NA-series HMI Programmable Terminal

Practices Guide NJ/NX Troubleshooter For the Intermediate Level

NA5-15[]101[] NA5-12[]101[] NA5-9[]001[] NA5-7[]001[]

Practices
Guide



Introduction

This guide provides reference information for the use of NJ/NX troubleshooter. It does not provide safety information.

Be sure to obtain the NA-series Programmable Terminal User's Manuals, read and understand the safety points and other information required for use, and test sufficiently before actually using the equipment.

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1 Related Manuals

The following manuals are related to this manual.

Cat. No.	Model	Manual name
W500	NJ501-[][][][]	NJ-series CPU Unit Hardware User's Manual
	NJ301-[][][][]	Oser's Marida
	NJ101-[][][][]	
W501	NX701-[][][][]	NJ/NX-series CPU Unit Software
	NJ501-[][][][]	User's Manual
	NJ301-[][][][]	
	NJ101-[][][][]	
W506	NX701-[][][][]	NJ/NX-series CPU Unit Built-in EtherNet/IP™ Port
	NJ501-[][][][]	User's Manual
	NJ301-[][][][]	
	NJ101-[][][][]	
W505	NX701-[][][][]	NJ/NX-series CPU Unit Built-in EtherCAT® Port
	NJ501-[][][][]	User's Manual
	NJ301-[][][]	
	NJ101-[][][][]	
W504	SYSMAC-SE2[][][]	Sysmac Studio Version 1 Operation Manual
W502	NX701-[][][][]	NJ/NX-series Instructions Reference Manual
	NJ501-[][][]	
	NJ301-[][][]	
	NJ101-[][][]	
0969584-7	W4S1-05□	[Instruction Sheet] W4S1 Switching Hub (ENG/JPN)
	W4S1-03B	
V117	NA5-15W[][][][]	NA-series Programmable Terminal Hardware
	NA5-12W[][][]	User's Manual
	NA5-9W[][][] NA5-7W[][][]	
V118	NA5-15W[][][]	NA-series Programmable Terminal Software
	NA5-12W[][][][]	User's Manual
	NA5-9W[][][][]	
V/110	NA5-7W[][][]	NA parios Programmable Terminal Davice Connection
V119	NA5-15W[][][] NA5-12W[][][]	NA-series Programmable Terminal Device Connection User's Manual
	NA5-9W[][][][]	
	NA5-7W[][][][]	
V120	NA5-15W[][][]	NA-series Programmable Terminal Startup Guide
	NA5-12W[][][] NA5-9W[][][]	
	NA5-9W[][][]	
E429	E3NW-ECT	E3NW-ECT EtherCAT® Digital Sensor Communication Unit
		Operation Manual

2 Precautions

- (1) When building an actual system, check the specifications of the component devices of the system, use within the ratings and specified performance, and implement safety measures such as safety circuits to minimize the possibility of an accident.
- (2) For safe use of the system, obtain the manuals of the component devices of the system and check the information in each manual, including safety precautions, precautions for safe use.
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Special information in this document is classified as follows:



Precautions for Safe Use

Indicates precautions on what to do and what not to do to ensure safe usage of the product.



Precautions for Correct Use

Indicates precautions on what to do and what not to do to ensure proper operation and performance.



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Additional information to read as required.

This information is provided to increase understanding or make operation easier.

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3 Introduction

The NJ/NX troubleshooter has the ability to monitor and reset the following events that are monitored with the NJ/NX event function on the NA screen; events occurred in the Controller, events defined to the Controller by the user, and these event logs.

The troubleshooter has the following main functions.

- Monitors and resets events (active events).
- Monitors and clears event logs.
- Moves to the NA user page associated with user error.
- Captures the page for active events/event logs.
- Outputs event logs in CSV file.

3-1 Architecture

You can check the active errors and event logs with the NJ/NX troubleshooter.

1. Controller error, Controller information

This is an error or information that is monitored by the NJ/NX-series Controller.

This can not be edited by the user.

You can monitor errors in the CPU Unit, NX slave terminal, EtherCAT slave, and CJ Unit on the NA screen.

2. User error, User information

This is an error or information that can be difined by the user with the Sysmac Studio. Detailed Information such as a troubleshooting method can be set.

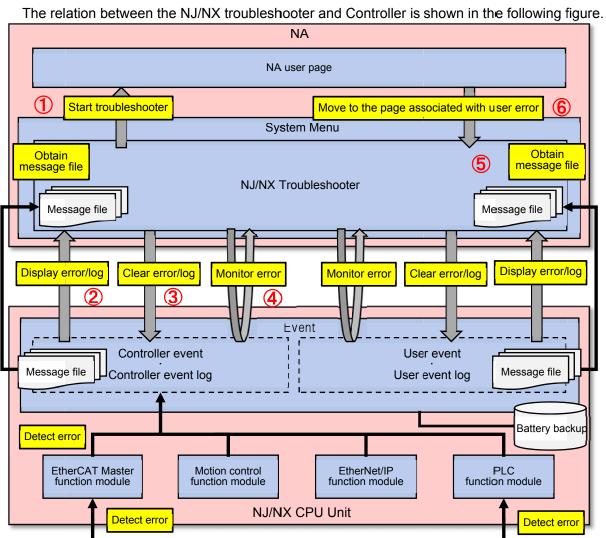
You can monitor user errors that are generated with "instruction to generate user errors (SetAlarm)".

You can monitor user information that is generated with "instruction to generate user information (SetInfo)", but only as an event log (be discussed later).

The Sysmac Studio is used to set user errors/user information (refer to Section 8-1). User errors can be transferred to the associated NA user page with the Sysmac Studio (same as NS function).

3. Controller event log, User event log

You can monitor the occurred controller error/controller information as a controller event log. You can also monitor the occurred user error/user information as a user event log. These event logs are retained until the user clears the logs or memory. If the number of logs exceeds the maximum limit, the oldest log will be cleared.



No	Function	Description
1	Start troubleshooter	You can start the NJ/NX troubleshooter from the NA user page or system page.
2	Display error/log	Obtains errors/event logs from the CPU Unit and displays them on the troubleshooter page.
3	Clear error/log	Resets the active errors in the CPU Unit. Clears event logs in the CPU Unit.
4	Monitor error	Always monitors the error status.
(5)	Obtain message file	 A message file for each language is sored in the built-in memory of the CPU Unit. When the NJ/NX troubleshooter first makes a transition, it obtains the message file for controller events/user events from the CPU Unit, in order to acceralate the display of the events at the next transition. (Obtaining the message file of the currently set-system language.)
6	Move to the page associated with user error	You can associate the user events to the NA user page with the Sysmac Studio, and move to the associated NA user page from the NJ/NX troubleshooter.

I/O bus (CJ Unit)

EtherCAT slave terminal



Additional Information

Information of active events and event logs occurred in each function module, EtherCAT slave terminal, or IO bus is retained in the battery-backup memory (non-volatile memory) of the CPU Unit.

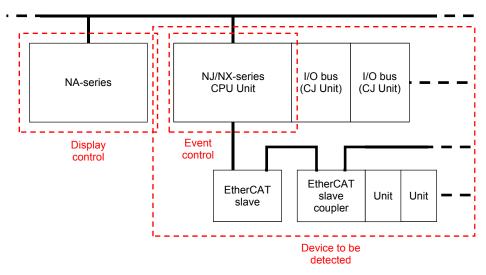


Additional Information

Only NJ-series can connect Units to I/O bus.

3-2 System Configuration

The main hardware configuration using the NJ/NX troubleshooter is shown in the following figure.





Additional Information

Only NJ-series can connect Units to I/O bus.

4 External Specification

4-1 Data Sheet of NJ/NX Troubleshooter

The items related to the NJ/NX troubleshooter during the NA operation are given below.

			CPU Unit			
Function			NX701-	NJ501-	NJ301-	NJ101-
			0000	0000	0000	0000
Max. no of	Controller	System log	2048 logs	1024 logs	512 logs	512 logs
event logs	event log	Access log				
	User event lo	g	2048 logs	1024 logs	512 logs	512 logs
Support	System resou	ırce	9 languages for	· NA		
language	Controller eve	ent log	Japanese, Eng	lish		
	User event lo	g	Up to 9 languag	ges (9 patterns)		
Area to obtain	PLC	Common	-	-		
controller		IO Bus Master	Unable to	-		
error			connect			
		IO Bus Unit	Unable to	Rack No. 0 to 3		
		*1	connect	Slot No. 0 to 9		
	Motion control	Common	-	-		
		Axis	No. 0 to 255	No. 0 to 63		
		Axis group	No. 0 to 63	No. 0 to 31		
	EtherNet/IP	Communication	Port 1 ,Port 2	Port 1		
		port				
		*2				
		CIP	Port 1 ,Port 2	Port 1		
		*3				
		TCP appli	-	-		
	EtherCAT	Common	-	-		
		Master	-	-		
		Slave	Node No.	Node No. 1 to 19	2	
		*4	1 to 512			

^{*1} Event logs in the CJ Unit of FINS2102 can not be monitored /cleared.

^{*2} When a NX701-[[[[[[]]]] is connected and controller errors are occurring in the EtherNet/IP communication port, the controller errors can be filtered for each port, for instance, "Communication port1" and "Communication port2".

^{*3} When a NX701-[[[[[[]]]] is connected and controller errors are occurring in the EtherNet/IP CIP, the controller errors can be filtered for each port, for instance, "CIP1" and "CIP2".

^{*4} When a controller error is occurring in the EtherCAT slave, the controller errors can be filtered for each node, for instance, "[001]Slave" and "[002]Slave".

The items related to the NJ/NX troubleshooter in the Sysmac Studio are given below.

Item			Function
Multiview Explorer	Troubleshooter	Automatic Launch	Sets to automatically launch the NJ/NX troubleshooter when an event occurs.
Схріогеі		Security Settings	Sets an authority for each access level to execute specific operations of the NJ/NX troubleshooter.
		Language Mapping	Assigns a NA project language to a user event language of the NJ/NX project.
		Target device for screen capture and exported files	Sets the target device to save the screen capture and output of CSV file that are performed by the NJ/NX troubleshooter.
	User event		The user event set in the Controller can be associated with the NA user pages.

The supported devices and troubleshooter functions (NX-series)

	sported devides and the		31110410110 (1 t) t t	, ,	
System configuration		Troubleshooter function			
		Error display	Error reset	Event log display	Event log reset
NX-series CPU Unit		Supported			
EtherCAT slave (S	ysmac device)	Supported			
EtherCAT EtherCAT Coupler Unit		Supported			
slave terminal	NX Unit	Supported	Supported *1	Supported	

^{*1:} A safety program may be required to reset errors for Safety Control Unit. For information on error reset in the Safety Control Unit, refer to the "NX-series Safety Control Unit User's Manual (Z930-E1-07)".

The supported devices and troubleshooter functions (NJ-series)

	1					
System configuration		Troubleshooter function				
		Error display	Error reset	Event log display	Event log reset	
CPU rack	CPU rack NJ-series CPU Unit		Supported			
	CJ Unit		Supported		Percially not supported *1	
EtherCAT slave (S)	EtherCAT slave (Sysmac device)					
EtherCAT Coupler Unit		Supported				
slave terminal	NX Unit	Supported	Supported *2	Supported		

^{*1:} The events (upper 4 digits of event the code are 0000Hex), which are error logs in the CJ-series Special Unit connected to the NJ-series CPU Unit, can not be neither displayed or deleted.

^{*2:} A safety program may be required to reset errors for Safety Control Unit. For information on error reset in the Safety Control Unit, refer to the "NX-series Safety Control Unit User's Manual (Z930-E1-07)".

4-2 Differences from the NS-series Troubleshooter

The NJ/NX troubleshooter for NA-series is designed based on the NJ/NX troubleshooter for NS-series.

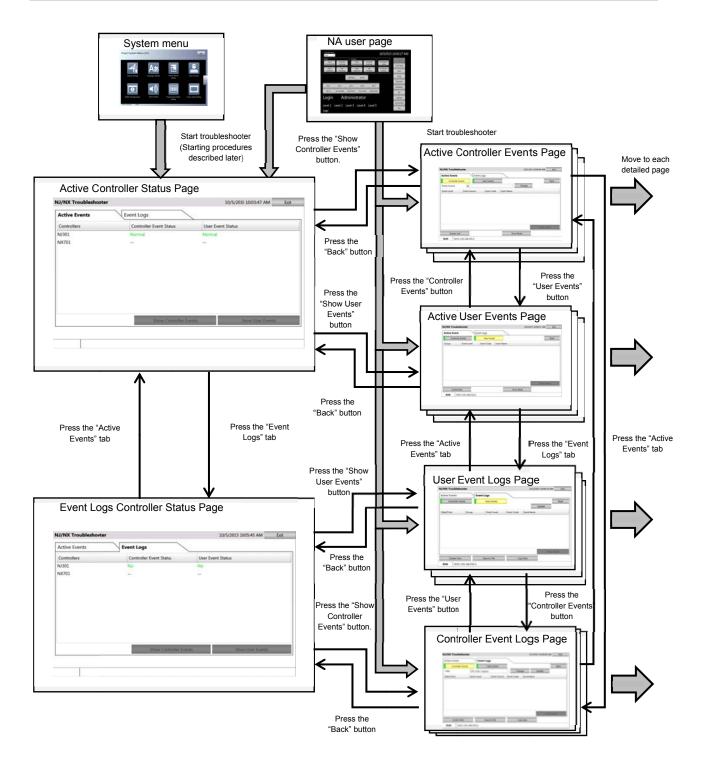
The following table shows the major differences from the NS-series NJ/NX troubleshooter.

Item	Description
Area to obtain controller errors	The scope of displaying and resetting controller errors is expanded in
	NA-series in comparison to NS-series.
	Errors in the NX Unit of the EtherCAT slave terminal can be displayed and
	reset. Event logs can be displayed and cleared.
Filtering of controller errors	The NS-series displays controller errors for each function module, while the
	NA-series can display controller errors for all function modules at a time.
Filtering of controller event logs	The NA-series filters controller event logs by "Event log source" and "Log
	Type".

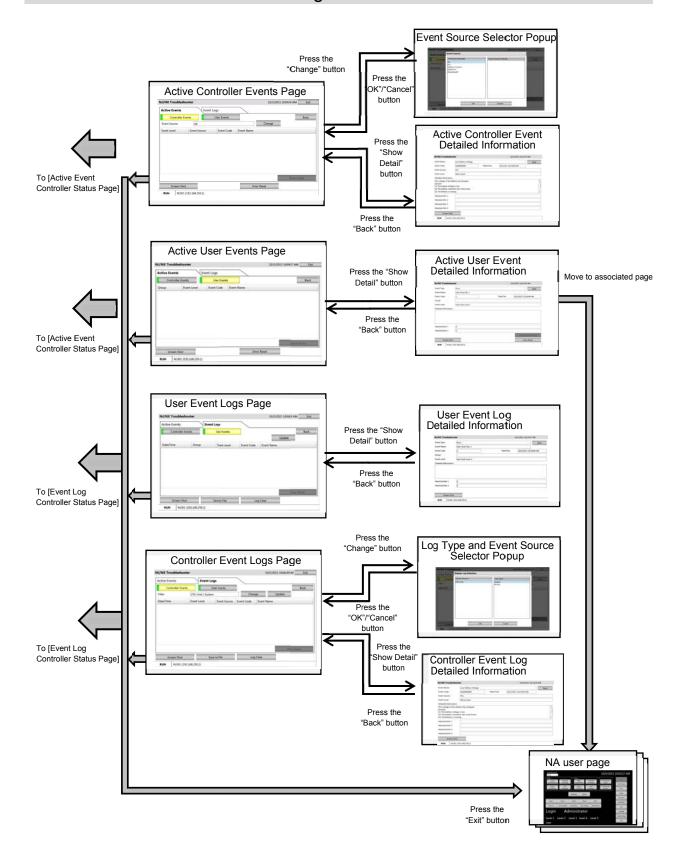
5 Each Page

This section describes each page of the NJ/NX troubleshooter.

5-1 Transition Flow of Startup Page



5-2 Transition Flow of Detailed Page

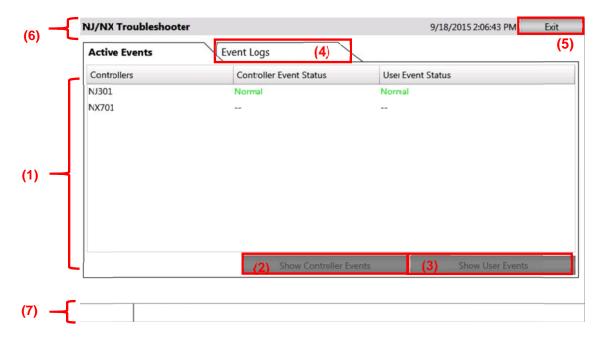


The NJ/NX troubleshooter has the following pages.

	The N3/NA troubleshooter has the following pages.				
	Page name	Description			
Acti	ve Events Controller Status Page	Shows the status of active errors of the connected controller.			
		This is the initial page when the NJ/NX troubleshooter makes a			
_		transiton.			
	Active Controller Events Page	Shows the active controller errors of the selected Controller.			
	Event Source Selector Popup	You can filter the active controller errors by event source.			
	Active Controller Event Detailed	Shows the details of the selected controller error.			
	Information				
	Active User Events Page	Shows the active user errors of the selected Controller.			
	Active User Event Detailed Information	Shows the details of the selected user error.			
Eve	nt Logs Controller Status Page	Shows if there is an event log of the connected controller.			
	Controller Event Logs Page	Shows the controller event logs of the selected Controller.			
	Log Type and Event Source Selector	You can filter the controller event logs by "event source" and "log			
	Popup	type" (system log/access log).			
	Controller Event Log Detailed	Shows the details of the selected controller event log.			
	Information				
	Jser Event Logs Page	Shows the user event log of the selected Controller.			
	User Event Log Detailed Information	Shows the details of the selected user event log.			

5-3 Active Events Controller Status Page

This page shows if there is an active event in the Controller connected to the NA. This is the initial page after the NJ/NX troubleshooter has started.

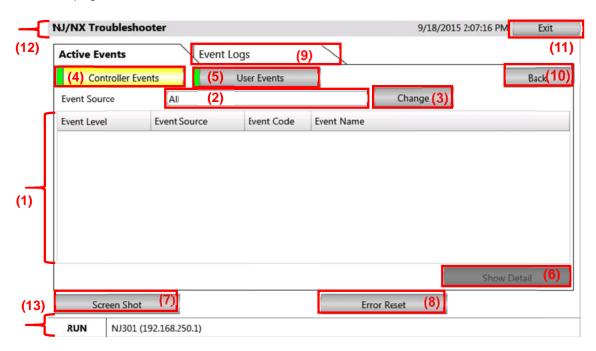


No	Name	Description
1	Status	Shows a list of Controllers set in the NA.
		The set controller names are displayed in the "Controllers" Column.
		The status of control error is displayed in the "Controller Event Status"
		Column. "Normal" is displayed in green if there is no controller error, "Error" in
		red if there is an error, "—" in black if the status cannot be read due to a
		communications error or others.
		The status of user error is displayed in the "User Event Status" Column.
		"Normal" is displayed in green if there is no user error, "Error" in red if there is
		an error, "—" in black if the status cannot be read due to a communications
		error or others.
		If you click on a Controller, the line will be selected.
		The operation mode, controller name, and IP address of the selected
		Controller are displayed in the status bar by selecting a Controller.
		If there are too many items in the list and not fit on the screen, you can scroll
		the list to view the non-displayed items. To scroll the list, drag or flick the scroll
		bar displayed on the right side of the list or the listed page.
		The polling and refreshing intervals for a controller status are 1 second or so.
2	"Show Controller	This button is enabled only when a Controller is selected in the list.
	Events" button	You can move to [Active Controller Events Page] by clicking this button.
3	"Show User Events"	This button is enabled only when a Controller is selected in the list.
	button	You can move to [Active User Events Page] by clicking this button.
4	"Event Logs" tab	You can move to [Event Logs Controller Status Page] by selecting this tab page.

5	"Exit" button	The troubleshooter exits by clicking this button, and moves to the system menu
		or to the user page of right before the troubleshooter startup.
6	Title bar	Shows the current date and time set in the NA. The display format depends on
		the current project language.
7	Status bar	Shows the operation mode of the selected Controller. RUN" appears in RUN
		mode and "PROGRAM" in PROGRAM mode.
		Shows the selected controller name and IP address.

5-4 Active Controller Events Page



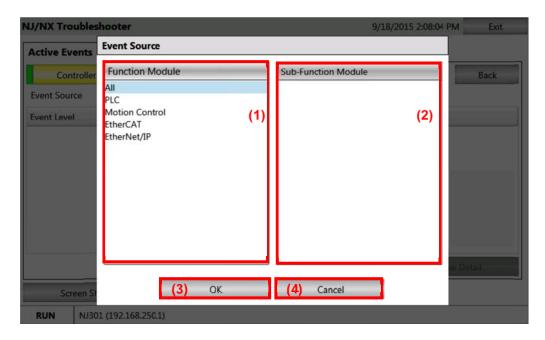


No	Name	Description
1	Event	Shows a list of active controller errors of the selected Controller.
	270111	You can filter the events by event source.
		Event level of the active controller error is displayed in the "Event Level"
		Column.
		Event source of the active controller error is displayed in the "Event Source"
		Column.
		Event code of the active controller error is displayed in the "Event Code"
		Column.
		Event name of the active controller error is displayed in the "Event Name"
		Column.
		If you click on an event, the line will be selected.
		• If there are too many items in the list and not fit on the screen, you can scroll
		the list to view the non-displayed items. To scroll the list, drag or flick the scroll
		bar displayed on the right side of the list or the listed page.
		The polling and refreshing intervals for the list are 10 seconds or so.
2	Event Source	Shows the event source used for filtering.
		The setting in [Event Source Selector Popup] is reflected here.
3	"Change" button	Shows [Event Source Selector Popup] by clicking this button and filters the
		listed controller errors by event source.
4	"Controller Events"	The button is highlighted in yellow to notify the user that the displayed errors
	button/indcator	are controller events.
		The indicator to the left side of the button is lit in red if there is an active
		controller event, and lit in green if there is no controller event.

		The polling and refreshing intervals for the indicator are 1 second or so.
5	"User Events"	You can move to [Active User Events Page] by clicking this button.
	button/indcator	The indicator to the left side of the button is lit in red if there is an active user
		event, and lit in green if there is no user event.
		The polling and refreshing intervals for the indicator are 1 second or so.
6	"Show Detail" button	This button is enabled only when a controller event is selected in the list.
		You can move to [Active Controller Event Detailed Information] by clicking this
		button.
7	"Screen Shot" button	The displayed screen is captured by clicking this button and stored in the set
		device in PNG format.
		Access level can be set to this button. This button is enabled only when the
		set access level matches with the user's access level.
		A confirmation dialog box is displayed before and after saving the screen.
8	"Error Reset" button	All of the listed controller events are reset by clicking this button. If the cause
		of error still persists, the error will be detected again.
		Access level can be set to this button. This button is enabled only when the
		set access level matches with the user's access level.
		A confirmation dialog box is displayed before and after resetting the event.
9	"Event Logs" tab	You can move to [Controller Event Logs Page] by selecting this tab page.
10	"Back" button	You can move to [Active Events Controller Status Page] by clicking this button.
11	"Exit" button	The troubleshooter exits by clicking this button, and moves to the system menu
		or to the user page of right before the troubleshooter startup.
12	Title bar	Shows the current date and time set in the NA. The display format depends on
		the current project language.
13	Status bar	Shows the operation mode of the selected Controller. RUN" appears in RUN
		mode and "PROGRAM" in PROGRAM mode.
		Shows the selected controller name and IP address.

5-4-1 Event Source Selector Popup

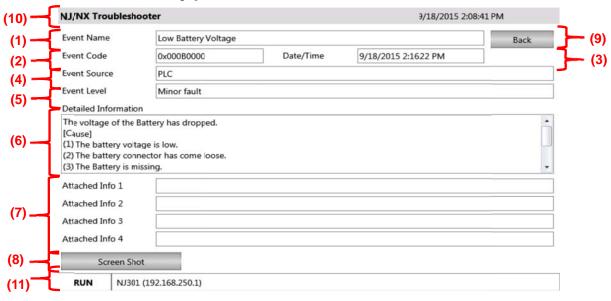
This page is used to filter the active controller events by event source.



No	Name	Description
1	Function Module	Shows a list of the function modules that can be used in the selected
		Controller.
		If you click on a function module, the item will be selected.
		The listed sub function module is updated by selecting a function module.
2	Sub-Function Module	Shows the detailed event source (sub function module) in the list when a
		controller error is occurring in the selected function module.
		If you click on a sub function module, the item will be selected.
		If there are too many items in the list and not fit on the screen, you can scroll
		the list to view the non-displayed items. To scroll the list, drag or flick the scroll
		bar displayed on the right side of the list or the listed page.
		Shows only the sub function modules detecting an error.
		When the list is on display, the listed items are not automatically updated. To
		update the items, select different function module.
3	"OK" button	Closes the pop-up, and filters [Active Controller Events Page] by the item you
		selected.
4	"Cancel" button	Closes the pop-up without filtering.

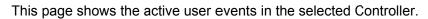
5 - 4 - 2 Active Controller Event Detailed Information

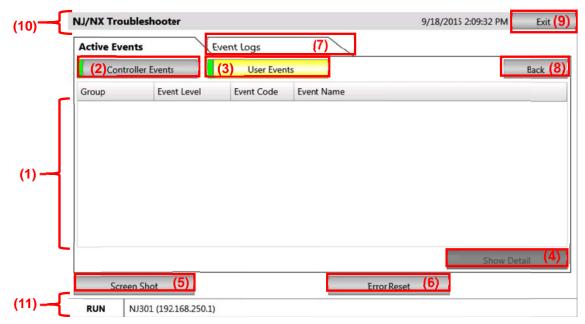
This page shows the details of the active controller event that you selected in [Active Controller Events Page].



No	Name	Description
1	Event Name	Shows a name of the selected controller event.
		This item is written in the NA system language.
2	Event Code	Shows an event code of the selected controller event.
3	Date/Time	Shows the occured date/time of the selected controller event.
		Date/Time is written in the current project language.
4	Event Source	Shows an event source of the selected controller event.
		This item is written in the NA system language.
		Shows "event source - details" if any detailed event source exists.
5	Event Level	Shows an event level of the selected controller event.
		This item is written in the NA system language.
6	Detailed Information	Shows the detailed information of the selected controller event.
		This item is written in the NA system language.
7	Attached Info 1 to 4	Shows the attached information of the selected controller event.
8	"Screen Shot" button	The displayed screen is captured by clicking this button and stored in the set
		device in PNG format.
		Access level can be set to this button. This button is enabled only when the
		set access level matches with the user's access level.
		A confirmation dialog box is displayed before and after saving the screen.
9	"Back" button	You can move to [Active Controller Events Page] by clicking this button.
10	Title bar	Shows the current date and time set in the NA. The display format depends on
		the current project language.
11	Status bar	Shows the operation mode of the selected Controller. RUN" appears in RUN
		mode and "PROGRAM" in PROGRAM mode.
		Shows the selected controller name and IP address.

5-5 Active User Events Page



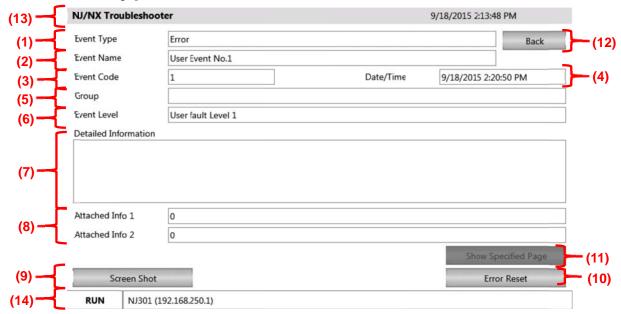


No	Name	Description
1	Event	Shows a list of active user errors of the selected Controller.
		Group names of active user events are displayed in the "Group" Column.
		Event level of active user events is displayed in the "Event Level" Column.
		• Event codes of active user events are displayed in the "Event Code" Column.
		• Event names of active user events are displayed in the "Event Name" Column.
		If you click on an event, the line will be selected.
		• If there are too many items in the list and not fit on the screen, you can scroll the
		list to view the non-displayed items.To scroll the list, drag or flick the scroll bar
		displayed on the right side of the list or the listed page.
		The polling and refreshing intervals for the list are 10 seconds or so.
2	"Controller Events"	You can move to [Active Controller Events Page] by clicking this button.
	button/indcator	The indicator to the left side of the indicator is lit in red if there is a controller
		event, and lit in green if there is no controller event.
		The polling and refreshing intervals for the indicator are 1 second or so.
3	"User Events"	• The button is highlighted in yellow to notify the user that the displayed errors
	button/indcator	are user events.
		The indicator to the left side of the indicator is lit in red if there is a user event,
		and lit in green if there is no user event.
		The polling and refreshing intervals for the indicator are 1 second or so.
4	"Show Detail" button	The button is enabled only when a user error is selected from the list.
		You can move to [Active User Event Detailed Information] by clicking this
		button.
5	"Screen Shot" button	The displayed screen is captured by clicking this button and stored in the set
		device in PNG format.

		Access level can be set to this button. This button is enabled only when the set access level matches with the user's access level.
		A confirmation dialog box is displayed before and after saving the screen.
6	"Error Reset" button	The entire listed user events are reset by clicking this button.In case the error
		cause still persists, the error will be detected again.
		Access level can be set to this button. This button is enabled only when the set
		access level matches with the user's access level.
		A confirmation dialog box is displayed before and after resetting the event.
7	"Event Logs" tab	You can move to [User Event Logs Page] by selecting this tab page.
8	"Back" button	You can move to [Active Events Controller Status Page] by clicking this button.
9	"Exit" button	The troubleshooter exits by clicking this button, and moves to the system menu or
		to the user page of right before the troubleshooter startup.
10	Title bar	Shows the current date and time set in the NA. The display format depends on the
		current project language.
11	Status bar	Shows the operation mode of the selected Controller. RUN" appears in RUN
		mode and "PROGRAM" in PROGRAM mode.
		Shows the selected controller name and IP address.

5 - 5 - 1 Active User Event Detailed Information

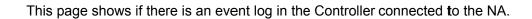
This page shows the details of the active user events that you selected in [Active User Events Page].

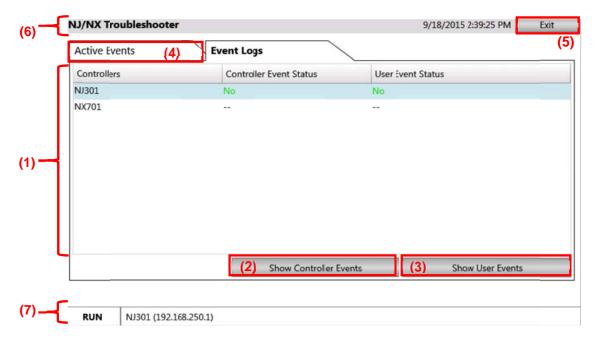


No	Name	Description
1	Event Type	Shows a type of the selected user event (error/information).
		This item is written in the NA system language.
2	Event Name	Shows a name of the selected user event.
		Shows the item set in the user event language (Language1 to 9) mapped to
		the NA project language.
3	Event Code	Shows an event code of the selected user event.
4	Date/Time	Shows the occured date/time of the selected user event.
		Date/Time is written in the current project language.
5	Group	Shows a group name of the selected user event.
		Shows the item set in the user event language (Language1 to 9) mapped to
		the NA project language.
6	Event Level	Shows an event level of the selected user event.
		Shows the item set in the user event language (Language1 to 9) mapped to
		the NA project language.
7	Detailed Information	Shows the detailed information of the selected user event.
		Shows the item set in the user event language (Language1 to 9) mapped to
		the NA project language.
8	Attached Info 1 to 2	Shows the attached information of the selected user event.
9	"Screen Shot" button	The displayed screen is captured by clicking this button and stored in the set
		device in PNG format.
		Access level can be set to this button. This button is enabled only when the
		set access level matches with the user's access level.
		A confirmation dialog box is displayed before and after saving the screen.

10	"Error Reset" button	Access level can be set to this button. This button is enabled only when the
		set access level matches with the user's access level.
		The selected user events are reset by clicking this button.
		A confirmation dialog box is displayed before and after resetting the event.
11	"Show Specified Page"	Moves to the user page associated with the selected user event by clicking this
	button	button.The Sysmac Studio is used to associate with the user pages.
12	"Back" button	You can move to [Active User Events Page] by clicking this button.
13	Title bar	Shows the current date and time set in the NA. The display format depends on
		the current project language.
14	Status bar	Shows the operation mode of the selected Controller. RUN" appears in RUN
		mode and "PROGRAM" in PROGRAM mode.
		Shows the selected controller name and IP address.

5-6 Event Logs Controller Status Page

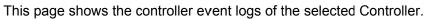


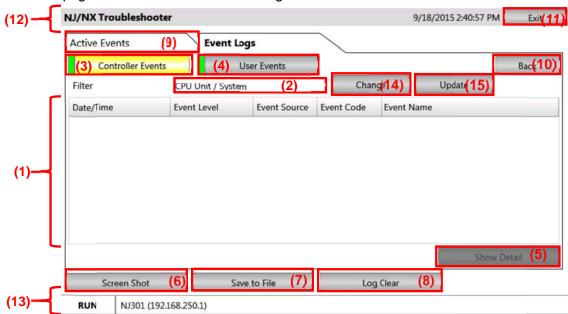


No	Name	Description
1	Status	Shows a list of Controllers set in the NA.
	Ciatao	The set controller names are displayed in the "Controllers" Column.
		The presence of controller event logs is displayed in the "Controller Event
		Status" Column. "No" is displayed in green if no controller event log exists,
		"Yes" in red if a log exists, "—" in black if the status cannot be read due to a
		communications error or others.
		The presence of user event log is displayed in the "User Event Status"
		Column.
		"No" is displayed in green if no user event log exists, "Yes" in red if a log
		exists, "—" in black if the status cannot be read due to a communications
		error or others.
		If you click on a Controller, the line will be selected.
		The operation mode, controller name, and IP address of the selected
		Controller are displayed in the status bar by selecting a Controller.
		• If there are too many items in the list and not fit on the screen, you can scroll
		the list to view the non-displayed items. To scroll the list, drag or flick the scroll
		bar displayed on the right side of the list or the listed page.
		The polling and refreshing intervals for a controller status are 1 second or so.
2	"Show Controller	• This button is enabled only when a Controller is selected from the list.
	Events" button	You can move to [Controller Event Logs Page] by clicking this button.
3	"Show User Events"	• This button is enabled only when a Controller is selected from the list.
	button	You can move to [User Event Logs Page] by clicking this button.
4	"Active Events" tab	You can move to [Active Events Controller Status Page] by selecting this tab

		page.
5	"Exit" button	The troubleshooter exits by clicking this button, and moves to the system menu or to the user page of right before the troubleshooter startup.
6	Title bar	Shows the current date and time set in the NA. The display format depends on the current project language.
7	Status bar	Shows the operation mode of the selected Controller. RUN" appears in RUN mode and "PROGRAM" in PROGRAM mode. Shows the selected controller name and IP address.

5-7 Controller Event Logs Page



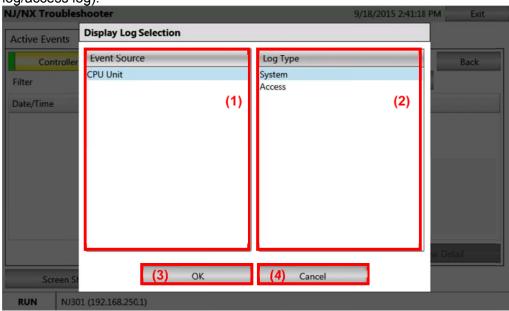


No	Name	Description
1	Event Log	Shows a list of controller event logs of the selected Controller.
		Filter the event logs by "event source" and "log type".
		Shows the occured date/time of the event is displayed in the "Date/Time"
		Column.
		Information in the "Event Level", "Event Source", "Event Code", and "Event
		Name" Columns is the same as that in [Active Controller Events Page].
		If you click on a controller event log, the item will be selected.
		If there are too many items in the list and not fit on the screen, you can scroll
		the list to view the non-displayed items. To scroll the list, drag or flick the scroll
		bar displayed on the right side of the list or the listed page.
2	Log Type	Shows the displayed event sorce and log type.
3	"Controller Events"	This button is highlighted in yellow to notify the user that the displayed error is
	button/indcator	the controller event log.
		The indicator to the light side of the button is lit in red if there is a controller
		event log, and lit in green if there is no controller event log.
		The polling and refreshing intervals for the indicator are 1 second or so.
4	"User Events"	You can move to [User Event Logs Page] by clicking this button.
	button/indcator	The indicator to the light side of the button is lit in red if there is a user event
		log, and lit in green if there is no user event log.
		The polling and refreshing intervals for the indicator are 1 second or so.
5	"Show Detail" button	This button is enabled only when a controller event log is selected from the
		list.
		You can move to [Controller Event Log Detailed Information] by clicking this
		button.

		T T
6	"Screen Shot" button	The displayed screen is captured by clicking this button and stored in the set device in PNG format.
		Access level can be set to this button. This button is enabled only when the
		set access level matches with the user's access level.
		A confirmation dialog box is displayed before and after saving the screen.
7	"Save to File" button	Saves the listed controller event logs to the specified location in a CSV file by
		clicking this button.
		Access level can be set to this button. This button is enabled only when the
		set access level matches with the user's access level.
		A confirmation dialog box is displayed before and after saving the screen.
8	"Log Clear" button	The entire listed controller event log is cleared by clicking this button.
		Access level can be set to this button. This button is enabled only when the
		set access level matches with the user's access level.
		Shows a confirmation dialog box before and after clearing the logs.
9	"Active Events" tab	You can move to [Active Controller Events Page] by selecting this tab page.
10	"Back" button	You can move to [Event Logs Controller Status Page] by clicking this button.
11	"Exit" button	The troubleshooter exits by clicking this button, and moves to the system menu
		or to the user page of right before the troubleshooter startup.
12	Title bar	Shows the current date and time set in the NA. The display format depends on
		the current project language.
13	Status bar	Shows the operation mode of the selected Controller. RUN" appears in RUN
		mode and "PROGRAM" in PROGRAM mode.
		Shows the selected controller name and IP address.
14	"Change" button	Shows [Log Type and Event Source Selector Popup] by pressing this button.
		Filters the listed controller event logs by "event source" and "log type".
15	"Update" button	You can update the contents of the list by clicking this button.

5 - 7 - 1 Log Type and Event Source Selector Popup

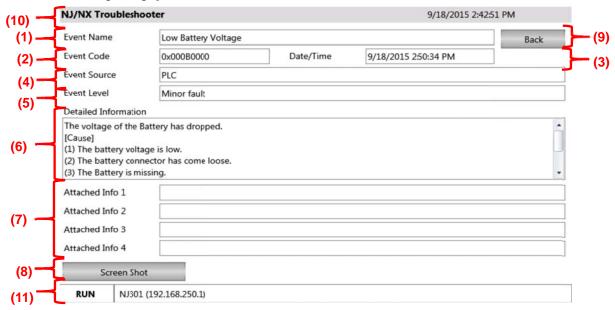
This page is used to filter the controller event logs by "event source" and "log type" (system log/access log).



No	Name	Description
1	Event Source	Shows a list of the selected Controller (CPU Unit) and EtherCAT slaves that
		are communicated to the Controller.
		If you click on an event source, the line will be selected.
		If there are too many items in the list and not fit on the screen, you can scroll
		the list to view the non-displayed items.To scroll the list, drag or flick the scroll
		bar displayed on the right side of the list or the listed page.
		A log type (system or access) for event source is displayed in the "Log Type"
		List by selecting an event source.
2	Log Type	Shows a log type (system or access).
		If you click on a log type, the line will be selected.
3	"OK" button	Closes the pop-up, and filters [Controller Event Logs Page] by the item you
		selected.
4	"Cancel" button	Closes the pop-up without filtering.

5 - 7 - 2 Controller Event Log Detailed Information

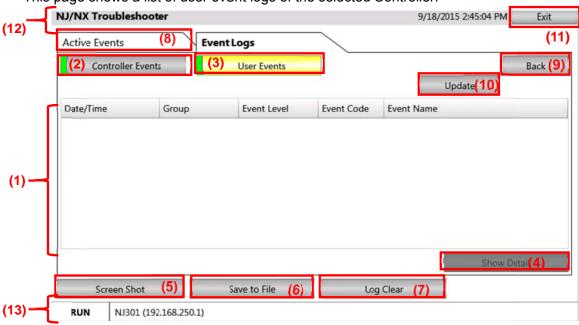
This page is used to show the details of the controller event logs selected in [Controller Event Logs Page].



No	Name	Description
1	Event Name	Shows an event name of the selected controller event log.
		This item is written in the NA system language.
2	Event Code	Shows an event code of the selected controller event log.
3	Date/Time	Shows the occured date/time of the selected controller event log.
		Date/Time is written in the current project language.
4	Event Source	Shows an event source of the selected controller event log.
		This item is written in the NA system language.
		Shows"event source - details" if any detailed event source exists.
5	Event Level	Shows an event level of the selected controller event log.
		This item is written in the NA system language.
6	Detailed Information	Shows the detailed information of the selected controller event log.
		This item is written in the NA system language.
7	Attached Info 1 to 4	Shows the attached information of the selected controller event log.
8	"Screen Shot" button	The displayed screen is captured by clicking this button and stored in the set
		device in PNG format.
		Access level can be set to this button. This button is enabled only when the
		set access level matches with the user's access level.
		A confirmation dialog box is displayed before and after saving the screen.
9	"Back" button	You can move to [Active Controller Events Page] by clicking this button.
10	Title bar	Shows the current date and time set in the NA. The display format depends on
		the current project language.
11	Status bar	Shows the operation mode of the selected Controller. RUN" appears in RUN
		mode and "PROGRAM" in PROGRAM mode.
		Shows the selected controller name and IP address.

5-8 User Event Logs Page



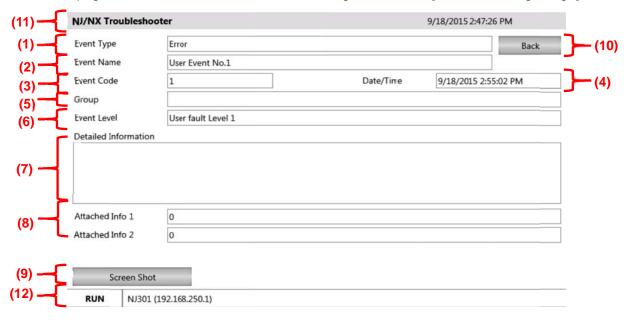


No	Name	Description
1	Event Log	Shows a list of user event logs of the selected Controller.
		Shows the occured date/time of the event is displayed in the "Date/Time"
		Column.
		Information in the "Group", "Event Level", "Event Code", and "Event Name"
		Columns is the same as in [Active User Events Page].
		If you click on a user event log, the line will be selected.
		If there are too many items in the list and not fit on the screen, you can scroll
		the list to view the non-displayed items. To scroll the list, drag or flick the scroll
		bar displayed on the right side of the list or the listed page.
2	"Controller Events"	You can move to [Controller Event Logs Page] by clicking this button.
	button/indcator	The indicator to the left side of the button is lit in red if there is a controller
		event log, and lit in green if there is no controller event log.
		The polling and refreshing intervals for the indicator are 1 second or so.
3	"User Events"	The button is highlighted in yellow to notify the user that the displayed error is
	button/indcator	the user event log.
		The indicator to the left side of the button is lit in red if there is a user event
		log, and lit in green if there is no user event log.
		The polling and refreshing intervals for the indicator are 1 second or so.
4	"Show Detail" button	This button is enabled only when a user event log is selected from the list.
		You can move to [User Event Log Detailed Information] by clicking this
		button.
5	"Screen Shot" button	The displayed screen is captured by clicking this button and stored in the set
		device in PNG format.
		Access level can be set to this button. This button is enabled only when the

		set access level matches with the user's access level.
		A confirmation dialog box is displayed before and after saving the screen.
6	"Save to File" button	Saves the listed controller user logs to the specified location in a CSV file by
		clicking this button.
		Access level can be set to this button. This button is enabled only when the
		set access level matches with the user's access level.
		A confirmation dialog box is displayed before and after saving the log.
7	"Log Clear" button	The entire listed user events are reset by clicking this button.
		Access level can be set to this button. This button is enabled only when the
		set access level matches with the user's access level.
		A confirmation dialog box is displayed before and after clearing the log.
8	"Active Events" tab	You can move to [User Event Logs Page] by selecting this tab page.
9	"Back" button	You can move to [Active Events Controller Status Page] by clicking this button.
10	"Update" button	You can update the contents of the list by clicking this button.
11	"Exit" button	The troubleshooter exits by clicking this button, and moves to the system menu
		or to the user page of right before the troubleshooter startup.
12	Title bar	Shows the current date and time set in the NA. The display format depends on
		the current project language.
13	Status bar	Shows the operation mode of the selected Controller. RUN" appears in RUN
		mode and "PROGRAM" in PROGRAM mode.
		Shows the selected controller name and IP address.

5-8-1 User Event Log Detailed Information





No	Name	Description
1	Event Type	Shows a type of the selected user event log (error/information).
		This item is written in the NA system language.
2	Event Name	Shows an event name of the selected user event log.
		Shows the item set in the user event language (Language1 to 9) mapped to
		the NA project language.
3	Event Code	Show an event code of the selected user event log.
4	Date/Time	Shows the occured date/time of the selected user event log.
		Date/Time is written in the current project language.
5	Group	Shows a group name of the selected user event log.
		Shows the item set in the user event language (Language1 to 9) mapped to
		the NA project language.
6	Event Level	Shows an event level of the selected user event log.
		Shows the item set in the user event language (Language1 to 9) mapped to
		the NA project language.
7	Detailed Information	Show the detailed information of the selected user event log.
		Shows the item set in the user event language (Language1 to 9) mapped to
		the NA project language.
8	Attached Info 1 to 2	Shows the attached information of the selected user event log.
9	"Screen Shot" button	The displayed screen is captured by clicking this button and stored in the set
		device in PNG format.
		Access level can be set to this button. This button is enabled only when the
		set access level matches with the user's access level.
		A confirmation dialog box is displayed before and after saving the screen.
10	"Back" button	You can move to [User Event Logs Page] by clicking this button.

11	Title bar	Shows the current date and time set in the NA. The display format depends on	
		the current project language.	
12	Status bar	Shows the operation mode of the selected Controller. RUN" appears in RUN	
		mode and "PROGRAM" in PROGRAM mode.	
		Shows the selected controller name and IP address.	

6 NJ/NX Troubleshooter Function

This section describes the function of the NJ/NX troubleshooter.

- How to start the NJ/NX troubleshooter
- Support language
- Security settings
- Screen capture
- Exporting event logs

6-1 How to Start the NJ/NX Troubleshooter

Use one of the following four procedures to start the NJ/NX troubleshooter.

Staring from the System Menu

Select the "NJ/NX Troubleshooter" icon on the "Project System Menu" page.

[Active Events Controller Status Page] appears.



Starting from Actions

Press "ShowTroubleshooter" under Actions in "Events and Actions".

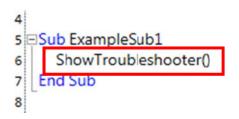
You can specify a page to display.



Srating with function.

Use"ShowTroubleshooter" function within the Visual Basic code and exrcute the subroutine.

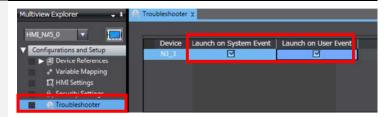
You can specify a page to display.



Auto-starting triggered by error

When the "Launch on System Event" checkbox / "Launch on User Event" checkbox are selected on the "Troubleshooter" tab page;

If a user error occurs, [Active User Event Page] appears.
If a controller error occurs, [Active Controller Events Page] appears.



6-2 Support Language

This section describes the languages supported by the NJ/NX troubleshooter.

System resource

The system resource of the NJ/NX troubleshooter supports the following nine languages that are the NA system languages.



If you change a NA system language, the language on the button or label of the NJ/NX troubleshooter will change according to the language that you selected.

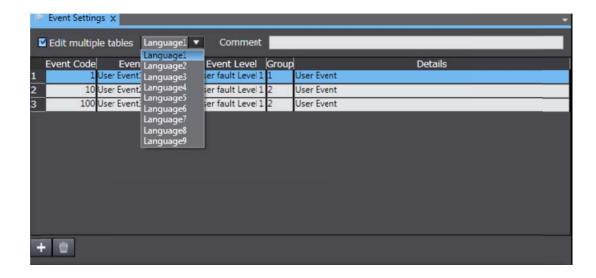
Controller error/Controller event log

Japanese and English are supported.

The errors and logs are displayed in Japanese when the NA system language is set to Japanese, otherwise, displayed in English.

· User error/User event log

You can set up to 9 languages (9 patterns) to the same event code by selecting [Multiview Explorer]->[Configurations and Setup]->[Event Settings] on the NJ/NX project.

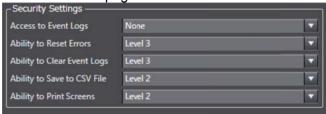


You associate the user event language with NA project language by selecting [Multiview Explorer]->[Configurations and Setup]->[Troubleshooter] on the NA project (procedure is described later).

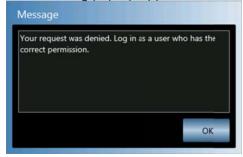


6-3 Security Settings

You can set an authority for each access level to execute specific operations on the "NJ/NX Troubleshooter" page.



The following pop-up appears when attempting to execute an unauthorized function.



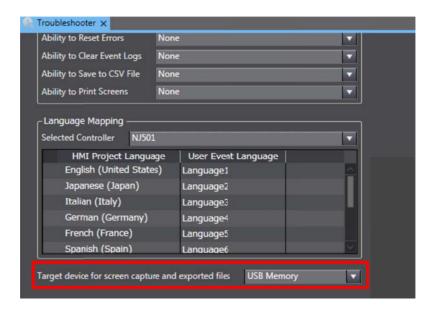
6-4 Screen Capture

You can capture the displayed screen by pressing the "Screen Shot" button on the "NJ/NX Troubleshooter" page.

- Active Controller Events Page
- Active Controller Event Detailed Information
- Active User Events Page
- Active User Event Detailed Information
- Controller Event Logs Page
- Controller Event Log Detailed Information
- User Event Logs Page
- User Event Log Detailed Information

The following shows [Active Controller Events Page]. NJ/NX Troubleshooter 9/18/2015 2:07:16 PM **Active Events** Event Logs Controller Events User Events Back **Event Source** Change Event Level Event Source Event Code Event Name Screen Shot Error Reset NJ301 (192.168.250.1)

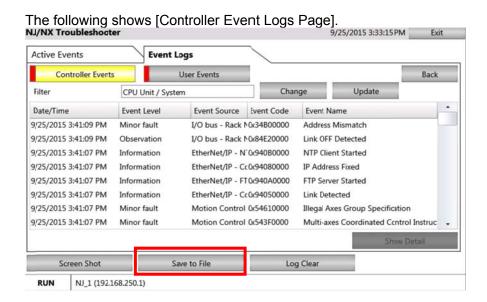
You need to pre-set the target device to save the screen capture (SD card or USB memory) by selecting [Multiview Explorer]->[Configurations and Setup]->[Troubleshooter] on the NA project.



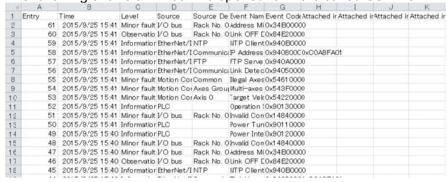
6-5 Exporting Event Logs

You can export the displayed event logs in CSV file by pressing the "Save to File" button on the "NJ/NX Troubleshooter" page.

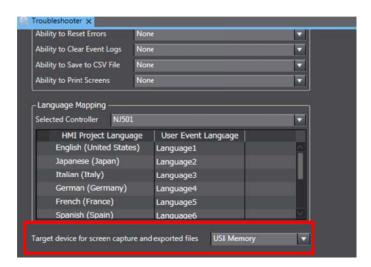
- Controller Event Logs Page
- User Event Logs Page



The following shows an Excel fille opened form the saved CSV file.



You need to pre-set the target device to save the screen capture (SD card or USB memory) by selecting [Multiview Explorer]->[Configurations and Setup]->[Troubleshooter] on the NA project.



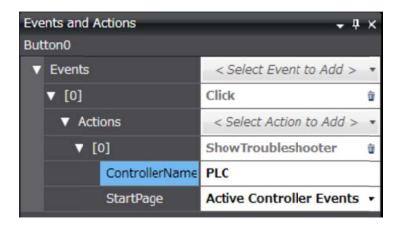
7 Related Actions and Functions

This section describes actions and functions related to the NJ/NX troubleshooter.

7-1 Events and Actions

You can start the NJ/NX troubleshooter with the "ShowTroubleshooter" action in "Events and Actions". You can set the target Controller in "ControllerName", and set a page to display in "StartPage".

The following shows a setting example when you want to display [Active Controller Events Page] of "PLC (controller name)" at startup of the NJ/NX troubleshooter.



- Directly input a text string in "ControllerName".
- Select a drop-down menu for "StartPage".
- A drop-down menu of "StartPage" can be selected after setting "ControllerName".
- If you don't set "ControllerName", "Active Controller Status Page" is displayed at startup.

7-2 Functions

The following functions are provided as a Visual Basic function specifically for the NA. You can start the NJ/NX troubleshooter by specifying a page.

Function name Parameter		Supported data ype	Description
ShowTroubleshooter 1. Controller name		1. String	Start the NJ/NX troubleshooter.
(ControllerName,		1. String Variable	You can set a page at startup with
PageName)	2. Page name	2eHMI_TROUBLESHOOTER_PAGE	parameter. If you don' set a
			parameter, [Active Event Controller
			Status Page] is displayed.

Example

8 Data Type

The following enumerated data types are provided as the system-defined data type for the NJ/NX troubleshooter.

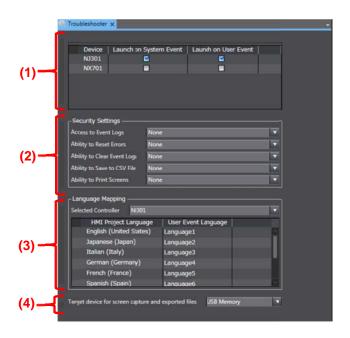
Data type name	Enumerated data type	Description
_eHMI_TROUBLESHOOTER_PAGE	ActiveControllerEvents = 0	A data type that lists page names in the
	ActiveUserEvents = 1	NJ/NX troubleshooter.
	ControllerEventLogs = 2	
	UserEventLogs = 3	

9 Sysmac Studio Setup

This section describes settings of the NJ/NX troubleshooter with the Sysmac Studio.

9-1 Multiview Explorer - Troubleshooter

You can make the following settings of the troubleshooter by selecting [Multiview Explorer]->[Configurations and Setup]->[Troubleshooter].

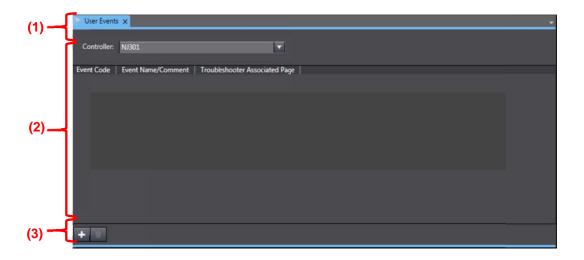


No	Name	Description	
1	Automatic Launch	You can set to automatically launch the NJ/NX troubleshooter when a	
		controller error/user error occurs.	
		You can set the automatic launch upon "Launch on system event"/ "Launch	
		on user event".	
		• If the selected error occurs while the NA user page is displayed, the NJ/NX	
		troubleshooter automatically starts, moving to a screen where the	
		cossresponding error is displayed.	
		The detected error will not be detected again unless the cancellation is	
		detected or the NA is re-started.	
2	Security Settings	You can set an authority for each access level to execute specific	
		operations on the "NJ/NX Troubleshooter" page.	
		"Access to Event Logs" can restrict the transition to [Controller Event Logs	
		Page] and [User Event Logs Page].	
		"Ability to Reset Errors" can restrict the reset of active controller errors/user	
		errors.	
		"Ability to Clear Event Logs" can restrict the clear of controller event	
		logs/user event logs.	

		"Ability to Save to CSV file" can restrict the CSV output for controller event log and user event log. "Ability to Print Screens" can restrict the screen capture on the "NJ/NX Troubleshooter" page.	
		Troubleshooter page.	
3	Language Mapping	You can assign a NA project language to a user event language	
		(Language1 to 9) set in the Controller.	
4	Target device for screen	You can set a target device to save the screen capture and output of CSV	
	capture and exported	file that are performed by the NJ/NX troubleshooter.	
	files	The saved location can be selected from "SD card" or "USB memory".	

9-2 Multiview Explorer - Controller Event

You can associate the user error with NA user page by selecting [Multiview Explorer]->[HMI]->[Controller Events].



No	Name	Description	
1	Controller Setting	You can select a Controller to set.	
		The internal device and external device (NJ/NX) are displayed in the	
		drop-down menu.	
2	List view	You can associate the user page for each event code.	
		You enter the event code that is defined in the Event Settings on the NJ/NX	
		project of the Controller in the "Event Code" Column.	
		If an internal device is selected in the controller setting, you cannot make an	
		entry because an error name of the corresponding event code is displayed in	
		the "Event Name/Comment" Column.	
		If an external device is selected in the controller setting, you can make an	
		entry as desired in the "Event Name/Comment" Column.	
		You enter the NA user page to associate in the "Troubleshooter Associated"	
		Page" Column. You can move to the associated page from the detailed	
		screen of corresponding event of the NJ/NX troubleshooter.	
3	"Add/delete" button	You can add/ delete settings.	

1 0 How to Pre-set the Troubleshooter

This section describes five settings that you need to make before using the troubleshooter.

- How set user errors/user information
- How to set the pages associated with user errors
- How to set the user error notifucation of major fault
- How to set the automatic launch of the troubleshooter
- How to set the Language mapping

10-1 How to Set User Errors/User Information

To generate any error/information by the user, each user error/user information to display in the NJ/NX troubleshooter needs to be set with the Sysmac Studio.

Perform the following procedure about "how to set user errors/user information" and "how to create a program to generate user error/user information".

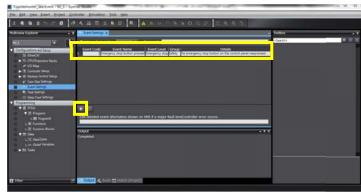
 Click [Multiview Explorer]->[Configurations and Setup]->[Event Settings] on the NJ/NX project, and double-click (or right-click-> Edit) to open the "Event Settings" table.



2. Click the button in the lower left of the "Event Settings" table.

Now you can set the "Event Code/Event Name/Event Level/Group/Details" Columns.

- ·Event Code: 1
- · Event Name: Emergency stop button pressed.
- ·Event Level: Emergency stop
- · Group: Safety
- Detailed Information: The emergency stop button on the control panel was pressed.



 If creating an Excel file as shown on the right, you can register the information in the "Event Settings" Tab Page by directly copying and pasting data from the Excel file.

Note) Do not include the heading when copying. (e.g. Event Code/Event Name)

Event code	Event name	Event level	Group	Detailed information
1	Energency stop button pressed	Emergency stop	Safety	The emergency stop button on the control panel was pressed. Confirm the safety and check the status. Find the cause and remove it brider releasing the emergency stop button.
2	External emergency stop button pressed	Emergency stop	Safety	The externally located emergency stop button was pressed. Confirm the safety and check the status. Find the cause and remove it before releasing the external emergency stop button.
3	Operator presence detected in N field	Emergency stop	Safety	The presence of operator was detected in the N field. Confirm the safety and check the status in the N field. Find the cause and remove it to recover from the error.
4	Air pipe air pressure error	Emergency stop	Equipment	Air pressure in the air pipe islowering. Confirm the safety and check the compressor and air pipe.
5001	Communications error between control panels	Stop	Control parel	Communications between control panels stopped. Find the cause and remove it to recover from the error.
5002	Magnetic lock inside the machine door unlocked	Stop	Safety	The magnetic lock inside the michine door is unlocked. Confirm the safety before locking the magnetic lock.
5003	Paletizing robot stop	Stop	Equipment	The palletizing robot stopped. Confirm the safety and check the palletizing robot and laser scanner.
5004	Air particle upper limit alarm	Stop	Air conditioning	Particle in air exceeds the upper limit. Check the particle counter and Air Clean Unit before operating the Air Clean Unit.
40001	Access authority changed to level 5	Log	Security	Accesses right moved to level 5. User ID is recorded in the attached information 1.
40002	Changed to maintenance mode	Loe	Security	It is changed to maintenance mide. User ID is recorded in the attached information 1.
40003	PLC ladder program replaced	Log	Control pavel	PLC ladder program in the control panel was changed. User ID is recorded in the attacked information 1.
40004	PLC parameter area changed	Log	Control pavel	PLC parameter in the control pinel was changed. User ID is recorded in the attached information 1.

4. Copy data from the Excel and paste it to the "Event Settings" table.



5. You can generate the created event by using "SetAlarm" or "SetInfo".

Use"SetAlarm" to generate a "user events", and use"SetInfo" to generate a "user information".

Input

Code: Event Code (UINT)
Info1: Attached information 1
(Data type other than STRING)
Info2: Attached information 2
(Data type other than STRING)

*The valid code range is 1 to 40000 for SetAlarm, and 40001 to 60000 for SetInfo.

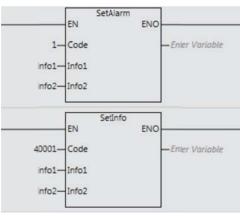
Output

Return value: Always TRUE

Written with ST

SetAlarm(1, info1, info2);
Code Info1 Info2
SetInfo(40001, info1, info2);
Code Info1 Info2

Written with Ladder





Additional Information

The event level of user error/user information is determined by the event code you set. The following table shows the correspondence between event code and event level.

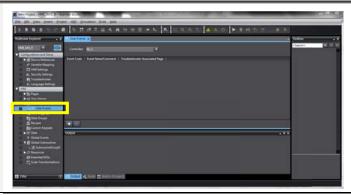
Event type	Event level	Classification of	Range of	Description
		event level	corresponding	
			event code	
User error	High	User fault Level 1	1 to 5000	Select from 8 levels.
	•	User fault Level 2	5001 to 10000	
		User fault Level 3	10001 to 15000	
		User fault Level 4	15001 to 20000	
		User fault Level 5	20001 to 25000	
		User fault Level 6	25001 to 30000	
	. ↓	User fault Level 7	30001 to 35000	
	Low	User fault Level 8	35001 to 40000	
User	Lowest	User Information	40001 to 60000	Event level whose event type
information				is classified in "user
				information".

10-2 How to Set the Pages Associated with User Errors

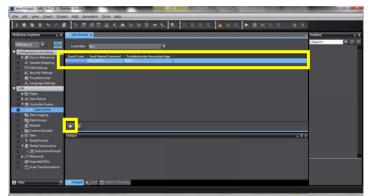
From the detailed user event page, you can move to the associated NA user page that you pre-set in the NJ/NX troubleshooter.

Perform the following procedure to associate a page with a user error.

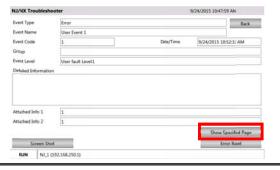
 Select [Multiview Explorer]->[HMI]->[Controller Events]->[User Events] on the NA project, and double-click (or right-click-> Edit) to open the "User Events" table.



- Click the button in the lower left of the "User Events" table.
 Now you can set the "Event Code/Event Name/Comment/Troubleshooter Associated Page" Columns.
 - ·Event Code: 1
 - · Event Name/Comment: User Event 1 (Error name set in Controller)
 - ·Troubleshooter Associated Page: Page0



3. After transferring the NA project, if the user event set in step 2 occurs, the "Show Specified Page" button in [Active User Event Detailed Information] of the NJ/NX troubleshooter becomes enabled. You can move to the page set in step 2 by clicking the button.



10-3 How to Set the User Error Notifucation of Major Fault

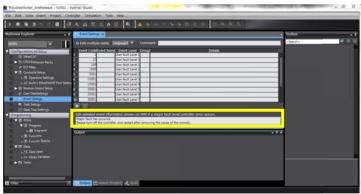
You can display the error notification in the list of [Active User Events Page] when a major fault controller error occurs in the Controller.

Perform the following procedure to display a notification of major fault error in [Active User Events Page].

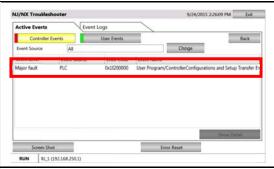
 Click [Multiview Explorer]->[Configurations and Setup]->[Event Settings] on the NJ/NX project, and double-click (or right-click-> Edit) to open the "Event Settings" table.



Enter a text, which you want to display as an event detail when a major fault occurs, in an entry field as shown in the frame.



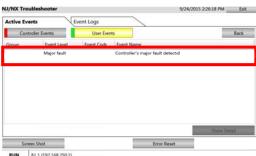
After transferring the NJ/NX project, generate a major fault in the Controller.



 After moving to [Active User Events Page], the notification of major fault is diaplayed in the list.

The following are differences from when a regular user error occurs:

- The indicator of the "User Events" button doesn't change.
- The display of [Active Events Controller Status] doesn't change.
- ·Not retained as user event log
- · After resetting the cause of major fault, it dissapers.



5. Move to [Active User Event Detailed Information] by clicking the "Show Detail" button while the notification of major fault is being selected, the text you set in step 2 is displayed in the "Detailed Information" Column.

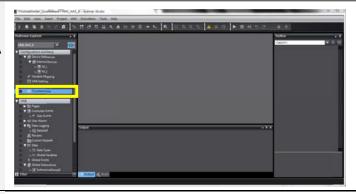


10-4 How to Automatically Launch the Troubleshooter when Error Occurs

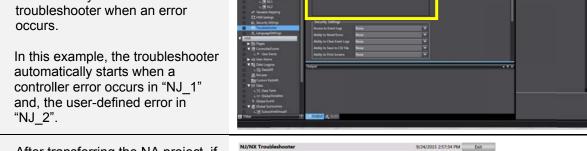
You can automatically launch the NJ/NX troubleshooter when a controller error/user error occurs in the Controller.

Perform the following procedure to automatically launch the NJ/NX troubleshooter.

 Select [Multiview Explorer]->[Configurations and Setup]->[Troubleshooter] on the NA project, and double-click (or right-click-> Edit) to open the "Troubleshooter" table.



 Select check boxes of "Launch on system event"/ "Launch on user event" for the Controller to automatically launch the troubleshooter when an error



 After transferring the NA project, if an error you set in step 2 occurs, the NJ/NX troubleshooter automatically starts.

If the trigger is a controller error, [Active Controller Events Page] of corresponding Controller is displayed.

If the trigger is a user error, [Active User Events Page] is diaplyed.





Additional Information

Uncheck all check boxes if you don't want to automatically launch the troubleshooter.



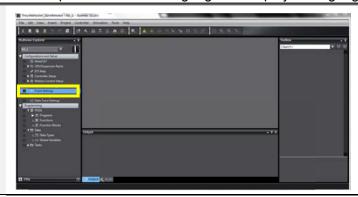
Additional Information

In this automatic launch function, a page to display cannot be set by the user.

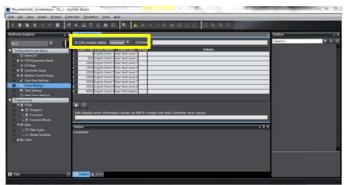
10-5 How to Map the Language

To use user errors in multi languages, you need to map the user event language, which is set in the "Event Settings" table on the NJ/NX project, to NA project language. Perform the following procedure to map the user event language to NA project language.

 Click [Multiview Explorer]->[Configurations and Setup]->[Event Settings] on the NJ/NX project, and double-click (or right-click-> Edit) to open the "Event Settings" table.



 Select the "Edit multiple tables" check box so that "Language1" to "Language9" can be chosen from the drop-down. Different text can be set for each event in the table.



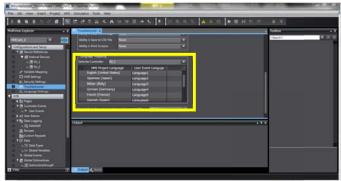
 Select [Multiview Explorer]->[Configurations and Setup]->[Troubleshooter] on the NA project, and double-click (or right-click-> Edit) to open the "Troubleshooter" table.



 You can set a language in the bottom of the "Troubleshooter" table.

Select a controller name from the drop-down, and map the NA project language to user event language (language1 to 9).

You can map the multiple project languages to the same user language.



 After transferring the NA project, start the NJ/NX troubleshooter, and generate a user error. Then, a text set in a user event language mapped to the NA project language is displayed.



1 1 Pages and Procedure when Error Occurs

This section describes functions and procedures of the [Active Events/event logs] page.

- Active events and event logs
- · How to check and reset active events
- How to check and clear event logs

11-1 Active Events and Event Logs

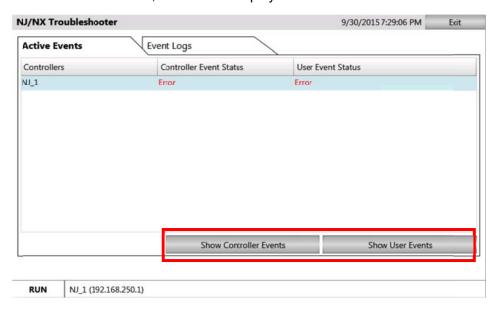
The following page is displayed when the NJ/NX Troubleshooter screen is started. You can switch between "Active Events" and "Event Logs" pages by selecting the tabs shown in ____!.



11-2 How to Check and Reset Active Events

The following page is displayed in the troubleshooter when a "controller event" and "user event" occurs.

When an error is occurring, "Error" is displayed. When there is no error, "Normal" is displayed.



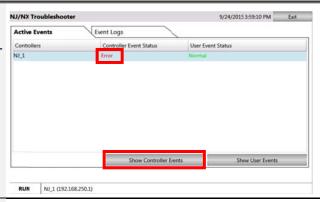
A list of active controller events, user errors, detailed information, and the procedure to reset errors are given in the following pages.

1 1 - 2 - 1 Active Events - Show Controller Events

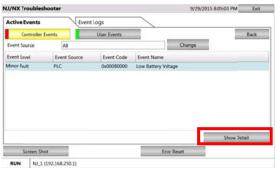
If Error is displayed in the "Controller Events" Column in [Active Events Controller Status Page], a controller error is occurring in the Controller.

Perform the following procedure to check the active error.

 If Error is displayed in the "Controller Event Status" Column in [Active Events Controller Status Page], click the "Show Controller Events" button.

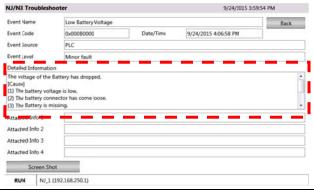


 [Active Controller Events Page] is displayed. A list of active controller events is displayed. Select the error that you want to check, and click the "Show Detail" button.



The details of "Controller Event Status" that you set in step2 are displayed.

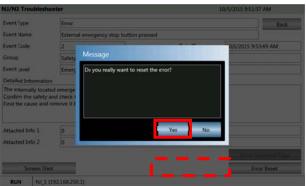
The error infromation and cause are shown in the "Detailed Information" Column.



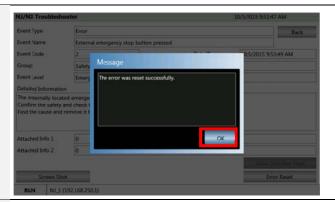
 The active controller error can be reset by clicking the "Error Reset" button in [Active Controller Events Page].

The message on the right appeas after removing the cuase of controller error, and by clicking the "Error Reset" button.

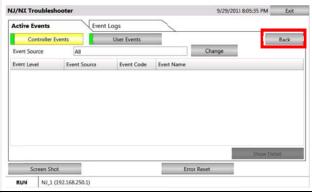
Press the "Yes" button.



5. After the controller error is reset, the message on the right appears. Presses the "OK" button.



 [Active Controller Events Page] is displayed. Make sure that the controller error has been reset.
 Press the "Back" button to display [Active Events Controller Status Page].



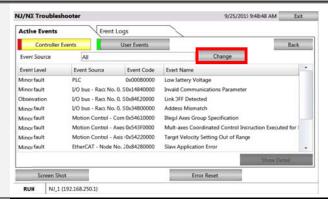
7. Make sure that "Error" in step1 is changed to "Normal" in the "Controller Events Status" Column.



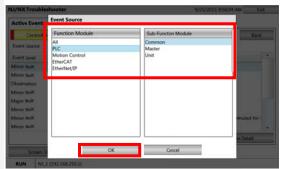
1 1 - 2 - 2 Filtering of Active Events-Show Controller Events

You can filter event source of active events, which is displayed in [Active Controller Events Page], for Sub function module.

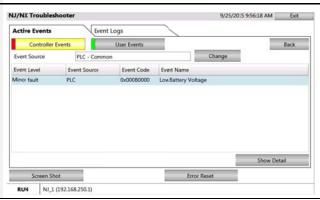
1. Press the "Change" button in [Active Controller Events Page].



- 2. "Event Source Selector Popup" is displayed. Select a function module and sub function module, and Click the "OK" button.
 - * In this example, sub function module"Common" is selected for function module"PLC".



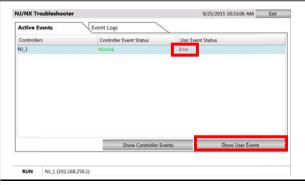
Only the controller error of event source that you selected in step 2 is displayed.



If Error is displayed in the "User Event Status" Column in [Active Events Controller Status Page], a user error that is generated in Section 8-1 is occurring.

Perform the following procedure to check the user error.

When Error is displayed in the "User Event Status" Column in [Active Events Controller Status Page], click the "Show User Events" button.

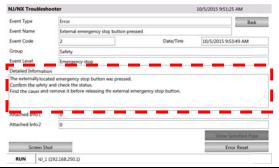


[Active User Events Page] is displayed.

A list of active user events is displayed. Select the user event that you want to check, and click the "Show Detail" button.



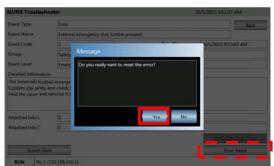
3. The details of "User Event Status" that you set in step2 are displayed. The text you set with the Sysmac Studio is shown in the "Detailed Information" Column.



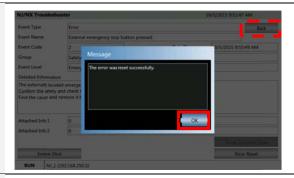
4. For "User Event Status", the selected user event can be reset individually by clicking the "Error Reset" button in [Active User Event Detailed Information].

The message on the right appeas after removing the cause of controller event, and by clicking the "Error Reset" button.

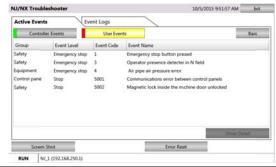
Press the "Yes" button.



After the user event is reset, the message on the right appears. Presses the "OK" button.

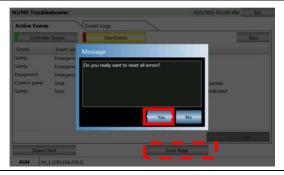


[Active User Events Page] is displayed. Make sure that the user event has been deleted.



7. The active user event can be reset by pressing the "Error Reset" button in [Active User Events Page].

The message on the right appears by clicking the "Error Reset" button. Press the "Yes" button.



8. After the user event is reset, the message on the right appears. Click the "OK" button.



[Active User Events Page] is displayed. Make sure that the user event has been reset.

Press the "Back" button to display [Active Events Controller Status Page].



10. Make sure that "Error" in the "User Event Status" Column in step1 is changed to "Normal".

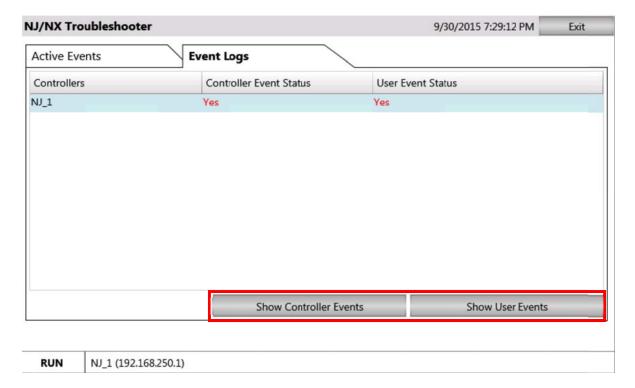


11-3 How to Check and Clear Event Logs

The following page is displayed in the troubleshooter if "controller event" and "user event" have been occurred.

"Yes" is displayed if there is an event log.

"No" is displayed if there is no event log.



A list of event logs, detailed information, and procedure to clear logs are given in the following pages.

1 1 - 3 - 1 Event logs-Show Controller Events

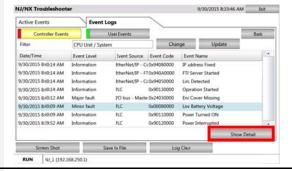
"Yes" is displayed in the "Controller Event Status" Column in the [Event Logs Controller Status Page] if there is a controller event log.

Perform the following procedure to check the log.

If "Yes" is displayed in the"
 Controller Event Status" Column in
 [Event Logs Controller Status
 Page], click the "Show Controller
 Events" button.



 [Controller Event Logs Page] is displayed. A list of controller event logs is displayed. Select the controller event log that you want to check, and click the "Show Detail" button.



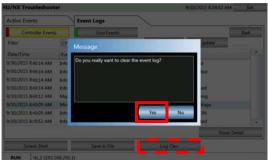
The details of selected controller event log that you set in step 2 is shown.

The error infromation and cause are shown in the "Detailed Information" Column.

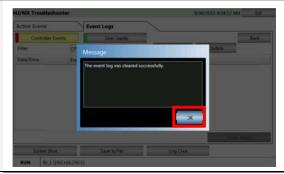


4. The controller event logs can be cleared by pressing the "Log Clear" button in [Controller Event Logs Page]. The message on the right appears by clicking the "Log Clear" button.

Press the "Yes" button.

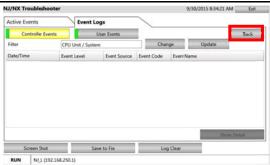


 After the controller event log is cleared, the message on the right appears.
 Click the "OK" button.

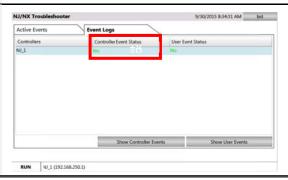


[Controller Event Logs Page] is displayed. Makes sure that the controller event log has been cleared.

Click the "Back" button to display [Event Logs Controller Status Page].



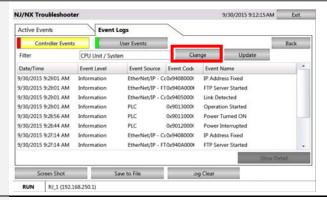
7. Make sure that "Yes" in step1 is changed to "No" in the "Controller Event Status" Column.



1 1-3-2 Selecting the Log Type for Event Logs

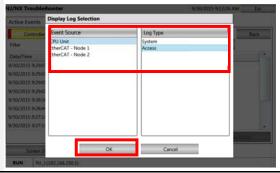
You can filter the controller event logs displayed in [Controller Event Logs Page] by event source. Either a CPU Unit or EtherCAT slave can be selected as an event source to perform the filtering.

 Click the "Change" button in [Controller Event Logs Page].

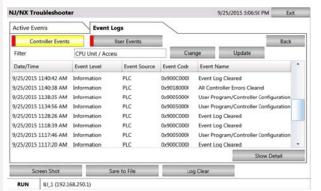


 [Log Type and Event Source Selector Popup] is displayed.
 Select "Event Source" and "Log Type, and click the "OK" button.

*In this setting example, "Access log" occurred in the "CPU Unit".



Access logs that are recorded in the selected event source are displayed.

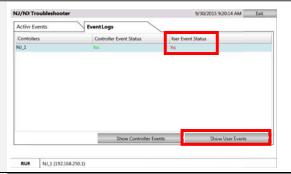


1 1-3-3 Event Logs-Show User Events

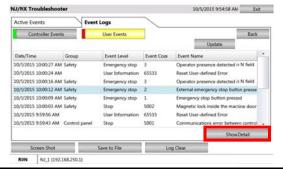
"Yes" is displayed in the "User Event Status" Column in the [Event Logs Controller Status Page] if there is a user event log.

Perform the following procedure to check the log.

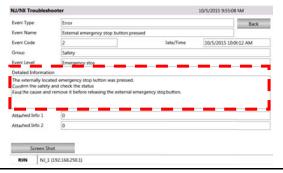
 If "Yes" is displayed in the "User Event Status" Column in the [Event Logs Controller Status Page], click the "Show User Events" button.



 [User Event Logs Page] is displayed. A list of active controller events is displayed. Select the user event log that you want to check, and click the "Show Detail" button.



 The details of user event log that you set in step2 is displayed.
 The text you set with the Sysmac Studio is shown in the "Detailed Information" Column.



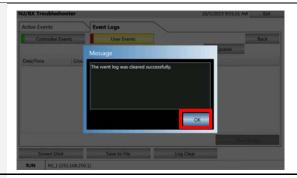
4. The user event log can be cleared by clicking the "Log Clear" button in [User Event Logs Page].
The message on the right appears by clicking the "Log

appears by clicking the "Log Clear" button.

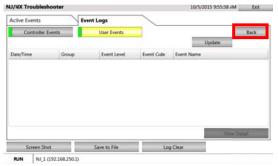
Click the "Yes" button.



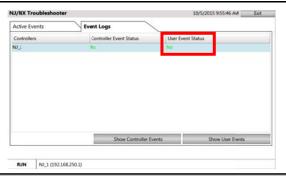
After the event log has been cleared, the message on the right appears.
 Click the "OK" button.



6. [User Event Logs Page] is displayed. Make sure that the user event log has been cleared. Click the "Back" button to display [Event Logs Controller Status Page].



7. Make sure that "Yes" in step1 is changed to "No" in the "User Event Status" Column.



Revision History

Revision code	Date	Revised content
01	November 2015	Original production



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V120-E1-01 11/15 Note: Specifications are subject to change.

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