FS Alarm Function Instruction Manual

Ver. 1.0

Introduction

Thank you for purchasing the FS Alarm function (called the alarm function below). This document describes how to use the alarm function.
The alarm function allows you to manage and analyze alert information by linking it with the lit or blinking state of monitored and managed signal lamps and registering it in Flex Signal (*1).

(*1) For details on Flex Signal, see the Flex Signal Instruction Manual.

Revision History

Ver.	Date	System version	Revision details
1.0	Jun. 4, 2018	1.0.0	First edition

Table of Contents

1. Screen Description

1-1. Terminology

This section introduces the terms related to the alarm function. These terms are used for description purposes in this manual.

(1) Site IP address

IP address of the PC where Flex Signal is installed

(2) Alarm

Alert information registered using the alarm function

(3) Device

Signal lamp managed by Flex Signal

(4) Device No.

Number of the signal lamp managed by Flex Signal

(5) Device name

Name combining the name of the line on which a signal lamp managed by Flex Signal is used and the name of the signal lamp

(6) Operating status

Status of the device determined based on the display status of the signal lamp

(7) Invalid characters

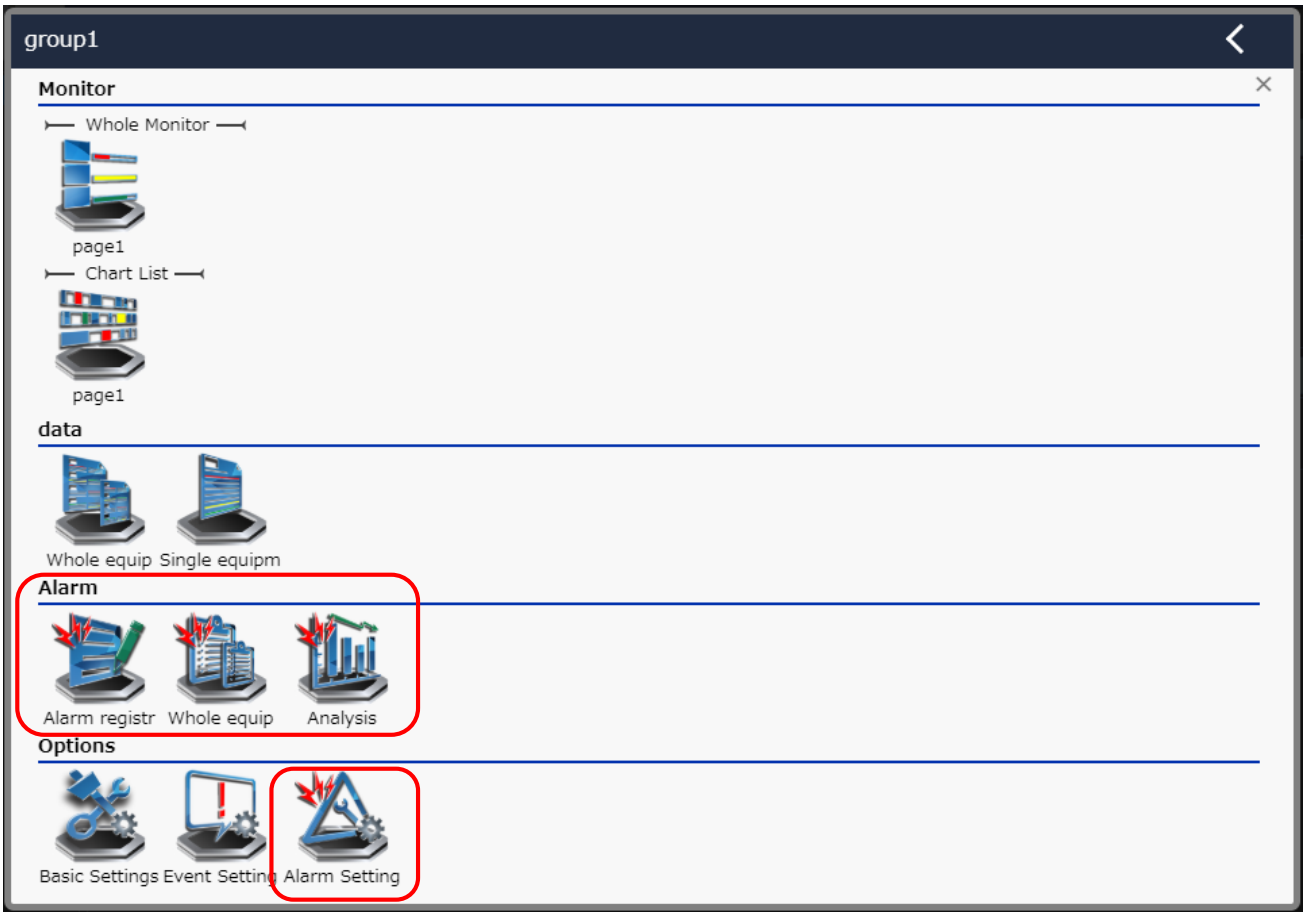
* ; & " ' $ # @ \ < >

These characters cannot be entered on the screen.

1-2. Accessing the alarm function

Go to the selected alarm function screen from the "MENU" - "Alarm" submenu in Flex Signal.

* For details on "MENU," see "1-3. Menu" in the "Flex Signal Instruction Manual."



1-3. Registering the current status alarm

(1) Whole monitor settings

Go to the "Terminal settings" screen by selecting "MENU" - "Other" - "Terminal settings."

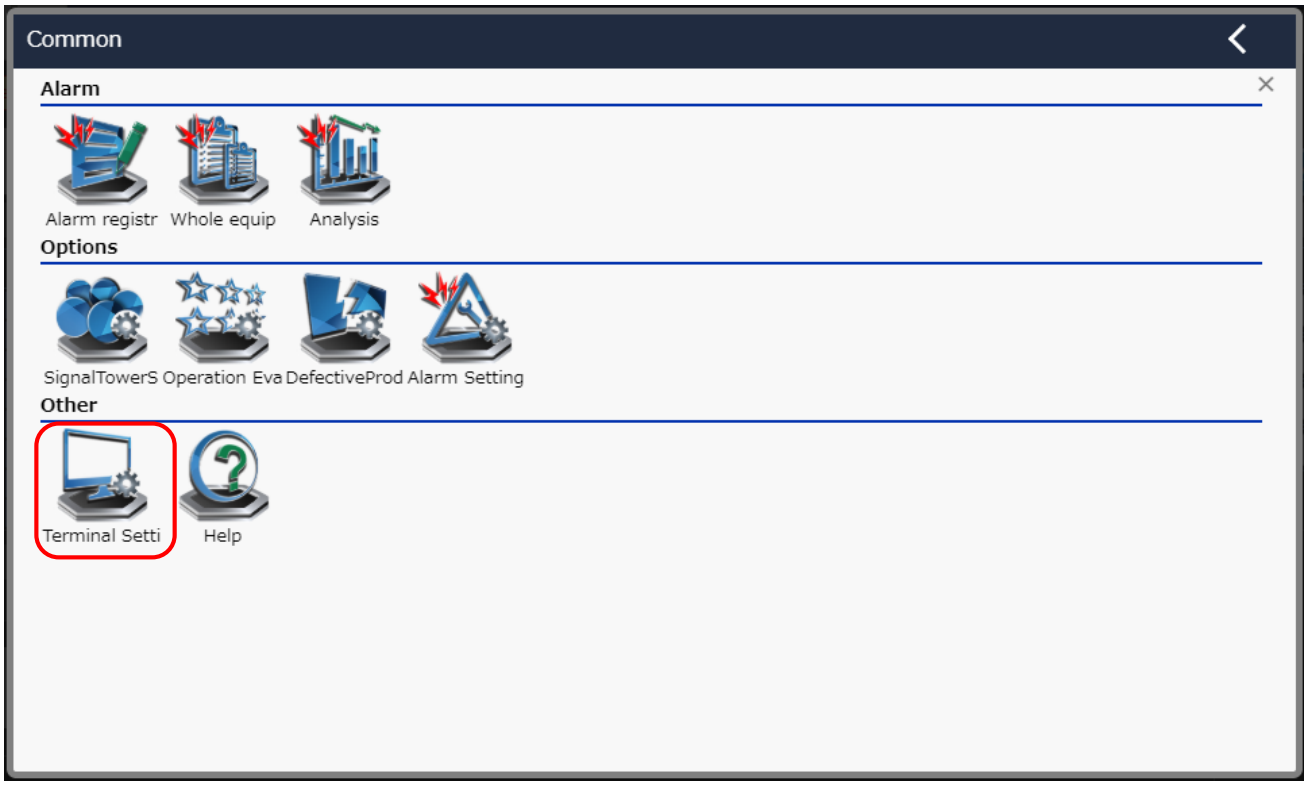


Figure 1: Terminal settings on the menu

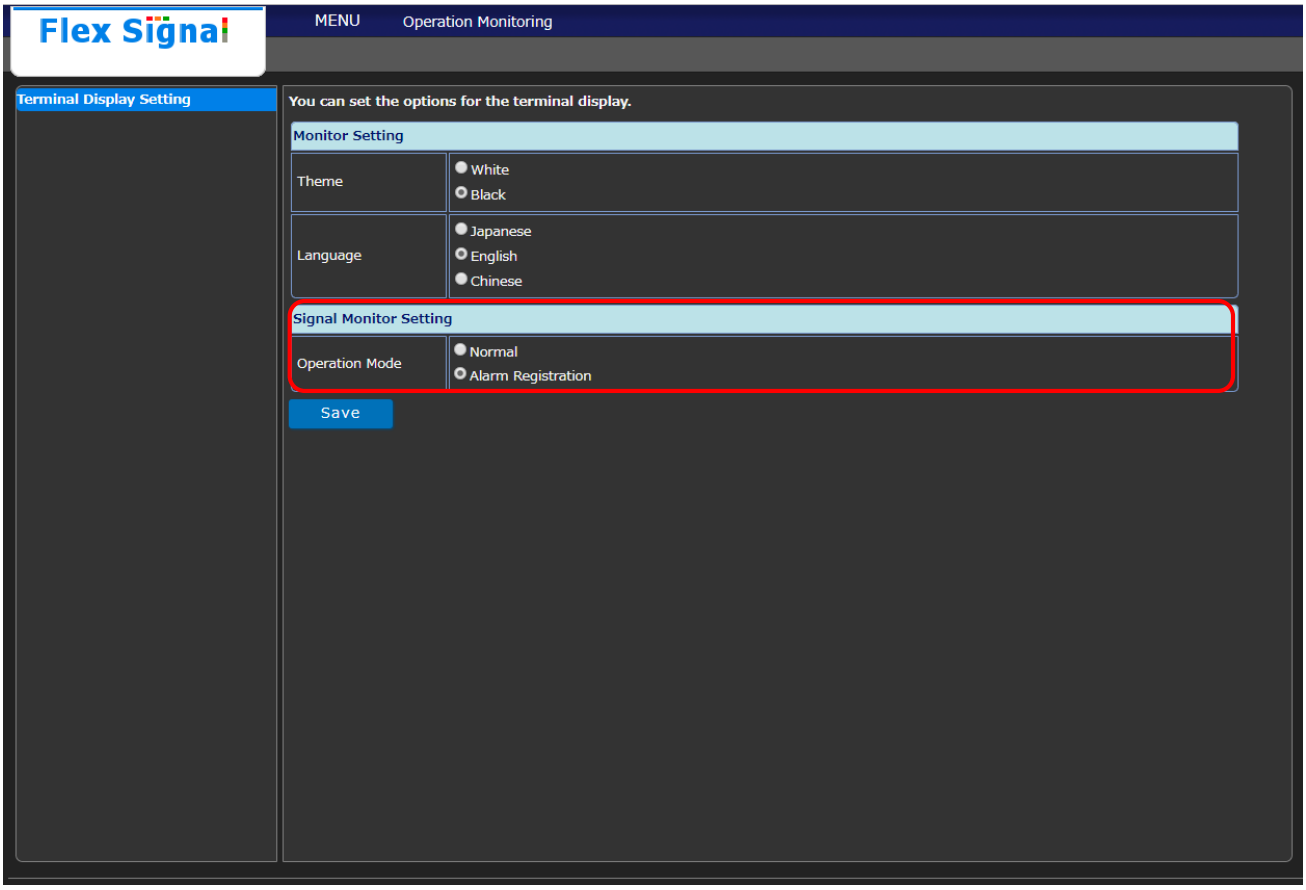


Figure 2: Whole monitor settings screen

Table 1: Description of whole monitor settings

No.	Item		Description
1	Operation mode	Normal	In this mode, the operation history monitor is displayed for each signal lamp when you click the signal lamp status on the general monitor.
2	Operation mode	Alarm registration	In this mode, the alarm registration popup is displayed for each signal lamp when you click the signal lamp status on the general monitor.

(2) Registering the current status alarm

Go to the whole monitor screen by selecting "MENU" - "Monitor " - " Whole monitor."

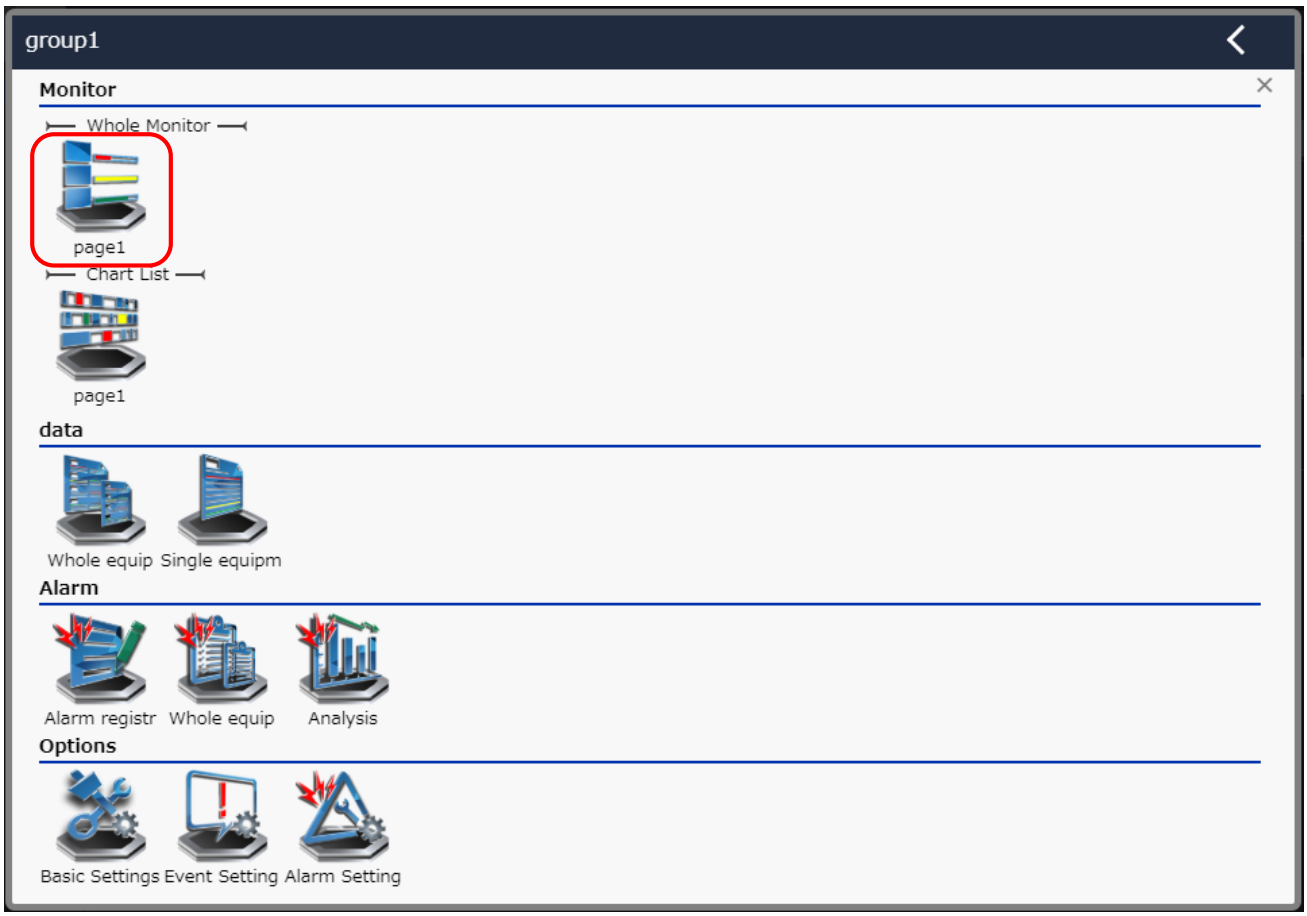


Figure 3: Whole monitor on the menu

When you set "Alarm registration" to operation mode in the whole monitor settings and click the signal lamp status, the alarm registration screen pops up in the current status.

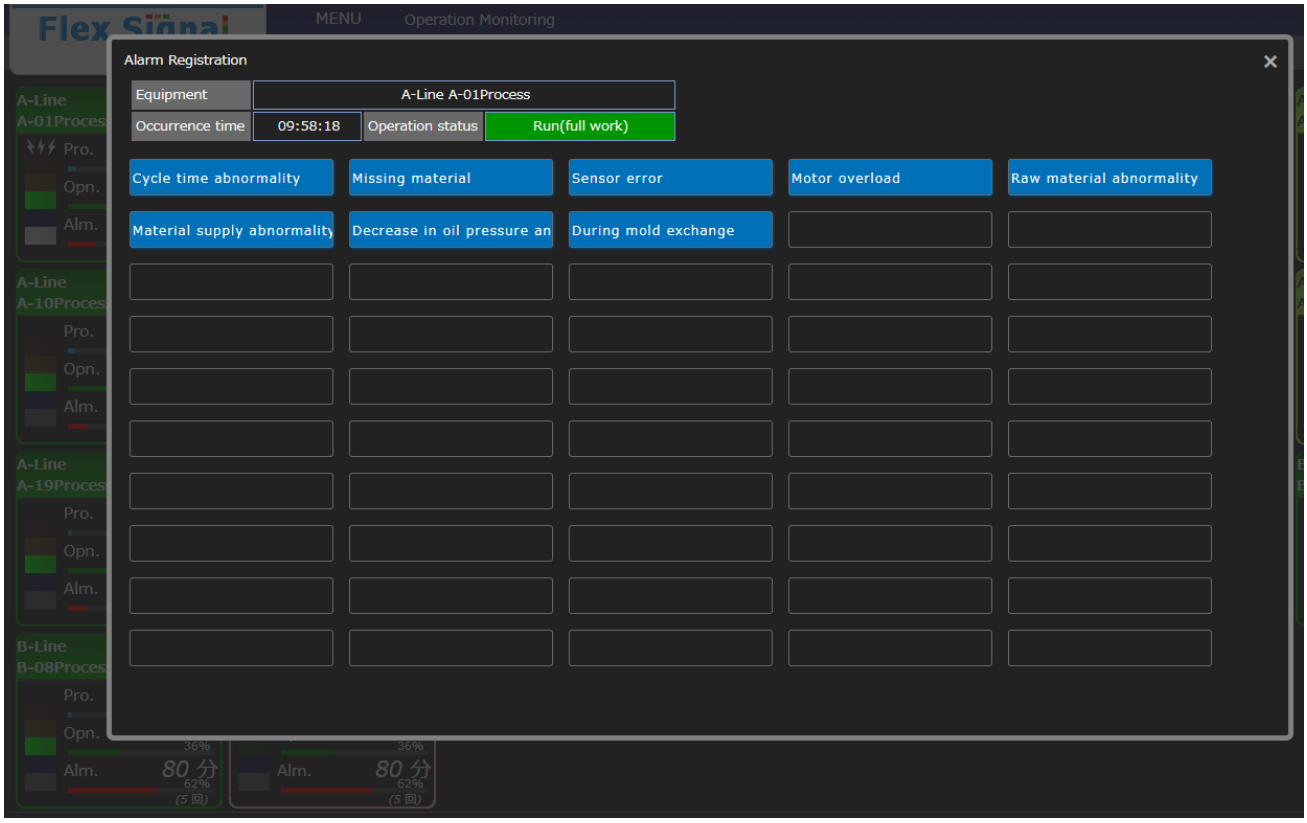


Figure 4: Alarm registration screen in the current status

Table 2: Description of alarm registration screen in the current status

No.	Item	Description
1	Equipment	Displays the device name.
2	Occurrence time	Displays the date/time of occurrence of the current operating status.
3	Operating status	Displays the current operating status.
4	Alarms	Displays the description of registered alarms. When you click an alarm, the clicked alarm is registered. For alarm registration, see "(4) Device-specific alarm settings" in "1-8. Options."

1-4. Alarm operation history for each device

Go to the "Single equipment " screen by selecting "MENU" - "Data" - "Single equipment."

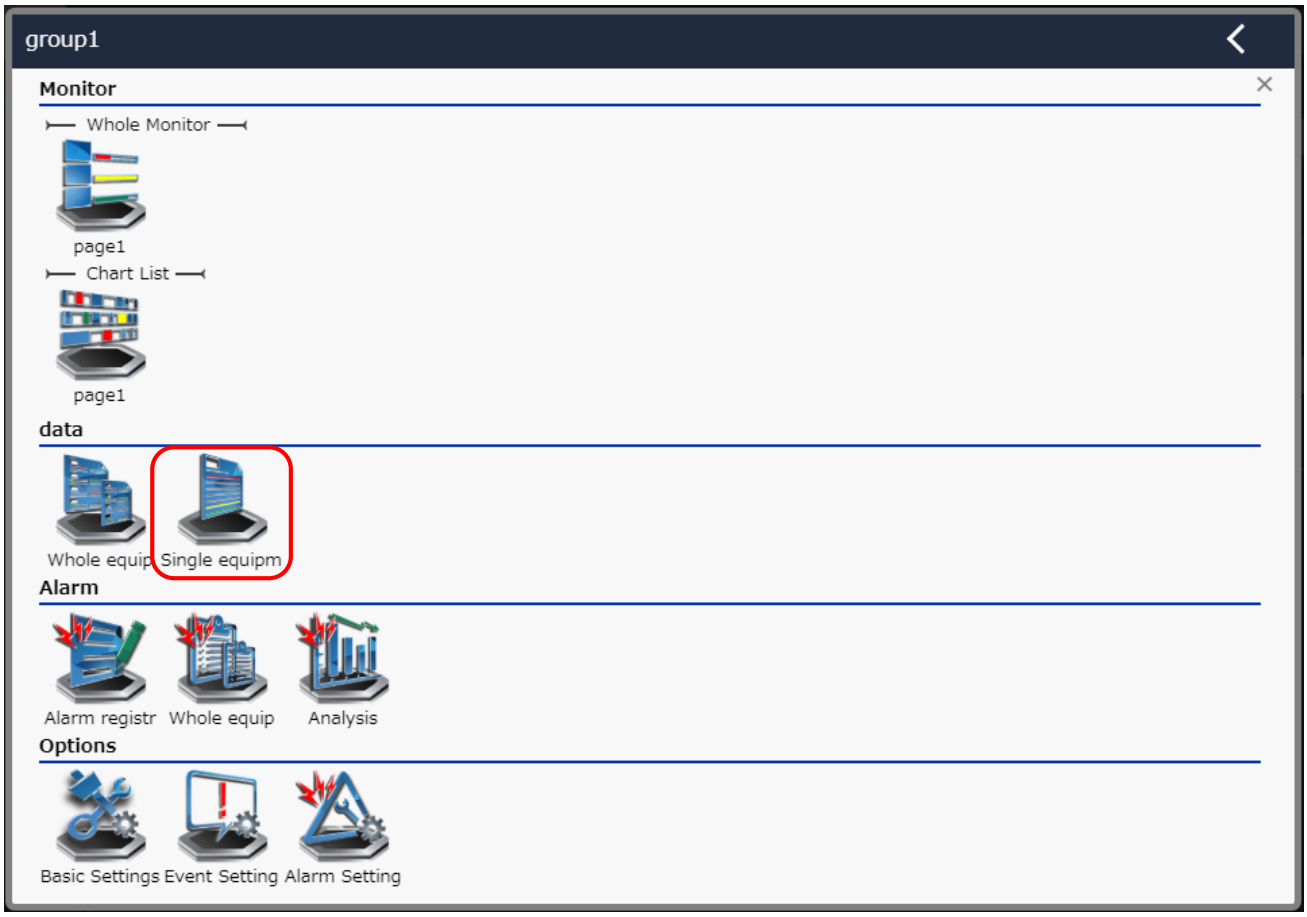


Figure 5: Single equipment on the menu

The operation history monitor screen appears.

If alarms are registered, details of the signal lamp status and alarm status at that time are displayed when you place the cursor on the operation chart.

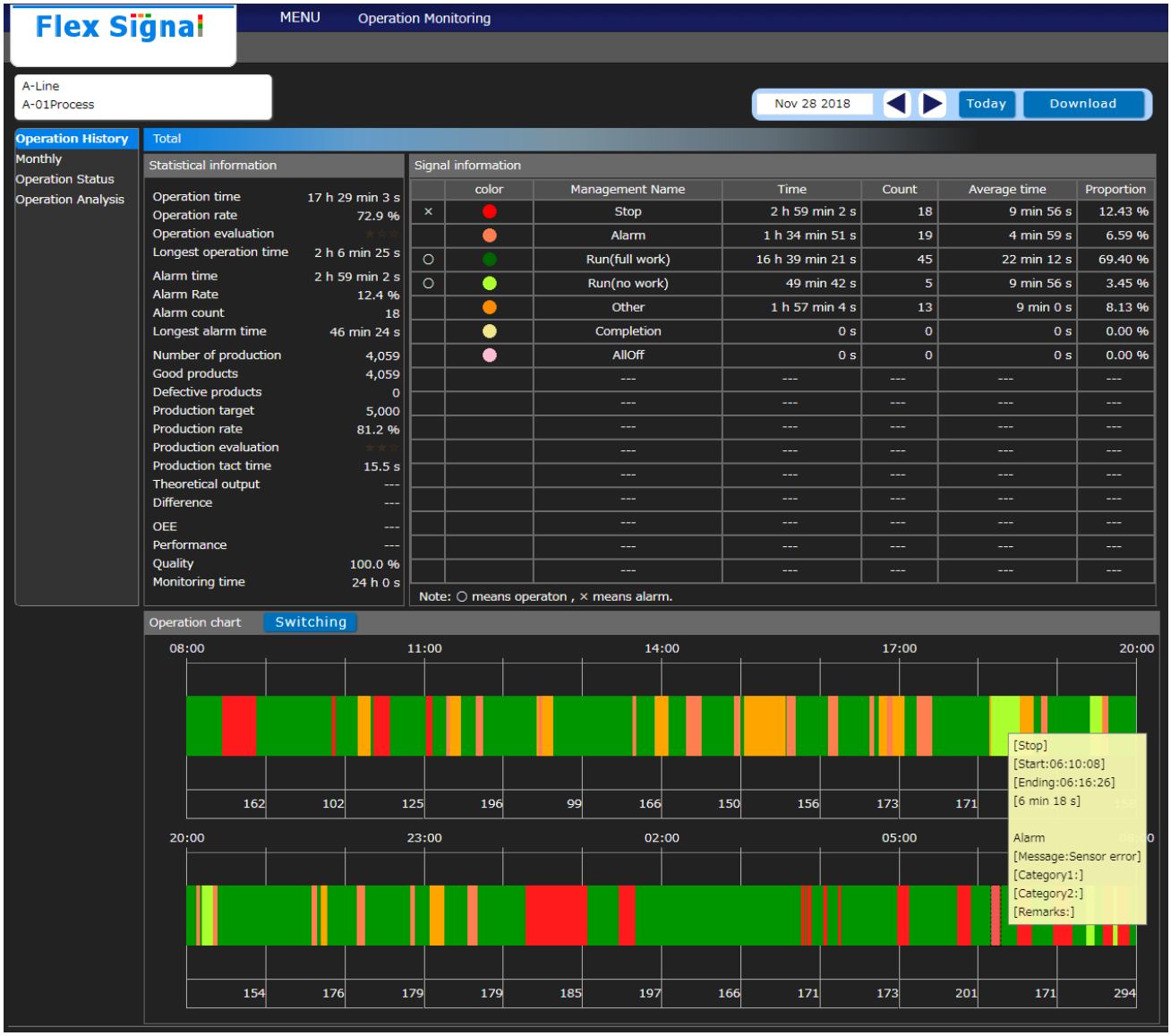


Figure 6: Operation history monitor screen

Table 3: Description of alarm status details

No.	Item	Description
1	Message	Displays a description of the alarm.
2	Category 1	Displays Category 1 of the alarm.
3	Category 2	Displays Category 2 of the alarm.
4	Remarks	Displays remarks on the alarm.

1-5. Alarm registration

This screen is used to register an alarm for the operating status of the device.

This screen lists the operating statuses of the selected device on the target day and allows you to register alarms for the operating status.

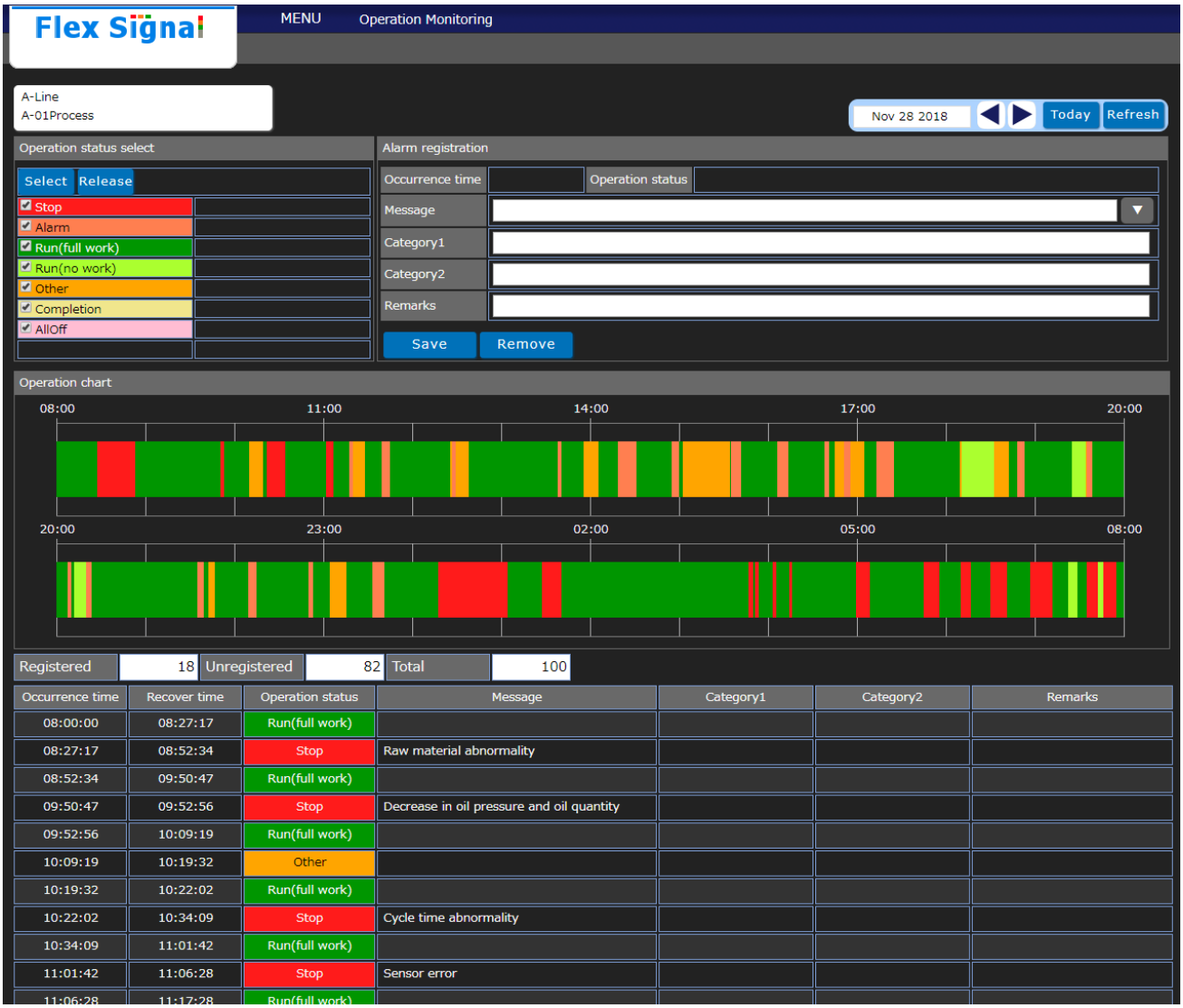
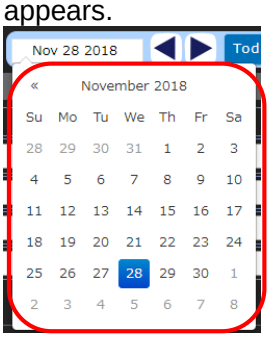
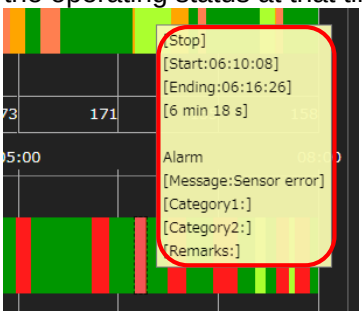
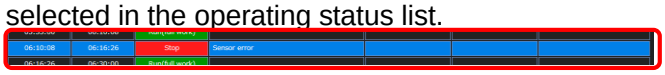


Figure 7: Alarm registration

Table 4: Description of alarm registration

No.	Item		Description
1	Device selection	-	Select the device for which you will register alarms.
2	Target day	-	Select the target day on the calendar. When you select a target day, the following calendar appears. 
3	Date selection	-	Move the target day. Click the ◀ to select one day before the current target day. Click the ▶ to select one day after the current target day.
4	Today	-	Refreshes the operating status on the current day.
5	Operation status select	-	Select the operating statuses to be displayed. You can easily select or deselect all the operating statuses by using "Select all" or "Deselect all."
6	Alarm registration	Occurrence time	Displays the date/time of occurrence of the selected operating status.
7	Alarm registration	Operation status	Displays the selected operating status.
8	Alarm registration	Message	Enter a description of the alarm to be registered. If there are alarm settings that apply to all the devices or device-specific alarm settings for the selected device, you can select them. If an alarm is registered for the selected operating status, the description is displayed in the list.
9	Alarm registration	Category 1	Enter Category 1 of the alarm to be registered. This item may be set accordingly when you select the description. If an alarm is registered for the selected operating status, Category 1 is displayed in the list.
10	Alarm registration	Category 2	Enter Category 2 of the alarm to be registered. This item may be set accordingly when you select the description. If an alarm is registered for the selected operating status, Category 2 is displayed in the list.
11	Alarm registration	Remarks	Enter a remark on the alarm to be registered. If an alarm is registered for the selected operating status, the remark is displayed in the list.
12	Alarm registration	Save	Registers an alarm for the selected operating status.

13	Operation chart	Detailed information	When you place the cursor on the chart, details on the operating status at that time are displayed.  1. Operating status, 2. Start time, 3. End time, and 4. Total time are displayed as details. When an alarm is registered, the message, Category 1, Category 2, and remark of the alarm are then displayed. Each component color is displayed in the chart. If the signal status is not managed as a component color, the whole chart is displayed in gray ( ). When you place the cursor on the time and click it, the alarm active at that time is displayed in the Alarm registration section and the row for that time is selected in the operating status list. 
14	Registered	-	Displays the number of items for which an alarm is registered.
15	Unregistered	-	Displays the number of items for which no alarm is registered.
16	Total	-	Displays the number of items for which an alarm can be registered.
17	Operating status list	Occurrence time	Displays the date/time of occurrence of the operating status.
18	Operating status list	Recover time	Displays the restoration date/time of the operating status.
19	Operating status list	Operation status	Displays the operating status.
20	Operating status list	Message	If an alarm is registered for the operating status, the description of the alarm is displayed.
21	Operating status list	Category 1	If an alarm is registered for the operating status, Category 1 of the alarm is displayed.
22	Operating status list	Category 2	If an alarm is registered for the operating status, Category 2 of the alarm is displayed.
23	Operating status list	Remarks	If an alarm is registered for the operating status, the remark for that alarm is displayed.

1-6. Whole equipment

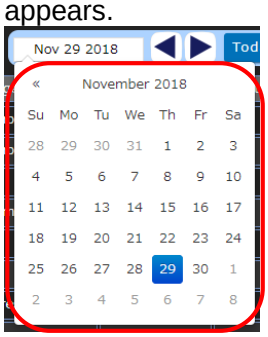
This screen is used to check alarms for all the devices or one device for one day.

You can check the alarms on the target day in list form on this screen.

Occurrence time	Recover time	Time	Equipment	Operation status	Message	Category1	Category2	Remarks
08:00:00	08:08:51	8 min 51 s	A-Line A-02Process	Stop	Raw material abnormality			
08:00:00	08:08:51	8 min 51 s	A-Line A-07Process	Stop	Raw material abnormality			
08:00:00	08:16:26	16 min 26 s	A-Line A-10Process	Stop	Motor overload			
08:00:00	08:16:26	16 min 26 s	A-Line A-19Process	Stop	Cycle time abnormality			
08:00:00	08:08:51	8 min 51 s	B-Line B-04Process	Stop	Sensor error			
08:00:00	08:08:51	8 min 51 s	B-Line B-05Process	Stop	Missing material			
08:00:00	08:08:51	8 min 51 s	B-Line B-07Process	Stop	Decrease in oil pressure and oil			
08:00:00	08:08:51	8 min 51 s	B-Line B-08Process	Stop	Sensor error			
08:00:00	08:08:51	8 min 51 s	B-Line B-09Process	Stop	Motor overload			
08:00:00	08:08:51	8 min 51 s	B-Line B-10Process	Stop	Cycle time abnormality			
08:00:00	08:16:26	16 min 26 s	A-Line A-34Process	Stop	Cycle time abnormality			
08:00:00	08:16:26	16 min 26 s	A-Line A-43Process	Stop	Raw material abnormality			
08:00:00	08:08:51	8 min 51 s	A-Line A-45Process	Stop	Motor overload			
08:09:45	08:19:30	9 min 45 s	A-Line A-02Process	Stop	Raw material abnormality			
08:09:45	08:19:30	9 min 45 s	A-Line A-07Process	Stop	Raw material abnormality			
08:09:45	08:19:30	9 min 45 s	B-Line B-04Process	Stop	Cycle time abnormality			
08:09:45	08:19:30	9 min 45 s	B-Line B-05Process	Stop	Sensor error			
08:09:45	08:19:30	9 min 45 s	B-Line B-07Process	Stop	Motor overload			
08:09:45	08:19:30	9 min 45 s	B-Line B-08Process	Stop	Raw material abnormality			
08:09:45	08:19:30	9 min 45 s	B-Line B-09Process	Stop	Sensor error			
08:09:45	08:19:30	9 min 45 s	B-Line B-10Process	Stop	Cycle time abnormality			
08:09:45	08:19:30	9 min 45 s	A-Line A-45Process	Stop	Motor overload			
08:20:59	08:41:25	20 min 26 s	A-Line A-02Process	Stop	Raw material abnormality			
08:20:59	08:41:25	20 min 26 s	A-Line A-07Process	Stop	Raw material abnormality			
08:20:59	08:41:25	20 min 26 s	B-Line B-04Process	Stop	Motor overload			
08:20:59	08:41:25	20 min 26 s	B-Line B-05Process	Stop	Cycle time abnormality			
08:20:59	08:41:25	20 min 26 s	B-Line B-07Process	Stop	Sensor error			
08:20:59	08:41:25	20 min 26 s	B-Line B-08Process	Stop	Material supply abnormality			
08:20:59	08:41:25	20 min 26 s	B-Line B-09Process	Stop	Decrease in oil pressure and oil			
08:20:59	08:41:25	20 min 26 s	B-Line B-10Process	Stop	Cycle time abnormality			

Figure 8: Whole equipment

Table 5: Description of Whole equipment

No.	Item		Description
1	Device selection	-	Select the device to be displayed.
2	Target day	-	Select the target day on the calendar. When you select a target day, the following calendar appears. 
3	Date selection		Move the target day. Click the ◀ to select one day before the current target day. Click the ▶ to select one day after the current target day.
4	Today	-	Displays the alarms and operating statuses on the current day.
5	Download	-	Downloads the contents of the alarm list for the target day in CSV format.
6	Alarm list	Occurrence time	Displays the date/time of occurrence of the alarm.
7	Alarm list	Recover time	Displays the restoration date/time of the alarm.
8	Alarm list	Time	Displays the duration of the alarm.
9	Alarm list	Equipment	Displays the name of the device where the alarm occurred.
10	Alarm list	Operation status	Displays the operating status of the alarm.
11	Alarm list	Message	Displays a description of the alarm.
12	Alarm list	Category 1	Displays Category 1 of the alarm.
13	Alarm list	Category 2	Displays Category 2 of the alarm.
14	Alarm list	Remarks	Displays remarks on the alarm.
15	Alarm list	Page controls	The page controls appear when the number of alarms exceeds 200.

[Sample - downloaded general daily report data] (Format: CSV, Character encoding: UTF-8, Line feed code: CRLF)

Occurrence time,Recover time,Time,Signal tower No,Signal tower identification ID,Equipment name,Operation status,Message,Category1,Category2,Remarks
2018/11/29 08:00:00,2018/11/29 08:08:51,531,2,00004CFFFEBAC6CD,A-Line A-02Process,Stop,Raw material abnormality,,,
2018/11/29 08:00:00,2018/11/29 08:08:51,531,7,00004CFFFEC8A5A3,A-Line A-07Process,Stop,Raw material abnormality,,,
2018/11/29 08:00:00,2018/11/29 08:16:26,986,10,00004CFFFEC8A5A0,A-Line A-10Process,Stop,Motor overload,,,
2018/11/29 08:00:00,2018/11/29 08:16:26,986,19,00004CFFFEC8A597,A-Line A-19Process,Stop,Cycle time abnormality,,,
2018/11/29 08:00:00,2018/11/29 08:08:51,531,24,00004CFFFEC8A592,B-Line B-04Process,Stop,Sensor error,,,
2018/11/29 08:00:00,2018/11/29 08:08:51,531,25,00004CFFFEC8A591,B-Line B-05Process,Stop,Missing material,,,
2018/11/29 08:00:00,2018/11/29 08:08:51,531,27,00004CFFFEC8A58F,B-Line B-07Process,Stop,Decrease in oil pressure and oil quantity,,,
2018/11/29 08:00:00,2018/11/29 08:08:51,531,28,00004CFFFEC8A58E,B-Line B-08Process,Stop,Sensor error,,,
2018/11/29 08:00:00,2018/11/29 08:08:51,531,29,00004CFFFEC8A58D,B-Line B-09Process,Stop,Motor overload,,,
2018/11/29 08:00:00,2018/11/29 08:08:51,531,30,00004CFFFEC8A58C,B-Line B-10Process,Stop,Cycle time abnormality,,,
2018/11/29 08:00:00,2018/11/29 08:16:26,986,34,00004CFFFEC8A597,A-Line A-34Process,Stop,Cycle time abnormality,,,
2018/11/29 08:00:00,2018/11/29 08:16:26,986,43,00004CFFFEC8A606,A-Line A-43Process,Stop,Raw material abnormality,,,
2018/11/29 08:00:00,2018/11/29 08:08:51,531,45,00004CFFFEC8A608,A-Line A-45Process,Stop,Motor overload,,,
2018/11/29 08:09:45,2018/11/29 08:19:30,585,2,00004CFFFEBAC6CD,A-Line A-02Process,Stop,Raw material abnormality,,,
2018/11/29 08:09:45,2018/11/29 08:19:30,585,7,00004CFFFEC8A5A3,A-Line A-07Process,Stop,Raw material abnormality,,,
2018/11/29 08:09:45,2018/11/29 08:19:30,585,24,00004CFFFEC8A592,B-Line B-04Process,Stop,Cycle time abnormality,,,
2018/11/29 08:09:45,2018/11/29 08:19:30,585,25,00004CFFFEC8A591,B-Line B-05Process,Stop,Sensor error,,,
2018/11/29 08:09:45,2018/11/29 08:19:30,585,27,00004CFFFEC8A58F,B-Line B-07Process,Stop,Motor overload,,,
2018/11/29 08:09:45,2018/11/29 08:19:30,585,28,00004CFFFEC8A58E,B-Line B-08Process,Stop,Raw material abnormality,,,
2018/11/29 08:09:45,2018/11/29 08:19:30,585,29,00004CFFFEC8A58D,B-Line B-09Process,Stop,Sensor error,,,
2018/11/29 08:09:45,2018/11/29 08:19:30,585,30,00004CFFFEC8A58C,B-Line B-10Process,Stop,Cycle time abnormality,,,
2018/11/29 08:09:45,2018/11/29 08:19:30,585,45,00004CFFFEC8A608,A-Line A-45Process,Stop,Motor overload,,,
2018/11/29 08:20:59,2018/11/29 08:41:25,1226,2,00004CFFFEBAC6CD,A-Line A-02Process,Stop,Raw material abnormality,,,
2018/11/29 08:20:59,2018/11/29 08:41:25,1226,7,00004CFFFEC8A5A3,A-Line A-07Process,Stop,Raw material abnormality,,,
2018/11/29 08:20:59,2018/11/29 08:41:25,1226,24,00004CFFFEC8A592,B-Line B-04Process,Stop,Motor overload,,,
2018/11/29 08:20:59,2018/11/29 08:41:25,1226,25,00004CFFFEC8A591,B-Line B-05Process,Stop,Cycle time abnormality,,,
2018/11/29 08:20:59,2018/11/29 08:41:25,1226,27,00004CFFFEC8A58F,B-Line B-07Process,Stop,Sensor error,,,
2018/11/29 08:20:59,2018/11/29 08:41:25,1226,28,00004CFFFEC8A58E,B-Line B-08Process,Stop,Material supply abnormality,,,
2018/11/29 08:20:59,2018/11/29 08:41:25,1226,29,00004CFFFEC8A58D,B-Line B-09Process,Stop,Decrease in oil pressure and oil quantity,,,
2018/11/29 08:20:59,2018/11/29 08:41:25,1226,30,00004CFFFEC8A58C,B-Line B-10Process,Stop,Cycle time abnormality,,,
2018/11/29 08:20:59,2018/11/29 08:41:25,1226,45,00004CFFFEC8A608,A-Line A-45Process,Stop,Sensor error,,,
2018/11/29 08:25:01,2018/11/29 08:37:41,760,1,00004CFFFEC8A5A8,A-Line A-01Process,Stop,Sensor error,,,
2018/11/29 08:25:01,2018/11/29 08:37:41,760,11,00004CFFFEC8A5A8,A-Line A-11Process,Stop,Sensor error,,,
2018/11/29 08:25:01,2018/11/29 08:37:41,760,12,00004CFFFEC8A5A8,A-Line A-12Process,Stop,Sensor error,,,
2018/11/29 08:25:01,2018/11/29 08:37:41,760,20,00004CFFFEC8A596,A-Line A-20Process,Stop,Decrease in oil pressure and oil quantity,,,
2018/11/29 08:25:01,2018/11/29 08:37:41,760,33,00004CFFFEC8A596,A-Line A-33Process,Stop,Decrease in oil pressure and oil quantity,,,
2018/11/29 08:27:17,2018/11/29 08:36:17,540,5,00004CFFFEC8A5A5,A-Line A-05Process,Stop,Material supply abnormality,,,
2018/11/29 08:27:17,2018/11/29 08:36:17,540,16,00004CFFFEC8A59A,A-Line A-16Process,Stop,Decrease in oil pressure and oil quantity,,,
2018/11/29 08:27:17,2018/11/29 08:36:17,540,23,00004CFFFEC8A593,B-Line B-03Process,Stop,Material supply abnormality,,,
2018/11/29 08:27:17,2018/11/29 08:52:34,1517,38,00004CFFFEC8A601,A-Line A-38Process,Stop,Raw material abnormality,,,
2018/11/29 08:27:17,2018/11/29 08:52:34,1517,50,00004CFFFEC8A613,A-Line A-50Process,Stop,Sensor error,,,
2018/11/29 08:43:16,2018/11/29 08:44:02,46,1,00004CFFFEC8A5A8,A-Line A-01Process,Stop,Decrease in oil pressure and oil quantity,,,
2018/11/29 08:43:16,2018/11/29 08:44:02,46,11,00004CFFFEC8A5A8,A-Line A-11Process,Stop,Decrease in oil pressure and oil quantity,,,
2018/11/29 08:43:16,2018/11/29 08:44:02,46,12,00004CFFFEC8A5A8,A-Line A-12Process,Stop,Decrease in oil pressure and oil quantity,,,
2018/11/29 08:43:16,2018/11/29 08:44:02,46,20,00004CFFFEC8A596,A-Line A-20Process,Stop,Decrease in oil pressure and oil quantity,,,
2018/11/29 08:43:16,2018/11/29 08:44:02,46,33,00004CFFFEC8A596,A-Line A-33Process,Stop,Decrease in oil pressure and oil quantity,,,
2018/11/29 08:44:02,2018/11/29 09:25:21,2479,2,00004CFFFEBAC6CD,A-Line A-02Process,Stop,Cycle time abnormality,,,
2018/11/29 08:44:02,2018/11/29 09:25:21,2479,7,00004CFFFEC8A5A3,A-Line A-07Process,Stop,Missing material,,,
2018/11/29 08:44:02,2018/11/29 09:25:21,2479,24,00004CFFFEC8A592,B-Line B-04Process,Stop,Motor overload,,,
2018/11/29 08:44:02,2018/11/29 09:25:21,2479,25,00004CFFFEC8A591,B-Line B-05Process,Stop,Decrease in oil pressure and oil quantity,,,
2018/11/29 08:44:02,2018/11/29 09:25:21,2479,27,00004CFFFEC8A58F,B-Line B-07Process,Stop,Cycle time abnormality,,,
2018/11/29 08:44:02,2018/11/29 09:25:21,2479,28,00004CFFFEC8A58E,B-Line B-08Process,Stop,Missing material,,,
2018/11/29 08:44:02,2018/11/29 09:25:21,2479,29,00004CFFFEC8A58D,B-Line B-09Process,Stop,Cycle time abnormality,,,
2018/11/29 08:44:02,2018/11/29 09:25:21,2479,30,00004CFFFEC8A58C,B-Line B-10Process,Stop,Cycle time abnormality,,,
2018/11/29 08:44:02,2018/11/29 09:25:21,2479,45,00004CFFFEC8A608,A-Line A-45Process,Stop,Raw material abnormality,,,
2018/11/29 09:05:44,2018/11/29 09:06:57,73,5,00004CFFFEC8A5A5,A-Line A-05Process,Stop,Motor overload,,,
2018/11/29 09:05:44,2018/11/29 09:06:57,73,16,00004CFFFEC8A59A,A-Line A-16Process,Stop,Raw material abnormality,,,

2018/11/29 09:05:44,2018/11/29 09:06:57,73,23,00004CFFFEC8A593,B-Line B-03Process,Stop,Cycle time abnormality,,,
2018/11/29 09:15:55,2018/11/29 09:16:34,39,8,00004CFFFEC8A5A2,A-Line A-08Process,Stop,Missing material,,,
2018/11/29 09:15:55,2018/11/29 09:16:34,39,17,00004CFFFEC8A599,A-Line A-17Process,Stop,Decrease in oil pressure and oil quantity,,,
2018/11/29 09:15:55,2018/11/29 09:16:34,39,26,00004CFFFEC8A590,B-Line B-06Process,Stop,Missing material,,,
2018/11/29 09:15:55,2018/11/29 09:16:34,39,36,00004CFFFEC8A599,A-Line A-36Process,Stop,Decrease in oil pressure and oil quantity,,,
2018/11/29 09:15:55,2018/11/29 09:16:34,39,37,00004CFFFEC8A600,A-Line A-37Process,Stop,Cycle time abnormality,,,
2018/11/29 09:15:55,2018/11/29 09:16:34,39,39,00004CFFFEC8A602,A-Line A-39Process,Stop,Raw material abnormality,,,
2018/11/29 09:15:55,2018/11/29 09:16:34,39,41,00004CFFFEC8A604,A-Line A-41Process,Stop,Missing material,,,
2018/11/29 09:15:55,2018/11/29 09:16:34,39,42,00004CFFFEC8A605,A-Line A-42Process,Stop,Decrease in oil pressure and oil quantity,,,
2018/11/29 09:15:55,2018/11/29 09:16:34,39,49,00004CFFFEC8A612,A-Line A-49Process,Stop,Material supply abnormality,,,
2018/11/29 09:22:59,2018/11/29 09:24:33,94,1,00004CFFFEC8A5A8,A-Line A-01Process,Stop,Raw material abnormality,,,
2018/11/29 09:22:59,2018/11/29 09:24:33,94,11,00004CFFFEC8A5A8,A-Line A-11Process,Stop,Raw material abnormality,,,
2018/11/29 09:22:59,2018/11/29 09:24:33,94,12,00004CFFFEC8A5A8,A-Line A-12Process,Stop,Raw material abnormality,,,
2018/11/29 09:22:59,2018/11/29 09:24:33,94,20,00004CFFFEC8A596,A-Line A-20Process,Stop,Material supply abnormality,,,
2018/11/29 09:22:59,2018/11/29 09:24:33,94,33,00004CFFFEC8A596,A-Line A-33Process,Stop,Material supply abnormality,,,
2018/11/29 09:26:56,2018/11/29 09:31:37,281,1,00004CFFFEC8A5A8,A-Line A-01Process,Stop,Material supply abnormality,,,
2018/11/29 09:26:56,2018/11/29 09:31:37,281,11,00004CFFFEC8A5A8,A-Line A-11Process,Stop,Material supply abnormality,,,
2018/11/29 09:26:56,2018/11/29 09:31:37,281,12,00004CFFFEC8A5A8,A-Line A-12Process,Stop,Material supply abnormality,,,
2018/11/29 09:26:56,2018/11/29 09:31:37,281,20,00004CFFFEC8A596,A-Line A-20Process,Stop,Raw material abnormality,,,
2018/11/29 09:26:56,2018/11/29 09:31:37,281,33,00004CFFFEC8A596,A-Line A-33Process,Stop,Raw material abnormality,,,
2018/11/29 09:37:07,2018/11/29 09:37:48,41,8,00004CFFFEC8A5A2,A-Line A-08Process,Stop,Cycle time abnormality,,,
2018/11/29 09:37:07,2018/11/29 09:37:48,41,17,00004CFFFEC8A599,A-Line A-17Process,Stop,Raw material abnormality,,,
2018/11/29 09:37:07,2018/11/29 09:37:48,41,26,00004CFFFEC8A590,B-Line B-06Process,Stop,Material supply abnormality,,,
2018/11/29 09:37:07,2018/11/29 09:37:48,41,36,00004CFFFEC8A599,A-Line A-36Process,Stop,Raw material abnormality,,,
2018/11/29 09:37:07,2018/11/29 09:37:48,41,37,00004CFFFEC8A600,A-Line A-37Process,Stop,Raw material abnormality,,,
2018/11/29 09:37:07,2018/11/29 09:37:48,41,39,00004CFFFEC8A602,A-Line A-39Process,Stop,Sensor error,,,
2018/11/29 09:37:07,2018/11/29 09:37:48,41,41,00004CFFFEC8A604,A-Line A-41Process,Stop,Decrease in oil pressure and oil quantity,,,
2018/11/29 09:37:07,2018/11/29 09:37:48,41,42,00004CFFFEC8A605,A-Line A-42Process,Stop,Missing material,,,
2018/11/29 09:37:07,2018/11/29 09:37:48,41,49,00004CFFFEC8A612,A-Line A-49Process,Stop,Sensor error,,,
2018/11/29 09:37:48,2018/11/29 09:38:23,35,2,00004CFFFEBAC6CD,A-Line A-02Process,Stop,Missing material,,,
2018/11/29 09:37:48,2018/11/29 09:38:23,35,5,00004CFFFEC8A5A5,A-Line A-05Process,Stop,Raw material abnormality,,,
2018/11/29 09:37:48,2018/11/29 09:38:23,35,7,00004CFFFEC8A5A3,A-Line A-07Process,Stop,Cycle time abnormality,,,
2018/11/29 09:37:48,2018/11/29 09:38:23,35,16,00004CFFFEC8A59A,A-Line A-16Process,Stop,Missing material,,,
2018/11/29 09:37:48,2018/11/29 09:38:23,35,23,00004CFFFEC8A593,B-Line B-03Process,Stop,Material supply abnormality,,,
2018/11/29 09:37:48,2018/11/29 09:38:23,35,24,00004CFFFEC8A592,B-Line B-04Process,Stop,Sensor error,,,
2018/11/29 09:37:48,2018/11/29 09:38:23,35,25,00004CFFFEC8A591,B-Line B-05Process,Stop,Material supply abnormality,,,
2018/11/29 09:37:48,2018/11/29 09:38:23,35,27,00004CFFFEC8A58F,B-Line B-07Process,Stop,Cycle time abnormality,,,
2018/11/29 09:37:48,2018/11/29 09:38:23,35,28,00004CFFFEC8A58E,B-Line B-08Process,Stop,Raw material abnormality,,,
2018/11/29 09:37:48,2018/11/29 09:38:23,35,29,00004CFFFEC8A58D,B-Line B-09Process,Stop,Material supply abnormality,,,
2018/11/29 09:37:48,2018/11/29 09:38:23,35,30,00004CFFFEC8A58C,B-Line B-10Process,Stop,Raw material abnormality,,,
2018/11/29 09:37:48,2018/11/29 09:38:23,35,45,00004CFFFEC8A608,A-Line A-45Process,Stop,Missing material,,,
2018/11/29 09:50:47,2018/11/29 09:52:56,129,38,00004CFFFEC8A601,A-Line A-38Process,Stop,Raw material abnormality,,,
2018/11/29 09:50:47,2018/11/29 09:52:56,129,50,00004CFFFEC8A613,A-Line A-50Process,Stop,Decrease in oil pressure and oil quantity,,,
2018/11/29 09:53:41,2018/11/29 09:58:18,277,1,00004CFFFEC8A5A8,A-Line A-01Process,Stop,Sensor error,,,
2018/11/29 09:53:41,2018/11/29 09:58:18,277,11,00004CFFFEC8A5A8,A-Line A-11Process,Stop,Sensor error,,,
2018/11/29 09:53:41,2018/11/29 09:58:18,277,12,00004CFFFEC8A5A8,A-Line A-12Process,Stop,Sensor error,,,
2018/11/29 09:53:41,2018/11/29 09:58:18,277,20,00004CFFFEC8A596,A-Line A-20Process,Stop,Raw material abnormality,,,
2018/11/29 09:53:41,2018/11/29 09:58:18,277,33,00004CFFFEC8A596,A-Line A-33Process,Stop,Raw material abnormality,,,
2018/11/29 10:22:02,2018/11/29 10:34:09,727,38,00004CFFFEC8A601,A-Line A-38Process,Stop,Decrease in oil pressure and oil quantity,,,
2018/11/29 10:22:02,2018/11/29 10:34:09,727,50,00004CFFFEC8A613,A-Line A-50Process,Stop,Decrease in oil pressure and oil quantity,,,
2018/11/29 10:23:29,2018/11/29 10:25:03,94,3,00004CFFFEC8A5A7,A-Line A-03Process,Stop,Decrease in oil pressure and oil quantity,,,
2018/11/29 10:23:29,2018/11/29 10:25:03,94,6,00004CFFFEC8A5A4,A-Line A-06Process,Stop,Cycle time abnormality,,,
2018/11/29 10:23:29,2018/11/29 10:25:03,94,13,00004CFFFEC8A5A4,A-Line A-13Process,Stop,Cycle time abnormality,,,
2018/11/29 10:23:29,2018/11/29 10:25:03,94,14,00004CFFFEC8A59C,A-Line A-14Process,Stop,Missing material,,,
2018/11/29 10:23:29,2018/11/29 10:25:03,94,21,00004CFFFEC8A595,B-Line B-01Process,Stop,Sensor error,,,
2018/11/29 10:23:29,2018/11/29 10:25:03,94,32,00004CFFFEC8A595,A-Line A-32Process,Stop,Sensor error,,,
2018/11/29 10:23:29,2018/11/29 10:25:03,94,44,00004CFFFEC8A607,A-Line A-44Process,Stop,Motor overload,,,
2018/11/29 10:23:29,2018/11/29 10:25:03,94,46,00004CFFFEC8A609,A-Line A-46Process,Stop,Motor overload,,,
2018/11/29 10:23:29,2018/11/29 10:25:03,94,47,00004CFFFEC8A610,A-Line A-47Process,Stop,Missing material,,,

1-7. Analysis

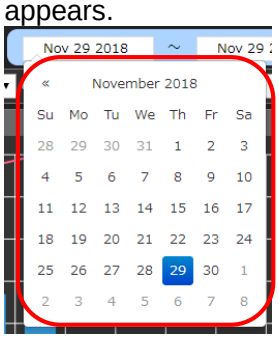
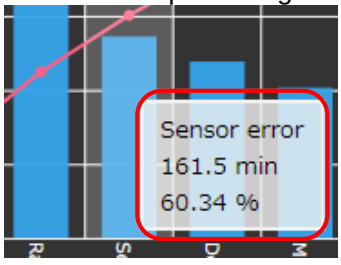
This screen is used to select the device and date range and analyze alarms.

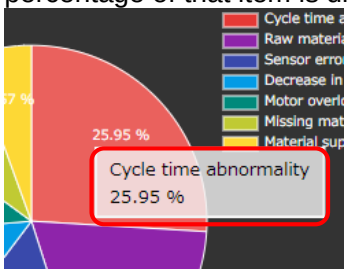
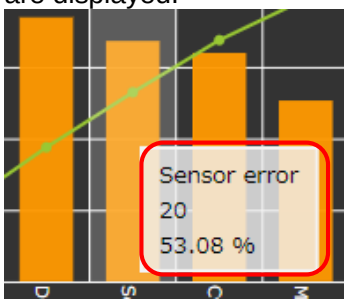
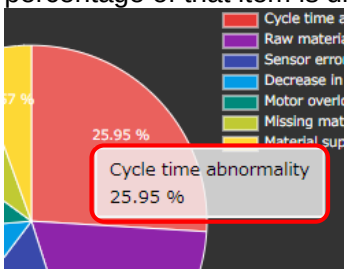
You can analyze alarms for the selected device in the date range and check results in the Pareto chart, pie chart, and list on this screen.

Message	Category1	Category2	Time	Time ratio	Count	Count ratio
Sensor error			2 h 41 min 32 s	15.28 %	20	15.38 %
Decrease in oil pressure and oil quanti			2 h 21 min 14 s	13.36 %	22	16.92 %
Raw material abnormality			3 h 22 min 3 s	19.11 %	27	20.77 %
Material supply abnormality			58 min 52 s	5.57 %	15	11.54 %
Cycle time abnormality			4 h 34 min 17 s	25.95 %	19	14.62 %
Missing material			1 h 39 min 10 s	9.38 %	14	10.77 %
Motor overload			1 h 59 min 59 s	11.35 %	13	10.00 %

Figure 9: Analysis

Table 6: Description of analysis

No.	Item		Description
1	Equipment list	-	Select the device to be analyzed. You can easily select or deselect all the devices by using "Select" or "Deselect."
2	Target day	-	Select the target day on the calendar. When you select a target day, the following calendar appears. 
3	Date selection		Move the target year, month and day. Click ◀ to select one day before the start and end days. Click ▶ to select one day after the start and end days.
4	Today	-	Displays the alarm analysis result for the current day.
5	Refresh	-	Refreshes the alarm analysis results in the target date range. If Category 1 or 2 is selected, analysis results are narrowed down by the selection.
6	Download	-	Downloads the contents of the alarm analysis result list in the target date range in CSV format.
7	Category 1 selection	-	Select Category 1 in the alarm analysis results in the target date range.
8	Category 2 selection	-	Select Category 2 in the alarm analysis results in the target date range.
9	Time chart	Pareto chart	Displays a Pareto chart of the alarms with the longest durations and the total time of the other alarms. When you place the cursor on the Pareto chart, the duration and percentage of that item are displayed. 

10	Duration chart	Pie chart	Displays a pie chart of the alarms with the longest durations and the total time of the other alarms. When you place the cursor on the pie chart, the percentage of that item is displayed. 
11	Number of occurrences chart	Pareto chart	Displays a Pareto chart of the alarms with the largest number of occurrences and the total number of occurrences of the other alarms. When you place the cursor on the Pareto chart, the number of occurrences and percentage of that item are displayed. 
12	Number of occurrences chart	Pie chart	Displays a pie chart of the alarms with the largest number of occurrences and the total number of occurrences of the other alarms. When you place the cursor on the pie chart, the percentage of that item is displayed. 
13	Alarm list	Message	Displays a description of the alarm.
14	Alarm list	Category 1	Displays Category 1 of the alarm.
15	Alarm list	Category 2	Displays Category 2 of the alarm.
16	Alarm list	Time	Displays the total duration of the alarm.
17	Alarm list	Time ratio	Displays the percentage of the total duration of the alarm.
18	Alarm list	Count	Displays the total number of alarm occurrences.
19	Alarm list	Count ratio	Displays the percentage of the total number of alarm occurrences.

[Data downloaded for analysis]

CSV data for analysis is output with the following configuration.

Table 7: Description of configuration of CSV data

Number of rows	Item name	Description
Rows 1 to 3	Header section	Row 1: The range of dates to be analyzed is output. Row 2: The device name list to be analyzed is output. Row 3: Items selected in Categories 1 and 2 are output.
Row 4	-	An empty row is output.
Row 5 and subsequent rows	Alarm analysis result data item	The analysis result data for the alarm is output.

Details of each item are as shown below.

Table 8: Details of alarm analysis result data items

Column	Name	Description
1	Alarm analysis result data item name	The title of the alarm analysis result data is output.
2	Message	Displays a description of the alarm.
3	Category 1	Displays Category 1 of the alarm.
4	Category 2	Displays Category 2 of the alarm.
5	Time	Displays the total duration of the alarm.
6	Time ratio	Displays the percentage of the total duration of the alarm.
7	Count	Displays the total number of alarm occurrences.
8	Count ratio	Displays the percentage of the total number of alarm occurrences.

[Sample - downloaded analysis data] (Format: CSV, Character encoding: UTF-8, Line feed code: CRLF)

2018/11/29～2018/11/29,,,

A-Line A-01Process,A-Line A-02Process,A-Line A-03Process,A-Line A-04Process,A-Line A-05Process,A-Line A-06Process,A-Line A-07Process,A-Line A-08Process,A-Line A-09Process,A-Line A-10Process,A-Line A-11Process,A-Line A-12Process,A-Line A-13Process,A-Line A-14Process,A-Line A-15Process,A-Line A-16Process,A-Line A-17Process,A-Line A-18Process,A-Line A-19Process,A-Line A-20Process,A-Line A-31Process,A-Line A-32Process,A-Line A-33Process,A-Line A-34Process,A-Line A-35Process,A-Line A-36Process,A-Line A-37Process,A-Line A-38Process,A-Line A-39Process,A-Line A-40Process,A-Line A-41Process,A-Line A-42Process,A-Line A-43Process,A-Line A-44Process,A-Line A-45Process,A-Line A-46Process,A-Line A-47Process,A-Line A-48Process,A-Line A-49Process,A-Line A-50Process,B-Line B-01Process,B-Line B-02Process,B-Line B-03Process,B-Line B-04Process,B-Line B-05Process,B-Line B-06Process,B-Line B-07Process,B-Line B-08Process,B-Line B-09Process,B-Line B-10Process

,,,

,,,

Message,Category1,Category2,Time,Time ratio,Count,Count ratio

Sensor error,,,10416,14.20,24,14.20,,,

Decrease in oil pressure and oil quantity,,,9704,16.57,28,16.57,,,

Raw material abnormality,,,12506,18.93,32,18.93,,,

Material supply abnormality,,,3763,11.83,20,11.83,,,

Cycle time abnormality,,,16864,16.57,28,16.57,,,

Missing material,,,6058,11.24,19,11.24,,,

Motor overload,,,7423,10.65,18,10.65,,,

1-8. Options

(1) Administrator authentication

When you select the "Options" menu button, the following screen may appear. Enter the administrator password and press "OK." The initial administrator password is admin.

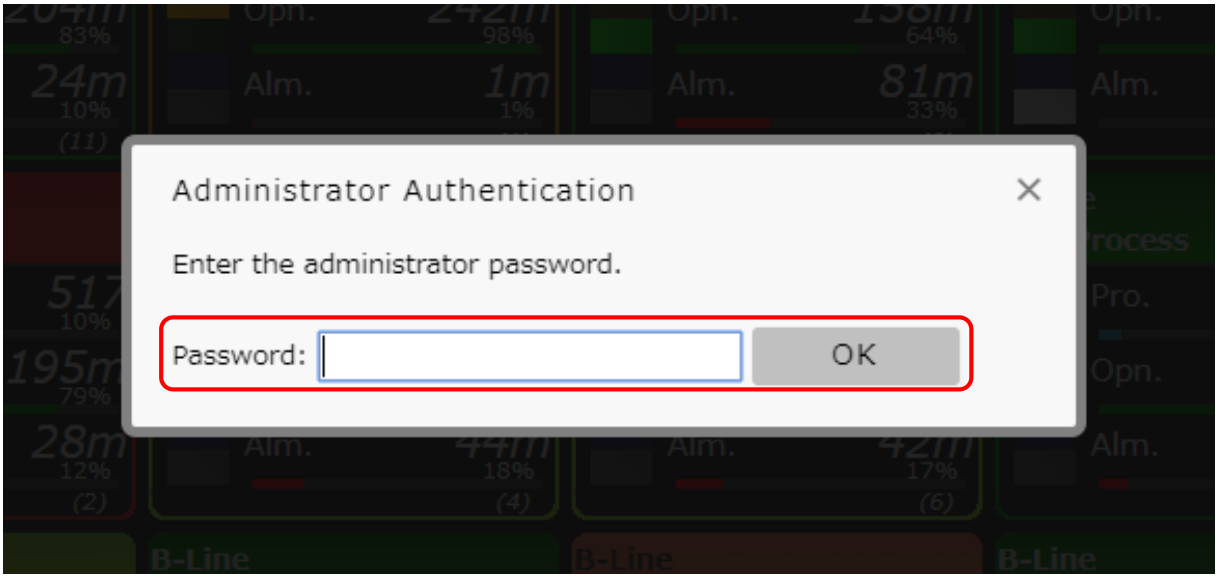


Figure 10: Administrator authentication screen

(2) Alarm settings menu

The alarm settings section menu displays the menus for all the alarm settings screens. When you click a menu, each settings screen appears.

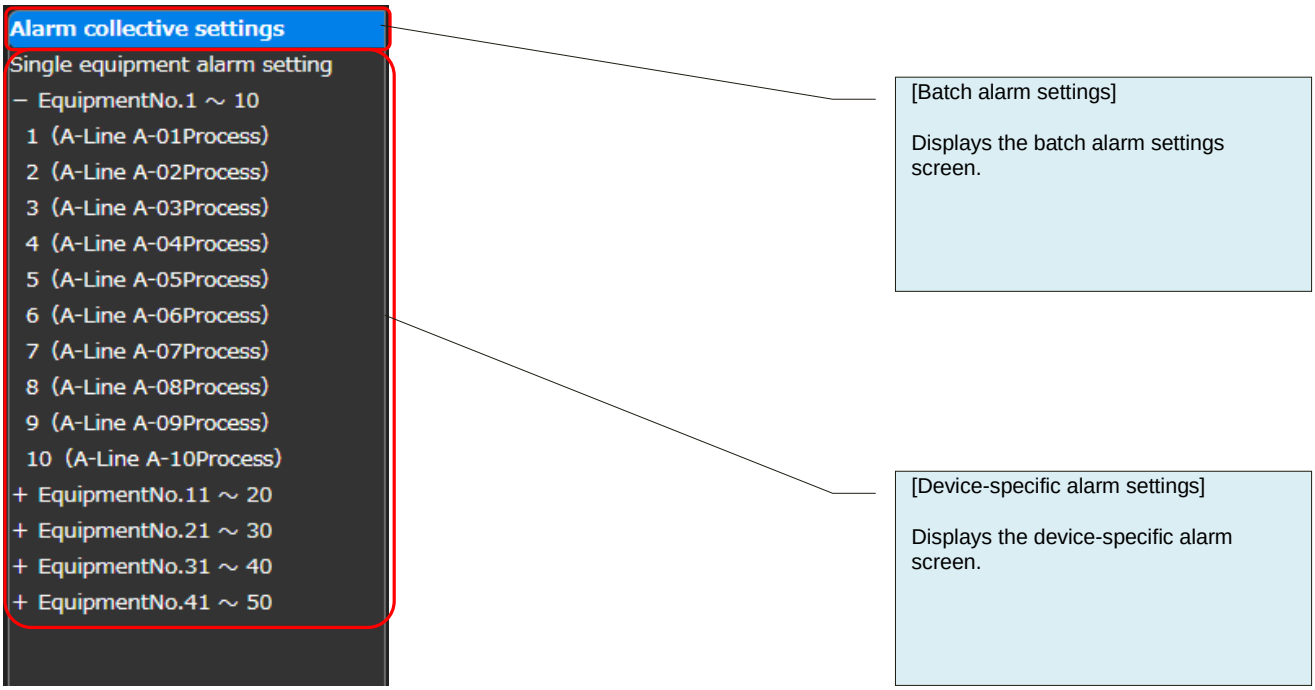


Figure 11: Alarm settings menu

(3) All collective settings

You can specify alarm settings for multiple devices at once.

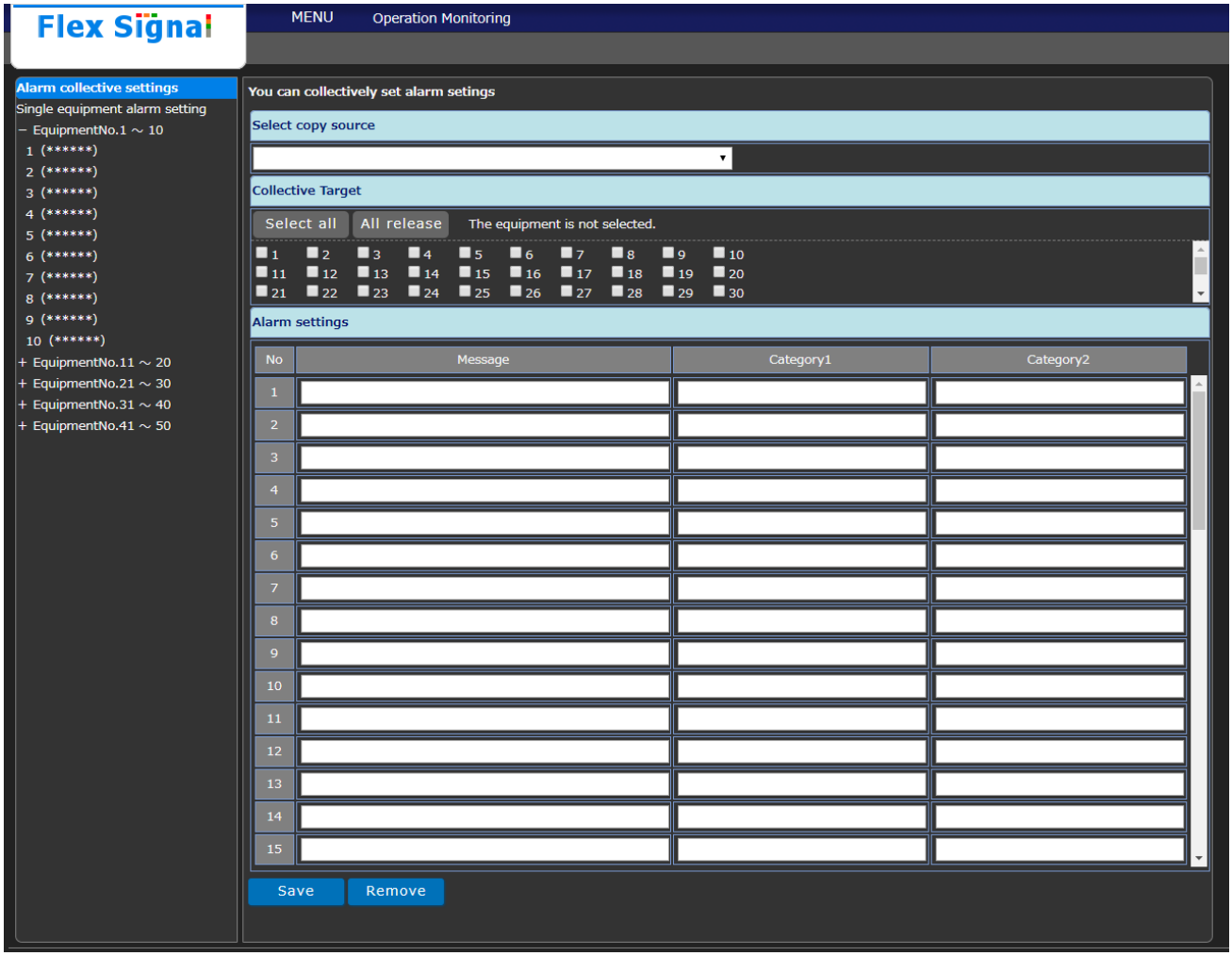


Figure 12: All collective settings screen

Table 9: Description of all collective settings

No.	Item		Description
1	Select copy source	-	Select the device to which you want to copy alarm settings. Once you select a device, the selected settings are displayed under Alarm settings.
2	Collective Target	-	Select the devices you want to configure. You can easily select or deselect all the devices by using "Select all" or "Deselect all."
3	Alarm settings	Message	Enter a description of the alarm.
4	Alarm settings	Category 1	Enter a description for Category 1 of the alarm.
5	Alarm settings	Category 2	Enter a description for Category 2 of the alarm.
6	Save	-	Registers settings for all target devices at once.
7	Remove	-	Deletes all the settings for the target devices.

(4) Single equipment alarm setting

Specify alarm settings specific to each device.

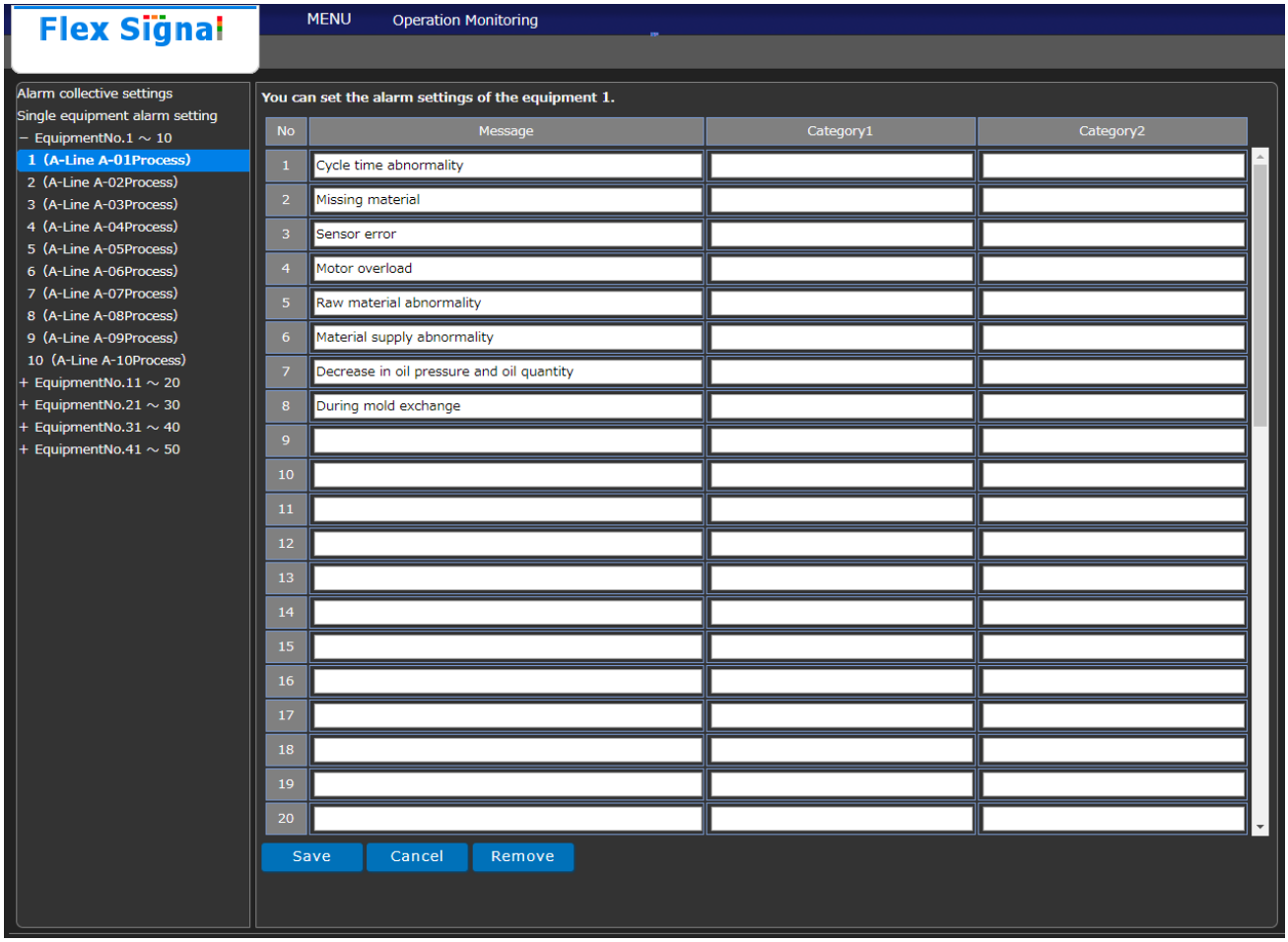


Figure 13: Single equipment alarm setting screen

Table 10: Details of single equipment alarm setting

No.	Item	Description
1	Message	Enter a description of the alarm.
2	Category 1	Enter a description for Category 1 of the alarm.
3	Category 2	Enter a description for Category 2 of the alarm.
4	Save	Registers settings.
5	Cancel	Discards the current edits to the settings and updates the registration.
6	Remove	Deletes settings.

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