

Model 71VR1 Paperless Recorder
PC CONFIGURATOR SOFTWARE
Model: 71VRCFG Ver. 3.04

Users Manual

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1. INTRODUCTION

Thank you for choosing our Paperless Recorder 71VR1.

The Users Manual for model 71VR1 (71VR1-E001/71VR1-E101/71VR1-E501) describes its configurator 71VRCFG's software functions, PC environment and operation methods. Please refer to the 71VR1 Users Manual for the detailed information about the terms used in the manual.

71VRCFG makes it easy and smooth to set parameters to 71VR1. The Trend Data and Alarm History can be exported to CSV files via infrared communication.

Please read this manual carefully to ensure the safe use before getting started.

2. BEFORE GETTING STARTED

2.1 GENERAL DESCRIPTIONS

Features and Settings	Available for setting I/O channel, pen, trigger and alarm. Uploading and displaying a configuration file stored in the 71VR1 to the 71VRCFG. Downloading a configuration file created on the 71VRCFG to the 71VR1. Configuration files can be stored in a storage media such as a hard disk.
Creating a Trend Data File	The trend data file (.71VR) can be converted to the CSV format via COP-US (COP-IRDA for version 2.0 or earlier) or a memory card.
Creating an Alarm History File	The alarm history file (71VR_Alarm.alm) can be converted to the CSV format via COP-US (COP-IRDA for version 2.0 or earlier) or a memory card.

2.2 SYSTEM REQUIREMENTS

PC	IBM PC/AT or compatible
OS	Windows 10 (32bit/64bit), Windows 11 (64bit) Note: no guarantee for all environments
USB Port	Use USB port when having communication with 71VR1 via COP-US. (For version 2.0 or earlier, use USB port when having infrared communication with 71VR1 via COP-IRDA.)

2.3 APPLICABLE FIRMWARE VERSION OF 71VR1

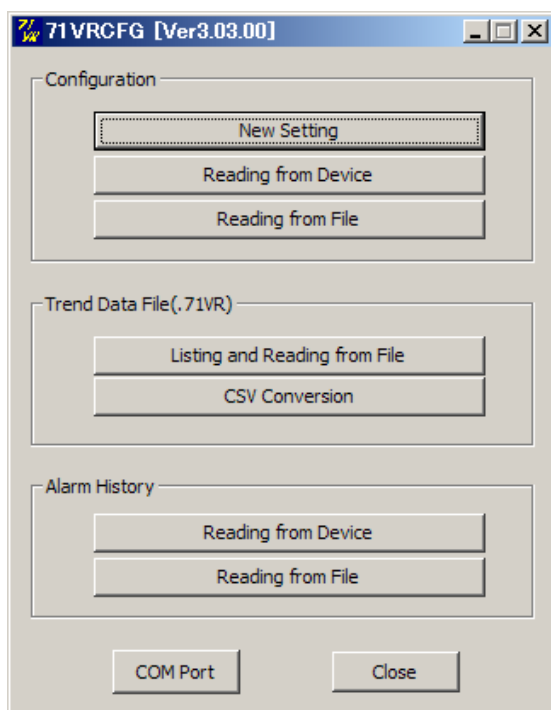
This Users Manual conforms to major version 2, minor version 1.01 or higher of 71VR1-E001 and 71VR1-E101's firmware and major version 2, minor version 1.01 or higher of 71VR1-E501's firmware. Descriptions with the symbols detailed below correspond to the compatible firmware version.

Refer to the Users Manual of 71VR1 to confirm the firmware version.

SYMBOL	APPLICABLE FIRMWARE VERSION
<u>1.4</u>	Major version 1, minor version 4.01 or higher
<u>1.6</u>	Major version 1, minor version 6.01 or higher
<u>2.1</u>	Major version 2, minor version 1.01 or higher

3. MAIN DIALOG

Double-clicking the icon of 71VRCFG.exe to start 71VRCFG, the main dialog appears as below.



Configuration	New Setting	Create a Configuration file with its initial values.
	Reading from Device	Read the Configuration data from 71VR1 via COP-US.* ¹
	Reading from File	Read the Configuration file stored in the memory card of 71VR1.
Trend Data File (.71VR)	Listing and Reading from File	Acquire a list of Trend Data Files and take out the files you select from the memory card in 71VR1 via COP-US.* ¹
	CSV Conversion	The Trend Data Files which are taken out from 71VR1 can be converted to the CSV format.
Alarm History	Reading from Device	Display the Alarm History which is taken out from 71VR1 via COP-US.* ¹ It can be converted to and saved as the CSV format.
	Reading from File	Read the Alarm History stored in the memory card of 71VR1. It can be converted to and saved as the CSV format.
COM Port		Select the COM port you use.

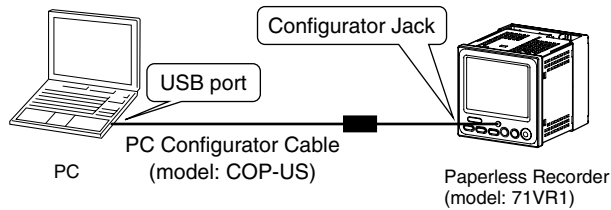
*1. Use COP-IRDA for version 2.0 or earlier.

4. COMMUNICATION

4.1 COP-US 2.1

Use our product (Model: COP-US) to communicate with 71VR1. Before using COP-US, install the driver in your PC. Refer to related driver installation manual for the detailed information.

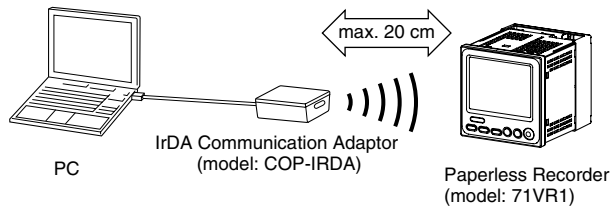
When the driver is installed correctly, COP-US is assigned to COM port.



4.2 COP-IRDA (Ver. 2.0 or earlier)

Use our product (Model: COP-IRDA) to communicate with 71VR1 via infrared radiation. Before using COP-IRDA, install the driver in your PC. Refer to related driver installation manual for the detailed information.

When the driver is installed correctly, COP-IRDA is assigned to COM port.

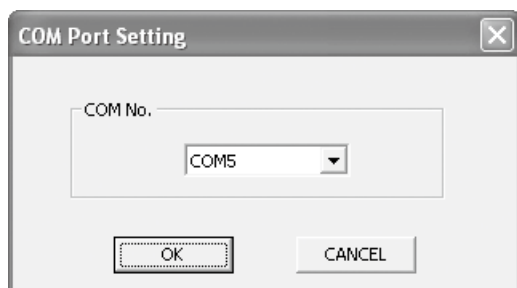


4.3 SETTING ON THE 71VR1

To make 71VRCFG to communicate with 71VR1 via infrared radiation without interference even when plural 71VR1 line up, set only one 71VR1 up for infrared communication. Refer to the related 71VR1 manual for the detailed information.

5. COM PORT SETTING

Select COM No. from COM1 to COM20 after COP-US (COP-IRDA for version 2.0 or earlier) is assigned to COM port.



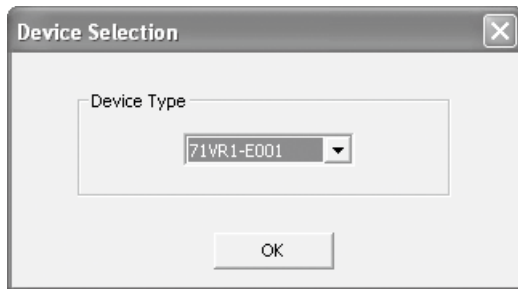
6. CONFIGURATION

6.1 CREATE AND READ CONFIGURATION

6.1.1 NEW SETTING

When creating a Configuration file, select a Device Type as shown below, then the setting dialog with its initial values is displayed.

- 71VR1-E001
- 71VR1-E101
- 71VR1-E501



6.1.2 READ FROM DEVICE

Set 71VR1 up for communication, click [Read from Device] button, then the Configuration data is read and the setting dialog is displayed.

6.1.3 READ FROM FILE

After reading the Configuration file stored in the memory card of 71VR1, the Configuration dialog is displayed.

6.2 CONFIGURATION DIALOG

6.2.1 GENERAL DESCRIPTIONS

The Configuration dialog is as shown below.

• 71VR1-E001, -E101

The Configuration dialog for Model 71VR1-E001 features the following sections:

- System:** Device (71VR), Decimal (2), Modbus (19200bps).
- Channel:** Sample Rate (500ms), Normal/Demo (Normal). Includes Input Setting and Output Setting buttons.
- Pen:** Pen Setting button.
- Trigger:** Detect Mode (OR), Pretrigger Sample (10), Posttrigger Sample (10). Includes Trigger Setting button.
- Record:** Samples per File (10000), Start Auto Recording (Off).
- Alarm:** Analog Alarm Setting and Discrete Alarm Setting buttons.
- Display:** Zero Suppression (Digital View) (Enable), Screen Saver (None). Includes Auto View Switching button.

At the bottom, there are buttons for Writing to Device, Writing to File, and an OK button.

• 71VR1-E501

The Configuration dialog for Model 71VR1-E501 features the following sections:

- System:** Device (71VR), Decimal (2), Modbus (19200bps), Temperature Unit (Celsius).
- Channel:** Sample Rate (500ms), Normal/Demo (Normal). Includes Input Setting and Output Setting buttons.
- Pen:** Pen Setting button.
- Trigger:** Detect Mode (OR), Pretrigger Sample (10), Posttrigger Sample (10). Includes Trigger Setting button.
- Record:** Samples per File (10000), Start Auto Recording (Off).
- Alarm:** Analog Alarm Setting and Discrete Alarm Setting buttons.
- Display:** Zero Suppression (Digital View) (Enable), Screen Saver (None). Includes Auto View Switching button.

At the bottom, there are buttons for Writing to Device, Writing to File, and an OK button.

[Writing]

ITEM	DESCRIPTION
Writing to Device	Set 71VR1 up for communication, click [Writing to Device] button, then the Configuration data is transferred to 71VR1.
Writing to File	Store the Configuration data into the file, after choosing firmware version of 71VR1. Note: Use the file name shown below when the file is stored in the memory card in order to read the file from the memory card inserted in the 71VR1. \\71VR\\71VR0000.cfg for 71VR-E001/E101 \\71VRU\\71VR0000.cfg for 71VR-E501

[System]

ITEM	DESCRIPTION
Device	Device name can be set to max. 16 characters. It is exported when the Trend Data or the Alarm History is converted to the CSV format.
Decimal	The Decimal setting is for displaying the data on the Trend Display or Digital Display. Selection range: 0 – 3
Modbus	Set Modbus baud rate. Selection: 4800bps/9600bps/19200bps/38400bps
Temperature Unit (Only for 71VR1-E501)	When Channel is set to T/C or RTD, temperature unit setting is required. Selection: Celsius/Fahrenheit/Kelvin Temperature unit impacts Analog Channel Range of Input Channel, Upper Limit of Analog Alarm Zone and Trigger Setting. Therefore, when Temperature Unit is changed, the channels used for T/C or RTD input change to disable.

[Channel]

ITEM	DESCRIPTION
Sample Rate	Set Sample Rate. Selection: 100ms/200ms/500ms/1s/2s/5s/10s/20s/30s/1min/5min/10min/20min/30min/1 hour Note: Minimum sample rate of 500 ms is required for T/C or RTD input of 71VR1-E501. Sample Rate: 20s/30s/1min/5min/10min/20min/30min/1 hour (1.4)
Normal/Demo	Select Normal in the case of application. When Demo is selected, the Demo graph's display is available. Selection: Normal/Demo
Input Setting	Open the Input Channel Setting dialog.
Output Setting	Open the Output Channel Setting dialog.

[Pen]

ITEM	DESCRIPTION
Pen Setting	Open the Pen Setting dialog.

[Trigger]

ITEM	DESCRIPTION
Detect Mode	Select the logic operation for the 3 triggers. Selection: OR/AND
Pretrigger Sample	Set the Pretrigger Sample number. Setting range: 0 – 99
Posttrigger Sample	Set the Posttrigger Sample number. Setting range: 0 – 99
Trigger Setting	Open the Trigger Setting dialog.

[Record]

ITEM	DESCRIPTION
Samples per File	Set the Samples per File to split a file. Setting range: 1000 – 60000
Start Auto Recording	Select the Start Auto Recording mode. Selection: Start trigger recording/Start recording continuously/Off

[Alarm]

ITEM	DESCRIPTION
Analog Alarm Setting	Open the Analog Alarm Setting dialog.
Discrete Alarm Setting	Open the Discrete Alarm Setting dialog.

[Display]

ITEM	DESCRIPTION
Zero Suppression (1.4)	Set the leading zero suppression in the Digital Display screen when the numeral is less than 9 digits. Selection: Enable (eliminate leading zeros)/Disable (display leading zeros)
Screen Saver (1.6)	Set a desired time to initiate the screen saver. Setting range: NONE /1 min /2 min /5 min /10 min
Auto View Switching (1.4)	Open Auto View Switching dialog.

6.2.2 INPUT CHANNEL SETTING DIALOG (71VR1-E001, -E101)

Input Channel	Field Channel	Input Type	Node	Address	Modbus Function	Range	Scale	Engineering Unit	Tag Name
AI1	Modbus		001	0001	Read Input Register (04)	-10000 10000	0.000 100.000 %		AI1
AI2	Modbus		001	0001	Read Input Register (04)	-10000 10000	0.000 100.000 %		AI2
AI3	None								
AI4	None								
AI5	None								
AI6	None								
AI7	None								
AI8	None								
DI1	DI1								DI1
DI2	DI2								DI2
DI3	None								
DI4	None								
DI5	None								
DI6	None								
DI7	None								
DI8	None								

Input: AI1
Field: Modbus
Input Type: -10 to 10V
Node: 001
Address: 0001
Modbus Function: Read Input Register (04)
Range: -10000 10000
Scale: 0.000 100.000
Engineering Unit: %
Tag: AI1

APPLY

OK

[Analog Input]

ITEM	DESCRIPTION
Input Channel	Select the Input Channel. Selection: AI1 – AI8
Field Channel	Set the Field Channel to assign to the Input Channel. 71VR1-E001 Selection: Modbus/None 71VR1-E101 Selection: Ai1/Ai2/Modbus/ None
Input Type	Select the Input Type when Ai1 or Ai2 of 71VR1-E101 is selected. Selection: -10 to +10V / -5 to +5V / -1 to +1V / -20 to +20mA
Node	Set the Node number when Modbus is selected as the Field Channel. Setting range: 1 – 247
Address	Set the Address when Modbus is selected as the Field Channel. Setting range: 1 – 9999
Modbus Function (1.4)	Set the Modbus Function when Modbus is selected as the Field Channel. Selection: Read Holding Register (03)/Read Input Register (04). Note: Set Read Holding Register(03), only when the 71VR1 communicates with SC200 or SC210.
Range	Set the Range from the left edge value to the right edge value of the trend display. Input from the terminal block: max. 3 decimal place within each input range. Setting range: -32768 – 32767
Scale	Set the primary value up to max. 3 decimal place corresponding to the Range. Setting range: -999999.999 – 999999.999
Engineering Unit	Max. 4 characters
Tag Name	Max. 8 characters

[Discrete Input]

ITEM	DESCRIPTION
Input Channel	Select the Input Channel. Selection: DI1 – DI8
Field Channel	Set the Field Channel to assign to the Input Channel. Selection: Di1/Di2/Modbus/None
Node	Set the Node number when Modbus is selected as the Field Channel. Setting range: 1 – 247
Address	Set the Address when Modbus is selected as Field Channel. Setting range: 1 – 9999
Modbus Function (1.4)	Set the Modbus Function when Modbus is selected as the Field Channel. Selection: Read Coil Status (01)/Read Input Status (02) Note: Set Read Coil Status(01), only when the 71VR1 communicates with SC200 or SC210.
Tag Name	Max. 8 characters

6.2.3 INPUT CHANNEL SETTING DIALOG (71VR1-E501)

Input Channel	Field Channel	Sensor Type	Input Type	Node Address	Modbus Function	Range	Scale	Engineering Unit	Tag Name	CJC
AI1	AI1	DC	-10 to 10V			-10.000 10.000	0.000 100.000 %		AI1	
AI2	AI2	DC	-10 to 10V			-10.000 10.000	0.000 100.000 %		AI2	
AI3	AI3	DC	-10 to 10V			-10.000 10.000	0.000 100.000 %		AI3	
AI4	AI4	DC	-10 to 10V			-10.000 10.000	0.000 100.000 %		AI4	
AI5	AI5	DC	-10 to 10V			-10.000 10.000	0.000 100.000 %		AI5	
AI6	None									
AI7	None									
AI8	None									
DI1	DI1								DI1	
DI2	DI2								DI2	
DI3	None									
DI4	None									
DI5	None									
DI6	None									
DI7	None									
DI8	None									

Input Ch.
 Field Ch.
 Sensor Type
 Input Type
 Node
 Address
 Modbus Function
 Range
 Scale
 Engineering Unit
 Tag Name
 CJC (Cold Junction Compensation)
 APPLY

OK

[Analog Input]

ITEM	DESCRIPTION
Input Channel	Set the Input Channel. Selection: AI1 – AI8
Field Channel	Set the Field Channel to assign to the Input Channel. Selection: AI1 / AI2 / AI3 / AI4 / AI5 / Modbus / None
Sensor Type	For the universal input terminals (AI3, AI4, AI5), the Sensor Type setting is required. For DC input terminals (AI1, AI2), the Sensor Type setting is not available. Selection: DC / T/C / RTD
Input Type	<ul style="list-style-type: none"> • DC Selection: -10 to +10V / -5 to +5V / -1 to +1V / -20 to +20mA • TC Selection: K / E / J / T / B / R / S / C / N / U / L / P / PR • RTD Selection: Pt100 (JIS'97, IEC) / Pt100 (JIS'89) / JPt100 (JIS'89) / Pt50 (JIS'81) / Ni100 / Cu10 / Cu50
Node	Set the Node number when Modbus is selected as Field Channel. Setting range: 1 – 246
Address	Set the Address when Modbus is selected as Field Channel. Setting range: 1 – 9999
Modbus Function (1.4)	Set the Modbus Function when Modbus is selected as the Field Channel. Selection: Read Holding Register (03)/Read Input Register (04) Note: Set Read Holding Register(03), only when the 71VR1 communicates with SC200 or SC210.
Range	Set the Range from the left edge value to the right edge value of the trend display. Input from the terminal block: within each Input range with max. 3 decimal places Setting range: -32768 – +32767
Scale	When Modbus or DC input terminal is selected, the Scale setting is required. Set the primary value up to max. 3 decimal corresponding to the Range. Setting range: -999999.999 – +999999.999 When T/C or RTD is selected, the Scale setting is not available.
Engineering Unit	Max. 4 characters
Tag Name	Max. 8 characters
CJC	When T/C is selected as the Sensor Type, the CJC setting is required. Selection: ON/OFF

[Discrete Input]

ITEM	DESCRIPTION
Input Channel	Set the Input Channel. Selection: DI1 – DI8
Field Channel	Set the Field Channel to assign to the Input Channel. Selection: Di1/Di2/Modbus/None
Node	Set the Node number when Modbus is selected as the Field Channel. Setting range: 1 – 246
Address	Set the Address when Modbus is selected as the Field Channel. Setting range: 1 – 9999
Modbus Function (1.4)	Set the Modbus Function when Modbus is selected as the Field Channel. Selection: Read Holding Register (03)/Read Input Register (04) Note: Set Read Coil Status(01), only when the 71VR1 communicates with SC200 or SC210.
Tag Name	Max. 8 characters

6.2.4 OUTPUT CHANNEL SETTING DIALOG

Output Channel	Field Channel	Node	Address
DO1	Do1		
DO2	Do2		
DO3	None		
DO4	None		
DO5	None		
DO6	None		
DO7	None		
DO8	None		

Output Ch.

Field

Node

Address (0X)

APPLY

OK

ITEM	DESCRIPTION
Output Channel	Select the Output Channel. Selection: DO1 – DO8
Field Channel	Set the Field Channel to assign to the Output Channel. Selection: Do1/Do2/Modbus/None
Node	Set the Node number when Modbus is selected as the Field Channel. Setting range: 1 – 247 Note: Setting range 1 – 246 is available for 71VR1-E501.
Address	Set the Address when Modbus is selected as the Field Channel. Setting range: 1 – 9999

6.2.5 PEN SETTING DIALOG

The Pen Setting dialog box contains a table with the following data:

Pen	Input	Color	Tag
P1	AI1	[Dark Gray]	AI1
P2	AI2	[White]	AI2
P3	DI1	[Dark Gray]	DI1
P4	DI2	[Dark Gray]	DI2
P5	None	[Dark Gray]	
P6	None	[Dark Gray]	
P7	None	[Dark Gray]	
P8	None	[Dark Gray]	
P9	None	[Dark Gray]	
P10	None	[Dark Gray]	
P11	None	[Dark Gray]	
P12	None	[Dark Gray]	
P13	None	[Dark Gray]	
P14	None	[Dark Gray]	
P15	None	[Dark Gray]	
P16	None	[Dark Gray]	

On the right side of the dialog, there are configuration options:

- Pen: P1 (dropdown menu)
- Input: AI1 (dropdown menu)
- Color: [Dark Gray] (color swatch) with a Change button
- APPLY button

At the bottom center is an OK button.

ITEM	DESCRIPTION
Pen	Select the Pen. Selection: P1 – P16
Input	A list of available channels is displayed. Selection: AI1 – AI8, DI1 – DI8
Color	Select the Color by using the following Color Menu dialog.

The Color Menu dialog box displays a 4x4 grid of 16 color swatches. The first row contains three shades of gray followed by white. The second row contains a dark gray, white, light gray, and medium gray. The third and fourth rows contain various shades of gray and black. Each swatch has a small circular selection indicator below it.

6.2.6 TRIGGER SETTING DIALOG

Trigger	Condition	Mode	Channel	Level
T1	None			
T2	None			
T3	None			

Trigger: T1
Condition: None
Mode:
Channel:
Level:
APPLY

OK

ITEM	DESCRIPTION
Trigger	Select the Trigger. Selection: T1 – T3
Condition	Select the Trigger type. Selection: DI Edge / DI Level / AI Edge / AI Level / None
Mode	Set the Trigger Mode. When the Condition is set to DI Edge or DI Level, select ON/OFF. When the Condition is set to AI Edge or AI Level, select UNDER/OVER.
Channel	Use the logical channels you set in the Input Channel Setting dialog. A list of available channels is displayed. When the Condition is set to AI Edge or AI Level, select AI1 – AI8. When the Condition is set to DI Edge or DI Level, select DI1 – DI8.
Level	When the Condition is set to AI Edge or AI Level, set the threshold level based on the engineer unit value. Max. 3 decimal place is available.

6.2.7 ANALOG ALARM SETTING DIALOG

The dialog box is titled "Analog Alarm". It contains five sections for Zone 1 through Zone 5. Each zone section has the following fields:

- Alarm Name: Text input field.
- Upper Limit: Text input field.
- Mode: Dropdown menu (Normal).
- Alarm Color: Color selection button.
- Contact Output: Dropdown menu (Off).

On the right side, there is an "Alarm Menu" section with the following fields:

- Alarm Menu: Dropdown menu (Alarm AA1(A11)).
- Enable/Disable: Dropdown menu (Disable).
- Partitions: Dropdown menu (2 Zones).

At the bottom right, there are "OK" and "CANCEL" buttons.

ITEM	DESCRIPTION
Alarm Menu	Select an Alarm. An Alarm list of selected channels is displayed. Selection: AA1 – AA8
Enable/Disable	To use the selected Alarm, set it to Enable. Selection: Enable/ Disable
Partitions	Set the Zones to Partitions. Selection: 2 – 5
Alarm Name	Max. 10 characters
Upper Limit	Except for the top level Zone, set the Upper Limit to the Engineer Unit value for each Zone. Max. 3 decimal place is available.
Mode	Set the Zone property. When the Deadband setting is available, it is shown in the list. Selection: Normal/Alarm/Deadband
Alarm Color	Set the Alarm Color by using the Color Menu dialog. (For color menu dialog illustration refer to PEN SETTING DIALOG section)
Contact Output	Set the Alarm Contact Output when the Mode is set to the Alarm. Selection: On/Off In the case of On, select one from DO1 to DO8. (Unused DOs are not displayed.)

6.2.8 DISCRETE ALARM SETTING DIALOG

ITEM	DESCRIPTION
Alarm Menu	Select an Alarm. An Alarm list of selected channels is displayed. Selection: AD1 – AD8
Enable/Disable	To use the selected Alarm, set it to Enable. Unless, set it to Disable. Selection: Enable/Disable
Alarm Name	Max. 10 characters
Trigger Mode	Set ON or OFF to the Alarm status. Selection: ON/OFF
Delay	Set the sample number as the Delay time applied before judging an Alarm Set/Recover. Setting range: 0 – 99
Alarm Color	Set the Alarm Color by using the Color Menu dialog. (For color menu dialog illustration refer to PEN SETTING DIALOG section)
Contact Output	Set the Alarm Contact Output. Selection: On/Off In the case of On, select from DO1 to DO8. (Unused DOs are not displayed.)

6.2.9 AUTO VIEW SWITCHING DIALOG (1.4)

Auto View Switching

Auto View Switching: Enable

Waiting Time (s): 10

Interval (s): 5

View Order	View Type	Page Number
1	Trend	1
2	Digital	1
3	Trend	2
4	Digital	2
5	Trend	3
6	Digital	3
7	Trend	4
8	Digital	4
9	Trend	5
10	Digital	5
11	Trend	6
12	Digital	6
13	Trend	7
14	Digital	7
15	Trend	8
16	Digital	8

View Order: 1

View Type: Trend

Page Number: 1

APPLY

OK

ITEM	DESCRIPTION
Auto View Switching	Set Disable or Enable for Auto View Switching. Selection: Disable/EnableIn the case of Enable, other items to select for Auto View Switching are available.
Waiting Time (s)	Set the time to start Auto View Switching. Setting range: 10 to 180
Interval (s)	Set the time to switch to next view during Auto View Switching. Setting range: 3 to 180
View Order	The number that shows the order of view displayed during Auto View Switching. Selection: 1 to 16
View Type	Select the screen that is displayed during Auto View Switching. Selection: None/Trend/Digital
Page Number	Set the page number of the screen that is displayed during Auto View Switching. Setting range: 1 to 8.

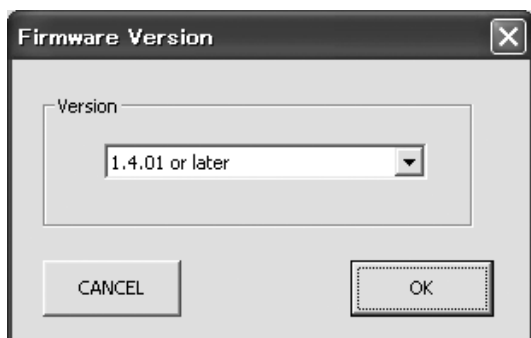
6.2.10 FIRMWARE VERSION DIALOG

When the [Writing to File] button is clicked, the following dialog is displayed.

Select firmware version of the 71VR1 to which a Configuration file is applied. The firmware version initially displayed is different according to the configuration button selected in the main dialog. Refer to the table shown below.

NOTE 1. In order to confirm firmware version, see [SOFTWARE VER] of [SETTING MENU] on 71VR1. For detailed information refer to the 71VR1 Software Operation Users Manual.

NOTE 2. Firmware version consists of a combination of MAJOR Ver and MINOR Ver. When MAJOR Ver is “1” and MINOR Ver is “4.01”, firmware version is displayed as “1.4.01”.



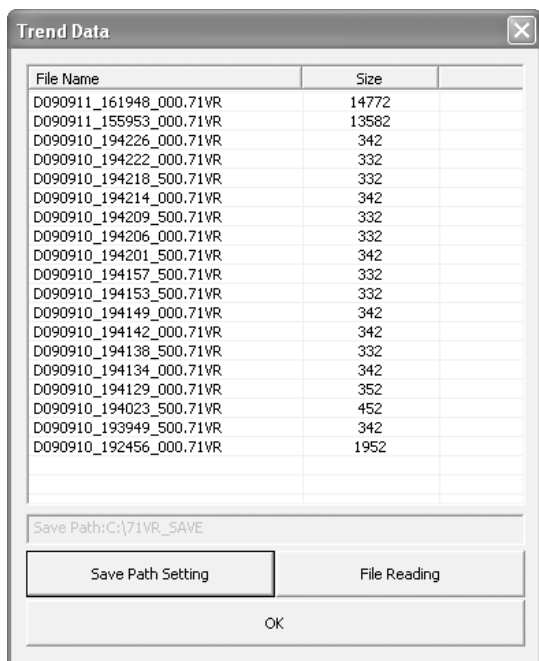
BUTTONS IN THE MAIN DIALOG	THE FIRMWARE VERSION INITIALLY DISPLAYED
New Setting	1.4.01 or later
Reading from Device	The firmware version read from 71VR1
Reading from File	The firmware version selected when configuration data is written into a file

7 TREND DATA FILE

7.1 LISTING AND READING FROM FILE

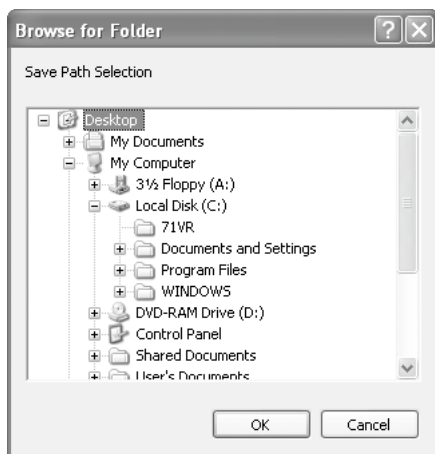
7.1.1 GENERAL DESCRIPTIONS

When the Trend Data list is taken out from 71VR1, the following dialog is displayed.



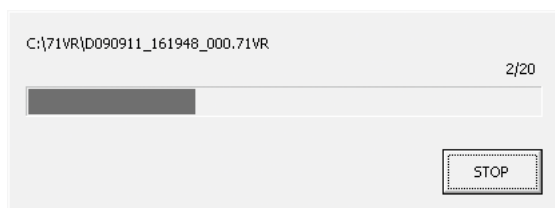
7.1.2 SAVE PATH SETTING

Set the Save Path for the received trend file. Click [Save Path Setting] button, set the path in the following dialog which appears after the button is clicked.



7.1.3 FILE READING

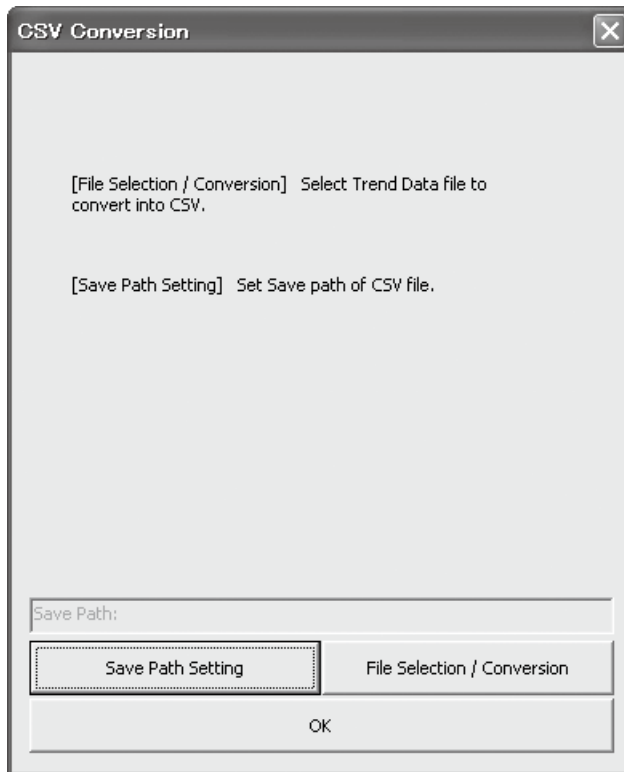
Select a file from the list, click [File Reading] button, the following dialog is displayed and the selected file is transferred. The received file is saved in the path which was set in section 7.1.2.



7.2 CSV CONVERSION

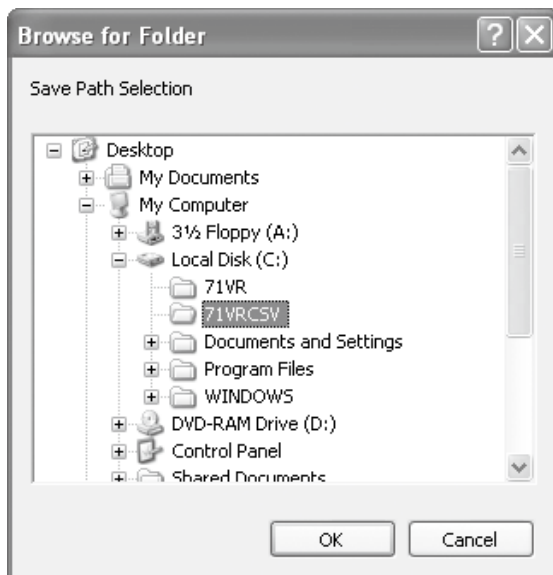
7.2.1 GENERAL DESCRIPTIONS

Click [CSV Conversion] button, the following dialog is displayed.



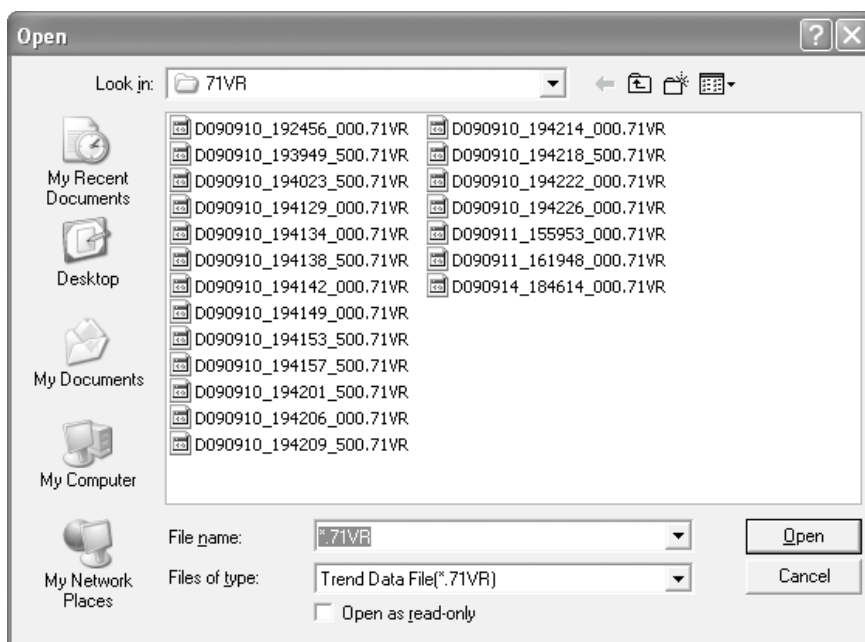
7.2.2 SAVE PATH SETTING

Set the Save Path for the converted file. Click [Save Path Setting] button, set the path in the following dialog which appears after the button is clicked.



7.2.3 FILE SELECTION / CONVERSION

Click [File Selection / Conversion] button, the following dialog is displayed. Select a file you want to convert, click [Open] button, then the CSV Conversion is started. After the CSV Conversion is finished, the converted file is saved in the path which was set in section 7.2.2.



[71VR1-E001,-E101]

View on Microsoft Excel of a CVS file created with the 71VRCFG Version 1.xx.

A		B		C		D		E	
1	Device Name	Sample Rate	Sample						
2	71 VR	500	33						
3									
4		AI1	AI2	DI1	DI2				
5		%	%						
6	2009/9/14 18:46:14.000	63.93	50.24						
7	2009/9/14 18:46:14.500	61.19	50.24	0	0				
8	2009/9/14 18:46:15.000	58.73	50.24	1	1	M			
9	2009/9/14 18:46:15.500	56.24	50.24	1	1				
10	2009/9/14 18:46:16.000	53.42	50.24	1	1				
11	2009/9/14 18:46:16.500	50.89	50.24	1	1				
12	2009/9/14 18:46:17.000	48.38	50.24	1	1				
13	2009/9/14 18:46:17.500	45.88	50.24	1	1				
14	2009/9/14 18:46:18.000	43.08	50.24	1	1				
15	2009/9/14 18:46:18.500	40.6	50.24	1	1				
16	2009/9/14 18:46:19.000	38.14	50.24	1	1				
17	2009/9/14 18:46:19.500	35.41	50.24	1	1				
18	2009/9/14 18:46:20.000	32.89	50.24	1	1				
19	2009/9/14 18:46:20.500	30.38	50.24	1	1				
20	2009/9/14 18:46:21.000	27.87	50.24	1	1				
21	2009/9/14 18:46:21.500	25.36	50.24	1	1				
22	2009/9/14 18:46:22.000	22.85	50.24	1	1				
23	2009/9/14 18:46:22.500	20.34	50.24	1	1				
24	2009/9/14 18:46:23.000	17.82	50.24	1	1				
25	2009/9/14 18:46:23.500	15.31	50.24	1	1				
26	2009/9/14 18:46:24.000	12.80	50.24	1	1				
27	2009/9/14 18:46:24.500	10.29	50.24	1	1				
28	2009/9/14 18:46:25.000	7.78	50.24	1	1				
29	2009/9/14 18:46:25.500	5.27	50.24	1	1				
30	2009/9/14 18:46:26.000	2.76	50.24	1	1				
31	2009/9/14 18:46:26.500	0.25	50.24	1	1				

Display Device Name, Sample Rate, Samples per File

Display Tag Name, Engineering Unit

When data is marked in the Trend Display of 71VR1, M is indicated

Display Date, Time, 1/1000 second.

Display sample data
Analog data: Engineering Unit value (max. 3 decimal); Discrete data: 1 (ON), 0(OFF)

View on Microsoft Excel of a CVS file created with the 71VRCFG Version 2.xx or later.

	A	B				
1	Device Name	Sample Rate				
2	71 VR	500	33			
3						
4		AI1	AI2	DI1	DI2	
5		%	%			
6	18:46:14.0	63.93				
7	18:46:14.5	61.19				
8	18:46:15.0	58.73				
9	18:46:15.5	56.24				
10	18:46:16.0	53.42	50.24	0	0	
11	18:46:16.5	50.89	50.24	0	0	
12	18:46:17.0	48.38	50.24	0	0	
13			50.24	1	1 M	
14			50.24	1	1	
15			50.24	1		
16			50.24	1		
17			50.24	1		
18	18:46:20.0	33.02	50.24			
19	18:46:20.5	30.67	50.24			
20	18:46:21.0	28.33	50.24	1		
21	18:46:21.5	25.31	50.24	1	1	
22	18:46:22.0	23.12	50.24	1	1	
23	18:46:22.5	21.04	50.24	1	1	
24	18:46:23.0	18.82	50.24	1	1	
25	18:46:23.5	16.95	50.24	1	1	
26	18:46:24.0	15.15	50.24	1	1	
27	18:46:24.5	13.39	50.24	1		
28	18:46:25.0	11.48				
29	18:46:25.5	9.86				
30	18:46:26.0	8.36				
31	18:46:26.5	6.83				

Display Device Name, Sample Rate, Samples per File, Temperature Unit

Display Tag Name, Engineering Unit

Display Time, 1/1000 second*1

When data is marked in the Trend Display of 71VR1, M is indicated.

Display sample data.
Analog data: Engineering Unit value (max.3 decimal); Discrete data: 1(ON), 0(OFF)

*1. Opening a CSV file with Microsoft Excel, the display format of the cell which shows the time is modifiable.
E.g.: year/month/day time: minutes:seconds.milliseconds (yyyy/mm/dd hh:mm:ss.000).

[71VR1-E501]

View on Microsoft Excel of a CVS file.

	A	B	C	D	E	F
1	Device Name	Sample Rate	Samples per File	Temperature Unit		
2	71VR	500	198	C		
3						
4		AI1	AI2	DI1	DI2	
5		C	%			
6	9:55:52.5	BO				
7	9:55:53.0	BO				
8	9:55:53.5	BO				
9	9:55:54.0	BO				
10	9:55:54.5	BO	54.78	1	0	
11	9:55:55.0	BO	57.62	1	0	
12	9:55:55.5	BO	60.14	1	0	
13	9:55:56.0	BO	62.66	1	0	
14	9:55:56.5	BO	65.12	1	0	
15	9:55:57.0	BO	67.84	1	0	
16	9:55:57.5	BO	70.2	1	0	
17	9:55:58.0	22.2	72.53	1	0	M
18	9:55:58.5		75.06	1	0	
19	9:55:59.0			1		
20	9:55:59.5			1		
21	9:56:00.0			1		
22	9:56:00.5			1		
23	9:56:01.0			1		
24	9:56:01.5	22.4	87.37	1		
25	9:56:02.0	22.4	89.28	1	0	M
26	9:56:02.5	22.4	90.86	1	0	
27	9:56:03.0	22.5	92.34	1	0	
28	9:56:03.5	22.7	93.88	1	0	
29	9:56:04.0	22.7	94.99	0		
30	9:56:04.5	22.7	96.28			
31	9:56:05.0	22.6	97.31			

NOTE: The accuracy of T/C or RTD data is based on the Temperature Unit. Refer to the following table for the details.

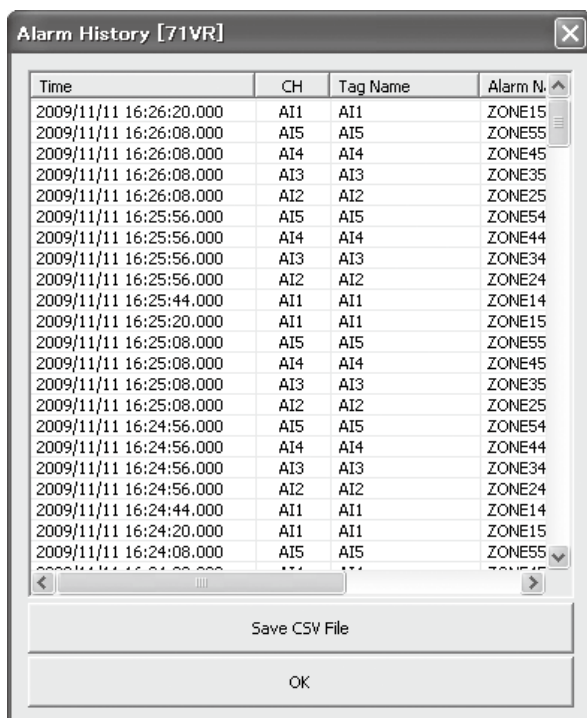
TEMPERATURE UNIT	ACCURACY
Celsius (C)	1 decimal place
Fahrenheit (F)	Integer
Kelvin (K)	1 decimal place

*1. Opening a CSV file with Microsoft Excel, the display format of the cell which shows the time is modifiable.
E.g.: year/month/day time: minutes:seconds.milliseconds (yyyy/mm/dd hh:mm:ss.000).

8. ALARM HISTORY

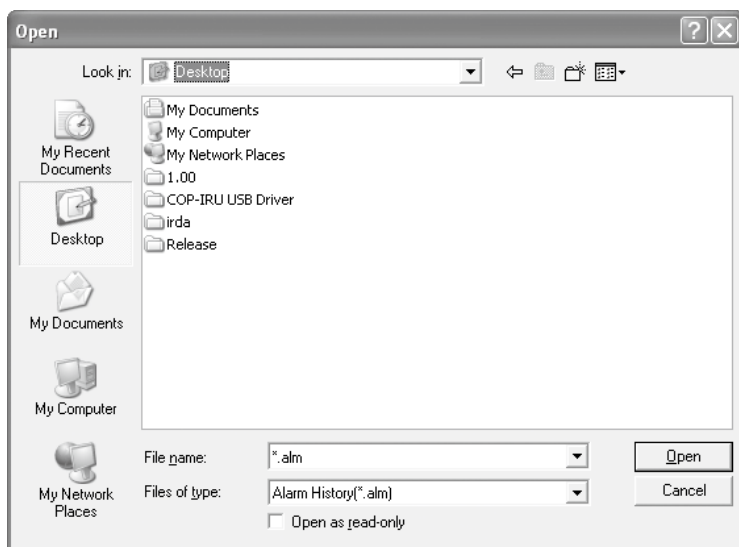
8.1 READING FROM DEVICE

Click [Reading from Device] button under the Alarm History of the main dialog, the following dialog is displayed after the Alarm History is read out from 71VR1 via infrared radiation.



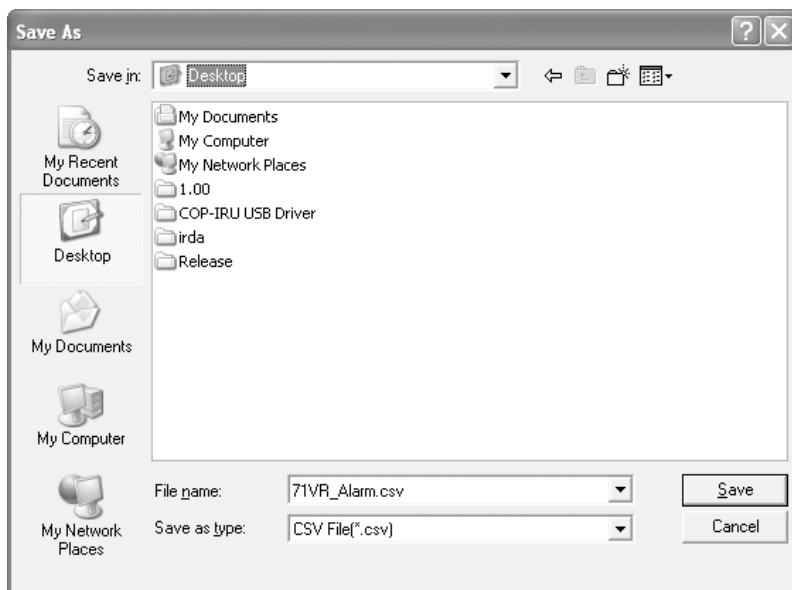
8.2 READING FROM FILE

Click [Reading from File] button under the Alarm History of the main dialog. Select and open the file 71VR_Alarm.alm stored in the memory card to display the Alarm History dialog shown in section 8.1.



8.3 SAVE CSV FILE

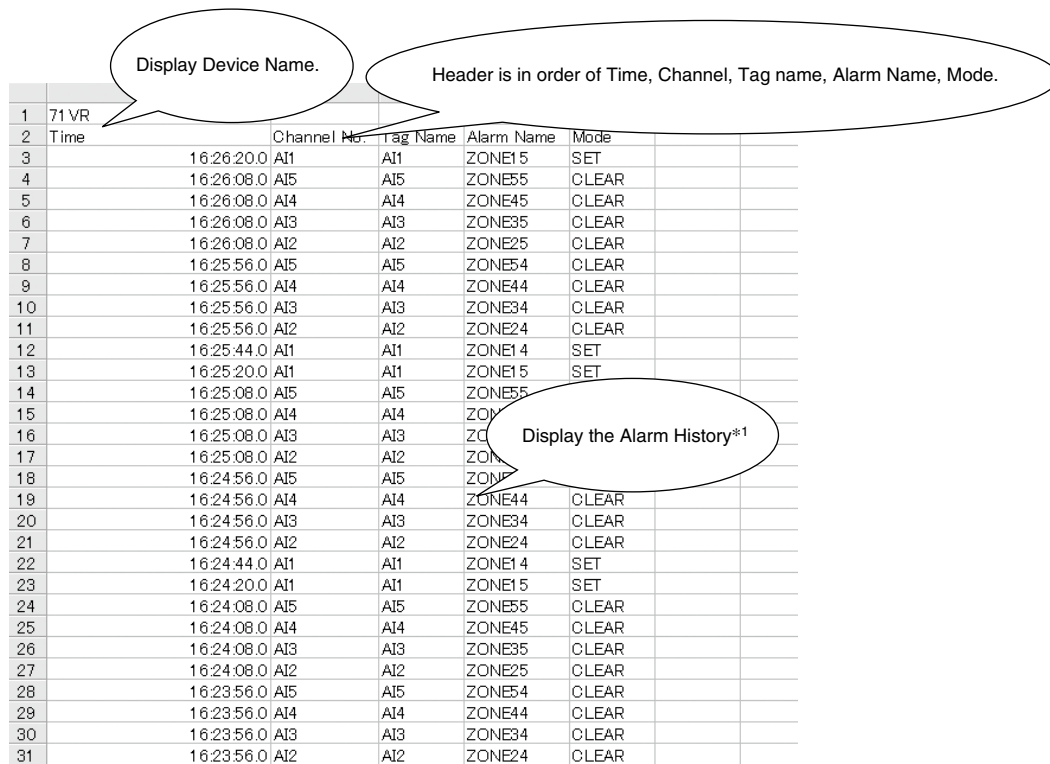
Click [Save CSV File] button in the Alarm History dialog, the following dialog is displayed.
Click [Save] button to save the CSV file.



View on Microsoft Excel of a CVS file created with the 71VRCFG Version 1.xx.

Display Device Name.		Header is in order of Time, Channel, Tag name, Alarm Name, Mode.				
1	71 VR					
2	Time	Channel No.	Tag Name	Alarm Name	Mode	
3	2009/11/11_16:26:20_000	AI1	AI1	AREA15	SET	
4	2009/11/11_16:26:08_000	AI5	AI5	AREA55	CLEAR	
5	2009/11/11_16:26:08_000	AI4	AI4	AREA45	CLEAR	
6	2009/11/11_16:26:08_000	AI3	AI3	AREA35	CLEAR	
7	2009/11/11_16:26:08_000	AI2	AI2	AREA25	CLEAR	
8	2009/11/11_16:25:56_000	AI5	AI5	AREA54	CLEAR	
9	2009/11/11_16:25:56_000	AI4	AI4	AREA44	CLEAR	
10	2009/11/11_16:25:56_000	AI3	AI3	AREA34	CLEAR	
11	2009/11/11_16:25:56_000	AI2	AI2	AREA24	CLEAR	
12	2009/11/11_16:25:44_000	AI1	AI1	AREA14	SET	
13	2009/11/11_16:25:20_000	AI1	AI1	AREA15	SET	
14	2009/11/11_16:25:08_000	AI5	AI5	AREA55		
15	2009/11/11_16:25:08_000	AI4	AI4	AREA45		
16	2009/11/11_16:25:08_000	AI3	AI3	AREA35		
17	2009/11/11_16:25:08_000	AI2	AI2	AREA25		
18	2009/11/11_16:24:56_000	AI5	AI5	AREA55		
19	2009/11/11_16:24:56_000	AI4	AI4	AREA44	CLEAR	
20	2009/11/11_16:24:56_000	AI3	AI3	AREA34	CLEAR	
21	2009/11/11_16:24:56_000	AI2	AI2	AREA24	CLEAR	
22	2009/11/11_16:24:44_000	AI1	AI1	AREA14	SET	
23	2009/11/11_16:24:20_000	AI1	AI1	AREA15	SET	
24	2009/11/11_16:24:08_000	AI5	AI5	AREA55	CLEAR	
25	2009/11/11_16:24:08_000	AI4	AI4	AREA45	CLEAR	
26	2009/11/11_16:24:08_000	AI3	AI3	AREA35	CLEAR	
27	2009/11/11_16:24:08_000	AI2	AI2	AREA25	CLEAR	
28	2009/11/11_16:23:56_000	AI5	AI5	AREA54	CLEAR	
29	2009/11/11_16:23:56_000	AI4	AI4	AREA44	CLEAR	
30	2009/11/11_16:23:56_000	AI3	AI3	AREA34	CLEAR	
31	2009/11/11_16:23:56_000	AI2	AI2	AREA24	CLEAR	

View on Microsoft Excel of a CVS file created with the 71VRCFG Version 2.xx or later.



1	71 VR						
2	Time	Channel No.	Tag Name	Alarm Name	Mode		
3	16:26:20.0	AI1	AI1	ZONE15	SET		
4	16:26:08.0	AI5	AI5	ZONE55	CLEAR		
5	16:26:08.0	AI4	AI4	ZONE45	CLEAR		
6	16:26:08.0	AI3	AI3	ZONE35	CLEAR		
7	16:26:08.0	AI2	AI2	ZONE25	CLEAR		
8	16:25:56.0	AI5	AI5	ZONE54	CLEAR		
9	16:25:56.0	AI4	AI4	ZONE44	CLEAR		
10	16:25:56.0	AI3	AI3	ZONE34	CLEAR		
11	16:25:56.0	AI2	AI2	ZONE24	CLEAR		
12	16:25:44.0	AI1	AI1	ZONE14	SET		
13	16:25:20.0	AI1	AI1	ZONE15	SET		
14	16:25:08.0	AI5	AI5	ZONE55			
15	16:25:08.0	AI4	AI4	ZONE45			
16	16:25:08.0	AI3	AI3	ZONE35			
17	16:25:08.0	AI2	AI2	ZONE25			
18	16:24:56.0	AI5	AI5	ZONE54			
19	16:24:56.0	AI4	AI4	ZONE44	CLEAR		
20	16:24:56.0	AI3	AI3	ZONE34	CLEAR		
21	16:24:56.0	AI2	AI2	ZONE24	CLEAR		
22	16:24:44.0	AI1	AI1	ZONE14	SET		
23	16:24:20.0	AI1	AI1	ZONE15	SET		
24	16:24:08.0	AI5	AI5	ZONE55	CLEAR		
25	16:24:08.0	AI4	AI4	ZONE45	CLEAR		
26	16:24:08.0	AI3	AI3	ZONE35	CLEAR		
27	16:24:08.0	AI2	AI2	ZONE25	CLEAR		
28	16:23:56.0	AI5	AI5	ZONE54	CLEAR		
29	16:23:56.0	AI4	AI4	ZONE44	CLEAR		
30	16:23:56.0	AI3	AI3	ZONE34	CLEAR		
31	16:23:56.0	AI2	AI2	ZONE24	CLEAR		

*1. Opening a CSV file with Microsoft Excel, the display format of the cell which shows the time is modifiable.
E.g.: year/month/day time: minutes:seconds.milliseconds (yyyy/mm/dd hh:mm:ss.000).

9. VERSION HISTORY

9.1 Ver. 2.01

The following inconveniences in the previous versions were corrected:

- (1) Configuration dialog: "Number of Samples" → "Samples per File"
- (2) Temperature unit selection (only for 71VR1-E501): "Temperature Setting" → "Temperature Unit"
- (3) Analog Alarm Setting Dialog: "Area" → "Zone," "On/Off" → "Enable/Disable"

9.2 Ver. 2.02

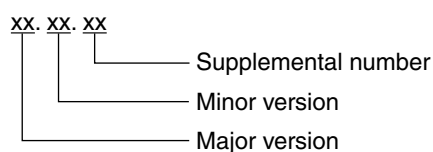
The following inconvenience in the previous versions was corrected:

The error occurred during 71VR1 reads configuration when analog or discrete alarm is set with all Output Settings selected to NONE.

9.3 Ver. 3.01.xx

The following new features were incorporated:

- (1) "20s/30s/1min./5min./10min./20min./30min/1hour" were added.
- (2) [Modbus Function] was added to the Input Channel Setting dialog. (SC200 and SC210 are supported.)
- (3) [Display] was added to the Configuration dialog, "Zero Suppression" and "Auto View Switching" were added to [Display].
- (4) Auto View Switching dialog was added.
- (5) Version number was changed from xx. xx to xx. xx. xx.



9.4 Ver. 3.02.xx

The following inconvenience in the previous versions was corrected:

When configuration is stored into a memory card and 71VR1 reads the configuration from the memory card, 71VR1 with major version 1, minor version 0 to 3 fails in reading.

9.5 Ver.3.03.xx

Screen Saver setting is added in the Display of Configuraion dialog.

9.6 Ver.3.04.xx

- The problem of settings not being canceled when the "Cancel" button is operated on the analog alarm setting and digital alarm setting screens has been addressed.
- Wired communication (COP-US) for configurator communication is supported.