nt information 🕫 Channel information 🕫 Data list 🛛 🕫 : 🕼 Alam graph 🖉 Alam history				
Alarm list Alarm list Isplay form Decimal	nt information IP Channel information IP Data list IP Alarm graph IP Alarm history at for measured values and statistical values C Exponential				
Alarm list Alarm list isplay form Decimal lo. of decin	nt information IP Channel information IP Data list IP Alarm graph IP Alarm history				
7 Instrume 7 Alarm list isplay form 9 Decimal 10. of decim	nt information IP Channel information IP Data list IP Alarm graph IP Alarm history at for measured values and statistical values C Exponential				
<ul> <li>Instrume</li> <li>Alarm list</li> </ul>	nt information IP Channel information IP Data list IP Alarm graph IP Alarm history				
<ul> <li>Instrume</li> <li>Alarm list</li> <li>Nisplay form</li> <li>Decimal</li> <li>No. of decimal</li> </ul>	nt information IP Channel information IP Data list IP Alarm graph IP Alarm history				

Sett	ing		Description
1	Output report (Daily)		Specifies whether to output the reports.
2	Data save destination	GENNECT One	Outputs reports to the GENNECT One data list.
		Folder	Outputs reports to a user-specified folder.
3	Save format	Excel	Outputs reports in the Excel format.
4	Save method*3	Back up data	The following two files will be created.
	Save memory 5	-	1. File: <filenamebody>.<extension>.</extension></filenamebody>
			2. Backup file: <filenamebody>_<filenamesuffix>.<extension>.</extension></filenamesuffix></filenamebody>
			*If there are multiple files with the same suffix, a sequential number will
			be appended to the end of the filename to generate a unique name.
		Do not back up data	·Always overwrites the most recent file with the following filename:
		-	<filenamebody>.<extension>.</extension></filenamebody>
5	Filename*3		Specifies the string to use as the <filenamebody>.</filenamebody>
	Thendine 5		The default value is "AutoReport."
6	Comments		Specifies the comment to output to reports.
7	Logo	Hioki logo	Outputs the Hioki logo to reports.
	2050	No logo	Outputs no logo to reports.
		User-specified image	Outputs a user-specified image as the logo.
8	Report contents		Instrument information Channel information Data list Graph
			Alarm list*1 Alarm graph*1 Alarm history*1
			Specifies which of the above contents to output to the report. (Multiple
			contents may be selected).*2
			Click [Details] to open the [Report contents Detailed Settings] dialog box.
9	Display format for measured values	Decimal	Outputs measured values and statistical values to reports (data lists and
	and statistical values		graphs) as decimal values.
		Exponent	Outputs measured values and statistical values to reports (data lists and
		-	graphs) as exponential values.
		Number of decimal	Specifies how many decimal places to include in measured values and
		places	statistical values being output to reports (data lists and graphs).

\*1: Setting applies only when using the dashboard function. Not displayed when using the logging function.

\*2: If the [Instrument information] checkbox is not selected, only the daily report title portion of the report will be output.

#### \*3: Filename rules

Example) Filename (FilenameBody): AutoReport, Measurement start date: 2021-08-31

• If the save method is "Back up data""

"AutoReport.xlsx" and a backup file: AutoReport\_2021-08-31.xlsx will be created.

If "AutoReport.xlsx" exists in the specified destination, it will be overwritten.

If the backup file: AutoReport\_2021-08-31.xlsx exists in the specified destination, a sequential number will be appended to the end of the filename, such as "AutoReport\_2021-08-31\_1.xlsx".

• If the save method is "Do not back up data" Only "AutoReport.xlsx" will be created.

If "AutoReport.xlsx" exists in the specified destination, it will be overwritten.

### **Configuring [Output channel selection] settings**

·Select channels to output to reports from the channels that have been selected for logging.

·Channels whose checkbox is deselected here will also be saved as logging data.

•You can specify whether to output the average, maximum, and minimum values for the statistical interval (30 min. or 1 hr.) for each channel.

General Output channel selection		5	6
No. of selections 475/475		:	Cle
Search for measurement channel (partial match)			
▼ LR8450-01#191013165	2	3	4
Channel display names	AVG	MAX	MIN
UNIT1_CH1(UNIT1_CH1)	<b>v</b>	V	1
UNIT1_CH2(UNIT1_CH2)	4	•	₹
UNIT1_CH3(UNIT1_CH3)	7	7	V
UNIT1_CH4(UNIT1_CH4)	V	V	V
UNIT1_CH5(UNIT1_CH5)	<b>v</b>	V	•
UNIT2_CH1(UNIT2_CH1)	2	<ul> <li>Image: A second s</li></ul>	2
UNIT2_CH2(UNIT2_CH2)	2	•	1
UNIT2_CH3(UNIT2_CH3)	₹	•	◄
UNIT2_CH4(UNIT2_CH4)	<b>V</b>	<b>V</b>	V
UNIT2_CH5(UNIT2_CH5)	2	2	V
UNIT2_CH6(UNIT2_CH6)	V	•	₹
UNIT2_CH7(UNIT2_CH7)	2	•	5
UNIT2_CH8(UNIT2_CH8)	<b>V</b>	1	1
UNIT2_CH9(UNIT2_CH9)	<b>V</b>	•	<b>V</b>
UNIT2_CH10(UNIT2_CH10)	7	2	₹
UNIT2_CH11(UNIT2_CH11)	2	•	2
UNIT2_CH12(UNIT2_CH12)	<b>V</b>	•	V
UNIT2_CH13(UNIT2_CH13)	<b>V</b>	•	1
UNIT2_CH14(UNIT2_CH14)	<b>V</b>	•	1
UNIT2_CH15(UNIT2_CH15)	<b>v</b>	•	1
UNIT3_CH1(UNIT3_CH1)	•	•	•
UNIT3_CH2(UNIT3_CH2)	<b>V</b>		1
UNIT3_CH3(UNIT3_CH3)	<b>V</b>	•	•
			Ū





Iten	n	Description	
1	٩	Select the checkboxes of the channels you wish to output to the report.	
2	AVG	Select this checkbox if you wish to output the average value for each statistical	
		interval (30 min. or 1 hr.).	
3	MAX	Select this checkbox if you wish to output the maximum value for each statistical	
		interval (30 min. or 1 hr.).	
4	MIN	Select this checkbox if you wish to output the minimum value for each statistical	
		interval (30 min. or 1 hr.).	
5		Allows you to limit the measurement channels displayed in the list to only those that have been selected.	
6	Clear All	Allows you to select all or clear all channels (Item 1).	
7	Search for measurement channel (partial match)	Allows you to refine the measurement channels displayed in the list by channel name.	

### Configuring detailed output settings on the [Output report] tab

### GENNECT One User's Manual

Automatic Re	port Output Se	ttings	– 🗆 X
General Output o	channel selectio	n Output report	
3	r of week ar in list ar in graph utoReportWeek I	y	2 Monthly Starting day 1 Output day of week Output year in list Output year in graph Scale interval 1 Filename AutoReportMonthly
<ul> <li>Output the in</li> <li>Division setting</li> </ul>		in each time divis	ion
		Rate	Output the electricity charges
Div 1:	00:00	10.00	Currency unit
Div2:	08:00	10.00	Calculation method of time division
Div8:	16:00	10.00	Addition 🗸
Div4:	00:00	10.00	☑ Output CO2 conversion value
Div5:	00:00	10.00	CO2 conversion rate 0.36 kg-CO2/kWh
Div6:	00:00	10.00	Aggregation period of CO2 conversion value
🗌 End Time:	00:00		All day ~
			OK Cancel

	Setting		Description
1	Weekly report	Starting day of the week	Specify the first day of the week report.
		Output day of week	Specify whether to output the day of the week on the date.
		Output year in list	Specifies whether to output the date in the list as a year, month, and day.
		Output year in graph	Specifies whether to output the date of the graph as a year, month, and
			day.
		filename	Specify the file name of the weekly report.
2	Monthly report	Starting day	Specify the first day of the monthly report.
		Output day of week	Specify whether to output the day of the week on the date.
		Output year in list	Specifies whether to output the date in the list as a year, month, and day.
		Output year in graph	Specifies whether to output the date of the graph as a year, month, and day.
		Scale interval	Specifies the scale interval on the horizontal axis (day) of the graph.
		filename	Specify the file name of the monthly report.
3	Demand list settings*1	Output the integrated power in each time division *2, 3	Output active energy values for each time division.
		Division settings *2	Division 1 - 6: Specify whether the time division is valid or invalid. End Time: Specify the valid or invalid and end time of the division end
			time. * You can specify the start time and electricity rate for the time division
			settings. * The start time and end time are specified in hours.
		Output the electricity charges *2, 3, 4, 5, 6	Output the electricity charges by time division using the active electric energy and electricity rate.
		2, 3, 4, 3, 0	* Only electricity charges can be output without outputting
			the integrated power in each time division.
		Currency unit *2, 4, 5, 6	Specify the currency unit of electricity charges.
		Calculation method of time division *2, 3, 4, 5, 6	You can select the method for calculating the active energy for each time division.
			Average: Outputs hourly average values of time division values, electricity charges, and CO2 conversion values. Addition:
			Outputs time division values, electricity charges, and CO2 conversion values as integrated values.
		Output CO2 conversion value *2, 3	Output the active energy during the period converted into CO2 emissions.
		CO2 conversion rate *2	Specify the conversion rate of the CO2 conversion value.
		Aggregation period of CO2 conversion value	You can select the aggregation period for CO2 conversion values. All day : Display in 24-hour aggregation.
			Only period : Aggregate and display only the specified time period.

\*1: If you select to output items such as integrated power, integrated demand power, and demand power from the measurement items of PW3360, PW3365, PQ3100, and PQ3198, the [Demand list] tab will be added to the report.

\*2: If you select to output the demand active power (consumption) from the measurement items of PW3360, PW3365, PQ3100, PQ3198, the target row will be added at the bottom of the [Demand list].

CO2 conversion value(Per hour) (0.3600kg-CO2/kW)	[kg-CO2]	25.596
Time division1(Per hour) (00:00-08:00)	[kW]	71.100
Electric charge1(Per hour) (10.00/kW)	Reference value	711.000

#### Output example

- \*3: When the calculation method of time division is set to "Average," CO2 conversion value, the integrated power in each time division, and the electricity charges are calculated values per hour. The aggregated value within the specified period can be calculated by multiplying the time within the specified period.
- \*4: When the calculation method of time division is specified as "Addition", the output column will change as shown in the figure below.

CO2 conversion value(Integrated) (0.3600kg-CO2/kWh)	[kg-CO2]	25.596			
Time division1(Integrated) (00:00-08:00)	[kWh]	71.100			
Electric charge1(Integrated) (10.00YEN/kWh)	Reference value	711.000			
Outwut an an 1					

Output example

- \*5: The output value of the electricity charge is a reference purposes only. (Output values cannot be used for billing or to establish power use.)
- \*6: This value differs from the electricity charges (ENERGY COST) parameter output by the PW3360, and PW3365.

#### Configuring detailed output settings for report contents

·You can configure more detailed output settings for report output parameters (data list, graph, alarm list, alarm graph, and alarm history).

1. Click the [Details...] button on the [Automatic Report Output Settings] dialog box.

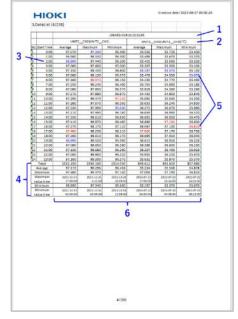
Automatic Report Output Settings General   Output channel palaction			~
Carrier al Comput channel beliection			
✓ Output report (Daily)			
Data save destination			
GENNECT One     C Folder C:\Users\HIOKI MNlll/hOeskto	p		
Save format Excel			
Save method Back up data			
Filename AutoReport			
Comments			
Logo HIOKI logo 💌			
Report contents			
P Instrument information P Channel information P Data list	🔽 Graph	_	
🔽 Alarm list 🔽 Alarm graph 🔽 Alarm history	Details.	-	
Display format for measured values and statistical values			
@ Decimal C Exponential			
No. of decimal places 3			
Preview 0.123	_		
	ок	Cano	

2. The [Report contents Detailed Settings] dialog box will open. See below for more information about the settings on each tab.

#### Configuring detailed output settings on the [Data list] tab

# GENNECT One User's Manual

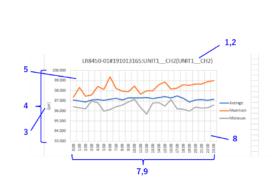
Report contents Detailed Settings	-		$\times$
ta list Graph   Alarm list   Alarm graph   Alarm history			
Instrument display names			
Model#Serial number     C Instrument + number			
Channel display names			
Measurement item names     C ID     C CH + number			
Statistics interval			
C 30 min. blocks C 1 hr. blocks			
Statistical values during period			
Average 🔽 Maximum value 🖓 Maximum value time			
🔽 Minimum value 🔽 Minimum value time 🔽 Total			
Highlight measured values			
Highlight maximum values     Color			
THighlight minimum values Color			
io. of columns/page 6 columns 💌			
	ОК	Car	scel



Setti	ng		Description
1	Instrument display names	Model#Serial number	Outputs instrument display names in the format "Model#Serial number."
		Instrument + number	Outputs instrument names in the format "Instrument 1," "Instrument 2,"
			"Instrument 3," etc.
			The numbers are the same as those used in [Instrument information].
2	Channel display names	Measurement item names	Outputs the channel-specific measurement parameter as the channel display
			name.
			Example: U1_Ins_Avg (voltage RMS / average value)
		ID	Outputs the channel-specific ID as the channel display name.
			Examples: U1 Ins_Avg
		CH + number	Outputs the channel display name in the format "CH 1," "CH 2," "CH 3,"
			etc.
			The numbers are the same as those used in [Channel information].
3	Statistical interval	30 min. blocks	Outputs average, maximum, and minimum values calculated every 30 min.
		1 hr. blocks	Outputs average, maximum, and minimum values calculated every 1 hr.
4	Statistical values during		Specifies whether to output the average value, maximum value, time at
	period		which maximum value occurred, minimum value, time at which minimum
			value occurred, and total for the measurement period. (Multiple checkboxes
			may be selected.)
5	Highlight measured values	Highlight maximum values	Specifies whether to highlight maximum values during the measurement
			period using color.
		Color	Specifies the color to use to highlight maximum values.
		Highlight minimum values	Specifies whether to highlight minimum values during the measurement
			period using color.
		Color	Specifies the color to use to highlight minimum values.
6	No. of columns/page	3, 6, or 9 columns	Specifies the number of data list columns to output per page.

# Configuring detailed output settings on the [Graph] tab

								_
_	sport contents Detai					-		
Data I	st Graph Alarm is	st Alarm grap	h Alem	n history				
Ins	rument display name	s						
æ	Model#Serial number	C I	istrumer	it + number				
Ch	nnel display names							
÷	Measurement item na	mes C	D	C CH = numbe	r			
Ve	tical axis							
EA	xis label							
	Display		Size	Automatic	٠			
-5	ale label							
1	Display		Size	Automatic	٠			
	ind lines 🖓 D	isplay						
Но	izontal axis							
EA	xis label							
þ	Display		Size	Automatic	٠			
-5	ale label							
Þ	Z Display		Size	Automatic	٠			
	irid lines 🛛 🖓 D	isplay						
	cale interval 3 hr.		•					
Up	ser/lower limit value o	of alarms displa	y —					
,	Display upper limit	values	4	Display lower limit	values			
-								
						CK	G	ance

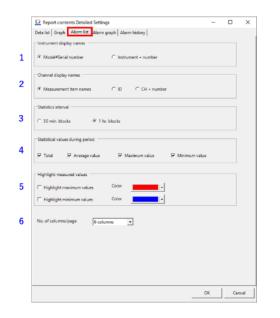


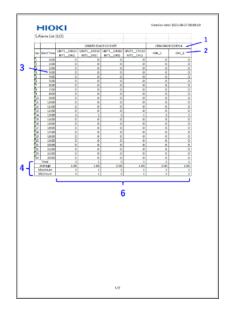
	Setting		Description
1	Instrument display names	Model#Serial number	Outputs instrument display names in the format "Model#Serial number."
		Instrument + number	Outputs instrument names in the format "Instrument 1," "Instrument 2," "Instrument 3," etc.
2	Channel display names	Measurement item names	Outputs the channel-specific measurement parameter as the channel display name. Example: U1 Ins_Avg (voltage RMS / average value)
		ID	Outputs the channel-specific ID as the channel display name. Examples: U1 Ins_Avg
		CH + number	Outputs the channel display name in the format "CH 1," "CH 2," "CH 3," etc.
3	Vertical axis – Axis label	Display	Specifies whether to display an axis label for the vertical axis.
		Size	Specifies the font size (in points) to use for the axis label for the vertical axis.
4	Vertical axis - Scale label	Display	Specifies whether to display a scale label for the vertical axis.
		Size	Specifies the font size (in points) to use for the scale label for the vertical axis.
5	Vertical axis – Grid lines	Display	Specifies whether to display grid lines for the vertical axis.
6	Horizontal axis – Axis label	Display	Specifies whether to display an axis label for the horizontal axis.
		Size	Specifies the font size (in points) to use for the axis label for the horizontal axis.
7	Horizontal axis - Scale label	Display	Specifies whether to display a scale label for the horizontal axis.
		Size	Specifies the font size (in points) to use for the scale label for the horizontal axis.
8	Horizontal axis - Grid lines	Display	Specifies whether to display grid lines for the horizontal axis.
9	Horizontal axis – Scale interval	1 hr. / 3 hr.	Specifies the scale interval for the horizontal axis.
10	Upper/lower limit value of	Display upper limit values	Specifies whether to display upper limit values of alarms on graphs.
	alarms display*1	Display lower limit values	Specifies whether to display lower limit values of alarms on graphs.

\*1: Setting applies only when using the dashboard function. Not displayed when using the logging function.

# Configuring detailed output settings on the [Alarm list] tab

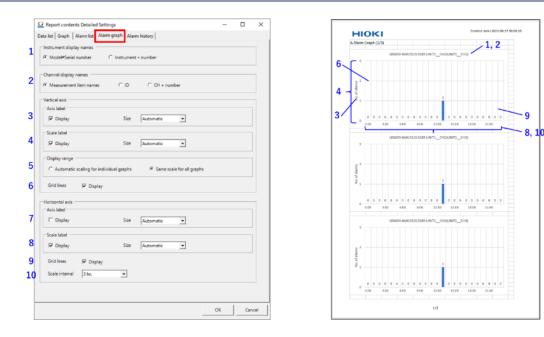
### GENNECT One User's Manual





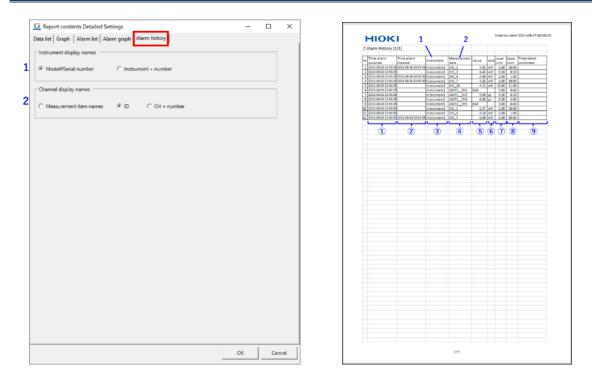
	Setting		Description
1	Instrument display names	Model#Serial number	Outputs instrument display names in the format "Model#Serial number."
		Instrument + number	Outputs instrument names in the format "Instrument 1," "Instrument 2," "Instrument 3," etc.
2	Channel display names	Measurement item names	Outputs the channel-specific measurement parameter as the channel display name. Example: U1 Ins Avg (voltage RMS / average value)
		ID	Outputs the channel-specific ID as the channel display name. Examples: U1 Ins Avg
		CH + number	Outputs the channel display name in the format "CH 1," "CH 2," "CH 3," etc.
3	Statistical interval	30 min. blocks	Outputs the number of alarm events per 30 min.
		1 hr. blocks	Outputs the number of alarm events per 1 hr.
4	Statistical values during period		Specifies whether to output the average value, maximum value, minimum value, and total for the measurement period. (Multiple checkboxes may be selected.)
5	Highlight measured values	Highlight maximum values	Specifies whether to highlight maximum values during the measurement period using color.
		Color	Specifies the color to use to highlight minimum values.
		Highlight minimum values	Specifies whether to highlight minimum values during the measurement period using color.
		Color	Specifies the color to use to highlight minimum values.
6	No. of columns/page	3, 6, or 9 columns	Specifies the number of data list columns to output per page.

Configuring detailed output settings on the [Alarm graph] tab



	Setting		Description
1	Instrument display names	Model#Serial number	Outputs instrument display names in the format "Model#Serial number."
		Instrument + number	Outputs instrument names in the format "Instrument 1," "Instrument 2," "Instrument 3," etc.
2	Channel display names	Measurement item names	Outputs the channel-specific measurement parameter as the channel display name. Example: U1 Ins Avg (voltage rms / average value)
		ID	Outputs the channel-specific ID as the channel display name. Examples: U1 Ins Avg
		CH + number	Outputs the channel display name in the format "CH 1," "CH 2," "CH 3," etc.
3	Vertical axis – Axis label	Display	Specifies whether to display an axis label for the vertical axis.
		Size	Specifies the font size (in points) to use for the axis label for the vertical axis.
4	Vertical axis – Scale label	Display	Specifies whether to display a scale label for the vertical axis.
		Size	Specifies the font size (in points) to use for the scale label for the vertical axis.
5	Vertical axis – Display range	Automatic scaling for individual graphs	Automatically specifies the vertical axis display range for each graph.
		Same scale for all graphs	Uses the display range for the graph with the greatest display range (out of all graphs being output) as the vertical axis display range for all graphs.
6	Vertical axis – Grid lines	Display	Specifies whether to display grid lines for the vertical axis.
7	Horizontal axis – Axis label	Display	Specifies whether to display an axis label for the horizontal axis.
		Size	Specifies the font size (in points) to use for the axis label for the horizontal axis.
8	Horizontal axis – Scale label	Display	Specifies whether to display a scale label for the horizontal axis.
		Size	Specifies the font size (in points) to use for the scale label for the horizontal axis.
9	Horizontal axis - Grid lines	Display	Specifies whether to display grid lines for the horizontal axis.
10	Horizontal axis - Scale interval	1 hr. / 3 hr.	Specifies the scale interval for the horizontal axis.

### Configuring detailed output settings on the [Alarm history] tab



	Setting		Description		
1	Instrument display names	Model#Serial number	Outputs instrument display names in the format "Model#Serial number" in the report's "Instrument" column.		
		Instrument + number	Outputs instrument names in the format "Instrument 1," "Instrument 2," "Instrument 3," etc., in the report's "Instrument" column.		
2	Channel display names	Measurement item names	Outputs the channel-specific measurement parameter as the channel display name in the report's "Measurement item" column. Example: U1 Ins Avg (voltage RMS / average value)		
		ID	Outputs the channel-specific ID as the channel display name in the report's "Measurement item" column. Examples: U1 Ins Avg		
		CH + number	Outputs the channel display name in the format "CH 1," "CH 2," "CH 3," etc., in the report's "Measurement item" column.		

# ·[Alarm history] output contents

	Item	Description
1	Time alarm occurred	Displays the time and date at which the alarm occurred.
2	Time alarm cleared	Displays the time and date at which the alarm was cleared (when the measured value moved from outside the upper/lower limit values to within the upper/lower limit values).
3	Instrument	Displays the instrument name.
4	Measurement item	Displays the channel display name.
5	Value	Displays the measured value (monitor value) when the alarm occurred.
6	Unit	Displays the measured value's unit.
$\bigcirc$	Lower limit	Displays the lower limit value set for the channel.
8	Upper limit	Displays the upper limit value set for the channel.
9	Time alarm confirmed	Displays the time and date at which the alarm was reviewed.

# Configuring detailed settings for automatic output (CSV)

•This section describes the detailed settings for automatic output (CSV).

•See below for more information about the procedure for enabling automatic output (CSV) with the logging function.

Configure the logging settings

 $\cdot$ See below for more information about the procedure for enabling automatic output (CSV) with the dashboard function.

- Start or Stop the Measured Value Monitor
- 1. Click the button [\*] shown in the red rectangle below on the [Logging Settings] or [Start Monitoring] dialog box.

Logging Settings	- 🗆 X		
C Logging Interval	~ <b>\$</b>	Start Monitoring	>
Logging Duration Ocontinuous	~	( Monitor interval	
Data Division 1 day	~	Logging Settings	
Automatic export settings Output the report		✓ Save monitor values       Data division       1 day	
Daily Weekly Monthly	\$	Automatic output settings	
Data save destination		Output the report	.1
◯ GENNECT One		🔽 Daily 🗌 Weekly 🗌 Monthly	ł
Export a CSV file	\$	C GENNECT One C Folder D∆temp	
Folder D:\temp		🔽 Output a CSV File	F
		Folder D:\temp .	
Start Logging	Cancel	Start Monitoring     Cancel	

2. The [Automatic output settings (CSV)] dialog box will open.

	Automatic output se	ttings (CSV)					-		×
1	Save method	Back up dat	a		•				
2	Filename	AutoCsv				 _			
3	Number of decimal places	4 🛨	+1	23.450	0E-03				
4	Comment		_			 _			
			5		OK	6	Ca	ancel	, munit

	Item		Description
1	Save method*1	Back up data	The following two files will be created.
			1. File: <filenamebody>.<extension>.</extension></filenamebody>
			2. Backup file: <filenamebody>_<filenamesuffix>.<extension>.</extension></filenamesuffix></filenamebody>
			*If there are multiple files with the same suffix, a sequential number will be appended to the
			end of the filename to generate a unique name.
		Do not back up data	Always overwrites the most recent file with the following filename:
		_	<filenamebody>.<extension>.</extension></filenamebody>
2	Filename*1		Specifies the string to use as the <filenamebody>.</filenamebody>
			The default value is "AutoCsv."
3	Number of		Specifies how many decimal places to include in measured values being output to the CSV file.
	decimal places		

4	Comment	Specifies a string to include in the CSV file's comment header.
5	[OK] button	Saves the settings in the dialog box and closes the window.
6	[Cancel] button	Discards the settings in the dialog box and closes the window.

\*1: Filename rules

Example) Filename (FilenameBody): AutoReport, Measurement start date and time: 2021-08-31 12:34:56

• If the save method is "Back up data"

"AutoCsv.xlsx" and a backup file: AutoCsv\_2021-08-31\_12-34-56.xlsx will be created.

If "AutoCsv.xlsx" exists in the specified destination, it will be overwritten.

If the backup file: AutoCsv\_2021-08-31\_12-34-56.xlsx exists in the specified destination, a sequential number will be appended to the end of the filename, such as "AutoCsv\_2021-08-31\_12-34-56\_1.xlsx".

• If the save method is "Do not back up data"

Only "AutoCsv.xlsx" will be created.

If "AutoCsv.xlsx" exists in the specified destination, it will be overwritten.

In the dashboard CSV output, when you switch layouts, the results up to that point are output as "(specified file name)\_[layout name).csv" and the results after switching layouts are output as a separate csv file.

# Control an instrument (Remote control [LAN])

•LAN remote control provides functionality for controlling an instrument using the instrument's HTTP server function.

•Other functions cannot be used while an instrument is being remote-controlled.

# **Supported instruments**

•The LAN remote control function supports the following instruments:

Model number	Name	Supported versions
PQ3100	POWER QUARITY ANALYZER	V2.30 or later
PQ3198	POWER QUARITY ANALYZER	V1.10 or later
PW3335	POWER METER	V1.11 or later
PW3336	POWER METER	V1.23 or later
PW3337	POWER METER	V1.23 or later
PW3360	CLAMP ON POWER LOGGER	V3.20 or later
PW3365	CLAMP ON POWER LOGGER	V2.10 or later
PW3390	POWER ANALYZER	V2.00 or later
PW6001	POWER ANALYZER	V3.02 or later
PW8001	POWER ANALYZER	V1.00 or later
%LR8400,LR8401,LR8402	MEMORY HiLOGGER	V1.28 or later
%LR8410	WIRELESS LOGGING STATION	V1.42 or later
LR8450, LR8450-01	MEMORY HiLOGGER	V1.20 or later
LR8101, LR8102	DATA LOGGER	V1.00 or later
MR6000	MEMORY HICORDER	V2.10 or later

\*In order to use the remote control function with an instrument such as the Data Logger LR8400 that uses Java<sup>TM</sup>, you will need to install Java<sup>TM</sup> on your PC and register the instrument as an exception in your browser. For more information, see the page describing Java<sup>TM</sup> settings.

# Configure Java<sup>TM</sup> on your computer

# Limitations

Limitations on LAN remote control

Aspect of function's operation	Limitation	Remarks
Communications interface	LAN	

#### Limitations on communications

Aspect of function's operation	Limitation	Remarks
Interface	LAN	
Automatic search network scope		
	*Limited to same network scope as computer.	
DHCP	Not supported	

Using the function

Set up communication between the computer and the instruments (LAN)

# Start remote control (p.270)

# Start remote control

1. Select the [Console] tab on the main screen.

💶 HIOKI GEN	NECT One					– 🗆 X
Import(l) S	Settings(S) Lang	uage(L) Window	(W) Information(H)			
Data I	Functions Cor	sole Launcher	r			
Upda	te					* 😢
LAN						
	LAN remote control (HTTP)	LAN automatic file transfer (FTP)	IP Address	Instrument		
	₩~.	OFF	172.19.114.230	PQ3100	PQ3100#00000000,V2.30	
主義	4∼.	OFF	172.19.114.231	PW3360	PW3360-11#161224839,V3.21	
	₩~.	OFF	172.19.114.232	LR8410	LR8410#130317911,V1.41	Initial settings when controlling a log
			Set IP Address here.	•	<ul> <li>&lt;- Select the instrument.</li> </ul>	
LAN						
						149 .:

- 2. Select the [LAN] navigation bar.
- 3. Click the [LAN remote control] button (
- 4. The [Remote Control] screen will open, allowing you to control the instrument.



Remote control     Back Next Refresh							-	×
CH123: 3F3H2M 1000V 500A #	RECORDING	U: <mark>2004</mark> f: <b>5</b> 0	2019-09-09 12:58:1 H2 MEM 0min EVENT 1	MONITOR	IREND	EVENI		
Start:09-09 10:49:42 Tir		2:08:34		WIRING	SETUP	FILE		
0.00 0.00				MANUAL		OUTOK		
0.00					1sec	>		
200.00 V/div					Ť			
0.00					CATCO			
					← ENTER	$\rightarrow$ >>		
500.00 A/div				ESC	↓			
Screen	Cursor	Scrol	l Hold	COPY	STA	RT/STOP		
FI F2	F3	F4	F5	0.02	011			

If the instrument screen is not displayed, click the [Refresh] button on the top of the screen several times.
 \*Other functions cannot be used while the remote control window is open.

# Synchronize Instrument Clocks [LAN]

•This section describes how to synchronize instrument clocks.

•For more detailed information about the specific manner in which this feature operates for individual instrument models, see [Synchronizing Instrument Clocks: Details].

•If you synchronize an instrument's clock while it is recording or integrating values, there may be a blank interval in the recorded measurement data. It is recommended to stop recording and integration before synchronizing an instrument's clock.

# **Supported instruments**

•Functionality for synchronizing instrument clocks supports the following instruments:

Model name	Product name	Firmware version	Remarks
PQ3100	POWER QUARITY ANALYZER	Ver. 2.30 or later	
PQ3198	POWER QUARITY ANALYZER	Ver. 1.10 or later	
PW3360	CLAMP ON POWER LOGGER	Ver. 3.20 or later	
PW3365	CLAMP ON POWER LOGGER	Ver. 2.10 or later	
PW3390	POWER ANALYZER	Ver. 2.00 or later	*1
PW6001	POWER ANALYZER	Ver. 3.02 or later	*1
PW8001	POWER ANALYZER	Ver. 1.00	*1,*2
		or later	
LR8400, LR8401,	MEMORY HILOGGER	Ver. 1.28 or later	
LR8402			
LR8410	WIRELESS LOGGING STATION	Ver. 1.42 or later	
LR8450	MEMORY HILOGGER	Ver. 1.20 or later	
R8101, LR8102	DATA LOGGER	Ver. 1.00 or later	
MR6000	MEMORY HILOGGER	Ver. 2.12 or later	
ST5680	DC HIPOT TESTER	V1.00 or Later	
RM3545A	RESISTANCE METER	V1.00 or Later	(LAN communication port only supports the default value of 23)
DM7275, DM7276	PRECISION DC VOLTMETER	V1.09 or Later	(LAN communication port only supports the default value of 23)

\*1. All of the integrated data of the measurement instrument is reset by setting the instrument clock with this feature. It is recommended to use this feature after the recording and analysis of the integration data has been completed (Data reset state).

\*2 This function is not executed when the connection-specific integration or time control function (actual time, timer) is enabled.

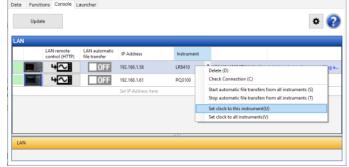
# Instructions (synchronizing the time from the [Console] tab)

•Manually set the clock of the instrument registered in the [Console] tab to the PC time. •See below for more information.

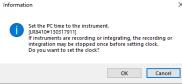
Synchronizing Instrument Clocks: Details

#### **<u>1. To specify an instrument and set its clock</u>**

- -1. Select the [Console] tab.
- -2. Right-click the instrument whose clock you wish to set.
- -3. Select [Set clock to this instrument] in the menu.



-4. When the confirmation message is displayed, click the [OK] button.



-5. The instrument's clock will be synchronized with the computer's clock.



#### 2. To synchronize all connected instruments' clocks

- -1. Select the [Console] tab.
- -2. Right-click on the instrument list.
- -3. Select [Set clock to all instruments] in the menu.

N							
	LAN remote control (HTTP)	LAN automatic file transfer	IP Address	Instrument			
	4∼	OFF	192.168.1.56	LR8410		I R8410#130317911 V1.41 elete (D)	Initial settings when controlli
	4∼.	OFF	192.168.1.61	PQ3100		Hete (U) Heck Connection (C)	
			Set IP Address here.		Sta	art automatic file transfers f	rom all instruments (S)
					Sto	op automatic file transfers f	rom all instruments (T)
					Se	t clock to this instrument(U	)
					Se	t clock to all instruments(V)	

-4. When the confirmation message is displayed, click the [OK] button.



-5. All connected instruments' clocks will be synchronized with the computer's clock.

Information	×
Instruments clock has been set.	
ОК	

# Instructions (configuring automatic time synchronization)

•This section describes how to synchronize the clocks of instruments registered on the [Console] tab to a PC daily at a user-specified time.

·Instrument times will not be synchronized after you exit GENNECT One.

•Depending on the instrument model and firmware version, synchronizing the time may cause measurement or integration to stop. In this case, a new file will be created when the time is synchronized. •See below for more information.

> Synchronizing Instrument Clocks: Details

#### 1. Register the instrument on the [Console] tab.

-1. Select the [Console] tab.

-2. Click [Search for Instrument] or enter the instrument's IP address and register it.

\*If registering the instrument for the first time, you will need to select the instrument corresponding to the IP address from the drop-down menu.

🖸 HIOKI GEN	NNECT One							-		Х
Import(T)	Settings(S) Lange	usge(L) Window	(W) Information	1(H)						
Data	Functions Con	sole Launcher	r							
Upda	ote								٥	?
LAN										
	Remote Control	File Transfer (AUTO)	File Acquisition (MANUAL)	IP Address	Instrument					
	₩~	OFF	-	192.168.1.45	LR8450	•	LR8450-01#000000055,			
國際	+∼	OFF	A	192.168.1.50			PW3360-11#130622960			
				Set IP Address here.		٠	<- Select the instrument			
USB				1070						
LAN										

#### 2. Configure automatic time synchronization.

-1. Click the [Settings] button (\*) at the top left.



-2. The [Console] tab on the [Common Settings] dialog box will be displayed.

	n Settings			×
CSV Output	Notification	Console	Logging/Dashboard	
- FTP server	settings			
	2		Check settings	Start configuration
•	Not configu	red	Check settings	Start configuration
	fer IP Address: -サネット	192.168.1.2	2	^
		74L Gigabi	t Network Connection	
		-		$\checkmark$
- Start auto	matic file trans	fers when I	aunching the application	
🔿 Dis	play confirmat	ion messag	les	
O Star	t automatic fil	e transfers	when launching the appli	cation
			ansfers when launching th	
0.00	not start autor	natic file tra	ansrers when launching tr	e application
Instrumer	t clock synchr	onization (a	automatic, forced)	
	not synchroniz	e instrume	nt clocks	
	chronize instru			
?	Measurement	and integr	ation may be stopped.	
<ul> <li>Daily</li> </ul>	Measurement	: 50 韋		
2 Daily		. 50 .		Detailed settings
Paily		. 50 .		Detailed settings

-3. Select [Synchronize instrument clocks] under [Instrument clock synchronization (automatic, forced)] and set the time.

Instrument clock synchronization (automatic, forced)
O Do not synchronize instrument clocks
Synchronize instrument clocks
Measurement and integration may be stopped.
Daily 23 🔹 : 50 🛓
Detailed settings
OK Cancel

-4. When the confirmation message is displayed, click the [OK] button.

Informatio	on in the second se	×
1	Automatic time synchronization has been scheduled for measuring instruments.	
	<ul> <li>Synchronizes the clocks of the measuring instruments registered on the [Console] (LAN) screen to the specified time.</li> <li>Measuring instrument clocks will not be synchronized once you exit GENNECT One.</li> <li>The time synchronization process may cause some instrument models and versions to stop measurement or integration, resulting in the creation of a new file.</li> <li>If the current time and the synchronized time differ by more than the recording interval, a blank period may occur in the data.</li> <li>For details, refer to "Synchronize Instrument Clocks [LAN]" in the User's Manual.</li> </ul>	
	OK Cancel	

-5. While GENNECT One is running, the clocks of the instruments registered on the HIOKI GENNECT One [Console] tab will be synchronized daily at the specified time.

# Synchronizing Instrument Clocks: Details

This section describes how individual instruments' clocks are set. The delay introduced by LAN communications is not taken into account when setting instruments' clocks.

Model	Name	Detailed clock sync	hronization operation
PQ3100	POWER QUARITY	Reference time:	Computer time
	ANALYZER	Timing:	When the reference time reaches "hh:mm:ss.000"
		Operation during	[Ver. 2.10]
		recording:	If the instrument is recording, recording is stopped when
			the clock is set and then restarted.
			[Ver. 2.20 or later]
			The clock is set without stopping recording, even if the
			instrument is recording. (*1) (*2)
PQ3198	POWER QUARITY	Reference time:	Computer time
	ANALYZER	Timing:	When the reference time reaches "hh:mm:ss.000"
		Operation during	The clock is set without stopping recording, even if the
		recording:	instrument is recording. <sup>(*1)</sup> (*3)
PW3360	CLAMP ON POWER	Reference time:	Computer time
	LOGGER	Timing:	When the reference time reaches "hh:mm:ss.000"
		Operation during	[Ver. 3.20 and later]
		recording:	If the instrument is recording, recording is stopped when
			the clock is set and then restarted.
			[Ver. 3.21 or later]
			The clock is set without stopping recording, even if the
			instrument is recording. (*1) (*4)
PW3365	CLAMP ON POWER	Reference time:	Computer time
	LOGGER	Timing:	When the reference time reaches "hh:mm:ss.000"
		Operation during	[Ver. 2.00 or earlier]
		recording:	If the instrument is recording, recording is stopped when
			the clock is set and then restarted.
			[Ver. 2.10 or later]
			The clock is set without stopping recording, even if the
			instrument is recording. <sup>(*1)</sup> (*4)
PW3390	POWER ANALYZER	Reference time:	Computer time
		Timing:	When the reference time reaches "hh:mm:00" (*5)
		Operation during	If the instrument is integrating values, integration is
		recording:	stopped when the clock is set and then restarted.
PW6001	POWER ANALYZER	Reference time:	Computer time

PW8001		Timing:	When the reference time reaches "hh:mm:ss.000"
		Operation during	If the instrument is integrating values, integration is
		recording:	stopped when the clock is set and then restarted.
LR8400, LR8401, LR8402,	MEMORY HILOGGER	Reference time:	Computer time
LR8450, LR8450-01		Timing:	When the reference time reaches "hh:mm:ss.000"
LR8410		Operation during	If the instrument is recording, recording is stopped when
	WIRELESS LOGGING	recording:	the clock is set and then restarted.
LR8101, LR8102	STATION		
	DATA LOGGER		
MR6000	MEMORY HICORDER	Reference time:	Computer time
		Timing:	When the reference time reaches "hh:mm:ss.000"
		Operation during	If the instrument is recording, recording is stopped when
		recording:	the clock is set and then restarted.
ST5680	DC HIPOT TESTER	Reference time:	Computer time
		Timing:	When the reference time reaches "hh:mm:ss.000"
		Operation during	If the instrument is recording, recording is stopped when
		recording:	the clock is set and then restarted.
RM3545A	RESISTANCE METER	Reference time:	Computer time
		Timing:	When the reference time reaches "hh:mm:ss.000"
		Operation during	If the instrument is recording, recording is stopped when
		recording:	the clock is set and then restarted.
DM7275, DM7276	MEMORY HICORDER	Reference time:	Computer time
		Timing:	When the reference time reaches "hh:mm:ss.000"
		Operation during	If the instrument is recording, recording is stopped when
		recording:	the clock is set and then restarted.

(\*1) If the reference time and instrument time differ by more than the recording interval, there may be a blank interval in the recording data. It is recommended to stop recording before synchronizing an instrument's clock.

(\*2) Recording may stop and then restart when setting the clock in the following circumstances:

-If the instrument is in the event IN, KEEP, or OUT state, or if the instrument is saving fluctuation data

-If the interval save time is set to 150 or 180 cycles

-If flicker is set to any value other than OFF

-If the reference time and instrument time differ by more than 5 min.

(\*3) Recording may stop and then restart when setting the clock in the following circumstances:

-If the instrument is in the event IN, KEEP, or OUT state, or if the instrument is saving fluctuation data

-If the reference time and instrument time differ by more than 1 min.

(\*4) Recording may stop and then restart when setting the clock in the following circumstances:

-If the reference time and instrument time differ by more than 5 min.

(\*5) Setting the clock may result in a wait time of up to 1 min. as the system waits until XX:XX:00 to set the clock.

# Linking GENNECT One to GENNECT Cloud

GENNECT Cloud is a dedicated cloud service operated by HIOKI.

By using this application with GENNECT Cloud, you can remotely monitor or operate (Remote monitoring mode) instruments connected to a computer and share files with another user in your account. For more information, see the following:

GENNECT Cloud - GENNECT One

\*To link GENNECT One to GENNECT Cloud, you'll need the following:

- Internet connectivity for your PC
  A GENNECT Cloud account
  - If you don't have an account, please create one. Preparing to Use GENNECT Cloud
- The ability to receive email Please enable your email client to receive messages from the @mail.gennect.net (if you are outside of China) or @mail.gennect.cn (if you are inside of China) domain.

# **About Internet Connection**

An Internet connection is required to use the functions linking GENNECT Cloud. Before using this function, please make sure that the PC on which this application is installed is connected to the Internet.

Note

If your network has access restrictions, some of the functions may not be available. Please consult your network administrator and consider removing the restriction.

### Network requirements for lines used for GENNECT One

#### If you are using GENNECT Cloud outside of China

Function Name	Network Destination (Domain)	Network Requirements
Check or download the latest installer.	Application Server (app.hioki.com)	[HTTPS] Communication using outbound TCP:443 port is permitted (*1) (*2).
Login, File Sharing	GENNECT Cloud (cloud.gennect.net) (app.gennect.net)	[HTTPS] Communication using outbound TCP:443 port is permitted (*1) (*2).
Remote monitoring mode	AWS IoT Core (iot.cloud.gennect.net)	[MQTTS] Communication using outbound TCP:443 port and TLS intercommunication is allowed to AWS IoT Core (iot.cloud.gennect.net) (*1). No TLS decryption is performed on the route (*3).
Remote control of instruments (Console function)	(cloud-relay.gennect.net)	[SSH] Communication using outbound TCP:443 port is allowed to cloud-relay.gennect.net (*1).

### If you are using GENNECT Cloud in China

Function Name	Network Destination (Domain)	Network Requirements
Check or download the latest installer.	Application Server (one.gennect.cn)	[HTTPS] Communication using outbound TCP:443 port is permitted (*1) (*2).

Login, File Sharing	GENNECT Cloud	[HTTPS]
	(gennect.cn)	Communication using outbound TCP:443 port is
	(app.gennect.net)	permitted (*1) (*2).
Remote monitoring	AWS IoT Core	[MQTTS]
mode	(iot.cloud.gennect.cn)	Communication using outbound TCP:443 port and
		TLS intercommunication is allowed to AWS IoT
		Core (iot.cloud.gennect.cn) (*1). No TLS decryption
		is performed on the route (*3).
Remote control of	(cloud-relay.gennect.cn)	[SSH]
instruments (Console		Communication using outbound TCP:443 port is
function)		allowed to cloud-relay.gennect.cn (*1).

(\*1) Permit access to this domain if there are access restrictions by filtering software or other means.

(\*2) Permit file downloads and uploads to this domain if there are restrictions on file downloads and uploads.

(\*3) If TLS decryption traffic detection is in place on the path of your network, configure this domain to allow communication without TLS decryption (use of allow rules with Server Name Indication (SNI) is recommended).

# **Preparing to Use GENNECT Cloud**

GENNECT Cloud offers four plans: Free, Standard, Pro, and Trial. The Free and Trial plans are both free of charge. Standard and Pro plans are fee-based.

See below for more information about available plans.

> GENNECT Cloud license plans

The procedure for creating a user account differs for the Trial plan and the other plans.

#### To use the GENNECT Cloud Free, Standard, or Pro plan

Access the GENNECT Cloud website to create an account.

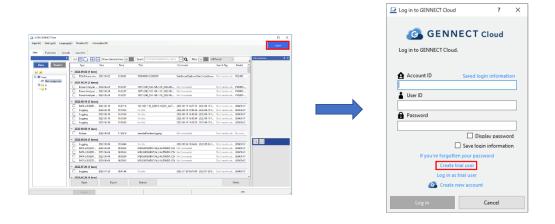
If you are using the GENNECT Cloud integration function outside of China, please access <a href="https://cloud.gennect.net/app/">https://cloud.gennect.net/app/</a>, if you are using it in China, please access <a href="https://gennect.net/app/">https://gennect.net/app/</a>.

Please refer to the GENNECT Cloud online help for details. https://www.gennect.net/en/cloud/manual/1-2

#### To use the GENNECT Cloud Trial plan

This application is used to create users for GENNECT Cloud Trial plan accounts.

- 1. Click the [Log In] button at the top right of the application window.
- 2. The [Log in to GENNECT Cloud] window will be displayed. Click [Create a trial user].



3. The [Create a trial user] window will be displayed.

(1)		(2)	Create a trial user (2 / 3).	- 0	×	3	Create a trial user (3 / 3).		×
$\smile$	(1/3) Obtain authentication code.	Ŭ	(2/3) Authenticate				(3/3) Set password.		
	Enter the email address to which to send the authentication code.		Enter the authentication cod you received.	e from the email			Set login password for trial	user.	
	Ernail address		Authentication code				Password		
	example@gennect.com						•••••		
	Choose Your Country		Reissue authentica	tion code.				Display password	
	O Global (outside China) O China (i)						Single-byte alphanumeri	c characters and	
	Accept Terms of User / Privacy Policy.						<ul> <li>Must contain at least one letter, one lowercase Eng numeral.</li> </ul>	e uppercase English lish letter, and one	
							✓ 8 to 50 characters		
	Issue authentication code		Authenticate	Cancel			Set password	Cancel	

① Enter an email address and select your country (\*1). Review the Terms of User and Privacy Policy and select the [Accept Terms of User / Privacy Policy] checkbox. Click [Issue authentication code]. A 6-digit authentication code will be sent to the email address you entered.

# (\*1) Select [Global] if you use the GENNECT Cloud integration function outside of China, or [China] if you use it within China.

- Enter the authentication code and click [Authenticate].
   Click [Reissue authentication code] to send another authentication code to the email address you entered.
- ③ Set a password.

Enter a password that is at least 8 characters in length. Passwords may include single-byte numerals, English uppercase letters, and English lowercase letters. Enter the same password again in the [Enter again] field and click [Set password].

4. Once the user has been created, the message [The trial user was created.] will be displayed. To log in to GENNECT Cloud using the newly created Trial user, click [OK].

Informat	ion	×	
1	A trial user was created. Expiration date: 2022-12-16 (fou can continue using the service by transitioning to the free plan.)		
	Continue to log in?		
	OK Cancel		

# **Logging In to GENNECT Cloud**

\*If you don't have a GENNECT Cloud account, please create one first. Preparing to Use GENNECT Cloud

- 1. Launch GENNECT One.
- 2. Click the [Log In] button at the top right of the application window. The [Log in to GENNECT Cloud] window will open.

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	* 2022-08-19 (5 item	s)						
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#### If you're using a GENNECT Cloud Free, Standard, or Pro plan

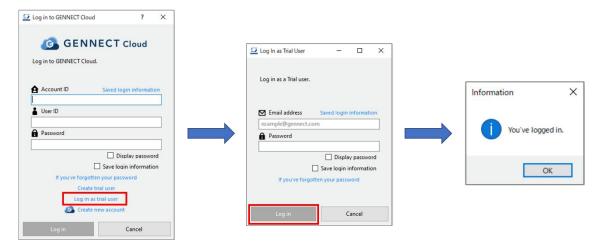
Enter your [Account ID], [User ID], and [Password] and click the [Log In] button. If the login is successful, the message [You've logged in.] will be displayed.

Log in to GENNECT Cloud	?	×	
🙆 GENNECT	Cloud		
Log in to GENNECT Cloud.			
Account ID Saved In	ogin informat	ion	Information
User ID			You've logged in
Password			
•••••			OK
🗆 D	isplay passwo	ord	
Save lo	qin informati	on	
If you've forgotten your pa	ssword		
Create trial user			
Log in as trial user			
🙆 Create new accou	nt		
Log in	Cancel		

#### If you're using the GENNECT Cloud Trial plan

- 1. Click [Log in as trial user] on the [Log in to GENNECT Cloud] window.
- The [Log in as a trial user] window will be displayed. Enter the [Email address] and [Password] you used to create the trial user and then click the [Log In] button.
   If the login is guagesful, the message [Newlya logged in ] will be displayed.

If the login is successful, the message [You've logged in.] will be displayed.



#### If you've enabled two-factor authentication

If you've enabled two-factor authentication, a window asking you to enter an authentication code will be displayed.

An authentication code has been sent to the email address you registered. Enter the authentication code you received.	Two-factor authentication using an app has been enabled. Enter the authentication code displayed by your app.
Authentication code	Authentication code
Reissue authentication code	
Authenticate Cancel	Authenticate Cancel

- If you've enabled two-factor authentication using email: Enter the authentication code that was sent to the email address you registered and click [Authenticate].
- If you've enabled two-factor authentication using an app: Enter the authentication code displayed by the two-factor authentication app you're using (Authy, etc.) and click [Authenticate].

For more information about how to enable two-factor authentication, please see the GENNECT Cloud online help.

(Application) Enabling two-factor authentication for a user | GENNECT Cloud https://www.gennect.net/en/cloud/manual/10-3

#### Saving/deleting login information

You can save the information needed to log in to GENNECT Cloud (account ID and user ID) in the application. If you save your login information, you can eliminate the need to enter your account ID and user ID the next time you log in.

#### Saving login information

1. Log in with the [Save login information] checkbox selected on the [Logging In to GENNECT Cloud] window. Once you've successfully logged in, your user information (account ID, user ID, user icon, and username) will be saved in the application.

Log in to GENNECT Cloud	? X
Cog in to GENNECT Cloud.	
Account ID	Saved login information
User ID	
Password	
If you've forgotte	Display password Save login information
Create tr	ial user
Log in as	trial user
🙆 Create n	ew account
Log in	Cancel

#### Using saved login information

- 1. Click [Saved login information] on the [Log in to GENNECT Cloud] window.
- 2. A list of saved login information will be displayed. Select the login information you wish to use and click [Select].

Log in to GENNECT Cloud ? ×	Deg in to GENNECT Cloud ? X
Log in to GENNECT Cloud.	Log in to GENNECT Cloud.
Account ID Saved login information	Account ID Saved login information
User ID	User ID Select
Password	Password
Display password	Display password
Save login information	Save login information
If you've forgotten your password	If you've forgotten your password
Create trial user	Create trial user
Log in as trial user	Log in as trial user
Create new account	Create new account
Log in Cancel	Log in Cancel

#### **Deleting saved login information**

- 1. Click [Saved login information] on the [Log in to GENNECT Cloud] window.
- 2. A list of saved login information will be displayed. Select the login information you wish to delete and click [Delete].



### **Obtaining a New Password**

An email including a link for obtaining a new password will be sent to the email address you registered with GENNECT Cloud. You can set a new password by following the URL for obtaining a new password. \*To obtain a new password for a user who has not registered an email address, please contact your account administrator.

- 1. Click [If you've forgotten your password] on the [Log in to GENNECT Cloud] or [Log in as trial user] window.
- 2. When the [Obtaining a new password] window opens, enter the email address you registered and click [Send message].
- 3. The message will be sent to the email address you entered. Follow the instructions on the web page accessed via the URL in the email to set a new password.

Log in to GENNECT Cloud	? ×				_			
		Log In as Trial User	- 0	×				
🙆 GENN	ECT Cloud					Obtain a New Password	– 🗆 X	
Log in to GENNECT Cloud		Log in as a Trial user.				A		
Account ID	Saved login information					An email describing how to password has been sent to you registered.		
User ID		Email address	Saved login informat	ion				
		Password				Registered email address		
Password						example@gennect.com		
	Display password		Display passw					
	Save login information		Save login informat	on				
If you've forgotte Create t	en your password rial user	in you ve torge	acti you password					
Log in as	trial user					Constanting	Const	
Create n	new account	Log in	Cancel			Send message	Cancel	
Log in	Cancel							

# **Sharing and Managing Data with GENNECT Cloud**

By logging in to GENNECT Cloud (\*1), you can link GENNECT One to GENNET Cloud together to share and manage measurement data among multiple users.

The application can be used with GENNECT Cloud to provide the following data sharing and management functionality:

- Sharing measurement files on a local PC by uploading them to the cloud
- Downloading measurement files from the cloud to a local PC
- · Opening measurement files stored in the cloud via GENNECT One
- Outputting measurement files stored in the cloud on a local PC
- Sharing logging data automatically output by the logging and dashboard functionality by automatically uploading it to the cloud (\*2)
- Upload and share threshold and profile information of battery testers BT3554, BT3554-01 and BT3554-50 on the cloud (GENNECT Cloud Standard/Pro plans)

\*1: For more information about how to log in to GENNECT Cloud from GENNECT One, see the following:\_

- Logging In to GENNECT Cloud
- Preparing to Use GENNECT Cloud

\*2: Automatic uploading of logging data will stop if the upper limit on cloud storage space is reached. It is recommended to use this function with a GENNECT Cloud Standard or better plan.

For more information about the GENNECT Cloud storage space allowance for each plan, see the following:

- GENNECT Cloud license plans
- For more information about how to enable automatic uploading of logging data, see the following:
- [Logging data] tab

#### Limitations

#### Limitations by GENNECT Cloud plan

Item	Limitation	Remarks
Number of users	GENNECT Cloud plan: Number of users	Please refer to the GENNECT Cloud online
	Trial: 1	help for details.
	Free: 3	
	Standard: 10	
	Pro: 100	
Storage space	GENNECT Cloud plan: Storage space	Please refer to the GENNECT Cloud online
	Trial: 512 MB	help for details.
	Free: 5 GB	-
	Standard: 50 GB	
	Pro: 500 GB	
Number of measurement	GENNECT Cloud plan: Number of measurement groups	Please refer to the GENNECT Cloud online
groups	Trial: 1	help for details.
	Free: 1	-
	Standard: 10	

	Pro: 100	
Number of file shares	GENNECT Cloud plan: Number of file shares Standard: 30	This feature is only available on GENNECT Cloud Standard or Pro plans.
-Battery Threshold, -Battery profile	Pro: 100	For more information on this feature, please
information	110.100	refer to the following
		Share and manage battery
		tester threshold and profile
		information in the cloud
		(GENNECT Cloud Standard
		/ Pro plans)

### Window layout (overall)

Once you log in to GENNECT Cloud, the [Data] tab will be displayed as follows.

This section describes the name and functionality of each part of the data list window. Genner One × Import(I) Settings(S) Language(L) Window(W) Information(H) Hanako Hioki 🙎 **③** List controls area Functions Console Data Launcher ф Update 궞 Upload files in any format 🏥 GENNECT Cloud 🙆 Measurement Group Default(mg126946-000)  $\sim$ ~ All List 🗹 🚺 Show checked items 🔤 Search Input t t separated by space 🗸 🔍 Filter or All Period 1ab2d797-95ed-468e-b750-d1 Type PowerLoggerDataFolder Data Report 130622959\_22090909 PowerLogger d... 2022-09-09 13:32:37 No Comments Click here to se... 765.08 k Account ID 🌄 📩 
 ✓
 PowerLogger d...
 2022-09-09

 ✓
 Photo
 2022-09-07

 ✓
 Logging
 2022-09-07
 gc126946 ere to se... 203.29 k 12:41:11 130622959 22090903 Measurement Group mg126946-000 Date Created 2022-09-09 13:32:37 Root 02:57:02 Click here to se... 974.60 k misc01.bmp 
 No title
 2022-09-0619:25:26-2022-09-0619:...
 Click here to se...
 123.07 k

 180712345\_192-168-1-81\_2022-09-...
 2022-09-06 13:48:45 - 2022-09-06 1...
 Click here to se...
 1.27 MB
 19-25-26 PowerAnalyzer ... 2022-09-06 13:48:45 . Logger binary ... 2022-09-02 18:37:44 192-168-1-93\_220902-211942\_AUT... 2022-09-02 18:37:44 - 2022-09-02 2... Click here to se... 31.00 MB Date Modified 2022-09-09 13:34:10 2022-08-17 10:59:50 - 2022-08-17 1... Click here to se... 122.94 kt Logging 2022-08-17 10:59:50 Exp Time-series me... 2022-08-10 Instrument PW3360-11#130622959 121101517\_22081002\_ 17:33:01 2022/08/10 17:33:01 - 2022/08/11 0... Click here to se... 14.23 ME Photo Battery 2022-06-15 13:20:44 No Com Click here to se... 3.27 MB Model PW3360-11 Battery Screens... 2022-06-15 13:08:48 Click here to se... 69.10 kB No Data list display area Serial Numbe 130622959 **①** Folder selection area 
 No
 Data list displaymanea
 Click here to se...
 1.68 kB

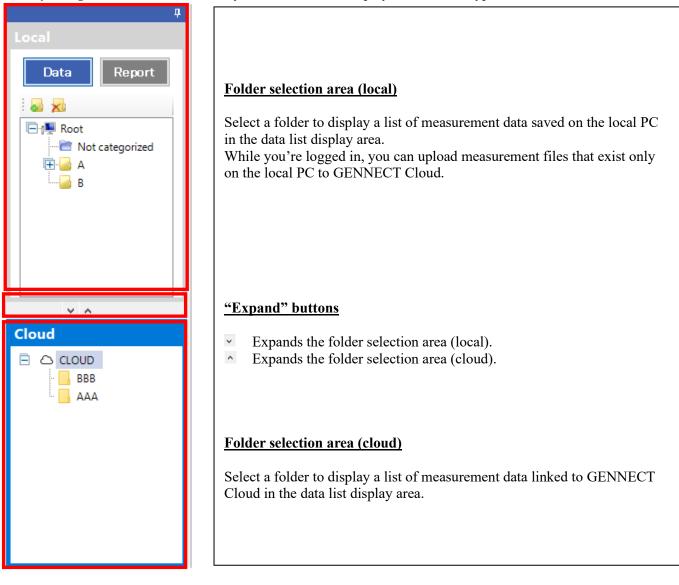
 PQ3198\_Inrush (PQA Data Folder)
 2019-03-07 15:35:00 - 2019-03-07 1...
 Click here to se...
 974.05 kB
 Battery 2022-06-15 13:08:48 PQA data folder 2019-03-07 15:35:00 Title 130622959\_22090909 Q [] Upload Download Open Export Delete **(4)** Information display area **5** Function button are

Name	Functionality
①Folder selection area	Selects the folder level for measurement data stored in GENNECT Cloud. Select a folder level to change the content shown in the data list display area.
	For more information, see the following:
	> Window layout and functionality (①Folder selection area)
②Data list display area	Displays a list of measurement data linked to GENNECT Cloud. The data list includes the following information: status, which indicates the upload state; data type; file size; and instrument model. You can also edit the data title, comment, and tags.
	For more information, see the following: <ul> <li>Window layout and functionality (②Data list)エラー! 参照元が見つかりません。</li> </ul>
③List controls area	Allows you to perform operations including updating the data list, changing the measurement group, and manipulating folders. For more information, see the following:
	> Window layout and functionality (③List controls area)
④Information display area	Displays detailed information about the measurement data selected in the data list along with image file thumbnails. For more information, see the following:
	> Display layout and functionality (@Information display area)
<sup>(5)</sup> Function button area	Provides operations for linking GENNECT Cloud with data, including uploading, downloading, and deleting measurement files.

For more information, see the following:
Display layout and functionality (⑤Function button area)

### Window layout and functionality (①Folder selection area)

When you log in to GENNECT Cloud, you can switch the display between two types of data list.



#### Switching between cloud and local data lists

Name	Functionality
Data list (local)	Select the folder tree labeled [Local] to display a list of measurement data saved on the local PC. If you're logged in to GENNECT Cloud, you can click the [Upload] button to upload measurement data saved only on the local PC. Uploaded measurement data can be managed using the GENNECT Cloud drive window or the GENNECT One data list (cloud).
Data list (cloud)	Select the folder tree labeled [Cloud] to display a list of measurement data linked to GENNECT Cloud. This data list allows you to view and manage measurement data that has been shared with other users in the same account.
	Cloud Type Date -
	E CLOUD PowerLogger d 2022-09-09
	AAA OverLogger d 2022-09-09
	BBB     D     Photo     2022-09-07

# Window layout and functionality (2) Data list)

# The data list (cloud) consists of a list of measurement data linked to GENNECT Cloud.

	Туре	Date	-	Time 👻	Title	Comment	Search Tag	Size
	PowerLogger d	2022-09-	09	13:32:37	130622959_22090909	No Comments	Click here to se	765.08 k
	PowerLogger d	2022-09-	09	12:41:11	130622959_22090903	No Comments	Click here to se	203.29 k
	Photo	2022-09-	07	02:57:02	misc01.bmp	No Comments	Click here to se	974.60 k
Item	1		Functi	onality				1
Status	X		Used outpu Displa Cloud The fe	to select meas tting, or deleti ays a status icc l. ollowing statu Icon	ing data. on indicating the status ses are indicated: Description [Full synchronization] Files exist both in the c is identical. [Partial synchronization Files exist both in the c differs. The status can l downloading changes i	loud and in local storage, an ope changed to [Full synchror n the cloud to the [Data list (cloud)] to the cloud.	surement data and GEN d measurement data co id measurement data co nization] by either	NECT
					Files stored in the clou [Not uploaded] Files only exist in local Files from another user files from GENNECT (	d can be downloaded from C storage. in the same account can be Cloud.		ing
				!	This display is only get monitoring mode) or a configured to share onl To download this file, y	at terminal)] bocal storage of a different ten nerated when a remote GEN GENNECT Remote gatewary y file attributes with the clouvour must first upload the file the file can be downloaded f	NECT One session (rer y is operating while ad. the from the GENNECT C	
Data type	;		Displa	ays the type of	f measurement data.			
Creation time and date Indicates the time timezone.					nd date at which the m	easurement data was created	l, using the local PC's	
Title					s editing of the title of t mment by double-click			
				an edit the co	mment by double-click	-		
Tag					s editing of tags for the ect the tags by double-c			
Size			Displa	ays the measu	rement data's file size.			
		1						

Window layout and functionality (③List controls area)

Allows you to perform operations including updating the data list, changing the measurement group, and manipulating folders.

Update 궞 Upload files in any format 🍈 GENNECT Cloud 🙆 Measurement Group デフォルト(mg5130 〜	
List 🗹 🚺 Show checked items of Search Input text separated by space 🗸 <b>Q</b> Filter of All V All V All V	
Name	Functionality
[Update] button	Acquires information from GENNECT Cloud and updates the data list.
[Upload user file] button	Uploads a user-specified file other than measurement data to GENNECT Cloud.
[GENNECT Cloud] button	Opens the GENNECT Cloud web application in a web browser.         Please refer to the GENNECT Cloud online help for details about the GENNECT Cloud web application.         >       GENNECT Cloud Manual
[Measurement group] selection drop-down menu Default(mg126946-000) [Select all] button	Selects the measurement group to display in the data list.         By default, the [Default] measurement group is selected.         Please refer to the GENNECT Cloud online help for details about measurement groups.         > GENNECT Cloud Manual         Selects all measurement data displayed in the data list.
[Clear all] button	Deselects all measurement data displayed in the data list.
[Display only selected] button	On: Displays only measurement data in the data list that has been selected. Off: Displays all measurement data in the data list, regardless of whether it has been selected.
[Search] box Input text separated by space	Enter text to use as keywords for refining the measurement data shown in the data list. If using multiple search words, separate them with single-byte spaces. (OR condition)
[Search] button	Displays only measurement data in the data list that partially matches the text entered in the [Search] box.
[Filter] button	On: This button will turn on when you click the [Search] button or display a narrowed range of measurement data by changing the [Date], [Data type], [Instrument model] drop-down menu. Off: Displays measurement data after canceling all of the conditions used to narrow the range of displayed data as described above.
[Date] selection drop-down menu	All dates: Displays measurement data without narrowing it by date. 1 day: Displays measurement data after narrowing the range to data whose update time and date fall within the last day. 1 week Displays measurement data after narrowing the range to data whose update time and date falls within the last week. 1 month Displays measurement data after narrowing the range to data whose update time and date fall within the last month. Specified date: Displays measurement data after narrowing the range to data from the specified interval. By default, [All dates] is selected.
[Data type] selection drop-down menu	Displays measurement data after narrowing the range based on the [Data type]. By default, [All] is selected.
[Instrument model] selection drop-down menu	Displays measurement data after narrowing the range based on the [Instrument model]. By default, [All] is selected.

v

All

## Display layout and functionality (④Information display area)

Displays detailed information about the measurement data selected in the data list. If the selected measurement data is an image file, displays a thumbnail image.



## Display layout and functionality (⑤Function button area)

Provides operations for linking GENNECT Cloud with data, including uploading, downloading, and deleting measurement files. For more information about procedures for sharing and managing GENNECT One measurement data after linking it to GENNECT Cloud, see the following:

- > Creating links between GENNECT One and GENNECT Cloud measurement data
- > Managing measurement data in the data list (cloud)

Name	Functionality							
[Open] button	<ul> <li>Opens the measurement data selected in the data list in GENNECT One.</li> <li>If the measurement file does not exist on the local PC, it will be downloaded from GENNECT Cloud.</li> <li>For more information, see the following:</li> <li>Opening the measurement data in GENNECT One</li> </ul>							
[Output] button	Outputs the measurement data selected in the data list to an external file. If the measurement file does not exist on the local PC, it will be downloaded from GENNECT Cloud and then output. For more information, see the following:         >       Outputting measurement data as a file							
[Upload] button	Uploads the measurement data selected in the data list to GENNECT Cloud. For more information, see the following: Uploading measurement data to GENNECT Cloud							
[Download] button	<ul> <li>Downloads the measurement data selected in the data list to GENNECT One from GENNECT Cloud.</li> <li>For more information, see the following:</li> <li>Downloading measurement data from GENNECT Cloud</li> </ul>							
[Delete] button	Deletes the measurement data displayed in the data list after asking the user to select the method of deletion.							
	Methods of deletion Description							
	Delete only local filesDeletes only measurement data stored on the local PC. This method can be used to save local storage, since deleted measurement data can be reacquired by downloading it again.							
	Delete both local and cloud filesCompletely deletes measurement data stored on the local PC as well as measurement data stored in GENNECT Cloud.							
	<ul> <li>For more information, see the following:</li> <li>Deleting measurement data</li> </ul>							

## Creating links between GENNECT One and GENNECT Cloud measurement data

This section describes the procedure for creating links between GENNECT One and GENNECT Cloud measurement data.

#### Uploading measurement data from the data list (local) to GENNECT Cloud

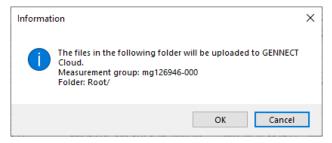
This section describes how to upload measurement data stored in the GENNECT One data list (local) to GENNECT Cloud. Uploaded measurement data will be reflected on the GENNECT Cloud drive window and in the GENNECT One data list (cloud), creating a data link with GENNECT Cloud. Measurement data for which a data link has been created can be shared with other users in the same account.

- 1. Log in to GENNECT Cloud.
- 2. Open the data list (local).
- 3. Select measurement data in the data list (local) and click the [Upload] button.

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ocal	Туре	Date	Time	Title	Comment	Search Tag	Model ^	ype Logging
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в	Photo	2022-09-06 1	7:57:02	misc01.bmp	No Comments	Click here to set	No mo	erial Number
	Power Analyzer	. 2022-09-06 1	3:48:48	180712345 192-168-1-81 2022-09	No Comments	Click here to set		180712345
	Power Analyzer	. 2022-09-06 1	3:48:06	180712345_192-168-1-81_2022-09	2022-09-06 13:48:06 - 2022-09-06 1	Click here to set	PW800	nstrument
oud	<ul> <li>2022-09-05 (8 items</li> </ul>	5)						PW8001-15#180712345
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	· · ·							

4. A window asking you to confirm the measurement group and folder to which to upload the data will be displayed. (\*1)

Review the upload destination in GENNECT Cloud and click the [OK] button.



5. Wait for the upload to complete.

6. Measurement data uploaded to GENNECT Cloud will be reflected in the following and made available to be shared with other users in the same account:

·GENNECT One data list (cloud) window

•GENNECT Cloud drive window

A       Update ♥ Upload files in any format ● GENNECT Cloud ● Measurement Group Default(mg126946-000)       Imput text separated by space ♥ ♥ ■ Filter @F ■ All Period ■ All ■ ♥ = dec:005+00b-4475         Data       Report         Update ♥ Upload files in any format ● GENNECT Cloud ● Measurement Group Default(mg126946-000)       Imput text separated by space ♥ ♥ ■ Filter @F ■ All Period ■ All ■ ♥ = dec:005+00b-4475         Update ♥ DewerLogger d       2022-09-09       1332:37       130622959,22099099       No Comments       Click here to se       755.08 kB         ● PowerLogger d       2022-09-09       1332:37       130622959,22099093       No Comments       Click here to se       755.08 kB         ● PowerLogger d       2022-09-06       1925:25       No title       2022-09-0619:       Click here to se       123.07 kB         ● PowerLogger d       2022-09-06       1925:25       No title       2022-09-0619:       Click here to se       123.07 kB         ● Logging       2022-09-06       1925:25       No title       2022-09-0619:       Click here to se       13.00 MB         ● VeerAnalyzer       2022-09-06       1925:25       No title       2022-09-07 11       Click here to se       13.00 MB         ● Cogging       2022-09-10       193:744       192-168-1-81_2022-09-02       Click here to se       33.00 M	Functions Console									Information 4
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Drive							File selecti	tion
Alarm	Filename	Save timing	Data size	File type	Instrument	Save location		
Channel calculation	No title	9/6/2022, 7:25:26 PM	123.1kB	Logging (GENNECT One	PW8001-15#180 712345	Cloud	:	1
Console	misc01.bmp	9/6/2022, 5:57:02	974.6kB	Photo		Cloud	:	Ť
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## Note

\*1: For more information about changing the destination measurement group and folder when uploading measurement data from the data list (local), see the following:

[Data list (local)] tab

## Managing measurement data in the data list (cloud)

This section describes how to view and manage (output, upload, download, and delete) measurement data that has been shared within an account in the GENNECT One data list (cloud).

## Opening the measurement data in GENNECT One

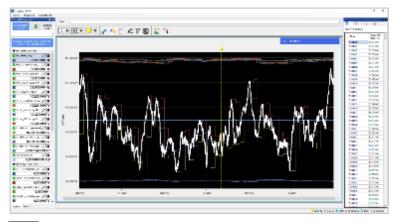
This section describes the procedure for opening measurement data that has been shared within an account in the GENNECT One data list (cloud) in GENNECT One.

Status	Operation					
[Full synchronization]	The measurement data saved in local storage will be opened in GENNECT One.					
[Partial synchronization]	A dialog box confirming whether you wish to download the measurement data from					
	GENNECT Cloud to your local storage will be displayed. (*2)					
	If you do not download the data:					
	The measurement data saved in local storage will be opened in GENNECT One.					
	If you download the data:					
	The measurement data downloaded from GENNECT Cloud to your local storage will be					
	opened in GENNECT One.					
[Not downloaded]	The measurement data downloaded from GENNECT Cloud to your local storage will be					
	opened in GENNECT One.					
[Not uploaded]	The measurement data saved in local storage will be opened in GENNECT One.					
[Not uploaded (different	The measurement data cannot be opened from GENNECT One. (*1)					
terminal)]						

## 1. Select measurement data in the data list (cloud) and click the [Open] button.

ta Functions Consol ក្		ncher te 🔁 Upload files in	any format	GENNECT Cloud	Measurement Group Default(measurement Group)	g126946-000) ~			Information 🛛
ocal	List	Show check	ed items OFF	Search Input te	tt separated by space 🗸 🔍 🗣 Fi	Iter OFF All Period ~	All	~	
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		PowerLogger d	2022-09-09	13:32:37	130622959_22090909	No Comments	Click here to se	765.08 kB	Account ID
🐱 📩		PowerLogger d	2022-09-09	12:41:11	130622959_22090903	No Comments	Click here to se	203.29 kB	gc126946
🖃 🚛 Root		Dhoto	2022-00-07	02.57.02	misc01 hmp	No Comments	Click base to se	074.60 LP	Measurement Group
— Mot categorized		Logging	2022-09-06	19:25:26	No title	2022-09-0619:25:26-2022-09-0619:	Click here to se	123.07 kB	mg126946-000 Date Created
🕀 🥌 A		PowerAnalyzer	2022-09-06	13:48:45	180712345_192-168-1-81_2022-09	2022-09-06 13:48:45 - 2022-09-06 1	Click here to se	1.27 MB	2022-09-06 19:25:26
		Logger binary	2022-09-02	18:37:44	192-168-1-93_220902-211942_AUT	2022-09-02 18:37:44 - 2022-09-02 2	Click here to se	31.00 MB	Date Modified
		Logging	2022-08-17	10:59:50	Exp	2022-08-17 10:59:50 - 2022-08-17 1	Click here to se	122.94 kB	2022-09-09 14:51:37
		Time-series me	2022-08-10	17:33:01	121101517_22081002_	2022/08/10 17:33:01 - 2022/08/11 0	Click here to se	14.23 MB	PW8001-15#180712345
		Photo	2022-06-15	13:20:44	No title	No Comments	Click here to se	3.27 MB	<
oud		Battery Screens	2022-06-15	13:08:48	No title	No Comments	Click here to se	69.10 kB	
		Battery	2022-06-15	13:08:48	No title	No Comments	Click here to se	1.68 kB	Q []
BBB		PQA data folder	2019-03-07	15:35:00	PQ3198_Inrush (PQA Data Folder)	2019-03-07 15:35:00 - 2019-03-07 1	Click here to se	974.05 kB	
ΔΑΑ	<							>	

2. A viewer suited to the type of measurement data that you selected will open, allowing you to view the measurement data. If the measurement file does not exist on the local PC, it will be downloaded from GENNECT Cloud. (\*1)(\*2)



## Note

\*1: If the measurement file does not exist in GENNECT Cloud's storage (if the status is either [Not uploaded] or [Not uploaded (different terminal)]), it will not be possible to download the measurement file. You can download the file by uploading it from either the GENNECT Cloud web application or a terminal that is linked to GENNECT Cloud.

\*2: If you have selected measurement data for which measurement files with different content exist in GENNECT Cloud storage and on the local PC (if the status is [Partial synchronization]), a message confirming whether you wish to update the local PC file will be displayed. For more information about settings for changing this operation, see the following:

[Data list (cloud)] tab

## Outputting measurement data as a file

This section describes the procedure for outputting measurement data that has been shared within an account in the GENNECT One data list (cloud) as a file.

Status	Operation
[Full synchronization]	The measurement data saved in local storage will be output from GENNECT One.
[Partial synchronization]	A dialog box confirming whether you wish to download the measurement data from GENNECT
	Cloud to your local storage will be displayed. (*3)
	If you do not download the data:
	The measurement data saved in local storage will be output from GENNECT One.
	If you download the data:
	The measurement data downloaded from GENNECT Cloud to your local storage will be output
	from GENNECT One.
[Not downloaded]	The measurement data downloaded from GENNECT Cloud to your local storage will be output
	from GENNECT One.
[Not uploaded]	The measurement data saved in local storage will be output from GENNECT One.
[Not uploaded (different	The measurement data cannot be output from GENNECT One. (*2)
terminal)]	

1. Select measurement data in the data list (cloud) and click the [Open] button.

HIOKI GENNECT One mport(I) Settings(S) Language(	(L) Window(W) Inform	ation(H)						— 🗆 🗙 Hanako Hioki 💄
Data Functions Console A Local	Launcher Update 🔁 Upload fil List 🗹 🚺 Show o			Measurement Group Default(measurement Group Default(measurement Group Default(measurement Group) Q Fi	126946-000) V Iter OFF All Period V	All	~ -	Information ID 4edc0065-f0bb-4475-9ce4-dcf4
Data Report	Type Type PowerLogge PowerLogge	er d 2022-09-09	Time • 13:32:37 12:41:11	Title 130622959_22090909 130622959_22090903	Comment No Comments No Comments	Click here to se 7	Size 765.08 kB 203.29 kB	Type logging_v2 Account ID gc126946
Root	Photo     Deging     PowerAnaly	2022-09-06	02:57:02 19:25:26 13:48:45	misc01.hmp No title 180712345_192-168-1-81_2022-09	No Comments 2022-09-0619:25:26-2022-09-0619: 2022-09-06 13:48:45 - 2022-09-06 1	Click here to se 2 Click here to se 1 Click here to se 1		Measurement Group mg126946-000 Date Created 2022-09-06 19:25:26
B	Logger bina	2022-08-17	18:37:44 10:59:50 17:33:01	192-168-1-93_220902-211942_AUT Exp 121101517_22081002_	2022-09-02 18:37:44 - 2022-09-02 2 2022-08-17 10:59:50 - 2022-08-17 1 2022/08/10 17:33:01 - 2022/08/11 0	Click here to se 1	31.00 MB 122.94 kB 14.23 MB	Date Modified 2022-09-09 14:51:37 Instrument PW8001-15#180712345
	Photo     Photo     Battery Scre     Sattery	ens 2022-06-15	13:20:44 13:08:48 13:08:48	No title No title	No Comments No Comments No Comments	Click here to se 6	3.27 MB 59.10 kB 1.68 kB	< 
	PQA data fo		15:35:00		2019-03-07 15:35:00 - 2019-03-07 1	Click here to se 9		
	< Open	Export	Uple	Download		Delet	> te	
	Cancel						233	1

2. Select the output format and click the [OK] button. (\*1)

Export Format	×
● CSV/Image Format	
⊖ HIOKI GENNECT Format	
ОК	

3. Specify the save destination and click the [OK] button. If the measurement file does not exist on the local PC, it will be downloaded from GENNECT Cloud. (\*2)(\*3)

4. The measurement file will be saved to the specified save destination.

## Note

\*1: The CSV and image formats cannot be selected for some data types. For more information about the data types for which outputting to the CSV format is supported, see the following:

## > Export Data

\*2: If the measurement file does not exist in GENNECT Cloud's storage (if the status is either [Not uploaded] or [Not uploaded (different terminal)]), it will not be possible to download the measurement file.

\*3: If you have selected measurement data for which measurement files with different content exist in GENNECT Cloud storage and on the local PC (if the status is [Partial synchronization]), a message confirming whether you wish to update the local PC file will be displayed. For more information about settings for changing this operation, see the following:

[Data list (cloud)] tab

## Uploading measurement data to GENNECT Cloud

This section describes the procedure for uploading measurement data in the GENNECT One data list (cloud) whose status is either [Not uploaded] or [Partial synchronization] to GENNECT Cloud.

Status	Operation
[Full synchronization]	The measurement data is up to date. The measurement data will not be uploaded. (*1)
[Partial synchronization]	A dialog box confirming whether you wish to upload measurement data from your local storage
	to GENNECT Cloud will be displayed. (*3)
	If you do not upload the data:
	The measurement data will not be uploaded to GENNECT Cloud.
	If you upload the data:
	The measurement data will be uploaded to GENNECT Cloud.
[Not downloaded]	The measurement data does not exist in your local storage. The measurement data will not be
	uploaded. (*2)
[Not uploaded]	The measurement data will be uploaded to GENNECT Cloud.
[Not uploaded (different	The measurement data does not exist in your local storage. The measurement data will not be
terminal)]	uploaded. (*2)

1. Select measurement data whose status is either [Not uploaded] or [Partial synchronization] in the data list (cloud) and click the [Upload] button.

HIOKI GENNECT One     Import(I) Settings(S) Language	e(L) Window(W) Inform	nation(H)						— 🗆 🗙 Hanako Hioki 🔔
Data Functions Consol A Local				Measurement Group Default(m t separated by space 🛛 📿 : Fi	g126946-000) V Iter Orf All Period V	All	~	Information
Data Report	Туре	Date 👻	Time 👻	Title	Comment	Search Tag	Size	Type logging_v2
	PowerLogge	er d 2022-09-09	13:32:37	130622959_22090909	No Comments	Click here to se	765.08 kB	Account ID
🛃 📩	PowerLogge	er d 2022-09-09	12:41:11	130622959_22090903	No Comments	Click here to se	203.29 kB	gc126946
🕒 👰 Root	Photo	2022-09-07	02:57:02	misc01.bmp	No Comments	Click here to se	974.60 kB	Measurement Group
Not categorized	🗌 🗹 Logging	2022-09-06	19:25:26	No title	2022-09-0619:25:26-2022-09-0619:	Click here to se	123.07 kB	mg126946-000 Date Created
🖽 🔛 🔺	🗌 🌰 PowerAnaly	zer 2022-09-06	13:48:45	180712345_192-168-1-81_2022-09	2022-09-06 13:48:45 - 2022-09-06 1	Click here to se	1.27 MB	2022-08-17 10:59:50
в	Logger bina	n/ 2022_00_02	18-27-44	102_168_1_03_220002_211042_AUT	2022-00-02 18:37:44 - 2022-00-02 2	Click here to se	31.00 MR	Date Modified
	🗹 🗹 Logging	2022-08-17	10:59:50	Exp	2022-08-17 10:59:50 - 2022-08-17 1	Click here to se	122.94 kB	2022-09-09 14:33:22
× ^	🗆 🎽 lime-series	me 2022-08-10	17:33:01	121101517_22081002_	2022/08/10 17:33:01 - 2022/08/11 0	Click here to se	14.23 MB	PW3360-11#130622959
Cloud	🗌 🗹 Photo	2022-06-15	13:20:44	No title	No Comments	Click here to se	3.27 MB	<
	🔲 🗹 Battery Scre		13:08:48	No title	No Comments	Click here to se	69.10 kB	
	🗌 🗹 Battery	2022-06-15	13:08:48	No title	No Comments	Click here to se	1.68 kB	
BBB	🔲 🗹 PQA data fo	lder 2019-03-07	15:35:00	PQ3198_Inrush (PQA Data Folder)	2019-03-07 15:35:00 - 2019-03-07 1	Click here to se	974.05 kB	
	<		_				>	
	Open	Export	Upl	oad Download		De	lete	
	Cancel						233	

## 2. Wait for the upload to complete. (\*1)(\*2)

When the upload completes, the status of the measurement data will change to [Full synchronization].

Note

\*1: Measurement data whose contents are identical to data files in GENNECT Cloud (with a status of [Full synchronization]) will not be uploaded.

\*2: If the measurement file does not exist in local storage (if the status is either [Not uploaded] or [Not uploaded (different terminal)]), the measurement data will not be uploaded.

\*3: If the measurement data consists of measurement files with different content in GENNECT Cloud storage and on the local PC (if the status is [Partial synchronization]), a message confirming whether you wish to update the GENNECT Cloud file will be displayed. For more information about settings for changing this operation, see the following:

[Data list (cloud)] tab

#### Downloading measurement data from GENNECT Cloud

This section describes the procedure for downloading measurement data in the GENNECT One data list (cloud) whose status is either [Partial synchronization] or [Not downloaded] from GENNECT Cloud to GENNECT One.

Status	Operation
[Full synchronization]	The measurement data is up to date. The measurement data will not be downloaded. (*1)
[Partial synchronization]	A dialog box confirming whether you wish to download the measurement data from GENNECT
	Cloud to your local storage will be displayed. (*3)
	If you do not download the data:
	The measurement data will not be downloaded.
	If you download the data:
	The measurement data will be downloaded from GENNECT Cloud to local storage.
[Not downloaded]	The measurement data will be downloaded from GENNECT Cloud to local storage.
[Not uploaded]	The measurement data does not exist in GENNECT Cloud storage. The measurement data will
	not be downloaded. (*2)
[Not uploaded (different	The measurement data cannot be downloaded from GENNECT One. (*2)
terminal)]	

1. Select measurement data whose status is either [Partial synchronization] or [Not downloaded] in the data list (cloud) and click the [Download] button.

HIOKI GENNECT One								- 🗆 X
Import(I) Settings(S) Languag	ge(L) Window(W) Inform	ation(H)						Hanako Hioki 👤
Data da da da								
Data Functions Conso	le Launcher							
	📕 Update 🔁 Upload fil	s in any format 👖 G	ENNECT Cloud 🧃	Measurement Group Default(mg	126946-000) ~			Information # ×
Local	List 🗹 🚺 Show o	ecked items OFF	Search Input text	t separated by space 🗸 🔍 🕻 Fi	Iter OFF All Period N	All	~ _	ID c6470d34-7d49-4ebe-bc9c-e0cd7
Data Report	Туре	Date 👻	Time 🔻	Title	Comment	Search Tag	Size	Type LoggerBinaryWave
	D PowerLogge	r d 2022-09-09	13:32:37	130622959_22090909	No Comments	Click here to se	765.08 kB	Account ID
a 🔊	🗌 🗹 PowerLogge	r d 2022-09-09	12:41:11	130622959_22090903	No Comments	Click here to se	203.29 kB	gc126946
E 👰 Root	🗌 🗹 Photo	2022-09-07	02:57:02	misc01.bmp	No Comments	Click here to se	974.60 kB	Measurement Group mg126946-000
Not categorized	🗌 🔽 Logging		19:25:26	No title	2022-09-0619:25:26-2022-09-0619:	Click here to se	123.07 kB	Date Created
	D D D D D D D D D D D D D D D D D D D	2022.00.05	12.40.45	100712245 102 160 1 01 2022 00	2022-00-06-12:49:45 2022-00-06-1	Click have to se	1.27 MD	2022-09-02 18:37:44
	🗹 🔺 Logger bina	,,	18:37:44	192-168-1-93_220902-211942_AUT	2022-09-02 18:37:44 - 2022-09-02 2	Click here to se	31.00 MB	Date Modified 2022-09-09 14:14:26
	L Cogging			Exp	2022-08-17 10:59:50 - 2022-08-17 1			2022-09-09 14:14:26
~ ^	Time-series		17:33:01	121101517_22081002_	2022/08/10 17:33:01 - 2022/08/11 0	Click here to se	14.23 MB	LR8450-01#000000055
Cloud	🗌 🗹 Photo		13:20:44	No title	No Comments	Click here to se		<
	Battery Scre			No title	No Comments	Click here to se	69.10 kB	A 171
	Battery		13:08:48	No title	No Comments	Click here to se	1.68 kB	
AAA	🔲 🗹 PQA data fo	der 2019-03-07	15:35:00	PQ3198_Inrush (PQA Data Folder)	2019-03-07 15:35:00 - 2019-03-07 1	Click here to se	974.05 kB	
	<						>	
	Open	Export	Uple	oad Download		De	lete	
	Cancel						233	

2. Wait for the download to complete. (\*1)(\*2)

When the download completes, the status of the measurement data will change to [Full synchronization].

## Note

\*1: Measurement data whose contents are identical to data files in GENNECT Cloud (with a status of [Full synchronization]) will not be downloaded.

\*2: If the measurement file does not exist in GENNECT Cloud's storage (if the status is either [Not uploaded] or [Not uploaded (different terminal)]), it will not be possible to download the measurement file. You can download the file by uploading it from either the GENNECT Cloud web application or a terminal that is linked to GENNECT Cloud.

\*3: If you have selected measurement data for which measurement files with different content exist in GENNECT Cloud storage and on the local PC (if the status is [Partial synchronization]), a message confirming whether you wish to update the local PC file will be displayed. For more information about settings for changing this operation, see the following:

[Data list (cloud)] tab

#### **Deleting measurement data**

This section describes the procedure for deleting measurement data that has been shared within an account in the GENNECT One data list (cloud).

Status	Operation
[Full synchronization]	A dialog box asking you to confirm the method of deletion will be displayed. (*1)
[Partial synchronization]	Delete only local files:
[Not downloaded]	Deletes only measurement data stored on the local PC. This method can be used to save local storage, since deleted measurement data can be reacquired by downloading it again.
	Delete both local and cloud files:
	Completely deletes measurement data stored on the local PC as well as measurement data
	stored in GENNECT Cloud.
[Not uploaded]	Completely deletes measurement data stored on the local PC as well as measurement data stored
	in GENNECT Cloud. (*2)
[Not uploaded (different	Measurement data cannot be deleted from GENNECT One. (*3)
terminal)]	

1. Select measurement data in the data list (cloud) and click the [Delete] button.

## GENNECT One User's Manual

ta Functions Conso	le Leu	ncher						川林市田政
+	Updet	O Upload files in	any format	GENNECT Cloud	🚯 Measurement Group デフォルト()	ma5130 v	_	Information
cal	List					ilter av All Period v		Type Logging
Data		Туре	Date	Time v	Title	Comment	Search1 A	Title
*		LoggerBinaryW	2022-06-28	13:21:42	No title	No Comments	Cickher	Additional Information
		LoggerBinaryW	2022-06-28	13:19:40	No title	No Comments	Clickhei	
a 🕺		Icopine v2	2022-06-20	17(56)26	Notitle	2022-06-20 17/56/26 - 2022-06-20 1	Clickhei	Search Tag
Root ^		logging_v2	2022-06-17	16x40x40	Notitle	2022-06-17 16:40:40 - 2022-06-17 1	Clickhei	Model
- Not categorize		TimeSeries	2022-06-07	18:55:01	060724000.BIN (パワーアナライザ測	2022/06/07 18:55:01 - 2022/06/07 1	Click her	LR8450-01, LR8450-01
E 🔒 A		MANUAL_UPL	2022-05-09	10:25:52	logging_monitor_10V_Range_PNG	No Comments	Clickhei	Serial Number
		PowerAnalyzer	2022-03-23	16:57:38	032300000.BIN (Power Analyzer m	2022-03-23 16:57:38 - 2022-03-23 1	Clickhei	000000055,000000038
× .		logging_v2	2022-03-01	16:41:58	No title	2022-03-01 16:41:58 - 2022-03-01 1	Clickhei	¢
oud		logging_v2	2022-02-24	11:09:13	No title	2022-02-24 11:09:13 - 2022-02-24 1	Clickhei	<b>101 101</b>
		logging_v2	2022-01-27	19:34:40	No title	2022-01-27 19:34:40 - 2022-01-27 1	Clickhei	Q 🖸
CLOUD		logging_v2	2022-01-27	19:31:50	Notitle	2022-01-27 19(31:50 - 2022-01-27 1	Clickhei	
		logging_v2	2022-01-27	18:07:00	No title	2022-01-27 18:07:00 - 2022-01-27 1	Clickhei	
	<						>	
	_	Open	Export		load Download	Delet		

2. A dialog box asking you to confirm the method of deletion will be displayed(\*1)(\*2)(\*3). Select the desired method of deletion and click the [OK] button.

Methods of deletion	Description
Delete only local files	Deletes only measurement data stored on the local PC. This method can be used to save local storage, since deleted measurement data can be reacquired by downloading it again.
Delete both local and cloud files	Completely deletes measurement data stored on the local PC as well as measurement data stored in GENNECT Cloud.

3. The measurement data will be deleted.

## Note

\*1: In the default state, a dialog box asking you to confirm the method of deletion will be displayed. For more information about settings for changing this operation, see the following:

## [Data list (cloud)] tab

\*2: If the status of the selected measurement data is [Not uploaded], a dialog box asking you to confirm whether you wish to delete the data will be displayed. Deleting measurement data whose status is [Not uploaded] will cause links between GENNECT Cloud and the measurement data to be lost. If you anticipate needing to download the measurement data again, upload it to GENNECT Cloud and delete only the local file.

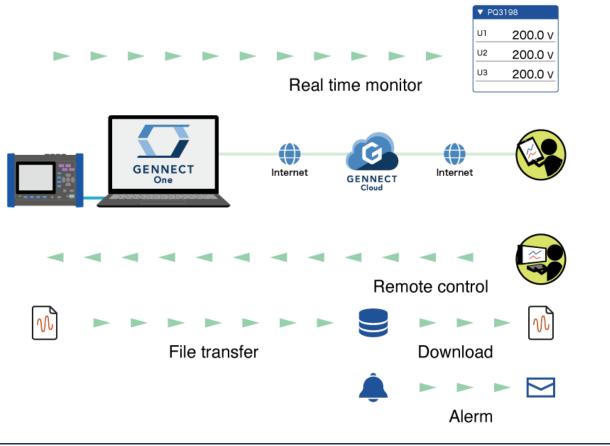
\*3: Measurement data whose status is [Not uploaded (different terminal)] cannot be deleted from GENNECT One. Such files must be deleted from either the GENNECT Cloud web application or another terminal that is linked to GENNECT Cloud.

## **Using Remote Monitoring Mode**

#### Overview

Remote monitoring mode allows you to access instruments connected to a computer from a remote location using GENNECT Cloud.

For details about GENNECT Cloud functionality, please see the GENNECT Cloud online help (<u>https://www.gennect.net/en/cloud/manual/1-1</u>).



#### **Real-time monitor**

The real-time monitor saves measured values for channels selected from instruments' measurement parameters to the cloud server. The measurement interval is fixed at 1 min.

This manual refers to data saved in this manner as "GENNECT acquisition data."

·Measured values updated in real time can be reviewed in a web browser.

·You can select a channel and interval and graph associated measured value. ·Values from multiple instrument models can be grouped together in a single graph.

·Measured values can be downloaded in the CSV format.

#### **Remote control**

Remote control functionality allows you to operate an instrument safely from a remote location by using its built-in HTTP server function.

#### Transferring and downloading files

Measurement data files that are saved on an instrument can be transferred automatically to a local computer. Files transferred to a computer can be remotely acquired via the cloud. This manual refers to such measurement data as "instrument data files."

When using this function, the instrument settings are changed for file transfer. See below for details.

## Instrument save settings

It takes about 7 minutes until the instrument data file transferred from the instrument is available for acquisition.

#### Alarm

Alarm notifications are generated when GENNECT acquisition data satisfies alarm conditions and when instrument data files are uploaded. Notification methods include LINE, Slack, Microsoft Teams, GENNECT Cross, and web application displays.

Workflow

Remote monitoring mode can be started and stopped using the following procedure:

Set up communication between the computer and the instruments (LAN)

Start remote monitoring mode (p.301)

Check the connection environment and log in (p.302)

Set the measurement group (p.302)

Select instruments (p.303)

Select channels (p.305)

Exit remote monitoring mode (p.307)

## Starting remote monitoring mode

Starting remote monitoring mode

1. Click the [Function] tab and then click [Remote monitoring mode].

НІОКІ (	GENNECT One				-		×
Import(I)	Settings(S)	Language(L)	Window(W)	Information(H)		Log in	
		1					
Data	Functions	Console	Launcher				
Measure	ement Functio	ons					
PW3335/	PW3336/PW333	7/PW3360/PW3	365/PW3390/PV	V6001/PW8001/PQ3100/PQ3198/LR8400 series/LR8410/LR8450/MR6000			
	~						
	<u> </u>	Logging					
PW3335/	PW3336/PW333	7/PW3360/PW3	365/PW3390/PV	V6001/PW8001/PQ3100/PQ3198/LR8400 series/LR8410/LR8450/MR6000			
E C							
L		Dashboar	nd				
PW3335/	PW3336/PW333	7/PW3360/PW3	1365/PW3390/PV	v6001/PW8001/PQ3100/PQ3198/LR8410/LR8450/MR6000			
i i	∠≣∕	Remote r	nonitoring	mode			

## Checking the communications environment and logging in

The [Preparations for starting remote monitoring mode] window will be displayed.

1. Click the [Confirm] button next to [Check the connection environment] as necessary.

You can verify that your environment supports use of remote monitoring mode.

If it doesn't, you won't be able to use remote monitoring mode.

If your network has access restrictions, please consult your network administrator and consider removing the restrictions.

Network Requirements :

Communication using outbound TCP: 443 port and TLS intercommunication must be allowed to AWS IoT ("iot.cloud.gennect.net"\*).

Supported example :

- -1. Disable SSL Decryption and other functions for "iot.cloud.gennect.net"\* (port 443)
- -2. Allow access to this service if it is restricted by filtering software

\*If you use this function outside of China: "iot.cloud.gennect.net" \*If you use this function in China: "iot.cloud.gennect.cn"

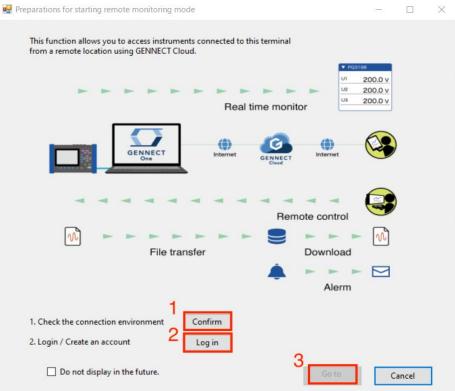
2. Click the [Log in] button to log in to GENNECT Cloud.

This step can be skipped if you're already logged in. If you don't have a GENNECT Cloud account, please create one first.\_

Preparing to Use GENNECT Cloud

Logging In to GENNECT Cloud

## 3. Click the [Next] button.



## Setting the measurement group

All data in GENNECT Cloud belongs to a measurement group, which is the unit by which data is managed. For more information about measurement groups, see the online help (https://www.gennect.net/en/cloud/manual/12-1).

- 1. Select the measurement group to which you wish to upload GENNECT acquisition data and instrument data files.
- 2. Configure automatic file uploads. This setting allows generated instrument data files to be uploaded to the cloud.

ON: Upload instrument data files automatically. Please note that some instrument models and settings will result in larger file sizes, which will use large amounts of mobile data. Automatic uploading is limited to files that are 128 MB or less in size.

OFF: Store instrument data files on the computer and do not upload them automatically.

 Configure automatic time synchronization.
 Enabling this setting will synchronize instruments' clocks once a day. Depending on the instrument model and firmware version, synchronizing the time may cause measurement or integration to stop. In this case, a

new file will be created when the time is synchronized. See below for more information.

- Synchronizing Instrument Clocks: Details
- 4. Click the [OK] button.

🖳 Meas	surement Group Settings		-		×
1	Measurement group test_group(mg374103-001) V				
2	Automatic file uploading ON OFF				
3	Automatic time setting ON 10:41	[	ОК	4	

#### **Selecting instruments**

1. The [Select instrument] window will be displayed.

The application will display the [Searching instruments] message while searching for instruments that are connected to the computer via the LAN.

Gelect Instrument	nt		-		×
Update		🗹 Update	automatically	r	0
LAN					
	IP Address	Instrument			
	Processing	×			
	State - s	searching instruments.			
LAN		5464			
CAN					
		St	art	Clo	se

2. A list of the instruments found during the search made in the previous step will be displayed.

AN	IP Address	Instrument			
	172.19.114.230	PQ3100	•	PQ3100#0000	00000,V2.30
	172.19.114.231	PW3360	•	PW3360-1141	61224839,V3.2
	172.19.114.232	LR8410	٠	LR8410#1303	17911,V1.41
	Set IP Address here.		•	<- Select the	instrument.
LAN		7079.			

- X You can search again by clicking the [Update] button.
- When the "Update Automatically" checkbox is turned OFF, automatic search for measuring instruments is not performed when this screen is opened.

When the "Update Automatically" checkbox is checked ON, automatic search for measuring instruments is performed when this screen is opened.

X If the search results include an instrument that has never been connected to the application, it will be shown as follows:

	IP Address	Instrument	
□ ?	172.19.114.230		<- Select the instrument.

To connect to this instrument, select the instrument's model in the [Instrument] drop-down menu.

IP	Address	Instrument	
17	2.19.114.230	PQ3100	PQ3100#00000000,V2.30

- \* To manually add an instrument that was not found by the search, specify the IP address directly in the [Set IP address here] field and select the corresponding instrument in the drop-down menu.

   Image: Set IP Address here.
- X You can check the connection by selecting [Check connection] in the context menu.

	IP Address		Instrument	
172.19.114.230		Delete (D)		
	Set IP Address	Check C	onnection (C)	
	Set IP Address			

If the application is unable to verify a connection with the instrument, for example because the LAN cable is disconnected, the instrument will be shown as follows:

IP Address	Instrument	
172.19.114.230	•	<- Select the instrument.

X You can delete the instrument from the list by selecting [Delete] in the context menu.

IP Address	Instrument
172.19.114.230	Delete (D)
Set ID Address	Check Connection (C)

3. Select the checkbox for each instrument you wish to use in remote monitoring mode. Click the [Start] button to continue.

Selection	sharend		-	пх
Upd	inte			0
N				
	P Address	Instrument		
1	177.14.119.288	POPLED	1 PORISOND	05101010107.20
	TEALIN I MORT	PW0300	1 PM0100-18	•161224638, VD2
	172.13.1 M 202	LEARING	<ul> <li>URBATION TO</li> </ul>	01261 (V121
1	Set /P Address here.		<ul> <li>Sector</li> </ul>	winduned.
AN				
			Start	Close

X A light-green connection status indicates the instrument was found but is not currently connected. Double-click the status icon or click the [Start] button to connect to the instrument.

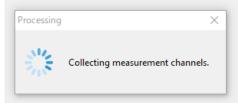
IP Address	Instrument		
172.19.114.230	PQ3100	*	PQ3100#00000000,V2.30
172.19.114.231	PW3360	-	PW3360-11#161224839,V3.21
172.19.114.232		-	<- Select the instrument.

Connected: Green (■) Found: Light green (■) Not found: Red (■)

X You can select up to three instruments with GENNECT Cloud Free, or up to eight instruments with GENNECT Cloud Standard/Pro.

## Selecting Channels

1. The [Channel Selection] window will be displayed. The "Collecting measurement channels" message will be displayed.



2. A list of enabled measurement channels for the instruments selected on the [Select instrument] window will be displayed.

Cha	nnel Selection		_		×
	Selection Count 0 / 30	by partia	l matches.	ť	3
•	PQ3100#161043981		Normal Ite	ems	~
	Freq(Frequency)				
	Freq_MAX(Frequency / Maximum)				
	Freq_MIN(Frequency / Minimum)				
	Freq_AVG(Frequency / Average)				
	U1rms(RMS voltage)				
	U1rms_MAX(RMS voltage / Maximum)				
	U1rms_MIN(RMS voltage / Minimum)				
	U1rms_AVG(RMS voltage / Average)				
	U1pkPlus(Voltage waveform peak+)				
	U1pkPlus_MAX(Voltage waveform peak+ / Maximum)				
	U1pkPlus_MIN(Voltage waveform peak+ / Minimum)				
	U1pkPlus_AVG(Voltage waveform peak+ / Average)				
	U1pkMinus(Voltage waveform peak-)				
	U1pkMinus_MAX(Voltage waveform peak- / Maximum)				
	U1pkMinus_MIN(Voltage waveform peak- / Minimum)				
	U1pkMinus_AVG(Voltage waveform peak- / Average)				
	U1cf(Voltage crest factor)				
	U1cf_MAX(Voltage crest factor / Maximum)				
	U1cf_MIN(Voltage crest factor / Minimum)				
	U1cf_AVG(Voltage crest factor / Average)				
	U1dc(Voltage DC)				
	U1dc_MAX(Voltage DC / Maximum)				
					_
		OK		Cance	1

- X You can search again for measurement channels by clicking the 🖻 button.
- In PQ3100,PQ3198,PW3360,PW3365,PW3335\*,PW3336\*,PW3337\*,PW8001 (with harmonics analysis only), you can select the harmonics measurement channels by selecting the drop down list of measurement items.

\*If the version of this application is less than V5.10, the acquisition of harmonic items for PW3335, PW3336, and PW3337 is not supported. Please upgrade this application to V5.10 or later.



- Measurement parameters for some instruments, for example the PW3336, PW8001, and PQ3198, will be displayed by identifier (PWP, MUpk, etc.). For more information about the relationship between identifiers and measurement parameter names, see the following:
  - > Identification name and measurement item name in Logging and Dashboard function
- X If the number of measurement parameters for normal items exceeds 1200, the page will be divided into multiple pages. In such a case, select the page to be displayed in the combobox and switch pages.

-	LR8450-01#000000055	Normal Items, page 1 🗸
•	UNIT1_CH1(UNIT1_CH1)	Normal Items, page1 Normal Items, page2
0	UNIT1_CH2(UNIT1_CH2)	The mar steme, pages

3. Select the checkbox for each measurement channel you wish to log.Click the [OK] button to continue.

🖸 Ch	annel Selection	_		$\times$
	PQ3100#161043981 Selection Count 13 / 30 Select All Search channels by partial	matches.	े <b>र</b>	3
-	PQ3100#161043981	Normal Ite	ms	~ ^
0	Freq(Frequency)			
0	Freq_MAX(Frequency / Maximum)			
0	Freq_MIN(Frequency / Minimum)			
0	Freq_AVG(Frequency / Average)			
0	U1rms(RMS voltage)			
0	U1rms_MAX(RMS voltage / Maximum)			
0	U1rms_MIN(RMS voltage / Minimum)			
0	U1rms_AVG(RMS voltage / Average)			
0	U1pkPlus(Voltage waveform peak+)			
0	U1pkPlus_MAX(Voltage waveform peak+ / Maximum)			
0	U1pkPlus_MIN(Voltage waveform peak+ / Minimum)			
0	U1pkPlus_AVG(Voltage waveform peak+ / Average)			
0	U1pkMinus(Voltage waveform peak-)			
0	U1pkMinus_MAX(Voltage waveform peak- / Maximum)			
0	U1pkMinus_MIN(Voltage waveform peak- / Minimum)			
0	U1pkMinus_AVG(Voltage waveform peak- / Average)			
0	U1cf(Voltage crest factor)			
0	U1cf_MAX(Voltage crest factor / Maximum)			
0	U1cf_MIN(Voltage crest factor / Minimum)			
0	U1cf_AVG(Voltage crest factor / Average)			
0	U1dc(Voltage DC)			
0	U1dc_MAX(Voltage DC / Maximum)			~
	ОК		Cance	1

 $\overset{}{\times}$  The number of channels that can be selected is as follows:

Plan	Number of channels (per
	instrument)
Trial	10
Free	30
Standard	30
Pro	100

- X You can narrow down the measurement channels shown in the list using the search box at the top of the window.
- X You can limit the measurement channels shown in the list to those channels that have already been selected by clicking the solution.
- \* You can select or deselect all channels by clicking the  $\frac{1}{2}$  button.

## Exiting remote monitoring mode

1. Click the [Finish] button to exit remote monitoring mode.

When you exit remote monitoring mode, uploading of GENNECT acquisition data and instrument data files to the cloud will stop.

## Window layout

🖷 Rem	note Monitoring Mode			-		$\times$
	Monitor Value Event Log					
	▼ PW3360-31#161224839	$\bigcirc$			^	
	U1_Ins(RMS voltage / Instantane	97.44	V			
2	Udeg1_Ins(Voltage fundamental	0.00	۰			
E	Upeak1_Ins(Voltage waveform pe	140.13	٧			
	Ufnd2_Ins(Voltage fundamental	24.37	٧			
	U3_Ins(RMS voltage / Instantane	24.40	٧			
	Ufnd3_Ins(Voltage fundamental	24.36	٧			
	I1_Ins(RMS current / Instantaneo	0.00	А			
	Ipeak1_Ins(Current waveform pe	0.00	А			
	I2_Ins(RMS current / Instantaneo	0.00	А			
	lpeak2_Ins(Current waveform pe	0.00	А			
	Ideg3_Ins(Current fundamental w	0.00	٠			
	P1_Ins(Active power / Instantane	0.00	W			
	S2_Ins(Apparent power / Instanta	0.00	VA			
	Q2_Ins(Reactive power / Instanta	0.00	var			
	Q3_Ins(Reactive power / Instanta	0.00	var			
	PF1_Ins(Power factor / Instantane	INVALID				
	PF3_Ins(Power factor / Instantane	INVALID				
	U1_Avg(RMS voltage / Average)	97.70	٧			
	Ufnd3_Max(Voltage fundamental	24.47	٧			
	Upeak3_Max(Voltage waveform p	35.81	٧			
	Ifnd1_Max(Current fundamental	0.00	А		~	
3	Communications in progress			Finish		5

①Instrument name display

Click here to hide/unhide area ②.

<sup>(2)</sup>Measurement channel and measured value display This area displays the current measured value for each channel.

③Internet connection environment icon

If an Internet connection is available, the icon shown in the screenshot will be shown.

If not, the icon

will be shown.

④"Open in browser" button Click this button to open the GENNECT Cloud web application.

**⑤Exit button** 

Click this button to exit remote monitoring mode.

## **Controlling an Instrument (Remote Control [Cloud])**

By logging in to GENNECT Cloud(\*1), you can control, via GENNECT Cloud, instruments connected to a remotely located gateway (a device that connects using GENNECT Remote) or another computer on which GENNECT One has been installed.

\*1: For more information about how to log in to GENNECT Cloud from GENNECT One, see the following:
 Logging In to GENNECT Cloud

## Supported instruments

Model	Name	Firmware version
PQ3100	Power Quality Analyzer	Ver. 2.30 or later
PQ3198	Power Quality Analyzer	Ver. 2.00 or later
PW3335	Power Meter	Ver. 1.11 or later
PW3336	Power Meter	Ver. 1.23 or later
PW3337	Power Meter	Ver. 1.23 or later
PW3360	Clamp On Power Logger	Ver. 3.21 or later
PW3365	Clamp On Power Logger	Ver. 2.10 or later
PW3390	Power Quality Analyzer	Ver. 2.00 or later
PW6001	Power Quality Analyzer	Ver. 3.02 or later
PW8001	Power Quality Analyzer	Ver. 1.00 or later
LR8450, LR8450-01	Memory HiLogger	Ver. 1.50 or later
LR8101, LR8102	Data Logger	Ver. 1.00 or later
MR6000	Memory HiCorder	Ver. 3.11 or later
MR8875	Memory HiCorder	Ver. 2.17 or later

## **Starting remote control**

1. Select the [Console] tab on the main screen.

		ECT One						- 0	
Update       Instrument         Remote Control       File Transfer         M       Maximum         Model       Ip2.168.1.13         Model       Ip2.168.1.20					on( <u>H</u> )			栁澤One接続用	8
N     Remote Control     File Tamsfer     File Acquisition     IP Address     Instrument       Image: Image	sta F	unctions Con	sole Launcher	r					
Remote Control     File Transfer (AUTO)     File Acquisition (MANUAL)     IP Address     Instrument       Image: Ima	Updat	e						•	
Remote Control     File Transfer (AUTO)     File Acquisition (MANUAL)     IP Address     Instrument       Image: Ima									
Remote Control     (AUTD)     (MANUAL)     IP Address     Instrument       Image:	N								
192.168.1.20        SB         AN         OUD Comparison         Measurement group       Gateway / Application       Instrument       Measurement group       Gateway / Application       Instrument       mg374103-001       gw374103-001		Remote Control	File Transfer (AUTO)	File Acquisition (MANUAL)	IP Address	Instrument			
192.168.1.20        SB         AN         OUD Comment       Messurement       Messurement       Messurement       most Control       Messurement       Mes		4∼	OFF		192.168.1.13	PW3360	PW3360-31#161224839,V3.21		
SB AN OUD Comment mote Control Measurement restart Measurement group Gateway / Application Instrument mg374103-001 gw374103-001 LR8450-01#00000055	2				192,168,1,20		Select the instrument		
SB CUD C Gateway / Application Instrument mote Control Measurement group Gateway / Application Instrument Measurement group Gateway / Application Instrument Measurement group Gateway / Application Instrument Measurement group Gateway / Application Instrument					1				
AN CUD C Control Measurement group Gateway / Application Instrument with mg374103-001 gw374103-001 LR8450-01#00000055	<b>CD</b>								_
OUD     Image: Control instrument       mote Control instrument     Measurement group     Gateway / Application     Instrument       Image: Control instrument     mg374103-001     gw374103-001     LR8450-01#000000055									
Measurement restart         Measurement group         Gateway / Application         Instrument           Image: Control Instrument         mg374103-001         gw374103-001         LR8450-01#000000055									
Measurement restart         Measurement group         Gateway / Application         Instrument           MCI         mg374103-001         gw374103-001         LR8450-01#000000055									_
Measurement restart         Measurement group         Gateway / Application         Instrument           Image: Control of									
Measurement restart         Measurement group         Gateway / Application         Instrument           Image: Control Instrument         mg374103-001         gw374103-001         LR8450-01#000000055									
Image: Control         Measurement group         Gateway / Application         Instrument           Image: Control         mg374103-001         gw374103-001         LR8450-01#000000055	AN	5 5							
	AN OUD								
C This instrument does not support th mg374103-001 gw374103-001 LR8514#170127519	AN OUD mote Contr	ol Measurement restart			Measuremen	nt group	Gateway / Application	Instrument	
	AN OUD mote Contr	ol Measurement restart							
	AN OUD mote Contr	ol Measurement restart		ment does not supj	mg374103-00	01	gw374103-001	LR8450-01#000000055	
	te Contr	ol Measurement restart		ment does not supp	mg374103-00	01	gw374103-001	LR8450-01#000000055	
	N DUD note Contr	ol Measurement restart		ment does not supp	mg374103-00	01	gw374103-001	LR8450-01#000000055	
	AN OUD mote Contr	ol Measurement restart		ment does not supp	mg374103-00	01	gw374103-001	LR8450-01#000000055	
	AN OUD mote Contr	ol Measurement restart		ment does not supp	mg374103-00	01	gw374103-001	LR8450-01#000000055	
	AN OUD mote Contr	ol Measurement restart		ment does not supp	mg374103-00	01	gw374103-001	LR8450-01#000000055	
	AN .OUD :mote Contr	ol Measurement restart		ment does not supp	mg374103-00	01	gw374103-001	LR8450-01#000000055	
LOUD	OUD emote Contr	ol Measurement restart		ment does not supp	mg374103-00	01	gw374103-001	LR8450-01#000000055	
LOUD	OUD mote Contr	ol Measurement restart		ment does not supp	mg374103-00	01	gw374103-001	LR8450-01#000000055	
LOUD	OUD emote Contr	ol Measurement restart		ment does not supp	mg374103-00	01	gw374103-001	LR8450-01#000000055	

- 2. Click the [Remote control] button ( ) on the [Cloud] panel.
- 3. The [Remote Control] screen will open, allowing you to control the instrument.

		 ded for a	dara da					
Deck Next Refeet.		9. A	2000		statuta s'Ur t	MOTOR	1000	PPD1
	HIOKI PQ3100 Main Page	1212 3384 0004 MM1106 178	än velorin		2474			34. B. C
	Financia Control Gomen	<u>Btart:00-00_IC:0</u>	Bo42 fire: 0day	5 5:19:34	Fran Ita	1014.01	S. LUF	pr mg
	Personnel Section	1. 1.	13rs/div			MAIN.		0102
	Overright012019 HOND E.E. CORPORATION All rights reserved					1		
							100	×
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		- 50				2.5	HTER	$\rightarrow$ 25
						193	+	
		200.00 Arris				1	•	
		Server	far o	n Cara	LL Habi			
			10 B.C		IN I	21**	a	4373 UF

## **Restarting the instrument**

- 1. Select the [Console] tab on the main screen.
- 2. Click the [Restart measurement] button (

) on the [Cloud] panel.

3. The target instrument will restart.

## **Open in browser**

- 1. Select the [Console] tab on the main screen.
- 2. Click the button (
- 3. The GENNECT Cloud web application will open in your browser.

## Update the firmware of the instrument

The firmware of instruments connected to a PC over a LAN can be updated to the latest version through PC operation. (%1, %2)

•Automatically checks if the firmware of the connected measuring instrument is the latest version and displays the status with an icon. ( $\times$ 1)

• Since the latest firmware is downloaded from the GENNECT Cloud, version upgrades can be performed only by operating the application. (%1, %2)

**※**1. Internet connection for PC is required.

- \*2. Login to GENNECT Cloud is required.
- Logging In to GENNECT Cloud

## **Supported Instruments**

Model	Name	Firmware version	Remarks
LR8450, LR8450-01	MEMORY HiLOGGER	Ver. 2.20 or later(*1)	1: This function is not supported for aircraft with the following serial numbers LR8450: Serial number is 210317114 or earlier LR8450-01: Serial number is 210322039 or earlier
LR8101, LR8102	DATA LOGGER	V1.50 or later	
PW8001	POWER ANALYZER	Ver. 1.50 or later	
BT6065 BT6075	Precision Battery Tester	V1.01 or later	

## Limitations

#### Restrictions on firmware upgrade functionality

Item	Limitation	Remarks
Communications interface	LAN	USB communication is not supported.
Number of instruments that can be upgraded simultaneously	1 unit	

#### Specifications for each measuring instrument

Model	Requirement of recording media for measuring instruments	What to do if the instrument is turned off during the upgrade
LR8450, LR8450-01 LR8101, LR8102	Unnecessary	The measuring instrument needs to be repaired.
PW8001	USB memory must be inserted	The measuring instrument needs to be repaired.
BT6065 BT6075	Unnecessary	Restart the instrument to recover.

## Workflow

Set up communication between the computer and the instruments (LAN)

## Perform version upgrades of the instrument (p.312)

#### **Operating Procedure**

1. Select the "Console" tab on the main application screen. Select the [LAN] navigation bar.

🛃 HIOKI GE										
	ENNECT One									- 0
mport()	Settings(5)	Language()	) Window()	M) Information	H)					
		Console								
Data	Functions	Console	Launcher							
Up	odate									🗆 Update automatically 🛛 🏶
.AN										
	Remote C	Control (Al	e Transfer UTO)	File Acquisition (MANUAL)	Instrument settings	IP Address	Instrument			
	<b>₩</b> ^	-	ON	-		192.168.1.240	MR5000	* MR6000#220541836, V4.01		
	<u>⊫</u> ⊮∆		OFF	A		192.168.1.81	PW8001	* PW8001-15#210651561,V1.55	C. C	
						Set IP Address here.		<ul> <li>Select the instrument</li> </ul>		
USB										
LAN										
LOUD	00									
LOOD										
Remote Co	Measu Measu	rement				Measurement group		Gateway / Application	last	nument
	restart									
							1007			
CLOUD							1911			
CLOUD							/3/			
CLOUD										
LOUD			Cance				1997			156

2. Execute "Update". If the instrument supports the firmware upgrade function, an icon will appear next to the version number.

Upda	te							🗌 Update automatically 🛛 🔅 🕐
LAN								
	Remote Control	File Transfer (AUTO)	File Acquisition (MANUAL)	Instrument settings	IP Address	Instrument		
	4∼.	ON			192.168.1.240	MR6000	MR6000#220541836,V4.01	
	₩~.	OFF			192.168.1.81	PW8001	PW8001-15#210651561,V1.55	
					Set IP Address here.		<ul> <li>&lt;- Select the instrument</li> </ul>	1

icon	Description
$\checkmark$	Firmware is already at the latest version.
	The latest firmware is available. Click this icon to open the firmware upgrade confirmation window.
•	Failed to obtain the latest version due to a communication error. Please check the connection between the PC and the instrument or the Internet connection of the PC.

- 3. Click the [UPDATE] status icon to display the [Confirm Firmware Version Upgrade] screen.
- 4. Read the notes in the screen carefully and click "Execute" if you wish to execute the firmware upgrade. **Never turn off the power to the unit while upgrading. Also, do not remove any media. If the power is turned off, the unit will not operate properly and will require repair.**

Checking for firmware updates	-		×
PW8001-15#210651561, V1.55 → V1.61			
The instrument will be updated to the latest firmware version. Carefully review the follow [Update Firmware] if you wish to continue with the update.	ving precauti	ions and	click
Be sure not to power off the instrument while the update is in progress. In addition, do media. The instrument needs to be repaired if its power supply is interrupted while the update 'Vou will not able to control the instrument or perform measurement while the update Do not disconnect your computer from the Internet. -firmware updates cannot be canceled.	is in progre	ss.	age
Update		Cancel	

5. When the upgrade is successfully completed, the message "The upgrade was successfully completed." is displayed when the upgrade is successfully completed. If the upgrade fails, the reason for the failure will be displayed as a message, so please follow the on-screen guidance.

#### If the upgrade failed

After executing the version-up of the measuring instrument, the following message will appear if you cannot confirm that the version-up has been successfully completed. In this case, please take the actions described in the table for each measuring instrument.

<b>D</b> Firmwa	are update		-		×
and a second sec	The fol PW80 We cou We apo upgrad	Information The upgrade of the measuring instrument failed. We could not confirm that the upgrade was successfully measured. We apologize for the inconvenience, but please refer to the section of the upgrade laider in the GENRECT One User's Manual and follow the instructions.	eted tion / the	"If the	
	instruc	ОК			

In this case, please check the connection a few minutes after the message is displayed.

[Check Connection] of Instruments

 $\succ$ 

After checking the connection,

• If the version number is updated to the latest one, the upgrade has been successfully completed.

• If your version number is not up-to-date, please try upgrading again.

• If the instrument does not appear on the console screen or there is an error in communication with the instrument, please check the following for each instrument

Model	Contents of response
LR8450	Make sure the instrument is turned on.
LR8450-01	• If the power is on, reboot the system and check the connection again.
LR8101	• If the instrument is not powered on, check to see if it can be turned on. If the power does not turn on, the
LR8102	instrument needs to be repaired. Please contact your nearest sales office.
PW8001,	
BT6065	Restart the instrument and try the upgrade again.
BT6075	

## [Check Connection] of Instruments

The console screen shows the firmware version of the LAN-connected instrument.

If the version number of the instrument displayed on the console screen differs from the version number displayed on the main unit (e.g., if the firmware of the instrument has been manually upgraded), it is necessary to [Check Connection] in order to update the information displayed on the console screen.

You can [check connection] of the measuring instrument by one of the following methods.

- 1. Select the instrument and choose "check connection" from the menu that appears by right-clicking.
- 2. Double-click the connection status icon.

LAN						
	LAN remote control (HTTP)	LAN automatic file transfer (FTP)	IP Address	Instrume	nt	
	4∼.	ON	192.168.1.31	PQ3100	-	Delete (D)
					•	Check Connection (C)
			192.168.1.92			Start automatic file transfers from all instrumer

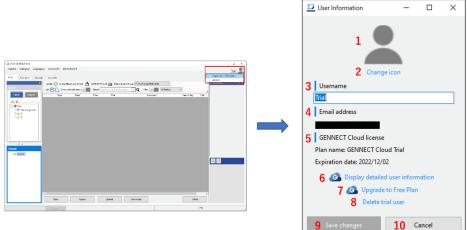
## **Reviewing and Editing User Information and Account Information**

This section describes how to review and edit information for the user logged in to GENNECT Cloud in the application as well as information for the account to which the user belongs.

1. Log in using the account and user whose information you wish to review or edit. (Reference: Logging In to GENNECT Cloud)

2. Click the icon at the top right of the application's main window and click the displayed [Display user information...] menu item.

The [User Information] window will open.



\*Only the information in the table below can be reviewed and edited in the application. More detailed information can be reviewed and edited on the GENNECT Cloud web page.

	Item	Description
1	User icon	Displays a user-configured icon.
2	Change icon	Displays a menu related to the icon.
		·[Select icon]: Specifies an image file to use as the user icon. Image files in the JPG, PNG, GIF,
		and BMP format with a file size of less than 1 MB are supported.
		·[Initialize icon]: Changes the user icon to the default icon.
3	Username	Sets a string to use as the user's display name. (1 to 50 characters)
4	Email address	Displays the registered email address.
5	GENNECT Cloud	Displays the plan name and expiration date for the GENNECT Cloud subscription. If the expiration
	license	date is less than 31 days away, an exclamation point ("!") will be shown to indicate that the
		expiration date is approaching.
6	Display detailed user	Accesses the GENNECT Cloud web page to allow review and editing of more detailed user and
	information	account information. *The page will open in your browser.
7	Upgrade to Free plan	Upgrade the logged-in account from the Trial plan to the Free plan. Accesses the GENNECT Cloud
	*Trial plan only	web page to complete the necessary procedure. Please see Upgrading the Trial plan to the
		Free plan for details.
8	Delete Trial user	Deletes the logged-in Trial user. Please see <u>Deleting the trial user</u> for details.
	*Trial plan only	
9	Save changes	Saves changes made in this window. *This button is available when the icon or username has been
		edited.
10	Cancel	Closes the window without saving changes.

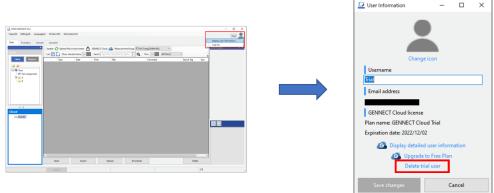
## Deleting the trial user

This section describes how to delete the trial user using the application.

Deleting the trial user will cause all data saved in the cloud to be deleted, and you will no longer be able to access data in the [GENNECT Cloud] folder in the data list. Be sure to back up any data as necessary before deleting the trial user.

- 1. Log in as the trial user you wish to delete. (Reference: Logging In to GENNECT Cloud)
- 2. Click the icon at the top right of the application's main window and click the displayed [Display user information...] menu item.

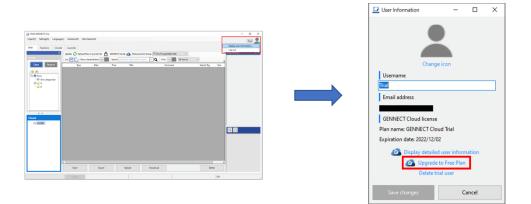
The [User Information] window will be displayed. Click [Delete trial user].



## Upgrading the Trial plan to the Free plan

The Trial plan has an expiration date. If you wish to continue to use the service after the Trial plan expires, please switch to the Free plan before the expiration date. If you do not switch to the Free plan before the expiration date, all data saved in the cloud will be deleted, and you will no longer be able to access data in the [GENNECT Cloud] folder in the data list. Once the expiration date has passed, you will no longer be able to transition to the Free plan.

- 1. Log in as the trial user you wish to switch to the Free plan. (Reference: Logging In to GENNECT Cloud)
- 2. Click the icon at the top right of the application's main window and click the displayed [Display user information...] menu item.
- 3. The [User Information] window will be displayed. Click [Switch to Free plan].
- 4. When your browser opens, follow the instructions on the page to switch to the Free plan.



# Share and manage battery tester threshold and profile information in the cloud (GENNECT Cloud Standard / Pro plans)

This feature requires a subscription to a GENNECT Cloud Standard or Pro plan. Battery tester threshold tables can be shared with other users in the same account. See below for the number of threshold tables and profile information tables that can be shared for each GENNECT Cloud plan.

GENNECT Cloud plan	File name	Max. number
Standard	Battery threshold table	30
	Battery profile table	30
Pro	Battery threshold table	100
	Battery profile table	100

## Share battery tester thresholds in the cloud (GENNECT Cloud Standard / Pro plans)

- 1. Log in to GENNECT Cloud from GENNECT One.
- Logging In to GENNECT Cloud
- 2. Open the [Setting on Battery Tester] screen by clicking the "Settings" button in [Console]-[USB].

		0				5
HIOKI GENNECT One					-	
Import(I) Settings(S)	Language(L)	Window(W)	Information(H)		Hanako Hio	ki 🔴
					Thanlako The	
Data Functions	Console	Launcher				
Update						
	J					
USB						
Import	Settings	nstrume	ent	Serial No.	СОМ	
	<b>*</b>	B 3554-5	0	220310600	COM7	,
	<u> </u>					
USB						
LAN						

3. If logged in to GENNECT Cloud, you will see the [Local] and [Cloud] function buttons on the [Manage Thresholds] screen. In addition, the [Upload] button is displayed on the [Local] screen.

iet Clock		Local		Cloud	
Delete Memory					
mport Threshold	Date	▼ Time	Title	Size	^
Aanage Threshold	2022-08-29	17:03:40	Thresh_01	34.87 kB	
mport Profile	2022-08-24	13:06:31	Thresh_02	34.87 kB	
nport i rome	2022-08-24	13:06:26	No title	34.87 kB	
1anage Profile	2022-08-24	12:50:29	No title	34.87 kB	
	2022-08-24	12:50:23	No title	34.87 kB	
	2022-08-23	06:39:36	No title	34.87 kB	
	2022-08-23	06:39:36	No title	34.87 kB	
	2022-08-23	06:39:01	No title	34.87 kB	
	2022-08-23	02:41:50	No title	34.87 kB	
	2022-08-23	02:40:58	No title	34.87 kB	
	Export New [	Import Uploar	1	Open	Close

4. On the [Local] screen, select the local threshold table you wish to share and click the [Upload] button. At this time, the [Select measurement group] screen will appear, so select the measurement group to upload to.

Please refer to the GENNECT Cloud online manual for more information about measurement groups. GENNECT Cloud Manual

Settings on Battery Tes	ster		_	-		
Set Clock		Local		Cloud		
Delete Memory						
mport Threshold	Date	▼ Time	Title	Size	^	Select Measurement Group - 🗆 🗙
Aanage Threshold	2022-08-29	17:03:40	Thresh_01	34.87 kB		Default(mg126946-000)
	2022-08-24	13:06:31	Thresh_02	34.87 kB		
port Profile	2022-08-24	13:06:26	No title	34.87 kB		
anage Profile	2022-08-24	12:50:29	No title	34.87 kB		
	2022-08-24	12:50:23	No title	34.87 kB		
	2022-08-23	06:39:36	No title	34.87 kB		
	2022-08-23	06:39:36	No title	34.87 kB		
	2022-08-23	06:39:01	No title	34.87 kB		
	2022-08-23	02:41:50	No title	34.87 kB		
	2022-08-23	02:40:58	No title	34.87 kB	~	
	Export	Import Upload	7	Open	Close	
						ОК

5. The selected threshold tables will be uploaded to the [Cloud] screen.

Settings on Battery Tester					a		
elete Memory		Loca	1		Clo	ud	
port Threshold		_					
	Update	Ð	, Measurem	ent Group	Default(mg126	5946-000) 🗸 🗸	
anage Threshold	Date	-	Time 🔻	Title		Size	
port Profile	2022-08-29		17:03:40	Thresh_01		34.87 kE	
anage Profile	2022-08-24	4	13:06:31	Thresh 02		34.87 kB	
		D	G	Ø			
	Export		7 T	© → ∵ Download			

## Manage battery tester thresholds in the cloud (GENNECT Cloud Standard / Pro plans)

You can manage threshold tables that are shared with another user in the same account. Threshold tables are managed on the [Cloud] screen of the [Manage Thresholds] screen. See below for the file status icons that appear on the [Cloud] screen.

Status icon	Description
	[Full synchronization] Files exist both in the cloud and in local storage, and measurement data content is identical.
<b></b>	[Partial synchronization] Files exist both in the cloud and in local storage, and measurement data content differs. The status can be changed to [Full synchronization] by either downloading changes in the cloud to the [Data list (cloud)] or uploading changes in the [Data list (cloud)] to the cloud.
	[Not downloaded] Files only exist in cloud storage. Files stored in the cloud can be downloaded from GENNECT One.

For more information on the functionality of the [Cloud] screen, please see below.

🛅 Settings on Battery Te	ester	- 🗆 X
Set Clock	Local	Cloud
Delete Memory		
Import Threshold	Update 즩 Measurement Group Det	fault(mg126946-000)
Manage Threshold	Date 🔻 Time 🔽 Title	Size
Import Profile	2022-08-29 17:03:40 Thresh_01	34.87 kB
Manage Profile	✓ 2022-08-24 13:06:31 Thresh_02	34.87 kB
	Export Import Upload Download	Open Close

No.	Function name	Description
1	Update	Update the [cloud] management screen with the latest information.
	Ð	
2	Measurement group	Switches the measurement group, so that the information related
	Default(mg126946-000) $$	to the measurement group will be displayed in [Cloud] screen.
		Please refer to the GENNECT Cloud online manual for more
		information about measurement groups.
		GENNECT Cloud Manual

No.	Function name	Description
2	Export Export	Export the selected threshold table to a file (hok format). If the status is [Not Downloaded], the file is downloaded from GENNECT Cloud and exported.
3	Import	Import the selected threshold table from a file (hok format). Imported thresholds are uploaded to the GENNECT Cloud.
5	Upload C Upload	Upload the threshold table with status [Partial Synchronization] to GENNECT Cloud and overwite it. Upload to the measurement group currently displayed in [Measurement group].
Ĩ	Download	Download threshold tables with status [Not Downloaded] or [Partial Synchronization] from GENNECT Cloud.
7	New New	Create a new threshold table. The created threshold table will be uploaded to GENNECT Cloud.
8	Duplicate	Duplicate the selected threshold tables. The replicated threshold tables will be uploaded to GENNECT Cloud.

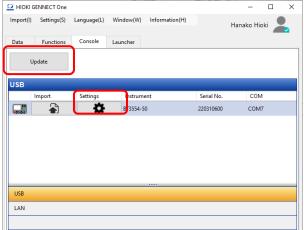
	Duplicate		
9	Delete Delete	Delete the selected the There are two method Method Delete only local files Delete both local and cloud files	
0	Open Open		
1)	Close	Close the [Settings on	Battery Tester] window.

## Share battery tester profiles in the cloud (BT3554 only, GENNECT Cloud Standard / Pro plans)

1. Log in to GENNECT Cloud from GENNECT One.

## Logging In to GENNECT Cloud

2. Open the [Setting on Battery Tester] screen by clicking the "Settings" button in [Console]-[USB].



3. If logged in to GENNECT Cloud, you will see the [Local] and [Cloud] function buttons on the [Manage Profiles] screen.

In addition, the [Upload] button is displayed on the [Local] screen.

t Clock		Local		Cloud	
lete Memory					
port Threshold	Date	Time	Title	Size	^
anage Threshold	2022-08-24	14:05:42	Profile_01	21.41 kB	
port Profile	2022-08-24	13:35:01	Profile_02	21.41 kB	
bort Frome	2022-08-24	13:06:47	No title	21.41 kB	
anage Profile	2022-08-24	13:06:40	No title	21.41 kB	
	2022-08-24	12:51:35	No title	21.41 kB	
	2022-08-24	12:42:02	One	21.41 kB	
	2022-08-17	18:51:12	No title	14.81 kB	
	2022-08-17	18:50:00	No title	14.76 kB	
	2022-08-17	18:49:32	No title	14.76 kB	
	2022-08-17	18:43:34	No title	14.76 kB	~
			No title		

4. On the [Local] screen, select the local profile table you wish to share and click the [Upload] button. At this time, the [Select measurement group] screen will appear, so select the measurement group to upload to.

Please refer to the GENNECT Cloud online manual for more information about measurement groups. GENNECT Cloud Manual

	Local		Cloud			
			Ciouu			
					Γ	
Date	Time	Title	Size	^		Select Measurement Group - D
2022-08-24	14:05:42	Profile_01	21.41 kB		Π	Default(mg126946-000)
2022-08-24	13:35:01	Profile_02	21.41 kB		Ч	
2022-08-24	13:06:47	No title	21.41 kB			
2022-08-24	13:06:40	No title	21.41 kB			
2022-08-24	12:51:35	No title	21.41 kB			
2022-08-24	12:42:02	One	21.41 kB			
2022-08-17	18:51:12	No title	14.81 kB			
2022-08-17	18:50:00	No title	14.76 kB			
2022-08-17	18:49:32	No title	14.76 kB			
2022-08-17	18:43:34	No title	14.76 kB	~		
Export New	Import Upload	3	Open	Close		
	2022-08-24 2022-08-24 2022-08-24 2022-08-24 2022-08-24 2022-08-17 2022-08-17 2022-08-17 2022-08-17 2022-08-17	2022-08-24       14:05:42         2022-08-24       13:35:01         2022-08-24       13:06:47         2022-08-24       13:06:40         2022-08-24       12:51:35         2022-08-24       12:42:02         2022-08-24       12:42:02         2022-08-17       18:50:00         2022-08-17       18:49:32         2022-08-17       18:43:34	2022-08-24         14:05:42         Profile_01           2022-08-24         13:35:01         Profile_02           2022-08-24         13:06:47         No title           2022-08-24         13:06:40         No title           2022-08-24         12:51:35         No title           2022-08-24         12:42:02         One           2022-08-17         18:50:00         No title           2022-08-17         18:49:32         No title           2022-08-17         18:43:34         No title           2022-08-17         18:43:34         No title	2022-08-24       14:05:42       Profile_01       21.41 kB         2022-08-24       13:35:01       Profile_02       21.41 kB         2022-08-24       13:06:47       No title       21.41 kB         2022-08-24       13:06:40       No title       21.41 kB         2022-08-24       12:51:35       No title       21.41 kB         2022-08-24       12:51:35       No title       21.41 kB         2022-08-24       12:42:02       One       21.41 kB         2022-08-24       12:42:02       One       21.41 kB         2022-08-17       18:50:00       No title       14.76 kB         2022-08-17       18:49:32       No title       14.76 kB         2022-08-17       18:43:34       No title       14.76 kB	2022-08-24       14:05:42       Profile_01       21.41 kB         2022-08-24       13:35:01       Profile_02       21.41 kB         2022-08-24       13:06:47       No title       21.41 kB         2022-08-24       13:06:40       No title       21.41 kB         2022-08-24       13:06:40       No title       21.41 kB         2022-08-24       12:51:35       No title       21.41 kB         2022-08-24       12:51:12       No title       21.41 kB         2022-08-24       12:42:02       One       21.41 kB         2022-08-17       18:50:12       No title       14.76 kB         2022-08-17       18:49:32       No title       14.76 kB         2022-08-17       18:43:34       No title       14.76 kB	2022-08-24       14:05:42       Profile_01       21.41 kB         2022-08-24       13:35:01       Profile_02       21.41 kB         2022-08-24       13:06:47       No title       21.41 kB         2022-08-24       13:06:40       No title       21.41 kB         2022-08-24       12:51:35       No title       21.41 kB         2022-08-24       12:42:02       One       21.41 kB         2022-08-24       12:42:00       One       21.41 kB         2022-08-24       12:42:00       No title       14.76 kB         2022-08-17       18:50:00       No title       14.76 kB         2022-08-17       18:43:34       No title       14.76 kB

5. The selected profile tables will be uploaded to the [Cloud] screen.

Settings on Battery Tester	r 1							
et Clock		Loca			(	Cloud		
elete Memory								
port Threshold	Update	2	Measure	ment Group	Default(mg	1260/6-000	)) v	
anage Threshold	opuare	<u> </u>	, ivicasare	inent oroup	Default(Ing	120540-000	/) ~	_
port Profile	Date		Time				Size	
Jort Prome	2022-08-		14:05:42	Profile_01		i	21.41 kB	
mage Profile	2022-08-	24	13:35:01	Profile_02		2	21.41 kB	
	D							
	Export		<u>ז</u> ו ז	7 🖣				
			rt Uploa	d Downloa	d	Open		

## Manage battery tester profiles in the cloud (BT3554 only, GENNECT Cloud Standard / Proplans)

You can manage profile tables that are shared with another user in the same account. Profile tables are managed on the [Cloud] screen of the [Manage Profiles] screen. See below for the file status icons that appear on the [Cloud] screen.

Status icon	Description
	[Full synchronization] Files exist both in the cloud and in local storage, and measurement data content is identical.
<b>2</b>	[Partial synchronization] Files exist both in the cloud and in local storage, and measurement data content differs. The status can be changed to [Full synchronization] by either downloading changes in the cloud to the [Data list (cloud)] or uploading changes in the [Data list (cloud)] to the cloud.
	[Not downloaded] Files only exist in cloud storage. Files stored in the cloud can be downloaded from GENNECT One.

For more information on the functionality of the [Cloud] screen, please see below.

Set Clock	Local	Cloud
Delete Memory		
mport Threshold	Update 💦 Measurement Group Default(mg	126946-000) 🗸
fanage Threshold		
mport Profile	Date 🔻 Time 👻 Title	Size
	2022-08-24 14:05:42 Profile_01	21.41 kB
Manage Profile	✓ 2022-08-24 13:35:01 Profile_02	21.41 kB
	Export Import Upload	

No.	Function name	Description
1	Update	Update the [cloud] management screen with the latest information.
	Ð	
2	Measurement group	Switches the measurement group, so that the information
	Default(mg126946-000) $\lor$	related to the measurement group will be displayed in [Cloud]
		screen.
		Please refer to the GENNECT Cloud online manual for more
		information about measurement groups.
		GENNECT Cloud Manual

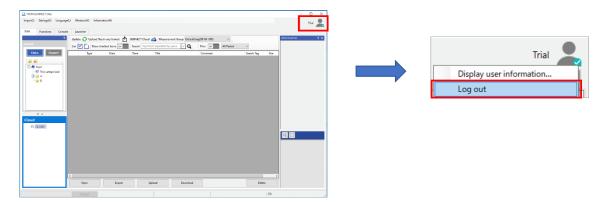
No.	Function name	Description
3	Export Export	Export the selected profile table to a file (hok format). If the status is [Not Downloaded], the file is downloaded from GENNECT Cloud and exported.
Æ	Import	Import the selected profile table from a file (hok format). Imported profiles are uploaded to the GENNECT Cloud.
5	Upload C Upload	Upload the profile table with status [Partial Synchronization] to GENNECT Cloud and overwite it. Upload to the measurement group currently displayed in [Measurement group].
6	Download S Download	Download profile tables with status [Not Downloaded] or [Partial Synchronization] from GENNECT Cloud.
Ô	New	Create a new profile table. The created profile table will be uploaded to GENNECT Cloud.
8	Duplicate Duplicate	Duplicate the selected profile tables. The replicated profile tables will be uploaded to GENNECT Cloud.

9	Delete	Delete the selected profile table.		
	Delete	There are two methods of deletion       Method     Description		
		Delete only local files	Deletes only measurement data stored on the local PC. This method can be used to save local storage, since deleted measurement data can be reacquired by downloading it again.	
		Delete both local and cloud files	Completely deletes measurement data stored on the local PC as well as measurement data stored in GENNECT Cloud.	
	Open Open	Open the selected profile table. [Edit Profile Table] window opens. In the [Edit Profile Table] window, you can edit the profile table. You can also transfer the profile table to the battery tester with the [Transfer] button.(*1)		
(1)	Close	Close the [Settings on Battery Tester] window.		

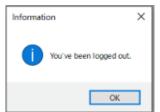
(\*1) The profile table can be transferred only to Battery Tester BT3554-50.

## **Logging Out**

- 1. Click the icon at the top right of the application's main window.
- 2. When the menu is displayed, click [Log out].



3. Once you are successfully logged out, the message [You've been logged out.] will be displayed.



# **Application settings**

## Configure the common settings

## Configure the settings for CSV Export

This section describes how to perform the settings of the decimal symbol and the list separator symbol that is used when data is exported as CSV.

1. Select [Settings]-[Application] in the menu.

Settings(S)	s(S) Language(L)		
Instrument(M)			
Application(A)			
Lauria	. Tabla		

2. [Select Type] window is displayed. Click [Start] button, after selecting [Common Settings].



3. The [CSV Output] tab on the [Common Settings] dialog box will be displayed.

Common Settings	×
CSV Output Notification Console Lo	ogging/Dashboard
Common Decimal Symbol	
Separator Symbol <ul> <li>(Comma)</li> <li>(Second Second Second</li></ul>	micolon)
Channel display names	CH + number $\checkmark$
Logging	
Output Format	Logging format $\checkmark$
Number of decimal places	4 +1.2346E+03
Time-series measurement data	
Output Format	Time-series viewer format
Time axis format	Absolute time $\checkmark$
Data completion    Data thinning	None ~
Number of decimal places	4 +1.2346E+03
	OK Cancel

Item	Description				
Common	Decimal point symbol Sets the decimal point symbol to use for numerical				
	1 5	values output to CSV files.			
		Period (".")			
		Comma (",")			
	Data separator symbol	Sets the character to use as a delimiter in CSV files.			
		Comma (",")			
		Semicolon (";")			
Logging	Output format	Sets the CSV output format to use for logging data.			
Logging	Sulput Ionnut	Logging format			
		Time-series data format			
	Number of decimal	Sets the number of decimal places to use for measured			
	places	values being output to logging data CSV files.			
	Channel display names	Sets the Channel display names in CSV files.			
	Channel display hames				
		CH + number: Outputs the channel display name in the			
		format "CH 1," "CH 2," "CH 3," etc.			
		The numbers are the same as those used in [Channel			
		information].			
		ID Name: Outputs the channel-specific ID as the			
		channel display name.			
		Examples: Urms1			
		ID Name + Model#Serial number: Outputs the			
		channel-specific ID + Model#Serial numberas the			
		channel display name.			
		Examples: Urms1-PW8001-12#230312345			
Time-series measurement	Output format	Displays the CSV output format for time-series data.			
data		Time-series data format			
	Time axis format	Sets the display format for time stamps in time-series			
		data.			
		Absolute time			
		Relative time			
	Relative time display	Sets the time display format to use when the time-			
	format	series axis format has been set to [Relative time].			
		Automatic			
		s (seconds)			
		point			
	Relative time	Sets the reference position for displaying 0s when the			
		time axis format is "relative time".			
		Trigger position as 0s			
		The beginning as 0s			
	Data completion	Specifies whether to complete measured values for			
		times for which there is no measurement data when			
		measurement parameters (channels) with different			
		interval times exist in the time-series data being output			
		to a CSV file.			
		None: Do not complete measured values for times for			
		which there is no measurement data.			
		Complete using last measured value: Complete			
		measured values for times for which there is no			
		measured values for times for which there is no measurement data using the last measured value.			
	Data thinning				
	Data thinning	Specifies whether to thin intermediate data points when outputting time series data to a CSV file			
		when outputting time-series data to a CSV file.			
		Example: 1: No data thinning			
	1				

	2: Output 1 point for every 2 points. 3: Output 1 point for every 3 points
Number of decimal	Specifies the number of decimal places to use for
places	measured values for time-series data being output to a
	CSV file.

\*You can not select [,(Comma)] for both [Decimal Symbol] and [Separator Symbol].

4. Click [OK] button.

#### Configure the setting for Version Up Notification

1. Check the [Notify the latest version available every time the application started] if you want to be informed of the latest version available every time you start the application.

Commo	n Settings				×
CSV Output	Notification	Console	Logging/Dashboard		
Version Up					
	e latest version ne the applicat				
-					
				ок	Cancel
				UK	Cancel

#### Configuring logging/dashboard settings

This section describes how to configure logging/dashboard settings.

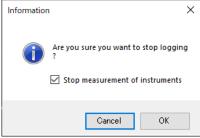
Common Settings
CSV Output Notification Console Logging/Dashboard
Order of instruments Model, serial number $\vee$
Items that inherit the previous settings when logging.
Channel display name
UnitPrefix Display format
Minimum resolution Number of decimal places
Instrument stops when logging stops Stop 🗸
Operation to search measuring instruments $~~$ Update automatically $~~$
Operation to integration with start (PW3335,PW3336,PW3337) integration at measurement $\checkmark$
OK Cancel

Item	Description	
Order of instruments	Model, serial	Order instruments by model and then serial
	number	number when displaying them in logging
		data.

	Instrument list	Order instruments as they are shown in the instrument list when displaying them in logging data.
Items that inherit the previous settings when logging.	Checked and ON	Channel display name, Channel display color, Unit prefix, Display format, Minimum resolution, Number of decimal places When each item is checked and turned ON, logging is performed with the previous settings inherited.
	Unchecked and OFF	<ul> <li>Channel display name, Channel display color, Unit prefix, Display format,</li> <li>Minimum resolution, Number of decimal places</li> <li>When each item is unchecked and turned</li> <li>OFF, logging is performed with the default settings without inheriting the previous settings.</li> </ul>
Instrument stops when logging stops (*1)	Not stop	Stops logging without stopping the measurement of the target instrument when logging stops.
	stop	Stops the measurement of the target instrument when logging stops and ends logging.
Operation to search measuring instruments	No update automatically	When the selection screen for logging and other measurement devices is opened, automatic search for measurement devices is not performed.
	Update automatically	Automatic search for measuring instruments is performed when the selection screen for logging and other measuring instruments is opened.
Operation to integration with start	not integration at measurement	Not integration when logging and other measurements,
(PW3335,PW3336,PW3337)	integration at measurement	Integration when logging and other measurements,

\*1: Specify the stop operation other than when the [Stop Logging] button at the bottom left of the logging viewer is pressed.

For the stop operation when the [Stop logging] button is pressed, select the operation in the message displayed when the [Stop logging] button is pressed.

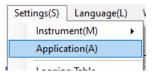


## Configure the settings for battery tester

### **Manage Threshold**

Here explains how to create/edit/delete the threshold or profile table without USB communication with Battery Tester.

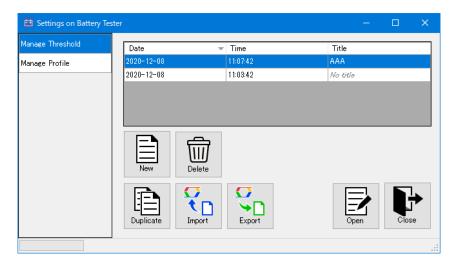
1. Select [Settings]-[Application] in the menu.



2. [Select Type] window is displayed. Click [Start] button, after selecting [Battery].

Select Type	-		×
Common Settings			
Battery			
GENNECT Cloud settings			
Star	t	Clos	se

3. [Settings on Battery Tester] window is displayed.



4. Select [Manage Threshold] to create/edit/delete the threshold table.

🛅 Settings on Battery Test	ter			—		×
Manage Threshold	Date		Time	Title		
Manage Profile	2020-12-08		11:07:42	AAA		
	2020-12-08		11:03:42	Na title		
	New Duplicate	Delete	Export	Open	Close	

\*See below for how to manage the threshold.

- **CREATE THE NEW THRESHOLD TABLE**
- 5. Select [Manage Profile] to create/edit/delete the profile table.

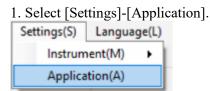
🛅 Settings on Battery Tes	ter			
Manage Threshold	Date		Title	
Manage Profile	2020-12-08	14:09:51	AAA	
	2020-12-08	12:26:48	No title	
	New D			
		nport	Open	Close
				.:

\*See below for how to manage the profile.

**Create the new profile table (BT3554-50)** 

# **Configuring Application Settings Related to GENNECT Cloud**

This section describes settings that apply to links between GENNECT One and GENNECT Cloud.



## 2. Select [GENNECT Cloud settings] and click [Start] to display the settings window.

Select Type	-		×
Common Settings			
Battery			
GENNECT Cloud settings			
Sta	rt	Clos	se

## [Remote monitoring mode] tab

This tab allows you to change settings related to GENNECT One's remote monitoring mode.

GENNECT Cloud settings		×			
Remote monitoring mode	Data list (cloud)	Data list (local)	Logging data		
Confirmation of start of Remote monitoring mode Display a confirmation dialog when starting remote monitoring mode.					

Setting	Value	Description	
Remote monitoring mode start confirmation			
Display a confirmation dialog	On	Display a confirmation dialog when starting remote monitoring mode.	
when starting remote monitoring	Off	Do not display a confirmation dialog when starting remote monitoring	
mode		mode.	

## [Data list (cloud)] tab

This tab allows you to change settings related to the data list (cloud).

### GENNECT One User's Manual

		Download settings
		If cloud files have changed
		Display message to confirm
		O Download (overwrite local files with cloud files)
GENNECT Cloud settings	×	○ Do not download
Remote monitoring mode Data list (cloud) Data list (local) Logging data		
Upload settings		If files have been uploaded to the cloud
If both local files have changed		Display message to confirm
Display message to confirm		O Delete only local files.
O Upload (overwrite cloud file with local file)		*Local storage will be saved.
		O Delete both local and cloud files.
○ Do not upload		*Data will be completely deleted.

Setting	Value	Description
Upload settings		
If local files have changed	Display message to confirm	Display a confirmation dialog when uploading.
	Upload	Always overwrite GENNECT Cloud measurement data by uploading local measurement data.
	Do not upload	Never upload measurement data to GENNECT Cloud.
Download settings		
If cloud files have changed	Display message to confirm	Display a confirmation dialog when
		downloading.
	Download	Always overwrite local measurement data with GENNECT
		Cloud measurement data.
	Do not download	Never download measurement data from GENNECT Cloud.
Deletion settings		
If files have been uploaded	Display message to confirm	Display a message confirming the method of
to the cloud		deletion.
	Delete only local files.	Always delete only local measurement data.
	-	(Setting for saving local storage space)
	Delete both local and cloud files	Always delete both local and cloud measurement data.
		(Setting for deleting all data)

## [Data list (local)] tab

### This tab allows you to change settings related to the data list (local).

GENNECT Cloud settings	GENNECT Cloud settings ×				
Remote monitoring mode Dat	a list (cloud)	Data list (local)	Logging data		
Upload destination setting					
Measurement group	mg126946-0	000			
Folder	Root folder				

Setting	Instructions	Description
Upload destination settin	ng	
Measurement group	Select by clicking [ ] button	When uploading from the data list (local) to GENNECT Cloud, specify the measurement group to which to upload the data. When not specified, data will be uploaded to the [Default] measurement group.
Folder	Select by clicking [ ] button	When uploading from the data list (local) to GENNECT Cloud, specify the data folder to which to upload the data. When not specified, data will be uploaded to the root folder on the GENNECT Cloud [Drive] window ([Data folder]).

# [Logging data] tab

This tab allows you to change settings related to logging data saved by the logging and dashboard functions.

## GENNECT One User's Manual

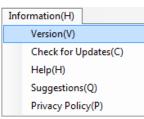
GENNECT Cloud setting	s				×
Remote monitoring mode	Data list (cloud)	Data list (local)	Logging data		
Upload settings					
Manual (specify date	a from data list ar	d upload to the d	loud)		
<u> </u>	files automatically	to the cloud wh	n chúng or cogno	enting data)	
<ul> <li>Automatic (upload</li> </ul>	mes automatically	to the cloud with	en saving of segme	and a data,	
Automatic (upload     Automatic setting —			en saving of segme	anting data,	

Setting	Value	Description
Upload settings	Manual	Do not upload data to GENNECT Cloud automatically. Data will be
		saved in the data list (local). Please upload manually as desired.
	Automatic	Upload saved or segmented logging data to GENNECT Cloud
		automatically.
Automatic setting	Upload files and file attributes to	When saving and segmenting logging data, upload files and file
	the cloud.	attributes (information about links to GENNECT Cloud) to
		GENNECT Cloud. (*1)(*2)
		*1: Once your GENNECT Cloud storage is full, logging data will no
		longer be uploaded automatically.
		*2: This setting is valid only when the [Upload settings]-[Automatic]
		setting is enabled.

# **Other Application Menu**

## **Show Version**

1. Select [Information]-[Version] in the menu.

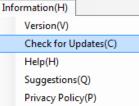


2. The version information of GENNECT One is displayed.

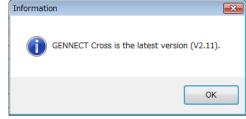
	×
ΗΙΟΚΙ	
HIOKI GENNECT One	
Version 3.00	
HIOKI E.E. Corporation Copyright © 2016 - 2019	
All rights reserved.	
ОК	

# **Check for Updates**

- \* An Internet connection is required for this function.
- 1. Select [Information]-[Check for Updates] in the menu.



2. If you are using the latest version of GENNECT One, the following message appears.

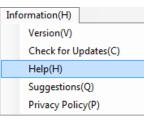


3. If a latest version of GENNECT One is available, the following message appears. Click [OK] button to download the latest version.



# **Show Help**

1. Select [Information]-[Help] in the menu.

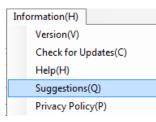


2. The user's manual will be displayed in the browser.

(+)@ <b>e</b>	🔎 🖓 🖉 GEWKECT Cross for Win x
GENNECT	Cross for Windows User's manual 💒
Detailed infor	mation
POF	on of the application's features, please refer to the pdf manual.
General specif	ications
System requireme	nts :
os	Windows 7(32bit/64bit), Windows 8.1(32bit/64bit), Windows 10(32bit/64bit)
Execution environment	.NET Framework 4.0, 4.5, 4.6, 4.7
CPU	Clock frequency 2GHz or greater
Memory	4GB or greater
Display	Resolution 1024×800 or greater
HDD	1GB of free space or more

## **Show Inquiry form**

- \* An Internet connection is required for this function.
- 1. Select [Information]-[Suggestions] in the menu.



2. The inquiry form will be displayed in the browser.

ΗΙΟΚΙ α	orporate			
		Contact Us		
Home > Contact Us				
Contact Form				
	• Input	O Review	O Complete	
Type of inquiry	Required O Product	inquiry 🔿 Get a quote 🔿 Rep	air & Calibration 🔿 Other	
Family/Last Name	Required			
First Name	Required			

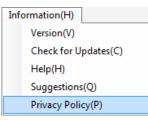
3. Please fill in the necessary information, scroll down the screen and click the [Review] button to send your inquiry to us.



4. We will reply to your inquiry to the email address you provided.

## **Show Privacy Policy**

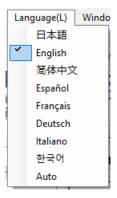
- \* An Internet connection is required for this function.
- 1. Select [Information]-[Privacy Policy] in the menu.



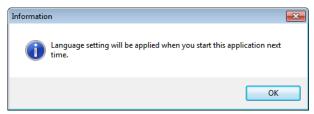
2. GENNECT One privacy policy will be displayed in the browser.

## Change the language settings

1. Select [Language] in the menu. Select the language from the drop-down list.



2. The confirmation message is displayed. Click [OK] button to apply the language setting.



\*If [AUTO] is selected, the program chooses the appropriate language based on the OS settings.

\*The language setting is applied when you start the application next time.

# Appendix

# Identification name and measurement item name in Logging and Dashboard function

# PW3335, PW3336, PW3337

Identification name	Measurement item name
U/I	Voltage/Current RMS
Р	Active power
UMN/IMN/PMN/SMN/QMN/PFMN	Voltage/Current/Active power/Apparent power/Reactive power/Power factor MEAN
UDC/IDC/PDC	Voltage/Current/Active power DC
UAC/IAC/PAC/SAC/QAC/PFAC	Voltage/Current/Active power/Apparent power/Reactive power/Power factor AC
UFND/IFND/PFND/SFND/QFND/PFFND	Voltage/Current/Active power/Apparent power/Reactive power/Power factor
	fundamental wave value
DEGAC	Power phase angle AC
DEGFND	Power phase angle fundamental wave value
FREQU/FREQI	Voltage/Current frequency
UPK/IPK	Voltage/Current waveform peak
EFF1	Efficiency1
EFF2	Efficiency2
UCF/ICF	Voltage/Current crest factor
ITAV/PTAV	Time average current/active power
ITAVMN/ PTAVMN	Time average current/active power MEAN
ITAVDC/ PTAVDC	Time average current/active power DC
URF/IRF	Voltage/Current ripple rate
UTHD/ITHD	Voltage/Current total harmonic distortion
PWP/ MWP	Integ. active power in positive/negative direction
WP	Integ. active power in positive and negative direction
PWPMN/ MWPMN	Integ. active power in positive/negative direction MEAN
WPMN	Integ. active power in positive and negative direction MEAN
PWPDC/ MWPDC	Integ. active power in positive/negative direction DC
WPDC	Integ. active power in positive and negative direction DC
IH	Integ. current in positive and negative direction
IHMN	Integ. current in positive and negative direction MEAN
PIHDC/ MIHDC	Integ. current in positive/negative direction DC
IHDC	Integ. current in positive and negative direction DC
HUL/HIL	Harmonic voltage/current level
HPL	Harmonic active power level
HUD/HID	Harmonic voltage/current content percentage
HPD	Harmonic active power content percentage
HUP/HIP	Harmonic voltage/current phase angle
HPP	Harmonic voltage and current phase difference

# PW8001

Identification name	Measurement item name
Urms/Irms	Voltage/Current RMS
Umn/Imn	Voltage/Current MEAN
Udc/Idc	Voltage/Current DC
Uac/Iac	Voltage/Current AC
Ufnd/Ifnd/Pfnd/Sfnd/Qfnd/PFfnd	Voltage/Current/Active power/Apparent power/Reactive power/Power factor fundamental wave
	value
PUpk/PIpk	Voltage/Current waveform peak (positive)
MUpk/MIpk	Voltage/Current waveform peak (negative)
Uthd/Ithd	Voltage/Current total harmonic distortion
Urf/Irf	Voltage/Current ripple rate
Р	Active power

S	Apparent power
Q	Reactive power
PF	Power factor
Udeg/Ideg/DEG	Voltage/Current/Power phase angle
FU/FI	Voltage/Current frequency
PIH/MIH	Integ. current in positive/negative direction
IH	Integ. current in positive and negative direction
PWP/MWP	Integ. active power in positive/negative direction
WP	Integ. active power in positive and negative direction
ETIME	Total elapsed time for integration
Eff	Efficiency
Loss	Loss
Тq	Torque
Spd	Rotation speed
Pm	Motor power
Slip	Slip
МТСН	Free input during independent input mode operation
UDF	User-defined function
Pst	Short-term flicker value
PstMax	Maximum short-term flicker value
Plt	Long-term flicker value
PinstMax	Maximum instantaneous flicker value
PinstMin	Minimum instantaneous flicker value
DC	Relative steady-state voltage change
DMax	Maximum relative voltage change
TMax	Period while the relative voltage change exceeds the threshold
HF	Harmonic synchronous frequency
HUL/HIL	Harmonic voltage/current level
HPL	Harmonic active power level
HUD/HID	Harmonic voltage/current content percentage
HPD	Harmonic active power content percentage
HUP/HIP	Harmonic voltage/current phase angle
HPP	Harmonic voltage and current phase difference
IHUL/IHIL	Interharmonic voltage/current level
IHUD/ IHID	Interharmonic voltage/current content percentage

\*Measurement items in blue cells can be obtained only for devices equipped with the motor analysis option. \*Measurement items in yellow cells can be obtained only when IEC harmonic mode is set.

\*The identification name of the measurement item of the secondary unit when using optical link mode is the one with "SC" added to the end of the identification name in the table above.

Example: UrmsSC1: RMS voltage of CH1 of the secondary unit, PSC2: Effective power of CH2 of the secondary unit

## PQ3198

Identification name	Measurement item name
Freq	Frequency
Urms/Irms	Voltage/Current RMS
Upk+/Ipk+	Voltage/Current waveform peak (positive)
Upk-/Ipk-	Voltage/Current waveform peak (negative)
Uthd-F/Ithd-F	Voltage/Current total harmonic distortion (Fundamental wave value)
Uthd-R/Ithd-R	Voltage/Current total harmonic distortion (RMS)
UharmH/IharmH	High-order harmonic voltage/current component
Р	Active power
S	Apparent power
Q	Reactive power
PF	Power factor
KF	K factor
Eff	Efficiency
Uunb/Iunb	Voltage/Current negative-phase unbalance factor
Uunb0/Iunb0	Voltage/Current zero-phase unbalance factor

WP+/ WP-	Active energy (Consumption/Regeneration)
WQ_LAG/ WQ_LEAD	Reactive energy (Lag/Lead)
Msv	Mains signaling voltage (Level)
Msv%	Mains signaling voltage (Content rates)
Dv10/Dv10max	$\Delta$ V10 flicker (every 1 minute/1-hour maximum value)
Pst/Plt	IEC flicker (short/long interval voltage flicker)
Uharm/Iharm/Pharm	Harmonic voltage/current level
Pharm	Harmonic active power level
Uharm%/Iharm%	Harmonic voltage/current content percentage
Pharm%	Harmonic active power content percentage
Uphase/Iphase	Harmonic voltage/current phase angle
Pphase	Harmonic voltage and current phase difference

# Uninstall the application

Here explains how to uninstall the application. There are two ways to do this.

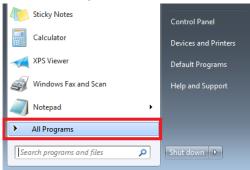
- •Uninstall from [All Programs]
- •Uninstall from [Control Panel]

## **Uninstall from [All Programs]**

1. Click [Start] button.



2. Click [All Programs].

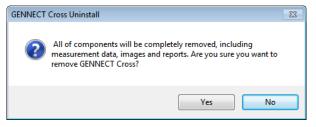


3. Click [HIOKI]-[HIOKI GENNECT One].

4. Click [Uninstall GENNECT One].

	compater		
GENNECT Cross	Control Panel		
Uninstall GENNECT Cross	Devices and Printers		
Maintenance	Default Programs		
	Help and Support		
1 Back			
Search programs and files	Shut down 🕨		

5. The Confirmation message is displayed. Click [Yes] to uninstall.



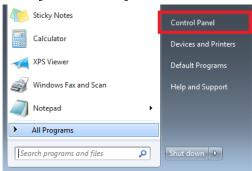
6.  $\mathcal{T}$  The application has been uninstalled.



1. Click [Start] button.



2. Click [Control Panel].



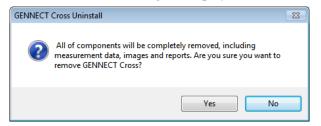
3. Click [Program]-[Uninstall Program].



4. Double-click on [HIOKI GENNECT One] in the program list.

Control Panel + Programs + Programs and Features + + Search Programs and Features						
Control Panel Home View installed updates 🛞 Turn Windows features on or	Uninstall or change a program To uninstall a program, select it from the list and then click Uninstall, Change, or Repair.					
off	Organize 🔻 Uninstall			= • 🔞		
	Name	Publisher	Installed On	Size		
	K HIOKI GENNECT Cross	HIOKI	4/25/2016	49.8 MB		
	Microsoft .NET Framework 4.5.2	Microsoft Corporation	4/21/2015	38.8 MB		
	🖥 Microsoft Report Viewer 2012 ランタイム	Microsoft Corporation	4/24/2016	28.6 MB		
	Microsoft System CLR Types for SQL Server 2012	Microsoft Corporation	4/24/2016	2.66 MB		
	💐 Windows Driver Package - HIOKI (usbser) Ports (01/27/2016 1.00)	HIOKI	4/25/2016			
	< [					
	HIOKI Product version: 0.41 Support link: http://www.hioki.co.jp/ Help link: http://www.hioki.co.jp/ Update information: http://www.hioki.co.jp/					

5. The Confirmation message is displayed. Click [Yes] to uninstall.



6. The application has been uninstalled.