Operating Instructions
i-PRO Active Guard Dashboard

CONTENTS

1. INTRODUCTION

1.1. FEATURES

1.1.A. Terms in use

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1.1.D. Abbreviations

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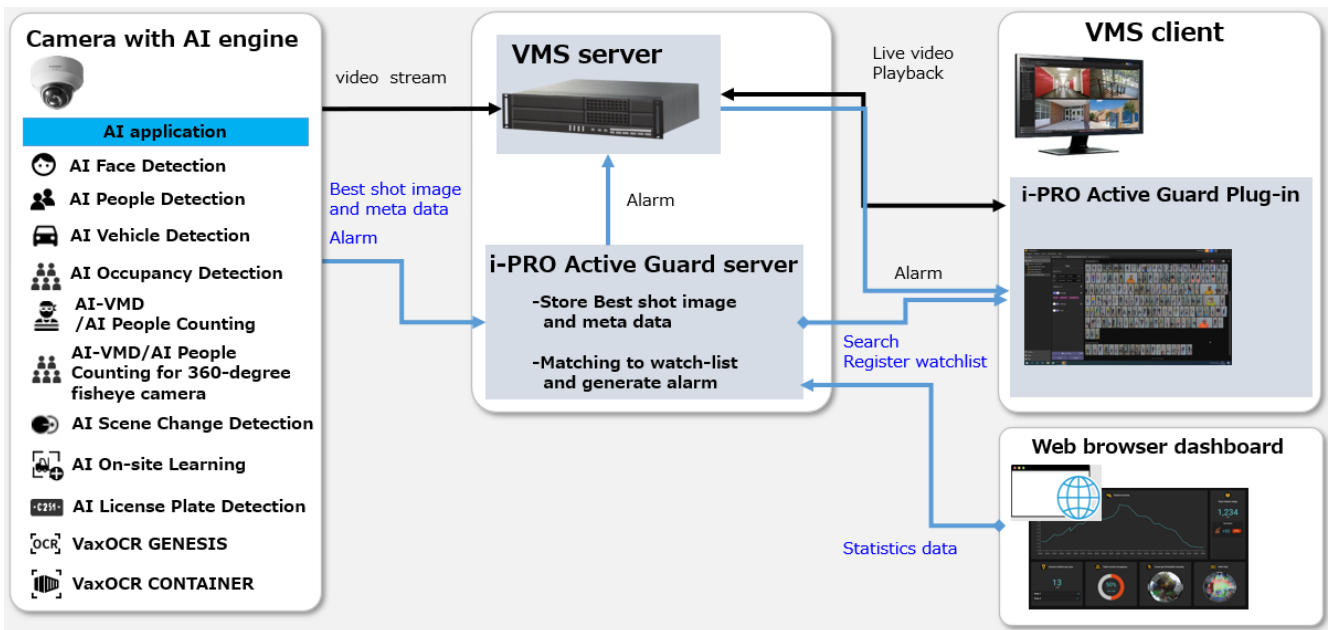
1.2. PREFACE

This operating manual is for dashboard function of i-PRO Active Guard server.
For the configuration required to use the dashboard, please refer to *i-PRO Active Guard Setup Instructions*.
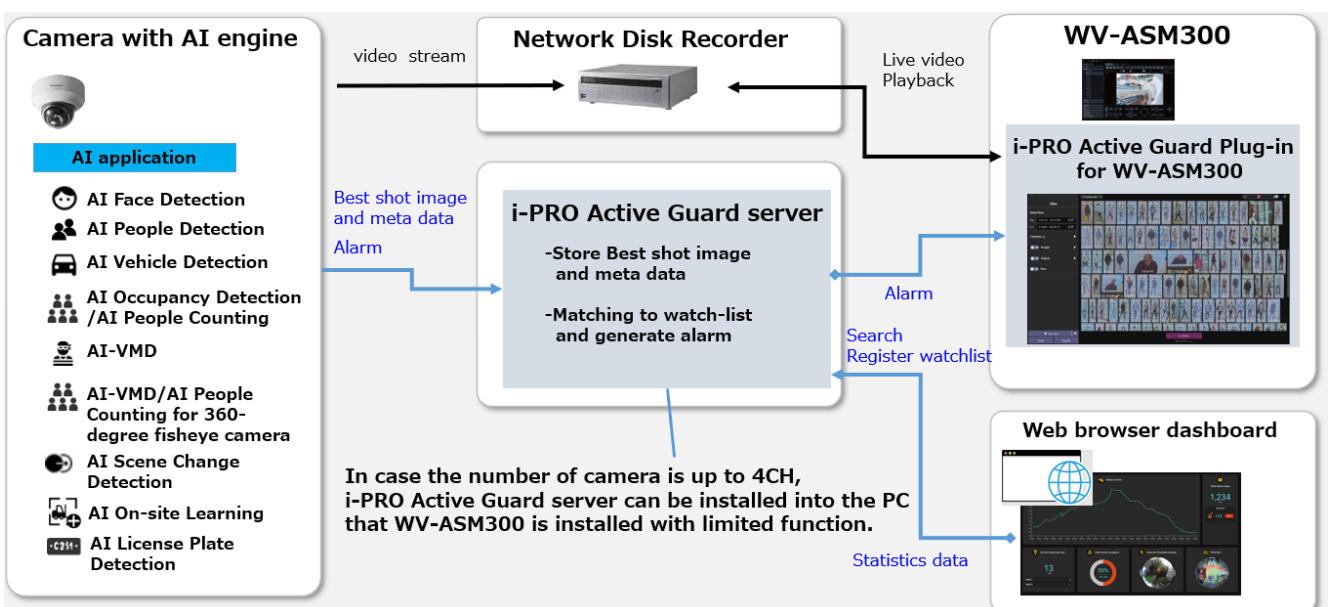
Regarding the operation of i-PRO Active Guard Plug-in software, please refer to *i-PRO Active Guard Plug-in Operating Instructions*.

1.3. SYSTEM OVERVIEW

For VMS:

For WV-ASM300:

AI application or AI function on cameras transmit video stream to VMS server/Recorder and transmit Best shot images and meta data to i-PRO Active Guard server.
i-PRO Active Guard server stores those data and also generate alarm when face or people is matched to watchlist.

i-PRO Active Guard Plug-in (hereinafter referred to as "Plug-in") which is the plug-in software for VMS client/WV-ASM300 can search Best shot images, register watchlist, show live video, recorded video, and alarm.

By visualizing statistics data from AI application on the web browser, it can also be used for business intelligence.

2. DASHBOARD

2.1. FEATURES

The main features of Dashboard are as follows.

Display real-time statistics in various charts (Live Mode)
This mode always displays the latest information sent from AI cameras. Please refer to [About Live Mode] for details.

Display statistics for a specific time in the past in various charts (Search Mode)
This mode analyses a specific time in the past using various charts. Please refer to [About Search Mode] for details.

Layout save function
Save and recall customized layouts for each logged-in user. Please refer to [Save layout] for details.

Export function
Export and save the displayed chart as CSV, PDF, and images. Please refer to [Export] for details.

Note:
- On the dashboard, you can choose the screen design from [Dark Mode] and [Light Mode]. The screens in this document are displayed in [Light Mode].
- The monitor resolution recommended by this software is 1920 x 1080 or higher.
- Statistics data in CSV backup files cannot be used on dashboard by itself.
  This data can be used only in comparison view and 1 day duration.
  * When [Comparison] is checked, and the [Display Duration] is selected for 1 day in Search Mode.

2.2. STARTUP AND TERMINATE DASHBOARD

2.2.1. Start-up Dashboard

Step1.
Access to the URL to view the dashboard.

In case of access on a PC with i-PRO Active Guard server installed:
On the PC with the i-PRO Active Guard server installed, shortcut named "i-PRO Multi-AI server Configuration Tool" is created on the desktop. Double-click it to start the web browser.

Note:
- The web browser to be launched will be the software set as the default application on your PC. If the launched web browser is different from the supported browser of this software, set the supported browser in [Settings] – [Apps] – [Default apps] – [Web browser] of Windows.

In case of access on a PC without i-PRO Active Guard server installed:
Launch a compatible web browser and enter the IP address and web access port of the i-PRO Active Guard server in the address bar.
Example**: https://192.168.0.100:8092/**
 * User can also directly access the dashboard at this URL. **https://192.168.0.100:8092/dashboard/**


Note:
- If you do not know the IP address of the PC on which the i-PRO Active Guard server is installed, contact your system administrator.
- If the web access port number has been changed from "8092", you need to enter the changed port number. If you do not know the port number, contact your system administrator.

Important Note:
- If the PC on which the i-PRO Active Guard server is installed does not have a certificate issued by a public certificate authority, a security warning will be displayed.
- If you do not know the IP address of the PC on which the i-PRO Active Guard server is installed, contact your system administrator. After confirming that the connection destination is correct, follow the procedure below to connect. This instruction use Microsoft Edge version 96.0 for the web browser. If you are using another browser, the setting procedure and display may differ.
- When the security warning screen is displayed, press the "Advanced" button.
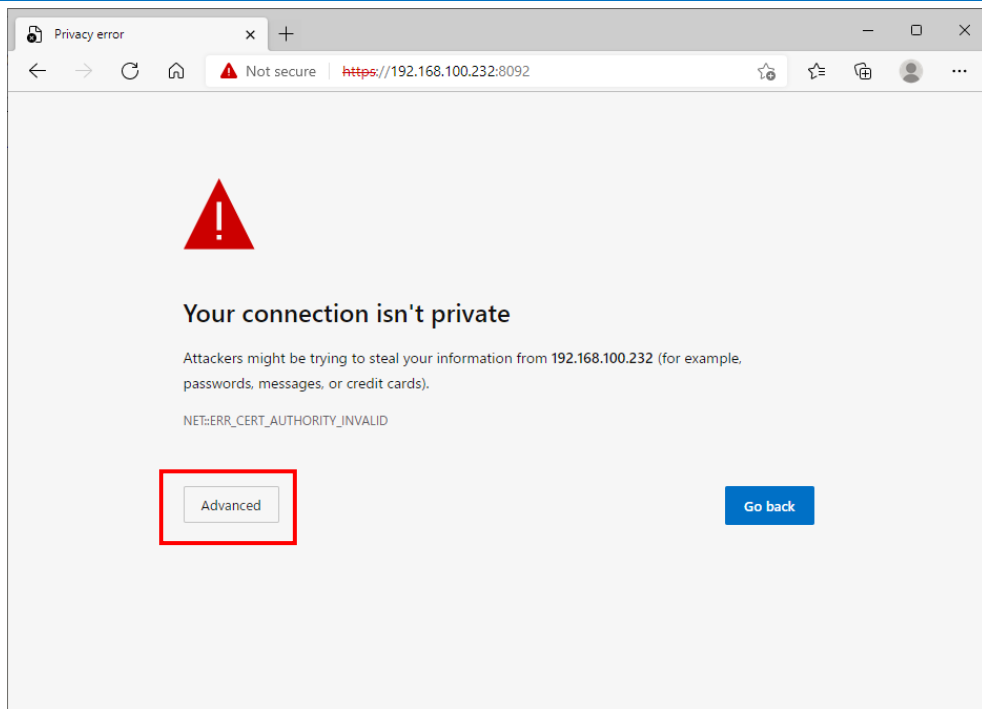
- Click "Continue to [IP Address of i-PRO Active Guard server] (unsafe)".
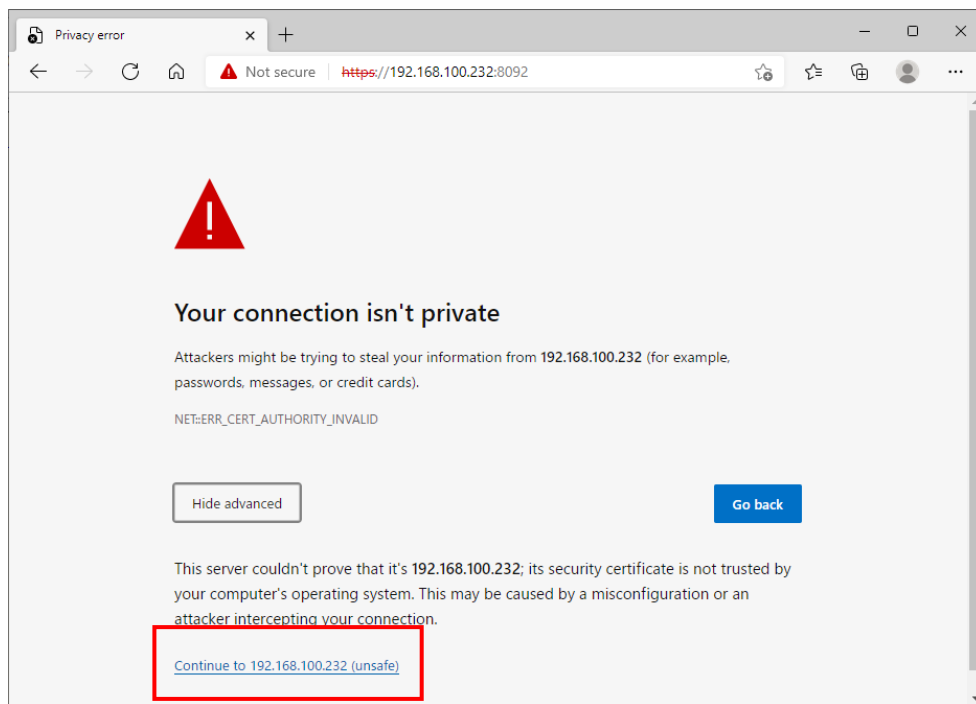
- Please refer to the Setup instructions how to prevent the warning display.

Step2.
Enter your user information for authentication.
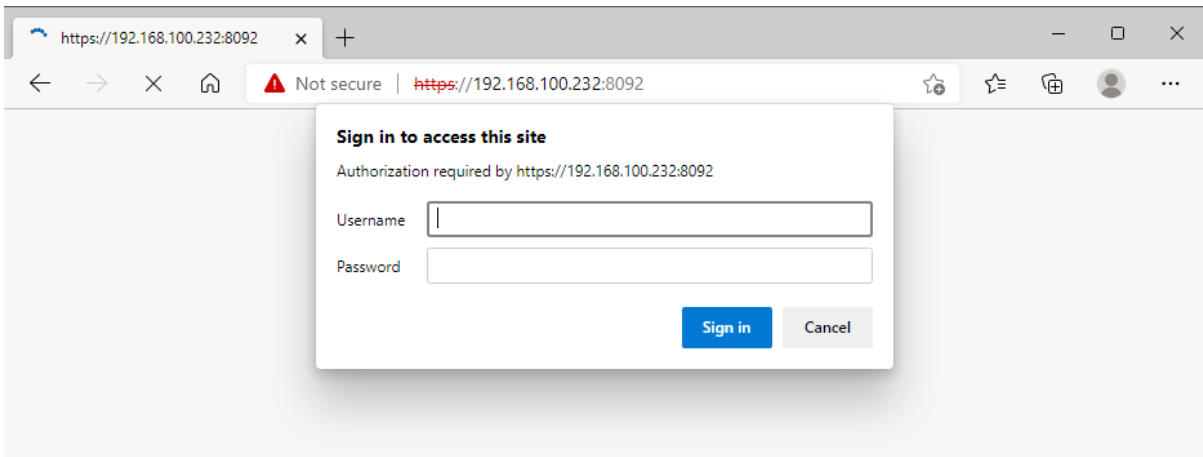
In case of access as an administrator:
To access as an administrator, enter the administrator Username and password set when installing the i-PRO Active Guard server and press the "Sign in" button.
After signing in as an administrator, click the dashboard icon to display the dashboard screen.
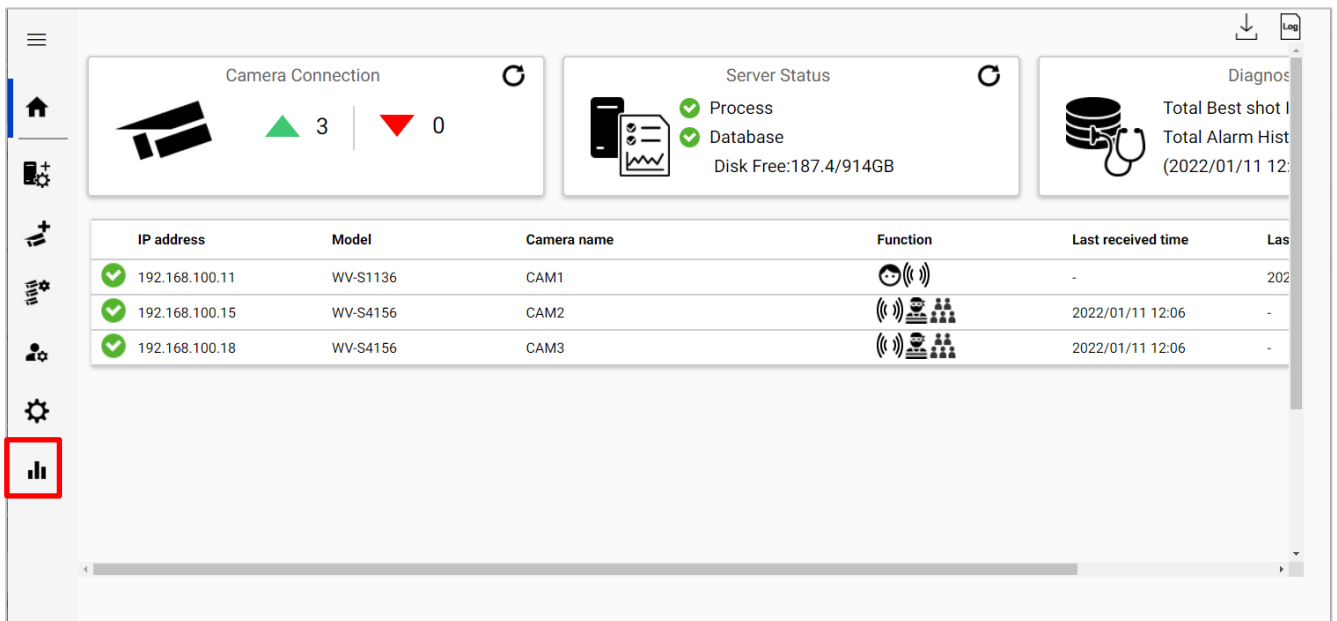
Note:
- There is no difference in the features available on the dashboard between administrators and users.

In case of access as a user:
When accessed by the user, the dashboard screen is displayed directly.

Note:
- In order to access as a user, it is necessary for the administrator to access the WEB configuration page and create a new user in advance. For details, refer to Setup Instructions.
- Up to 4 sessions can access the dashboard at the same time. When the number of sessions is exceeded, the following screen will be displayed. Please wait for other users to finish using dashboard and then try again.

Reached the concurrent access limit.

Please try again later.
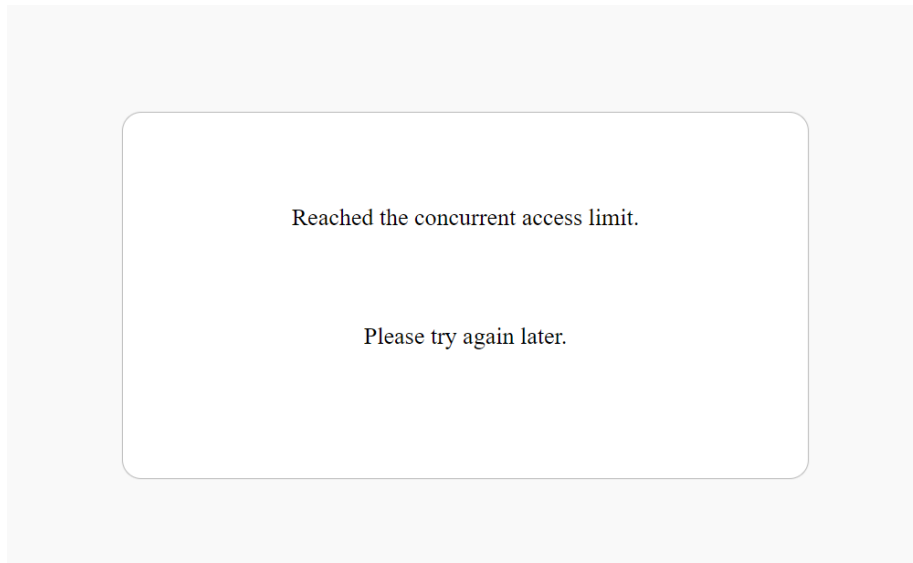
2.2.2. Terminate Dashboard

Click the [X] button in the title bar of web browser.
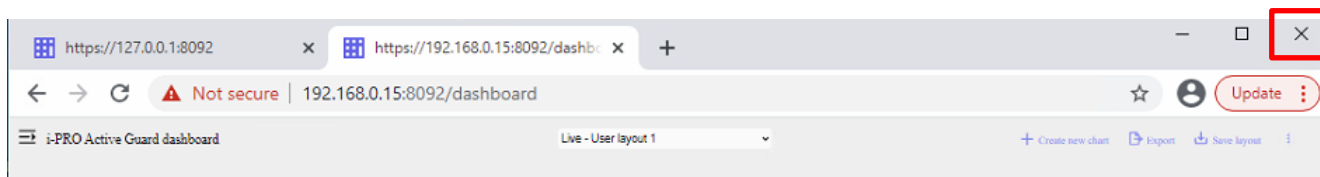
This software will be terminated.

Note:
- If you want to save the layout displayed at the termination, you can save the layout. For details, please refer to [Save layout].

2.3. ABOUT DISPLAY MODE

There are two modes on the dashboard, [Live Mode] and [Search Mode], which you can use according to
your needs.

2.3.1. How to switch modes

Use the [Layout selection pull-down menu] to switch between modes. The relationship between the item
selected from the pull-down and the mode is as follows. For details, please refer to [Layout selection pull-
down].
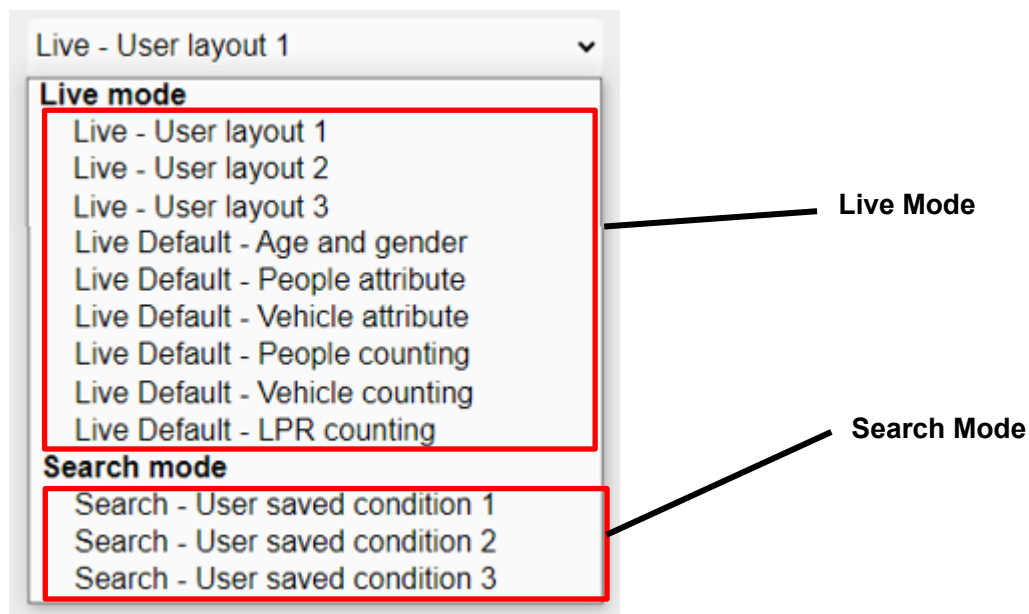
2.3.2. About Live Mode

This mode allows you to grasp the current situation in real time. For example, it can be used for the
following purposes.

- Understand today's number of visitors in real time.

- Understand the degree of congestion in a specific area and check whether congestion exceeding the
limit has occurred.

- Understand the difference in people coming and going from a specific period in real time.

In [Live Mode], you can select the display contents and target camera for each chart. You can create
upto12 charts.

2.3.3. About Search Mode

This mode allows you to display various charts for a specific period / camera in the past and perform multifaceted analysis. For example, it can be used for the following purposes.

- Understanding changes in the number of visitors for each specific period (day / week / month).
- Understanding changes in traffic volume over time using heat maps.
- Understanding the difference from a specific period in the past.

In [Search Mode], the target time, target camera, and group of all charts to be created are the same, and multiple charts can be displayed by creating one time.

Note:
- Statistics data in CSV backup files cannot be used on dashboard by itself.
  This data can be used only in comparison view and 1 day duration.
  * When [Comparison] is checked, and the [Display Duration] is selected for 1 day in Search Mode.

2.4. DASHBOAD MAIN SCREEN

This section describes the screen of the dashboard body.
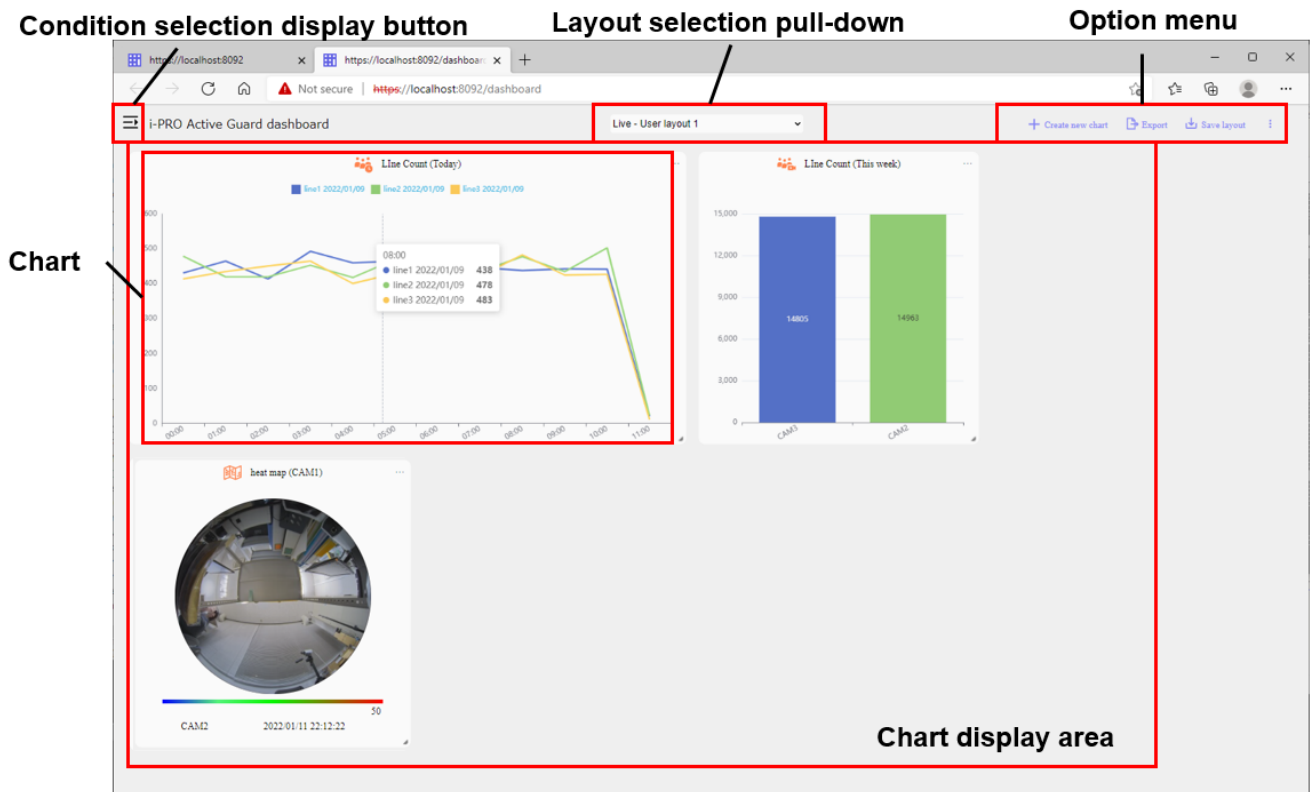
● Condition selection display button

It is a button to open and close the condition selection display part for inputting the contents of each [Chart] to be displayed in the [Chart display area]. For details, please refer to [Condition selection].

● Layout selection pull-down

A pull-down menu for selecting the display layout of the entire screen. You can choose [Live Mode] or [Search Mode] and select the default or saved layout. For details, please refer to [Layout selection pull-down].

● Option menu

Displays menus related to the entire dashboard. For details, please refer to [Option menu].

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● Chart

It is a chart created according to the contents entered in the [Condition Selection]. For details, please refer to [Display contents of the chart].

● Chart display area

Area where multiple charts are displayed. Each chart can be freely moved, enlarged / reduced in this area.

2.4.1. Condition selection

By pressing the above icon, the [Condition selection] opens and closes.
The displayed [Condition selection] changes depending on the mode.

2.4.1.1. Condition selection for Live Mode

The condition selection display section in [Live Mode] consists of the following parts.

- Title

Enter the title of the chart. Characters that can be entered are alphabets, numbers, and some symbols, including double-byte characters, and can be up to 64 characters. " & ; ; cannot be entered.

● Display Duration

Select the time interval of the chart to be created from the following.
- ・ Last 1 hour : Create a chart for the range from the current time to the past hour.
- ・ Today   : Create a chart for today's business hours.
- ・ Last 1 week : Create a chart for the past seven days including today.
                 Configured "Time" is applied for each day.
- ・ Last 1 month : Create a chart for the past 5 weeks (35 days) including today.
     (5 weeks) Configured "Time" is applied for each day.
- ・ Custom (day): Create a chart by arbitrarily specifying the period from 1 to 31 days.
                 Configured "Time" is applied for each day.

● Comparison

Use this when you want to compare with a specific time in the past. Select the check box to allow you to select the date and time to compare. When [Auto] is selected for [Mode], the period to be compared is automatically set according to the selected display period. When [Specified date/time] is selected for [Mode], date from the calendar and the time from the pull-down menu can be selected.

Note:
- ・ [Auto] cannot be selected when [Custom (day)] is selected for [Display Duration].
- ・ The time selection can only be set when [Display Duration] is set to [Last 1 hour].

● Time

Enter the time range for which the chart will be aggregated. The period from the time entered on the left (start time) to the time entered on the right (end time) is counted. Selectable values are hourly intervals from 0:00 to 23:00.
For example, set the business hours of the target area.

Note:
- ・ If you want to aggregate across midnight, enter the following:
  For example: Open 5 pm, Close 2 am ->
                         Start time: 17:00, End time: 2:00
- ・ If [Display Duration] selection is [last 1 week] or [last 1 month], the total value per day is the total during business hours and is aggregated by the date to which the start time belongs.
  For example, if the start time is set to 17:00 and the end time is set to 2:00, the total from 17:00 on January 1st to 2:00 on January 2nd will be aggregated as the value for January 1st.
- ・ If you want to count all hours, such as 24-hour shop, check for [24H] or select 0:00 for both the start time and end time.

● Cameras / Group selection

Select the cameras or group for which you want to create a chart. For details, please refer to [Cameras / Group selection].

● Content selection

Select what to display in the chart. The contents that can be displayed differ depending on the AI application you are using, so please read Chapter 2.5 and later for details.

Note:
  The data update intervals for each AI application are as follows.
・ People Counting: Depends on camera settings. (Minimum 5 seconds)
・ Vehicle Counting: Depends on camera settings. (Minimum 5 seconds)
・ On-site learning object Counting: Depends on camera settings. (Minimum 5 seconds)
・ Heatmap: Depends on camera settings. (Minimum 1 minute)
・ Age and Gender: Depends on [Display Duration]. (Last 1 hour: 1 minute, Others: 1 hour)
・ People attribute: Depends on [Display Duration]. (Last 1 hour: 1 minute, Others: 1 hour)
・ Vehicle attribute: Depends on [Display Duration]. (Last 1 hour: 1 minute, Others: 1 hour)
・ LPR Counting：1 minute

● Clear button

Clear the entered content.

● Create button

Create a chart based on the entered contents.
If a chart is selected, edit the selected chart based on the entered contents.

Note:

・　To edit the chart, following steps.
　　(1) Click on title of target chart. (*)
　　　　The chart is selected. At this time, the chart frame will be displayed in red.
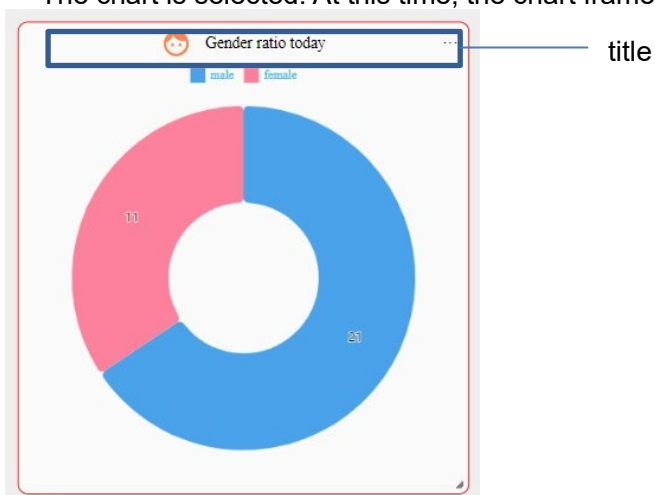
　　(2) Press the ⇉ button.
　　(3) Edit conditions.
　　(4) Press the Create button.

　　* If a chart is selected, "Create new chart" in Option menu is disabled.

2.4.1.2. Condition selection for Search Mode

The condition selection display section in [Search Mode] consists of the following parts.

● Display Duration

Select the time interval of the chart to be created from the following.
- ・ 1 hour   : Create charts for 1 hour ranges from the specified date and time.
- ・ 1 day   : Create charts with the specified date and time range.
- ・ 1 week   : Create charts for the past 7 days including the specified day.
                      Configured "Time" is applied for each day.
- ・ 1 month   : Create charts for the past 5 weeks (35 days) including the specified day.
   (5 weeks)   Configured "Time" is applied for each day.
- ・ Custom (day): Create charts by arbitrarily specifying the period from 1 to 31 days.
                      Configured "Time" is applied for each day.

● Start

Select the start time for the search from the calendar. The search will be performed from the selected start time to the time interval set in the [Display Duration] pull-down menu.

Note:
- The time selection can only be set when [Display Duration] is set to [1 hour].

● Comparison and start time input section

Use this when you want to compare with a specific time in the past. Select the check box to allow you to select the date and time to compare. Select the date from the calendar and the time from the pull-down menu. Click [Include backup period] to get the backed-up csv data on i-PRO Active Guard server PC. If you can get it, you can select the date including the backup period from the calendar.

Note:
- The time selection can only be set when [Display duration] is set to [1 hour].
- [Include backup period] can be used when [1 day] is selected for [Display Duration].
- [Include backup period] is not available when using existing SQL Server instance on network server..

● Time

Enter the time range for which the chart will be aggregated. The period from the time entered on the left (start time) to the time entered on the right (end time) is counted. Selectable values are hourly intervals from 0:00 to 23:00.
For example, set the business hours of the target area.

Note:
- If you want to aggregate across midnight, enter the following:
  For example: Open 5 pm, Close 2 am ->
          Start time: 17:00, End time: 2:00
- If [Display duration] selection is [last 1 week] or [last 1 month], the total value per day is the total during business hours and is aggregated by the date to which the start time belongs.
  For example, if the start time is set to 17:00 and the end time is set to 2:00, the total from 17:00 on January 1st to 2:00 on January 2nd will be aggregated as the value for January 1st.
- If you want to count all hours, such as 24-hour shop, check for "24H" or select 0:00 for both the start time and end time.

● Camera / Group selection

Select the camera or group for which you want to create a chart. For details, please refer to [Cameras / Group selection].

● Content selection

Select what to display in the chart. The contents that can be displayed differ depending on the AI application you are using, so please read Chapter 3.5 and later for details.

● Display mode

Select a display mode when creating charts from the following.
・　　Create new　: Clears the currently Chart display area and creates new charts.
・　　Add chart　　: Add charts to the currently Chart display area.

● Clear button

Clear the entered content.

● Search button

Create charts according to the contents entered in [Condition selection] and close.

2.4.1.3. Cameras / Group selection

Select the cameras or group for which you want to create a chart. The number in parentheses to the right of "Camera" represents the number of currently selected cameras or groups.
If you press the ▶ on the right side, the following camera selection sub-window will be displayed.
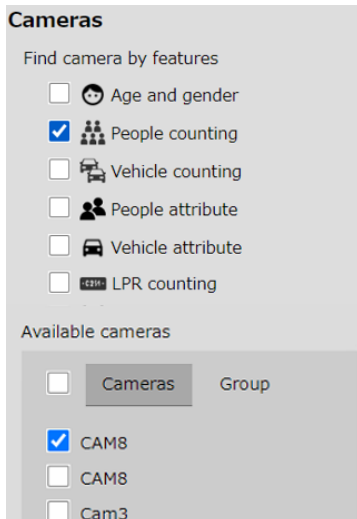
● Find camera by features

You can select each AI application supported by the i-PRO Active Guard server. When you select the target application, the corresponding camera is automatically checked from the selectable cameras and the bottom of the screen.

● Available cameras

You can select the target for each camera or group. If you select "Camera" as the type, the camera names currently enabled by the i-PRO Active Guard server will be displayed in a list.
If you select "Group" as the type, the group names currently created by the i-PRO Active Guard server will be displayed in a list.
Those with a check mark will be the target of chart creation.

Note:
- Up to 16 cameras or groups can be selected at the same time.
- Cameras and groups cannot be selected at the same time.

2.4.1.4. Content selection

The display items differ depending on the selection status of the [Cameras / Group selection] and the selection status of the mode. Please refer to the following.

In case of selecting People Counting application:
Please refer to [CONTENTS OF THE PEOPLE COUNTING].

In case of selecting Vehicle Counting application:
Please refer to [CONTENTS OF THE VEHICLE COUNTING].

In case of selecting Age and Gender:
Please refer to [CONTENTS OF AGE AND GENDER].

In case of selecting People attribute:
Please refer to [CONTENTS OF PEOPLE ATTRIBUTE].

In case of selecting Vehicle attribute:
Please refer to [CONTENTS OF VEHICLE ATTRIBUTE].

In case of selecting On-site learning object counting:
Please refer to [CONTENTS OF THE ON-SITE LEARNING OBJECT COUNTING].

In case of selecting LPR Counting:
Please refer to [CONTENTS OF LPR COUNTING].

2.4.2. Layout selection pull-down

A pull-down menu to change the displayed layout.
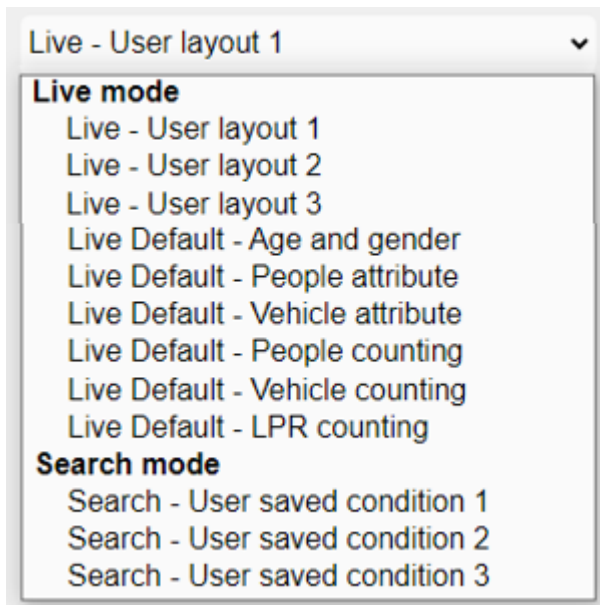
If you select a layout under [Live Mode], it will be set to [Live Mode], and if you select a layout under [Search Mode], it will be set to [Search Mode].
There are [Custom Layout] and [Default Layout] as layout types.

● Custom Layout

It is a layout that users can freely create and save. There are three [Live mode] and [Search Mode] respectively.
You can save the layout and set the name by selecting [Option menu] – [Save layout].

Note:
 • Layouts can be saved for each logged-in user.

● Default Layout

This layout has multiple basic charts created in advance in [Live Mode]. One is defined for each type of AI application.
You can add or delete charts from the default layout and save it as accustom layout.

Note:
 • The default layout can be displayed on up to 16 cameras with the additional target AI application installed.

- ## Default Layout for People counting

The following default layout is set.

Number	Title	Duration	Comparison	Type of chart	Classified by
1	Today's visitors by time	Today 08:00-20:00	-	Statistics Data type: In Line chart	By time
2	Total visitors today	Today 08:00-20:00	Yesterday	Statistics Data type: In Count number	By time
3	Current count of people	Today 08:00-20:00	-	Occupancy	Total (Count number)
4	Total visitors by camera	Today 08:00-20:00	-	Statistics Data type: In Bar chart	By camera
5	Count of people crossed per line	Today 08:00-20:00	-	Image with line count data	-
6	Heat map	Last 1 hour	-	Heat map	Passing map

- ## Default Layout for Vehicle counting

The following default layout is set.

Number	Title	Duration	Comparison	Type of chart	Classified by
1	Today's traffic by time	Today 08:00-20:00	-	Statistics Data type: In Line chart	By time
2	Total traffic today	Today 08:00-20:00	Yesterday	Statistics Data type: In Count number	By time
3	Current count of vehicle	Today 08:00-20:00	-	Occupancy	Total (Count number)
4	Total traffic by camera	Today 08:00-20:00	-	Statistics Data type: In Bar chart	By camera

- ## Default Layout for Age and Gender

No.	Title	Duration	Comparison	Type of chart	Classify by
1	Gender ratio today	Today	-	Gender	Total (Pie chart)
2	Age ratio today	Today	-	Age	Total (Pie chart)
3	People and gender ratio today	Today	-	Gender	By time
4	People and age ratio for 1 week	Last 1 week	-	Age	By time

- ## Default Layout for People attribute

No.	Title	Duration	Comparison	Type of chart	Classify by
1	Mask – no mask ratio today	Today	-	Mask	Total (Pie chart)
2	Gender and tops type ratio	Today	-	Gender, Tops	Total (Pie chart)
3	People and ratio for Gender and tops type by time	Today	-	Gender, Tops	By time
4	People and ratio for Gender and tops type by camera	Today	-	Gender, Tops	By camera

- ## Default Layout for Vehicle attribute

No.	Title	Duration	Comparison	Type of chart	Classify by
1	Vehicle number by time	Today	-	not selected (all)	By time
2	Today's traffic	Today	yesterday	not selected (all)	Total (Count Number)
3	Vehicle type ratio	Today	-	Type	Total (Pie chart)
4	by camera	Today	-	Type	By camera
5	this week	last 1 week	-	not selected (all)	By time

● Default Layout for LPR counting

The following default layout is set.

Number	Title	Duration	Comparison	Type of chart	Classified by
1	Today's traffic by time	Today 08:00-20:00	-	Statistics Data type: Toward/In Line chart	By time
2	Total traffic today	Today 08:00-20:00	Yesterday 08:00-20:00	Statistics Data type: Toward/In Count number	By time
3	Current count of vehicle	Today 08:00-20:00	-	Occupancy Total (Count number)	-
4	Total traffic by camera	Today 08:00-20:00	-	Statistics Data type: Toward/In Bar chart	By camera

Note:
- The charts may not be displayed correctly depending on the registered status of the cameras.

2.4.3. Option menu

A menu of features related to the entire dashboard.

| + Create new chart | Export | Save layout | |
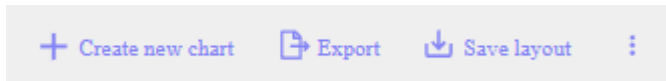
2.4.3.1. Create new chart

Use this when create a new chart in [Live Mode]. Press to display [Condition selection] menu.
This menu is not displayed in [Search Mode].

Note:
- If a chart is selected, "Create new chart" is disabled.

2.4.3.2. Export

Saves the currently displayed chart data to external files. The output method can be selected from CSV (Comma-Separated Values) format, PDF (Portable Document Format) format, and image output.

| Export |
| CSV output |
| PDF output |
| Image output |

- **CSV Output**

Save the currently displayed chart data in CSV format.
The output target is the following chart.

- **Statistic graphs**
  The output file name will be (Chart title)_(Year)(Month)(Day)(Hour)(Minute)(Second)(Millisecond).csv.
  The date is set to the start time of the graph.

- **Table chart**
  The output file name depends on the display duration.

  Display duration 1 day: (Year)(Month)(Day)_Result_PeopleCount.csv
  Display duration 1 week: (Start date)_(End date)_Result_PeopleCount.csv
  Display duration 1 month: (Year)(Month)_Result_PeopleCount.csv

- **PDF Output**

Saves a snapshot of all currently displayed charts in PDF format.
All charts except table chart are output as a single PDF. Table charts are output to separate PDFs.

The output file name will be below:
  ・All charts except table chart

   Chart_ (Layout name)_(Year)(Month)(Day)(Hour)(Minute)(Second).pdf.
  ・Table chart

   Table_ (Layout name)_(Year)(Month)(Day)(Hour)(Minute)(Second).pdf
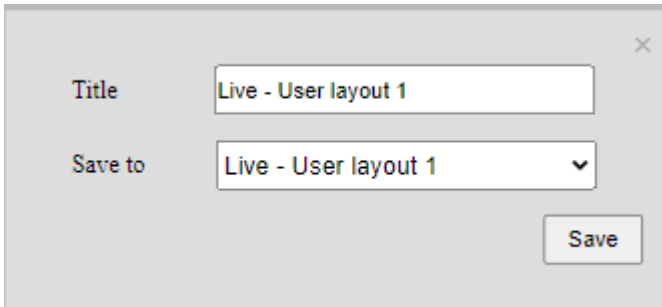
● Image Output

Saves the currently displayed chart data with images in PNG format.
The output file name will be (Chart title)_(Year)(Month)(Day)(Hour)(Minute)(Second)(Millisecond).png.

2.4.3.3. Save layout

Saves the currently displayed layout as a custom layout. Click [Save layout] to display the following sub-window.

● [Title] text box

Enter the title of the layout you want to save. Characters that can be entered are alphabets, numbers, and some symbols, including double-byte characters, and can be up to 64 characters. " & ; ; cannot be entered.

● [Save to] pull-down

Select the layout name of the save destination. Choose from three custom layouts for each mode.
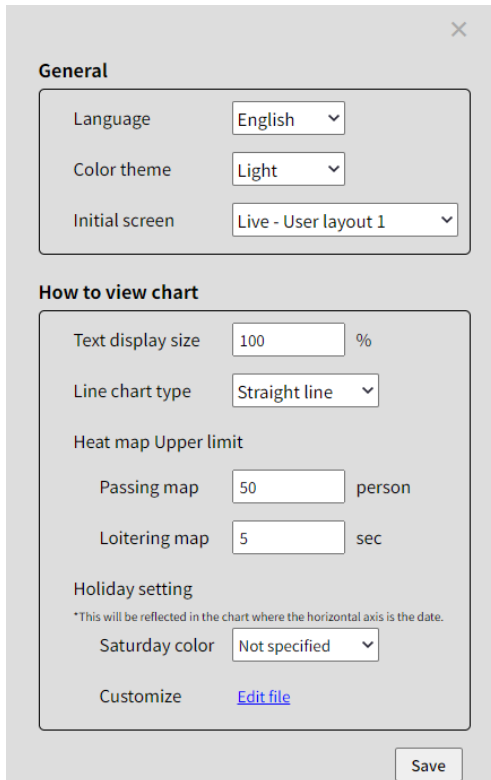
Important Note:
· Overwriting a layout erases the previous layout.

● [Save] button

Save the contents.

2.4.3.4. Other menu

Click ⋮ to display other menus.

General

● [Language] pull-down
- **Auto:** Display in the language set in your web browser. Only English and Japanese are supported.
- **Japanese:** Display in Japanese.
- **English:** Display in English.

● [Color theme] pull-down
Set the dashboard color theme. You can select from the following values.

- **Light:** The overall screen design will be bright tones.
- **Dark:** The overall screen design will be dark tones.

● [Initial screen] pull-down
Set the default layout to display first after login.

How to view chart

● [Text display size]

Set the text display size to be displayed on the chart in the range of 100 to 300%.

● [Line chart type] pull-down

Set the line chart type. You can select from the following values.

- **Straight line:** Show line chart as straight.
- **Smoothed line:** Show line chart as smoothed.

● [Heat map Upper limit]

In the [Heat Map] color chart that can be displayed with People Counting AI application, set the count value that is the maximum value (right end, red).

- **Passing map:** Set the maximum value to apply to the passing map. The value represents "the number of passing persons". Possible values are 3 to 65,535.
- **Loitering map:** Set the maximum value to apply to the loitering map. The value represents "the average loitering time of persons on the second timescale". Possible values are 1 to 655.

Note:
- The changed [Heat map Upper limit] will be reflected after the chart is recreated

● [Holiday setting]

Set the colors for Saturdays and holidays. The target chart is the following chart, which is set to "Display Duration:1 week"
- Charts with "By time" in "Classify by"
- People counting – Occupancy statistics

- **Saturday color:** Set the color of Saturday. Possible values are "Not specified", "Blue", "Red".
- **Customize:** You can manually enter holidays. The entered holidays will be displayed in red.
  Please input yyyy/mm/dd or yyyy-mm-dd, and click Save.
  For multiple registrations, insert line breaks.

Note:
- Customize can only visible when you are logged in as an administrator.
- Customize can only be set when you log in from the PC on which the Active Guard server is installed.

● [Save] button

Save the contents.

2.4.4. Display contents of the chart

Explain the contents common to the chart.
You can resize the chart by dragging the edges of the chart. You can also change the position of the chart by dragging the chart.
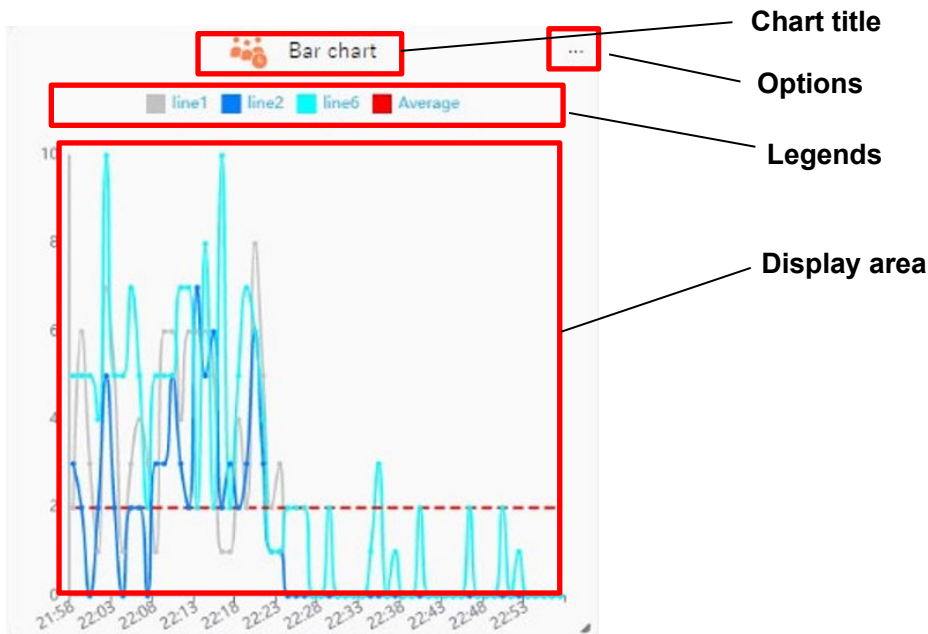
- [Chart title]

The chart title entered when the chart was created is displayed. Only displayed at Live Mode.

- [Options]

You can change the settings specific to the chart.
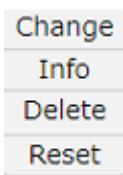
- **Change:** Display the selected chart as a different type of graph.
  The combinations that can be changed are as follows. For charts other than those in the table below, the [Change] menu is not displayed.

AI Application	Chart type	Convertible chart
People counting, Vehicle counting On-site learning object counting LPR counting	Statistics	Line chart, Bar chart, Pie chart, Count number
People counting, Vehicle counting On-site learning object counting LPR counting	Occupancy	Pie chart, Count number

AI Application	Chart type	Convertible chart
Age and gender	Total	Pie chart, Count number
Age and gender	By time	Line chart, Bar chart
People attribute	Total	Pie chart, Count number
People attribute	By time	Line chart, Bar chart
Vehicle attribute	Total	Pie chart, Count number
Vehicle attribute	By time	Line chart, Bar chart

- **Info:** Show the display conditions of the chart.
- **Delete:** Delete the selected chart.
- **Reset:** This menu is displayed only in live mode with the following charts.
  - **-** [Statistics] chart.
  - **-** [Occupancy] chart of the People counting.
  Please refer to Statistics graphs or Occupancy chart for details.

● [Legends]

A description of the displayed series. You can hide the target data by clicking this part.

● [Display area]

The display area of the chart. Hover your mouse cursor over this area to see the numbers here in a tooltip.

- **Average:** The average value displayed for Line chart and Bar chart in Statistics graphs.
  The average value is drawn as a red dashed line.

Note:
- Averages are calculated differently for line and bar charts. See below.

For [Classify by: By time]
- Line chart   : Average value per camera or group.
  Total value ÷ Time scale* ÷ camera or group number or line/area
- Bar chart   : Average value of all cameras or groups.
  Total value ÷ Time scale*

---

* Time Range varies depending on Display Duration. See below table.

Display Duration	Time scale
Last 1 hour (1 hour)	60
Today (1 day)	Max 24 (depend on Time setting)
Last 1 week (1 week)	7
Last 1 month (1 month)	5
Custom(day)	Specified days

Future time and Periods when no data is received from the camera (e.g., network errors) are omitted from the calculation.

Periods marked with [***] in the table chart (search mode only) are omitted from the calculation.

Ex.)
Display Duration: 1 hour (Time range: 60minutes)
During those 60 minutes, there was no data from camera for 10 minutes due to network error.

Camera: 2 cameras
Total value of above conditions: 1000
- Average (Line chart): 1000 ÷ (60-10) ÷ 2 = 10
- Average (Bar chart): 1000 ÷ (60-10) = 20

For [Classify by: By camera]
- Line chart   : Average value per camera or group.
                    Total value ÷ camera or group number or line/area
- Bar chart   : Same as Line chart.
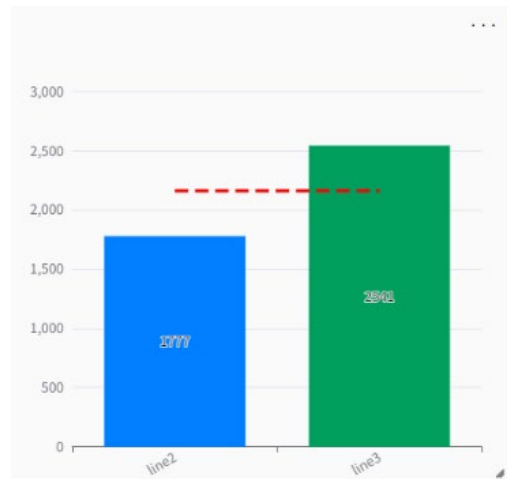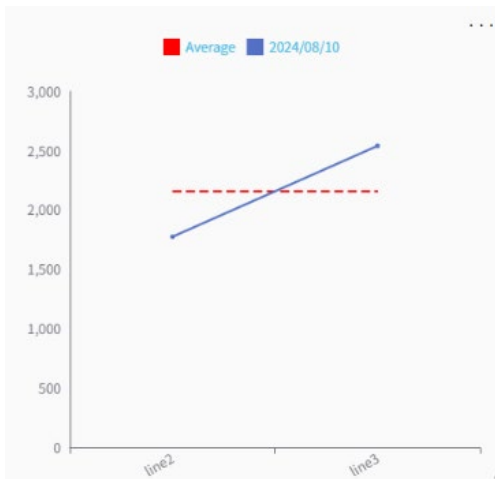
2.5. CONTENTS OF THE PEOPLE COUNTING

This section describes the types of charts that can be displayed when AI-VMD/AI People Counting, AI-VMD/AI People Counting for 360-degree fisheye or AI Occupancy Detection application. Supported charts for each application are as follows.

Charts	Counting method	AI-VMD/AI People Counting for 360-degree fisheye	AI-VMD/AI People Counting	AI Occupancy Detection
Statistics	Line cross (in/out)	Yes	Yes	N/A
	Area count	Yes	N/A	Yes
Occupancy	Line cross (in/out)	Yes	Yes	N/A
	Area count	Yes	N/A	Yes
Heat map	-	Yes	Yes	N/A
Image with line count	-	Yes	N/A	N/A

2.5.1. Live Mode

In [Live Mode], you can select the display content of each chart by operating the display [Content selection] section of the condition selection display section. If you press the ▶ on the right side, the following display content selection sub-window will be displayed.

The displayed content is in the format to be selected with the radio button. By selecting each item, the sub-items related to that item are displayed, and you can select more detailed contents.

Note:
- Select one or more valid cameras or groups in the [Cameras / Group selection] before opening the [Content Selection] window.

2.5.1.1. Statistics graphs

Statistics graphs are formats to display the number of People counting information as graphs in chronological order or in camera units.

● [Data type]

The data type selects the direction of the line cross or area to be displayed.

Item	Description
In	The [In] direction of the line cross is displayed.
	Values are number of detections per unit time.
Out	The [Out] direction of the line cross is displayed.
	Values are number of detections per unit time.
In + Out	The total value in the [In] and [Out] directions of the line cross is displayed.
In - Out	The difference from the [In] direction to the [Out] direction of the line cross is displayed.
Area	The area is targeted for display.
	Values are averages of the number of detections per unit time.

● [Classify by]

[Classify by] sets the axis on which the graph is displayed.

Item	Description
By time	Shows the transition over time.
By camera	Displays aggregated values by cameras, groups, line cross and area.

In case of [By time]:

The scale and display range of the graph are set as follows according to the time interval selected in the [Display Duration] pull-down.

Display Duration	Scale	Range
Last 1 hour	1 minute	60 minutes
Today	1 hour	Max 24 hours (depend on Time setting)
Last 1 week	1 day	7 days
Last 1 month	1 week	5 weeks

In case of [By camera]:

Depending on the selection status of the [Cameras / Group selection], the graph series is set as follows.

Selection	Scale
One camera	For each line or area set for this camera
Multiple cameras	By camera
Group	By group

After creating the graph, you can change the type of graph from [Options]. For details, please read [Display contents of the chart].

- **[Specify lines/areas individually]**

  Sets whether to create a chart for each individual line/area.

  If set to On, press ▶ on the right side of the camera and select Lines/Areas for each camera from the sub-window.

Note:

- When [Cameras / Group selection] is [Group], this setting is not available.
- If " lines/areas individually" is off and only one camera is selected, all lines/areas of the camera will be plotted.
- Lines/area can be checked if enabled in the camera settings

---

About the reset function

In the [Statistics] chart of people count, the number of people is estimated based on the business start time on the target day as 0.

Only if all of the following conditions are met, select [Reset] to reset the number of people to 0 at any time and start estimating the current number again from there.

- [Display Duration] is "Today"

- [Data type] is "In - Out"

- [Classify by] is "By time"

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About display switching in Count number chart
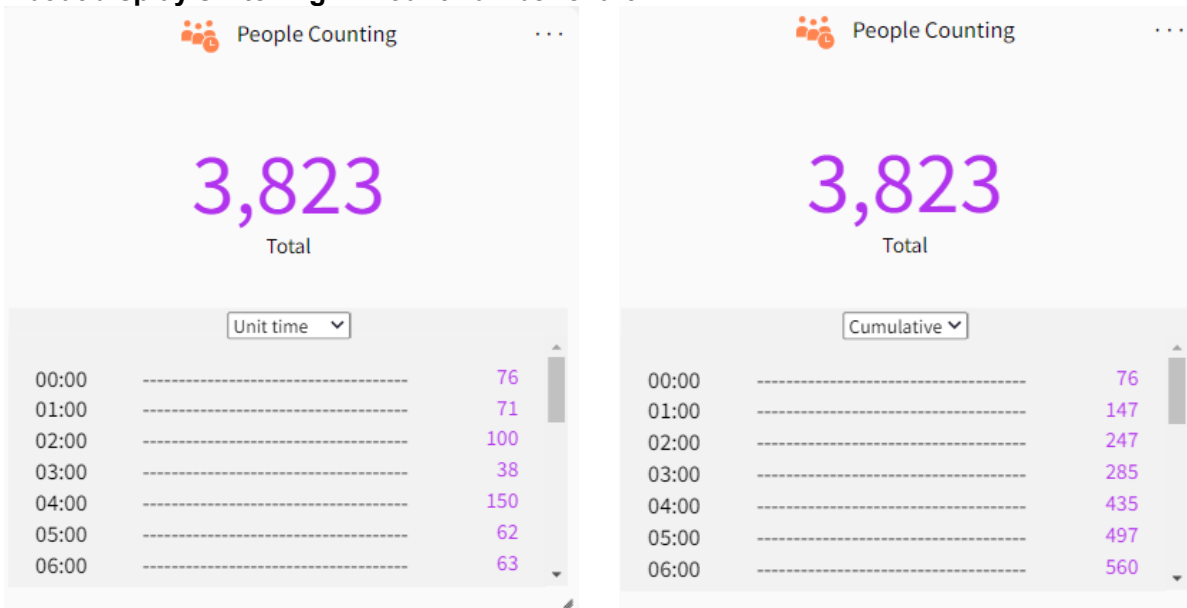
Only if all of the following conditions are met, select [Unit time] or [Cumulative] to switch display.

- [Display Duration] is "Today" or "Last 1 hour" (for search, it is "1 hour" or "1 day")

- [Data type] is "In- Out"

- [Classify by] is "By time"

- [Chart type] is "Count number"

2.5.1.2. Occupancy chart

The occupancy chart displays the degree of congestion in the area currently to be aggregated using the line cross and area count functions.
Estimate the number of people in the area using the following calculation method.

In case of [Count type] is [Line count]:
Assuming that there is no one in the area at the opening time of the day, the total number of [In] counts minus the [Out] count is the number of people in the current area. The target of aggregation is all lines of all selected cameras.

In case of [Count type] is [Area count]:
Displays the number of people in the currently specified Area. Only one specific area is eligible.

● **Values that can be set on the Occupancy chart**

● **Classify by**
Select the display format of the chart.

Pie: Displays the degree of occupancy as a pie chart.
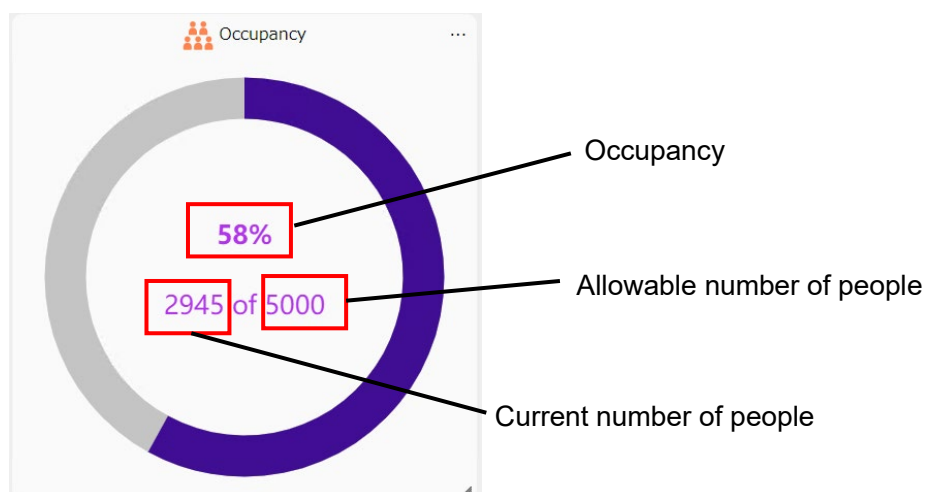
Occupancy: Shows how crowded the aggregation target area is. Current number of people ÷ Allowable number of people (%).
Current number of people: Estimated value of the number of people in the aggregation target area.
Allowable number of people: The allowable number of people in the area to be aggregated.

Count number: The degree of occupancy is displayed numerically.

Time transition: Time transition of occupancy is displayed when [Last 1 hour] or [Today] are selected for [Display duration]. The value at the start time of the chart is calculated as zero.

● **Count type**

Set the aggregation target.

Line Count: Cross lines are subject to aggregation.
Threshold: Set the allowable number of people in the target area. If this value is exceeded, the chart color will change to a warning color.

Area Count: Areas are subject to aggregation.
Area number: Enter the area number to be aggregated. The allowable number of people uses the value set in the camera.

Note:
- When [Count type] is [Area Count], use i-PRO Configuration Tool to change threshold value.
- When [Count type] is [Area Count], only one camera can be selected. Also, groups cannot be selected.
- When displaying the Occupancy, [Comparison] cannot be selected.
- The number of counts displayed may temporarily increase/decrease but will be restored after a certain period of time. The stored data will not be affected.

About the reset function in Line Count

In the [Occupancy] chart of the line cross, the number of people currently in the area is estimated by subtracting the number of people who have left the area, from the number of people who have entered the area from that point to the present, assuming that the business start time on the target day is 0. Therefore, if there are people who enter and leave the area without crossing the set line, errors will accumulate. Select [Reset] to reset the number of people in the area to 0 at that time and start estimating the current number again from there.

2.5.1.3. Heat map

It is a chart that displays the number of people passing and staying within a specific time as a color gradation on the background image.
The superimposed data is always the sum of the past hour from the current time.

- **Values that can be set on the Heat map chart**
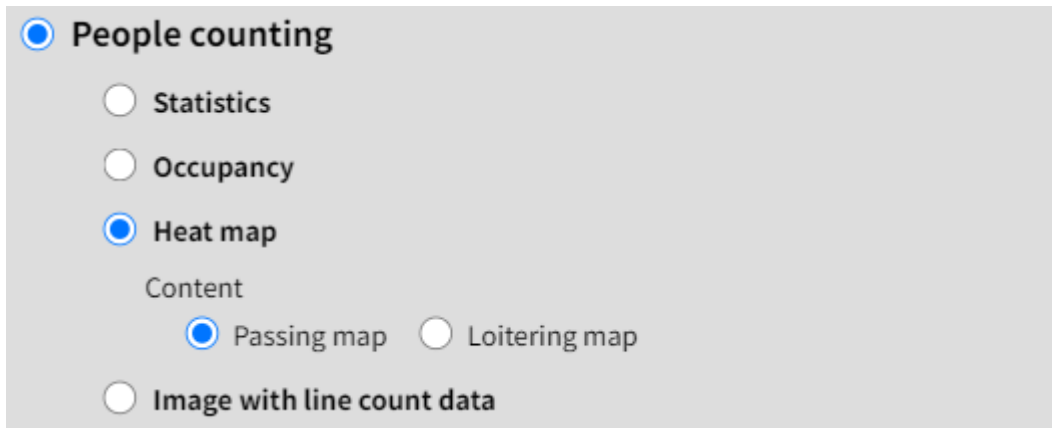
- **[Content]**

Select what to display in the chart.

Passing map:
  Visualize the "movement/flow line" of the person. As the amount of passage increases, the location approaches red.

Loitering map:
  Visualize the "residence/staying time" of the person. The longer the residence time, the closer the location will be to red.

● Display contents of the chart

Heat map: Colors are superimposed and displayed on the background image based on the number of people count data.

Color chart: Indicates the color displayed by the value of the count data. The maximum value can be changed by selecting [Heat map Upper limit] from the [option menu].

Display date and time: Displays the date and time of the current heat map.

Camera title: Displays the title of the target camera.

Note:
- Do not change the aspect ratio of the camera. If you done, please recreate the chart.
- When displaying the Heat map chart, only one camera can be selected. Also, the group cannot be selected.
- When displaying the Heat map chart, [Display Duration] can only be selected for [last 1 hour].
- When displaying the Heat map chart, [Comparison] cannot be selected.
- The background image has been privacy-processed.
- The background image is updated at regular time (0:00, 1:00, ...). If the storage interval in the camera settings has been changed to 24H, the image will be updated once a day (0:00 UTC). Please be aware of the image update interval before use.

2.5.1.4. Image with line count data

It is a chart that superimposes the set position of the line cross and the number of people passing by in a specific time on the background image.

● **Display contents of the chart**
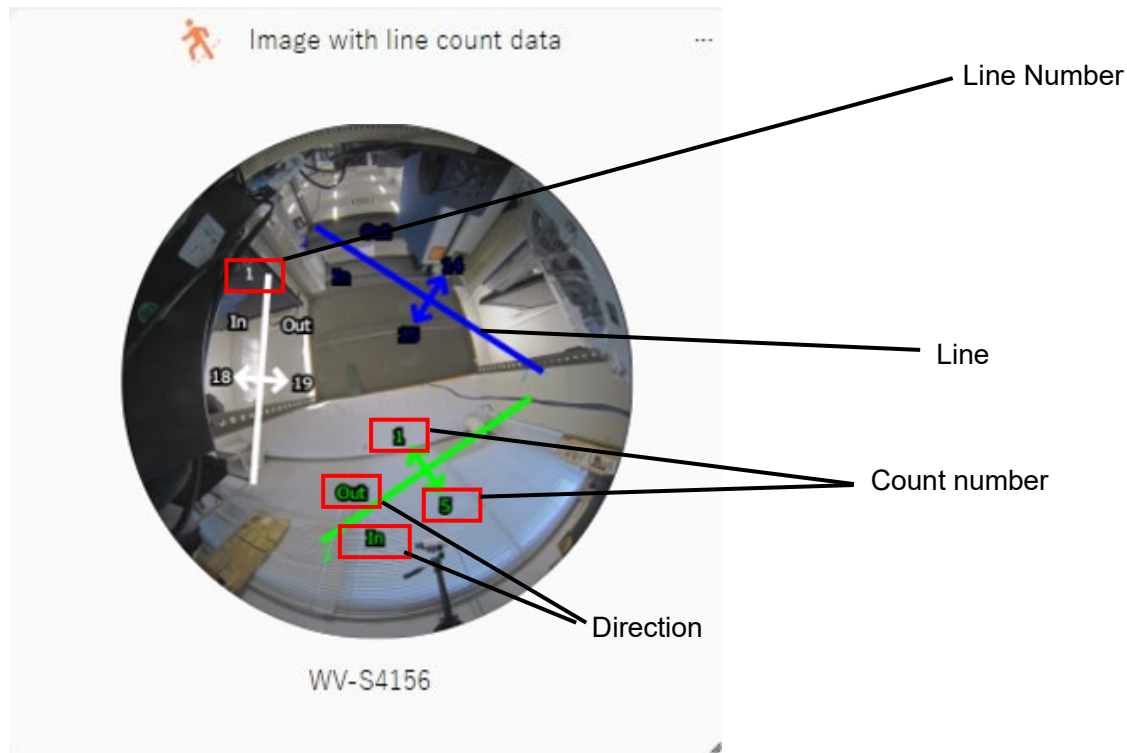
Line: Displays the position of the cross line set on the camera.
Line number: Displays the number of each cross line.
Direction: The direction of the count set on the camera. Only enabled orientations are displayed.
Count number: Displays the total number of crosses within the set time interval.

Note:
- When displaying the image with line count data chart, only one camera can be selected. Also, the group cannot be selected.
- When displaying the image with line count data chart, [Comparison] cannot be selected.
- The background image has been privacy-processed.
- Please set the heat map function of the camera to ON and wait at least 5 minutes before using it.
- The background image is updated at regular time (0:00, 1:00, ...). If the storage interval in the camera settings has been changed to 24H, the image will be updated once a day (0:00 UTC). Please be aware of the image update interval before use.

2.5.2. Search Mode

This section describes the charts that can be displayed in Search Mode.

2.5.2.1. Statistics graphs

It is a format to display the number of people count information as a graph in chronological order or in camera units. The displayed contents are basically the same as [Live Mode]. Please refer to [Statistics graphs].

The differences from [Live Mode] are as follows:
  - Search is no reset function

2.5.2.2. Time transition of occupancy

It is a format to display the time transition of occupancy. The displayed contents are the same as [Live Mode]. Please refer to [Occupancy chart].

2.5.2.3. Occupancy Statistics

It is a format to display the graph of occupancy for each area. You need to set low and high thresholds for each area.

The following is an example when the time interval is 1 week.
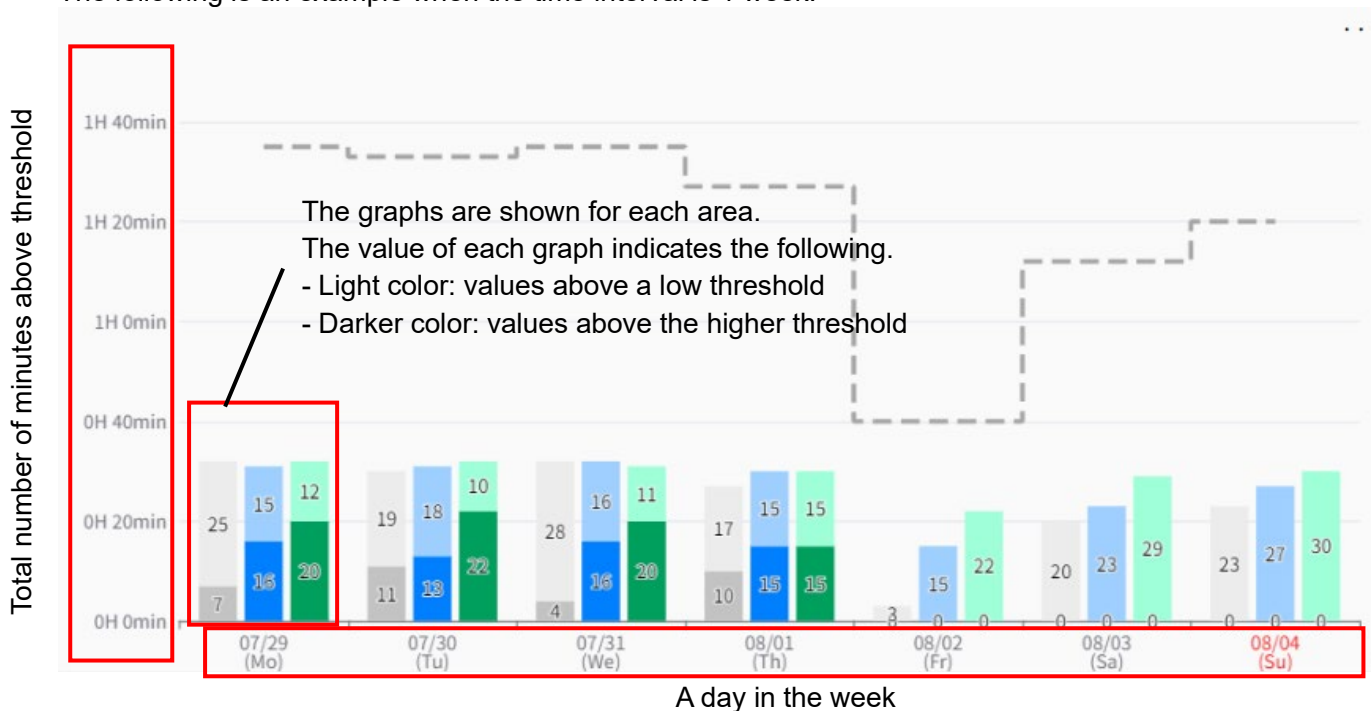
Note:
- When showing the area analyzing, [Display Duration] can only be selected for [1 day] or [1 week].
- The camera registered with "AI-VMD/AI People Counting for 360-degree fisheye" can set thresholds for up to 8 areas, and the camera registered with "AI Occupancy Detection" can set thresholds for up to 4 areas.
- When setting [Time], set the end time so that it does not exceed 24:00.

2.5.2.4. Table chart

It is a chart that displays the number of people counting information as a table.

The values of each line are added up and displayed as the camera value.

When the time interval is 1 month, unlike other charts, the data of the month including the set date is displayed.

- ## Display contents of the chart

The following is an example when the time interval is 1 day and there is a comparison with the past.

Camera title	Count type	Date	Total	Increase/ Decrease	Composition ratio	00:00- 01:00	01:00- 02:00	02:00- 03:00	03:00- 04:00	04:00- 05:00	05:00- 06:00	06:00- 07:00	07:00- 08:00	08:00- 09:00	09:00- 10:00	10:00- 11:00	11:00- 12:00	12:00- 13:00	13:00- 14:00
Total	in	2024/02/27	440	2.33%	100.00%	24	37	32	25	28	32	44	33	35	28	37	23	31	31
		2024/02/17	430		100.00%	32	31	32	30	39	31	29	26	32	29	30	31	21	37
	out	2024/02/27	443	-3.90%	100.00%	35	29	31	40	34	27	29	37	28	25	26	28	47	27
		2024/02/17	461		100.00%	25	23	33	36	32	29	39	40	35	28	36	50	30	25
	in-out (cumulative)	2024/02/27	-	-	-	-11	-3	-2	-17	-23	-18	-3	-7	0	3	14	9	-7	-3
		2024/02/17	-		-	7	15	14	8	15	17	7	-7	-10	-9	-15	-34	-43	-31
i-Pro Cam1	in	2024/02/27	215	-0.46%	48.86%	15	16	20	9	15	13	19	18	16	11	22	10	15	16
		2024/02/17	216		50.23%	16	11	12	15	20	22	19	9	19	16	16	18	10	13
	out	2024/02/27	212	-13.11%	47.86%	23	14	18	16	18	12	8	15	13	17	13	10	20	15
		2024/02/17	244		52.93%	14	14	15	23	16	17	17	23	18	14	22	26	11	14
	in-out (cumulative)	2024/02/27	-	-	-	-8	-6	-4	-11	-14	-13	-2	1	4	-2	7	7	2	3
		2024/02/17	-		-	2	-1	-4	-12	-8	-3	-1	-15	-14	-12	-18	-26	-27	-28
i-Pro Cam2	in	2024/02/27	225	5.14%	51.14%	9	21	12	16	13	19	25	15	19	17	15	13	16	15
		2024/02/17	214		49.77%	16	20	20	15	19	9	10	17	13	13	14	13	11	24
	out	2024/02/27	231	6.45%	52.14%	12	15	13	24	16	15	21	22	15	8	13	18	27	12
		2024/02/17	217		47.07%	11	9	18	13	16	12	22	17	17	14	14	24	19	11
	in-out (cumulative)	2024/02/27	-	-	-	-3	3	2	-6	-9	-5	-1	-8	-4	5	7	2	-9	-6
		2024/02/17	-		-	5	16	18	20	23	20	8	8	4	3	3	-8	-16	-3

Camera title: Displays the camera title. The upper row shows the total value.
Count type: Aggregate by in / out / in – out (cumulative) of line cross.
Date: The upper row is the date of the comparison source, and the lower row is the date of the comparison destination.
Total: Total for all selected cameras.
Increase / Decrease: Shows the rate of increase / decrease between the comparison source and the destination.
Composition ratio: When the multiple cameras are selected, this shows percentage for each camera.

Note:
- When displaying the table chart, [Display Duration] can only be selected for [1 day], [1 week], and [1 month].

2.5.2.5. Heat map

In addition to the function in live mode, you can select the format to display the chart one by one for multiple cameras in Search Mode.

● **Values that can be set on the Heat map chart**

Content: The displayed contents are the same as in the Live Mode.
Option – Show transition: If checked the heat map for each hour within the set Time of the day will be displayed side by side for a single camera, and you will be able to check the time transition.

Note:
- When displaying the heat map, [Comparison] cannot be selected.
- When selecting [Show transition], only one camera can be selected. Also, the group cannot be selected.
- When displaying the heat map without [Show transition], [Display Duration] can only be selected for [1 hour].
- When displaying the heat map with [Show transition], [Display Duration] can only be selected for [1 day].
- The background image has been privacy-processed.

2.5.2.6. Image with line count data

It is a chart that superimposes the set position of the line cross and the number of people passing by in a specific time on the background image of the AI fisheye camera. The displayed contents are the same as [Live Mode]. Please refer to [Image with line count data].

2.6. CONTENTS OF THE VEHICLE COUNTING

This section describes the types of charts that can be displayed when the AI-VMD application is registered.

2.6.1. Live Mode

In [Live Mode], you can select the display content of each chart by operating the display [Content selection] section of the condition selection display section. If you press the ▶ on the right side, the following display content selection sub-window will be displayed.
The displayed content is in the format to be selected with the radio button. By selecting each item, the sub-items related to that item are displayed, and you can select more detailed contents.

Note:
- Select one or more valid cameras or groups in the [Cameras / Group selection] before opening the [Content Selection] window.

2.6.1.1. Statistics graphs

Statistics graphs are formats to display the number of Vehicle counting information as graphs in chronological order or in camera units.

● [Data type]

The data type selects the direction of the line cross or area to be displayed.

Item	Description
In	The [In] direction of the line cross is displayed.
Out	The [Out] direction of the line cross is displayed.
In + Out	The total value in the [In] and [Out] directions of the line cross is displayed.
In - Out	The difference from the [In] direction to the [Out] direction of the line cross is displayed.

● [Classify by]

[Classify by] sets the axis on which the graph is displayed.

Item	Description
By time	Shows the transition over time.
By camera	Displays aggregated values by cameras, groups, line cross and area.

In case of [By time]:

The scale and display range of the graph are set as follows according to the time interval selected in the [Display Duration] pull-down.

Display Duration	Scale	Range
Last 1 hour	1 minute	60 minutes
Today	1 hour	Max 24 hours (depend on Time setting)
Last 1 week	1 day	7 days
Last 1 month	1 week	5 weeks

In case of [By camera]:

Depending on the selection status of the [Cameras / Group selection], the graph series is set as follows.

Selection	Scale
One camera	For each line or area set for this camera
Multiple cameras	By camera
Group	By group

After creating the graph, you can change the type of graph from [Options]. For details, please read [Display contents of the chart].

- **[Specify lines/areas individually]**

  Sets whether to create a chart for each individual line/area.

  If set to On, press ▶ on the right side of the camera and select Lines/Areas for each camera from the sub-window.

Note:
- When [Cameras / Group selection] is [Group], this setting is not available.
- If " lines/areas individually" is off and only one camera is selected, all lines/areas of the camera will be plotted.
- Lines/area can be checked if enabled in the camera settings

About the reset function

In the [Statistics] chart of vehicle count, the number of people is estimated based on the business start time on the target day as 0.
Only if all of the following conditions are met, select [Reset] to reset the number of vehicles to 0 at any time and start estimating the current number again from there.

  - [Display Duration] is "Today"

  - [Data type] is "In- Out"

  - [Classify by] is "By time"

About display switching in Count number chart

Only if all of the following conditions are met, select [Unit time] or [Cumulative] to switch display.

  - [Display Duration] is "Today" or "Last 1 hour" (in the case of search, it is "1 hour" or "1 day")

  - [Data type] is "In- Out"

  - [Classify by] is "By time"

  - [Chart type] is "Count number"
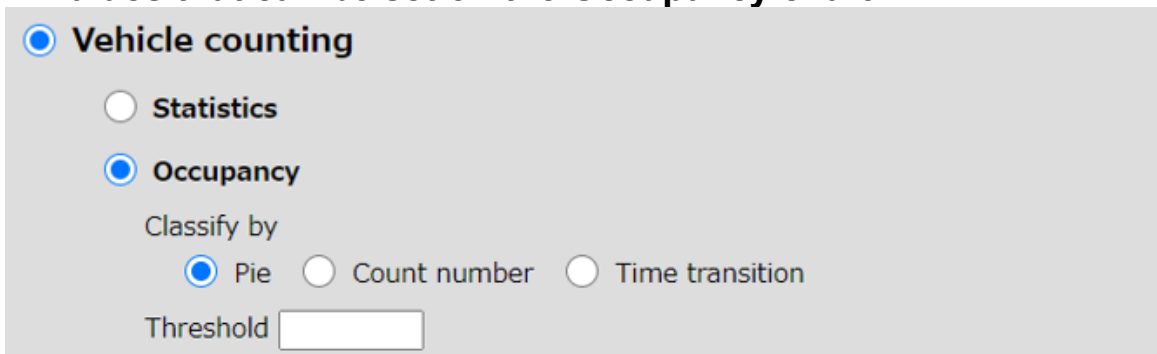
2.6.1.2. Occupancy chart

The occupancy chart displays the degree of congestion in the area currently to be aggregated using the line cross functions.
Estimate the number of vehicles in the area using the following calculation method.

Assuming that there is no one in the area at the opening time of the day, the total number of [In] counts minus the [Out] count is the number of vehicles in the current area. The target of aggregation is all lines of all selected cameras.

- **Values that can be set on the Occupancy chart**

- **Classify by**
Select the display format of the chart.

Pie: Displays the degree of occupancy as a pie chart.
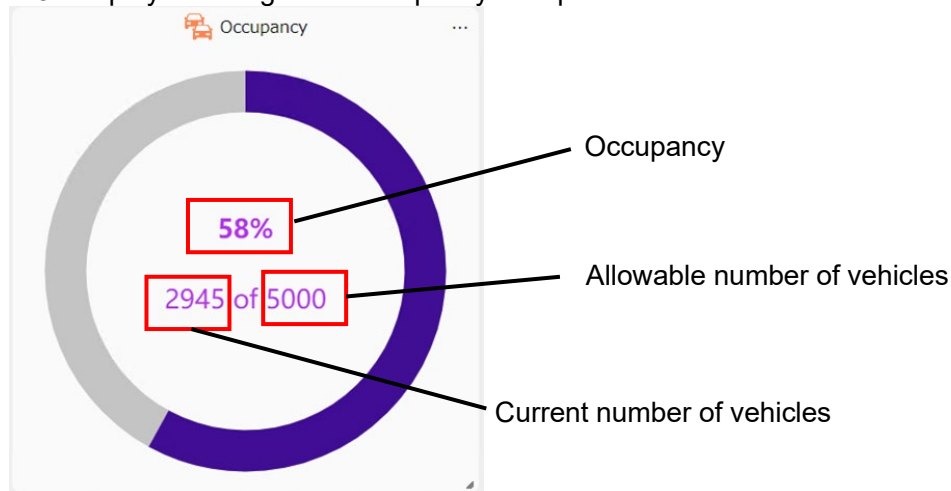
Occupancy: Shows how crowded the aggregation target area is. Current number of vehicle ÷ Allowable number of vehicle (%).
Current number of vehicles: Estimated value of the number of vehicles in the aggregation target area.
Allowable number of vehicles: The allowable number of vehicles in the area to be aggregated.
Count number: The degree of occupancy is displayed numerically.
Time transition: Time transition of occupancy is displayed when [Last 1 hour] or [Today] are selected for [Display duration]. The value at the start time of the chart is calculated as zero.

● Threshold

Set the allowable number of vehicles.

Note:
- When displaying the Occupancy, [Comparison] cannot be selected.
- The number of counts displayed may temporarily increase/decrease but will be restored after a certain period of time. The stored data will not be affected.

About the reset function in Line Count

In the [Occupancy] chart of the line cross, the number of vehicles currently in the area is estimated by subtracting the number of vehicles who have left the area, from the number of vehicle who have entered the area from that point to the present, assuming that the business start time on the target day is 0.
Therefore, if there are vehicles which enter and leave the area without crossing the set line, errors will accumulate.
Select [Reset] to reset the number of vehicles in the area to 0 at that time and start estimating the current number again from there.

2.6.2. Search Mode

This section describes the charts that can be displayed in Search Mode.

2.6.2.1. Statistics graphs

It is a format to display the number of vehicles count information as a graph in chronological order or in camera units. The displayed contents are basically the same as [Live Mode]. Please refer to [Statistics graphs].

The differences from [Live Mode] are as follows:
 - Search is no reset function

2.6.2.2. Time transition of occupancy

It is a format to display the time transition of occupancy. The displayed contents are the same as [Live Mode]. Please refer to [Occupancy chart].

2.6.2.3. Table chart

It is a chart that displays the number of vehicles counting information as a table.
The values of each line are added up and displayed as the camera value.
When the time interval is 1 month, unlike other charts, the data of the month including the set date is displayed.

● **Display contents of the chart**

The following is an example when the time interval is 1 day and there is a comparison with the past.

Camera title	Count type	Date	Total	Increase/ Decrease	Composition ratio	00:00-01:00	01:00-02:00	02:00-03:00	03:00-04:00	04:00-05:00	05:00-06:00	06:00-07:00	07:00-08:00	08:00-09:00	09:00-10:00	10:00-11:00	11:00-12:00	12:00-13:00	13:00-14:00
Total	in	2024/02/27	443	-2.42%	100.00%	31	31	30	32	25	28	31	32	44	46	28	35	23	27
		2024/02/17	454		100.00%	28	34	27	33	28	38	32	29	36	31	32	38	36	32
	out	2024/02/27	443	-1.34%	100.00%	34	29	30	32	24	40	35	34	30	27	37	33	34	24
		2024/02/17	449		100.00%	34	20	33	36	28	28	26	33	35	41	39	25	33	38
	in-out (cumulative)	2024/02/27	-	-		-	-3	-1	-1	-1	0	-12	-16	-18	-4	15	6	8	-3	0
		2024/02/17	-		-	-6	8	2	-1	-1	9	15	11	12	2	-5	8	11	5
i-Pro Cam1	in	2024/02/27	242	2.98%	54.63%	19	15	13	15	10	15	16	23	21	26	19	19	15	16
		2024/02/17	235		51.76%	18	17	16	19	12	21	17	15	19	12	15	16	19	19
	out	2024/02/27	205	-8.48%	46.28%	17	19	16	15	8	20	15	15	14	8	17	15	13	13
		2024/02/17	224		49.89%	16	12	19	16	15	16	13	16	15	20	15	12	16	23
	in-out (cumulative)	2024/02/27	-	-		-	2	-2	-5	-5	-3	-8	-7	1	8	26	28	32	34	37
		2024/02/17	-		-	2	7	4	7	4	9	13	12	16	8	8	12	15	11
i-Pro Cam2	in	2024/02/27	201	-8.22%	45.37%	12	16	17	17	15	13	15	9	23	20	9	16	8	11
		2024/02/17	219		48.24%	10	17	11	14	16	17	15	14	17	19	17	22	17	13
	out	2024/02/27	238	5.78%	53.72%	17	10	14	17	16	20	20	19	16	19	20	18	21	11
		2024/02/17	225		50.11%	18	8	14	20	13	12	13	17	20	21	24	13	17	15
	in-out (cumulative)	2024/02/27	-	-		-	-5	1	4	4	3	-4	-9	-19	-12	-11	-22	-24	-37	-37
		2024/02/17	-		-	-8	1	-2	-8	-5	0	2	-1	-4	-6	-13	-4	-4	-6

Camera title: Displays the camera title. The upper row shows the total value.
Count type: Aggregate by in / out / in – out (cumulative) of line cross.

Date: The upper row is the date of the comparison source, and the lower row is the date of the comparison destination.

Total: Total for all cameras.

Increase / Decrease: Shows the rate of increase / decrease between the comparison source and the destination.

Composition ratio: When the multiple cameras are selected, this shows percentage for each camera.

Note:

- When displaying the table chart, [Display Duration] can only be selected for [1 day], [1 week], and [1 month].

2.7. CONTENTS OF THE ON-SITE LEARNING OBJECT COUNTING

This section describes the types of charts that can be displayed when the AI-VMD application is registered.

2.7.1. Live Mode

In [Live Mode], you can select the display content of each chart by operating the display [Content selection] section of the condition selection display section. If you press the ▶ on the right side, the following display content selection sub-window will be displayed.

The displayed content is in the format to be selected with the radio button. By selecting each item, the sub-items related to that item are displayed, and you can select more detailed contents.

Note:
- Select one or more valid cameras or groups in the [Cameras / Group selection] before opening the [Content Selection] window.

2.7.1.1. Statistics graphs

Statistics graphs are formats to display the number of On-site learning object counting information as graphs in chronological order or in camera units.

● [Data type]
The data type selects the direction of the line cross or area to be displayed.

Item	Description
In	The [In] direction of the line cross is displayed.
Out	The [Out] direction of the line cross is displayed.
In + Out	The total value in the [In] and [Out] directions of the line cross is displayed.
In - Out	The difference from the [In] direction to the [Out] direction of the line cross is displayed.

● [Classify by]

[Classify by] sets the axis on which the graph is displayed.

Item	Description
By time	Shows the transition over time.
By camera	Displays aggregated values by cameras, groups, line cross and area.

In case of [By time]:
The scale and display range of the graph are set as follows according to the time interval selected in the [Display Duration] pull-down.

Display Duration	Scale	Range
Last 1 hour	1 minute	60 minutes
Today	1 hour	Max 24 hours (depend on Time setting)
Last 1 week	1 day	7 days
Last 1 month	1 week	5 weeks

In case of [By camera]:
Depending on the selection status of the [Cameras / group selection], the graph series is set as follows.

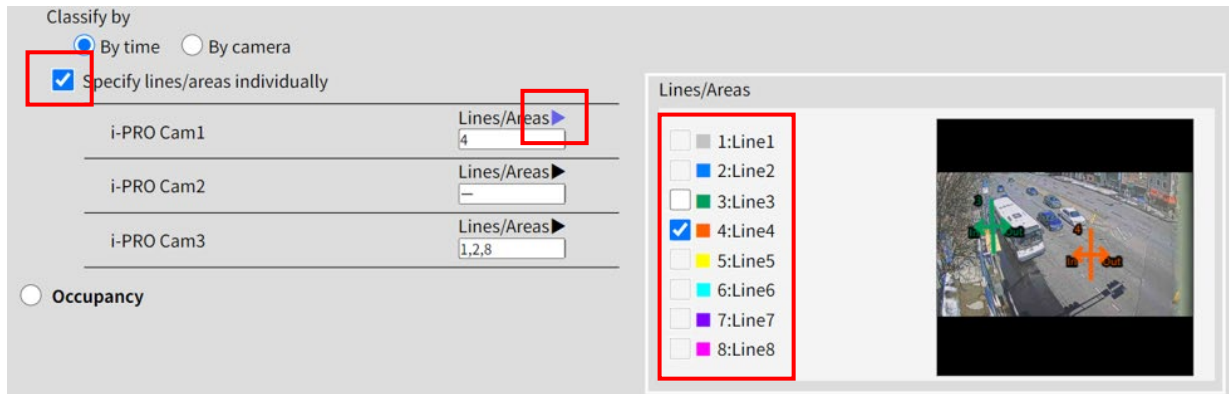| Selection	Scale
One camera	For each line or area set for this camera
Multiple cameras	By camera
Group	By group

After creating the graph, you can change the type of graph from [Options]. For details, please read [Display contents of the chart].

● [Specify lines/areas individually]

Sets whether to create a chart for each individual line/area.

If set to On, press ▶ on the right side of the camera and select Lines/Areas for each camera from the sub-window.

Note:
- When [Cameras / Group selection] is [Group], this setting is not available.
- If " lines/areas individually" is off and only one camera is selected, all lines/areas of the camera will be plotted.
- Lines/area can be checked if enabled in the camera settings

About the reset function

In the [Statistics] chart of vehicle count, the number of people is estimated based on the business start time on the target day as 0.
Only if all of the following conditions are met, select [Reset] to reset the number of vehicle to 0 at any time and start estimating the current number again from there.

- [Display Duration] is "Today"

- [Data type] is "In- Out"

- [Classify by] is "By time"

About display switching in Count number chart

Only if all of the following conditions are met, select [Unit time] or [Cumulative] to switch display.

- [Display Duration] is "Today" or "Last 1 hour" (in the case of search, it is "1 hour" or "1 day")

- [Data type] is "In- Out"

- [Classify by] is "By time"

- [Chart type] is "Count number"

2.7.1.2. Occupancy chart

The occupancy chart displays the degree of congestion in the area currently to be aggregated using the line cross functions.
Estimate the number of On-site learning object in the area using the following calculation method.

Assuming that there is no one in the area at the opening time of the day, the total number of [In] counts minus the [Out] count is the number of On-site learning object in the current area. The target of aggregation is all lines of all selected cameras.

● **Values that can be set on the Occupancy chart**
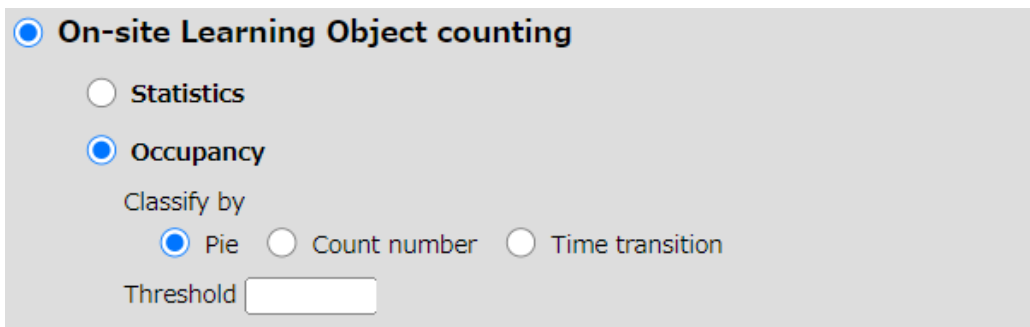
● **Classify by**
Select the display format of the chart.

Pie: Displays the degree of occupancy as a pie chart.
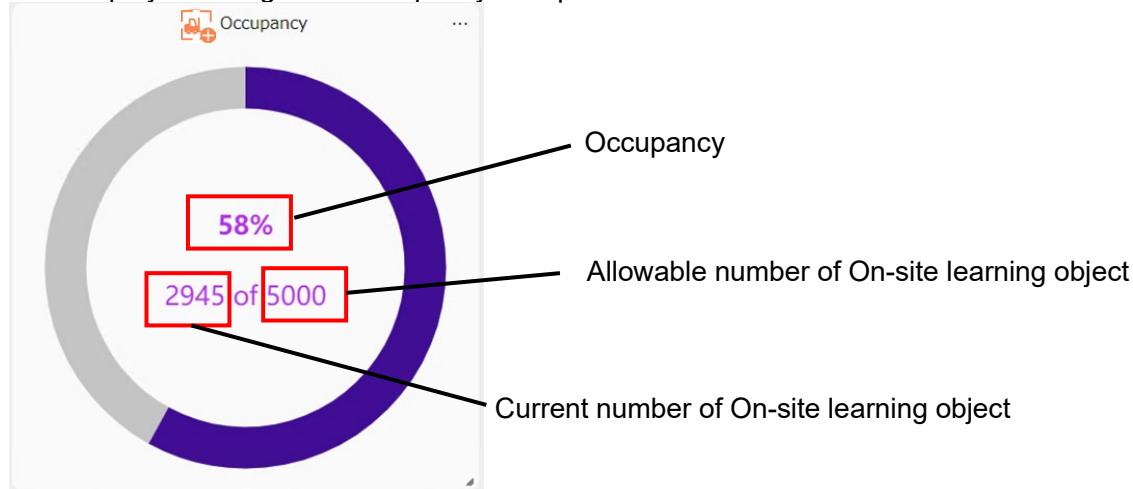
Occupancy: Shows how crowded the aggregation target area is. Current number of On-site learning object ÷ Allowable number of On-site learning object（%）.
Current number of On-site learning object: Estimated value of the number of On-site learning object in the aggregation target area.
Allowable number of On-site learning object: The allowable number of On-site learning object in the area to be aggregated.
Count number: The degree of occupancy is displayed numerically.
Time transition: Time transition of occupancy is displayed when [Last 1 hour] or [Today] are selected for [Display duration]. The value at the start time of the chart is calculated as zero.

● Threshold

Set the allowable number of On-site learning object.

Note:
- When displaying the Occupancy, [Comparison] cannot be selected.
- The number of counts displayed may temporarily increase/decrease but will be restored after a certain period of time. The stored data will not be affected.

About the reset function in Line Count

In the [Occupancy] chart of the line cross, the number of On-site learning object currently in the area is estimated by subtracting the number of On-site learning object who have left the area, from the number of On-site learning object who have entered the area from that point to the present, assuming that the business start time on the target day is 0. Therefore, if there are On-site learning object which enter and leave the area without crossing the set line, errors will accumulate.

Select [Reset] to reset the number of On-site learning object in the area to 0 at that time and start estimating the current number again from there.

2.7.2. Search Mode

This section describes the charts that can be displayed in Search Mode.

2.7.2.1. Statistics graphs

It is a format to display the number of On-site learning object count information as a graph in chronological order or in camera units. The displayed contents are basically the same as [Live Mode]. Please refer to [Statistics graphs].

The differences from [Live Mode] are as follows:
  - Search is no reset function

2.7.2.2. Time transition of occupancy

It is a format to display the time transition of occupancy. The displayed contents are the same as [Live Mode]. Please refer to [Occupancy chart].

2.7.2.3. Table chart

It is a chart that displays the number of On-site learning object counting information as a table.
The values of each line are added up and displayed as the camera value.
When the time interval is 1 month, unlike other charts, the data of the month including the set date is displayed.

● **Display contents of the chart**

The following is an example when the time interval is 1 day and there is a comparison with the past.

Camera title	Count type	Date	Total	Increase/ Decrease	Composition ratio	00:00- 01:00	01:00- 02:00	02:00- 03:00	03:00- 04:00	04:00- 05:00	05:00- 06:00	06:00- 07:00	07:00- 08:00	08:00- 09:00	09:00- 10:00	10:00- 11:00	11:00- 12:00	12:00- 13:00	13:00- 14:00
Total	in	2024/02/27	498	12.16%	100.00%	22	43	36	44	35	36	35	41	30	27	35	35	33	46
		2024/02/17	444		100.00%	29	30	27	38	38	32	25	26	36	34	33	34	30	32
	out	2024/02/27	457	0.88%	100.00%	25	30	28	31	30	37	35	42	38	30	34	29	41	27
		2024/02/17	453		100.00%	25	32	34	28	42	34	27	25	31	33	28	40	31	43
	in-out (cumulative)	2024/02/27	-	-	-	-	-3	10	18	31	36	35	35	34	26	23	24	30	22	41
		2024/02/17	-		-	4	2	-5	5	1	-1	-3	-2	3	4	9	3	2	-9
i-Pro Cam1	in	2024/02/27	238	2.15%	47.79%	8	20	23	18	17	15	17	23	8	10	19	21	16	23
		2024/02/17	233		52.48%	17	19	15	17	14	18	13	15	20	18	12	16	18	21
	out	2024/02/27	217	-5.65%	47.48%	16	14	12	12	13	23	16	18	15	19	16	14	17	12
		2024/02/17	230		50.77%	17	20	16	16	21	16	17	14	18	16	11	16	11	21
	in-out (cumulative)	2024/02/27	-	-	-	-8	-2	9	15	19	11	12	17	10	1	4	11	10	21
		2024/02/17	-		-	0	-1	-2	-1	-8	-6	-10	-9	-7	-5	-4	-4	3	3
i-Pro Cam2	in	2024/02/27	260	23.22%	52.21%	14	23	13	26	18	21	18	18	22	17	16	14	17	23
		2024/02/17	211		47.52%	12	11	12	21	24	14	12	11	16	16	21	18	12	11
	out	2024/02/27	240	7.62%	52.52%	9	16	16	19	17	14	19	24	23	11	18	15	24	15
		2024/02/17	223		49.23%	8	12	18	12	21	18	10	11	13	17	17	24	20	22
	in-out (cumulative)	2024/02/27	-	-	-	5	12	9	16	17	24	23	17	16	22	20	19	12	20
		2024/02/17	-		-	4	3	-3	6	9	5	7	7	10	9	13	7	-1	-12

Camera title: Displays the camera title. The upper row shows the total value.
Count type: Aggregate by in / out / in – out (cumulative) of line cross.
Date: The upper row is the date of the comparison source, and the lower row is the date of the comparison destination.

Total: Total for all cameras.

Increase / Decrease: Shows the rate of increase / decrease between the comparison source and the destination.

Composition ratio: When the multiple cameras are selected, this shows percentage for each camera.

Note:

- When displaying the table chart, [Display Duration] can only be selected for [1 day], [1 week], and [1 month].

2.8. CONTENTS OF AGE AND GENDER

This section describes the types of charts that can be displayed when the AI Face detection application is registered.

Note:
- Select one or more valid cameras or groups in the [Cameras / Group selection] before opening the [Content Selection] window.

2.8.1. Live Mode

Exclude count of unknown attributes
Set whether to exclude counts of unknown attributes.

Narrowing down by attributes

Check for Gender	Check for Age	Displayed contents
No	No	Total number of detected faces. Gender and Age information are not shown.
Yes	No	Number or ratio of male and female. Unknown is shown for the image that cannot be analyzed.
No	Yes	Number or ratio of age. Age is classified to 0-10、11-20、21-30、31-40、41-50、51-60、61+.
Yes	Yes	Shows the top 10 combinations of gender (male / female / unknown) and age (0-10, 11-20, 21-30, 31-40, 41-50, 51-60, 61+, unknown). Other combinations are displayed as "Other".

Classify by
[Total (Pie chart)], [Total (Count number)], [By time] or [By camera] can be selected. Refer to 2.5.1.1 for details.

The differences from [2.5.1.1] are as follows:
 - AGE AND GENDER is no reset function
 - AGE AND GENDER is no switch display function in count number

2.8.2. Search Mode

Exclude count of unknown attributes
Set whether to exclude counts of unknown attributes.

Narrowing down by attributes
The displayed contents are the same as in the Live Mode.

Classify by
If you check more than one, each graph will be displayed at the same time.

2.9. CONTENTS OF PEOPLE ATTRIBUTE

This section describes the types of charts that can be displayed when the AI People detection application is registered.

Note:
- Select one or more valid cameras or groups in the [Cameras / Group selection] before opening the [Content Selection] window.

2.9.1. Live Mode

Exclude count of unknown attributes
Set whether to exclude counts of unknown attributes.

Narrowing down by attributes
You can select up to 3 attributes to display. The classification of each attribute is as follows. When multiple selections are made, the number and percentage of the top 10 combinations with the highest number of analyzed attributes are displayed. Other combinations are displayed as "Other". If all attributes are not selected, information on the number of all detected people will be displayed.

Attributes	Description
Gender	Male, Female
Age	Child (0-10), Young Adult (11-20), Adult (21-60), Senior (61+)
Hair type	Long-hair, Short-hair, Hat
Hair color	Black, Gray, White, Brown, Gold
Top type	Short-sleeves, Long-sleeves
Top color	Black, Gray, White, Brown, Orange, Yellow, Green, Blue, Purple, Pink, Red
Bottom type	Long, Short
Bottom color	Black, Gray, White, Brown, Orange, Yellow, Green, Blue, Purple, Pink, Red
Sunglasses	Sunglasses, No Glasses
Beard	Beard, No Beard
Mask	Mask, No Mask

Classify by
[Total (Pie chart)], [Total (Count number)], [By time] or [By camera] can be selected. Refer to 2.5.1.1 for details.

The differences from [2.5.1.1] are as follows:
  - PEOPLE ATTRIBUTE is no reset function
  - PEOPLE ATTRIBUTE is no switch display function in count number

2.9.2. Search Mode

☑ **People attribute**

☐ Exclude count of unknown attributes

Narrowing down by attributes

☐ Gender	☐ Age	☐ Hair type
☐ Hair color	☐ Top type	☐ Top color
☐ Bottom type	☐ Bottom color	
☐ Sunglasses	☐ Beard	☐ Mask

Classify by

☐ Total   ☐ By time   ☐ By camera

Exclude count of unknown attributes
Set whether to exclude counts of unknown attributes.

Narrowing down by attributes
The displayed contents are the same as in the Live Mode.

Classify by
If you check more than one, each graph will be displayed at the same time.

2.10. CONTENTS OF VEHICLE ATTRIBUTE

This section describes the types of charts that can be displayed when the AI Vehicle detection application is registered.

Note:
- Select one or more valid cameras or groups in the [Cameras / Group selection] before opening the [Content Selection] window.

2.10.1. Live Mode

Exclude count of unknown attributes
Set whether to exclude counts of unknown attributes.

Narrowing down by attributes

Check for Type	Check for Color	Displayed content
No	No	Total number of detected vehicles. Type and color information are not shown.
Yes	No	Number or ratio of vehicle type (Truck, Bus, SUV, Van, Sedan, Pickup Truck, Two-Wheel).
No	Yes	Number or ratio of vehicle color (Black, Brown, White, Gray, Red, Blue, Yellow, Green, Purple, Pink).
Yes	Yes	Shows the top 10 combinations of type and color. Other combinations are displayed as "Other".

Classify by
[Total (Pie chart)], [Total (Count number)], [By time] or [By camera] can be selected. Refer to 2.5.1.1 for details.

The differences from [2.5.1.1] are as follows:
  - VEHICLE ATTRIBUTE is no reset function
  - VEHICLE ATTRIBUTE is no switch display function in count number

2.10.2. Search Mode

Exclude count of unknown attributes
Set whether to exclude counts of unknown attributes.

Narrowing down by attributes
The displayed contents are the same as in the Live Mode.

Classify by
If you check more than one, each graph will be displayed at the same time.

2.11. CONTENTS OF LPR COUNTING

This section describes the types of charts that can be displayed when LPR counting application is registered.
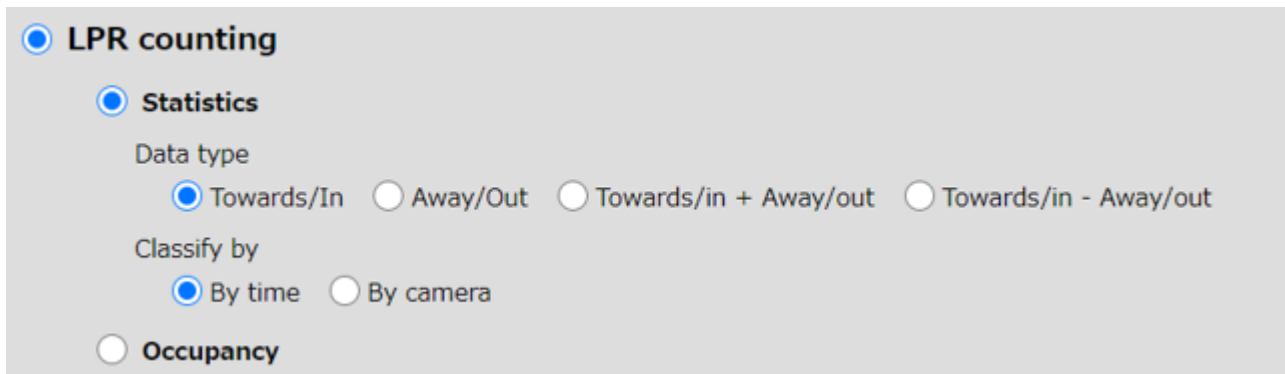
Note:
- If the plate is ADR, it will not be counted.

2.11.1. Live Mode

In [Live Mode], you can select the display content of each chart by operating the display [Content selection] section of the condition selection display section. If you press the ▸ on the right side, the following display content selection sub-window will be displayed.
The displayed content is in the format to be selected with the radio button. By selecting each item, the sub-items related to that item are displayed, and you can select more detailed contents.

Note:
- Select one or more valid cameras or groups in the [Cameras / Group selection] before opening the [Content Selection] window.

2.11.1.1. Statistics graphs

Statistics graphs are formats to display the number of vehicles counting information as graphs in chronological order or in camera units.

● [Data type]

[Data type] sets the direction.

Item	Description
Towards/In	[Towards/In] direction of towards the camera is displayed.
Away/Out	[Away/Out] direction of away from the camera is displayed.
Towards/In + Away/Out	Total value in the [Towards/In] and [Away/Out] directions is displayed.
Towards/In - Away/Out	The difference from the [Towards/In] direction to [Away/Out] direction is displayed.

● [Classify by]

[Classify by] sets the axis on which the graph is displayed.

Item	Description
By time	Shows the transition over time.
By camera	Displays aggregated values by cameras, groups.

In case of [By time]:
The scale and display range of the graph are set as follows according to the time interval selected in the [Display Duration] pull-down.

Display Duration	Scale	Range
Last 1 hour	1 minute	1 hour
Today	1 hour	Today during Time
Last 1 week	1 day	7 days
Last 1 month	1 week	5 weeks

In case of [By camera]:
Depending on the selection status of the [Cameras / Group selection], the graph series is set as follows.

Selection	Scale
One camera	One camera
Multiple cameras	By camera
Group	By group

After creating the graph, you can change the type of graph from [Options]. For details, please read [Display contents of the chart].

About the reset function

In the [Statistics] chart of vehicle count, the number of people is estimated based on the business start time on the target day as 0.
Only if all of the following conditions are met, select [Reset] to reset the number of vehicle to 0 at any time and start estimating the current number again from there.

   - [Display Duration] is "Today"

   - [Data type] is "Towards/in-Away/Out"

   - [Classify by] is "By time"

About display switching in Count number chart

Only if all of the following conditions are met, select [Unit time] or [Cumulative] to switch display.
   - [Display Duration] is "Today" or "Last 1 hour" (in the case of search, it is "1 hour" or "1 day")

   - [Data type] is "Towards/in-Away/Out"

   - [Classify by] is "By time"

   - [Chart type] is "Count number"

2.11.1.2. Occupancy chart

The occupancy chart displays the degree of congestion in the area currently to be aggregated using the direction counts functions.
Estimate the number of vehicles in the area using the following calculation method.

Assuming that there is no one in the area at the opening time of the day, the total number of [Towards/In] counts minus the [Away/Out] count is the number of vehicle current area. The target of aggregation is of all selected cameras.
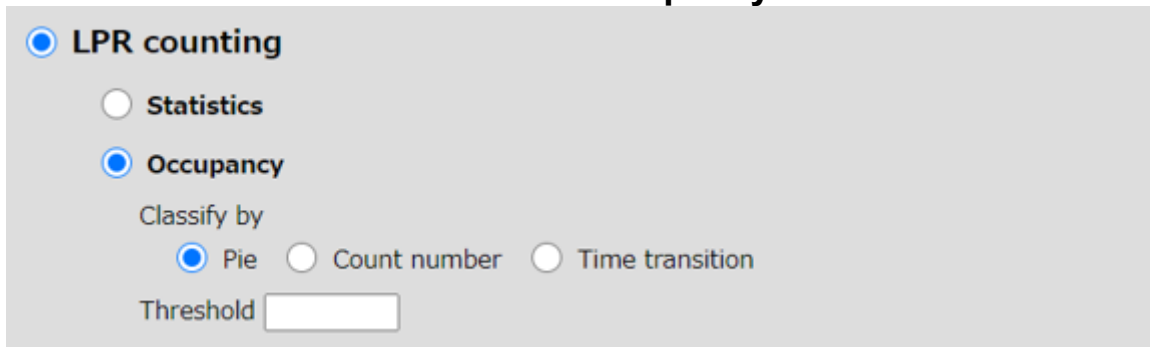
- **Values that can be set on the Occupancy chart**

- **Classify by**
Select the display format of the chart.

Pie: Displays the degree of occupancy as a pie chart.
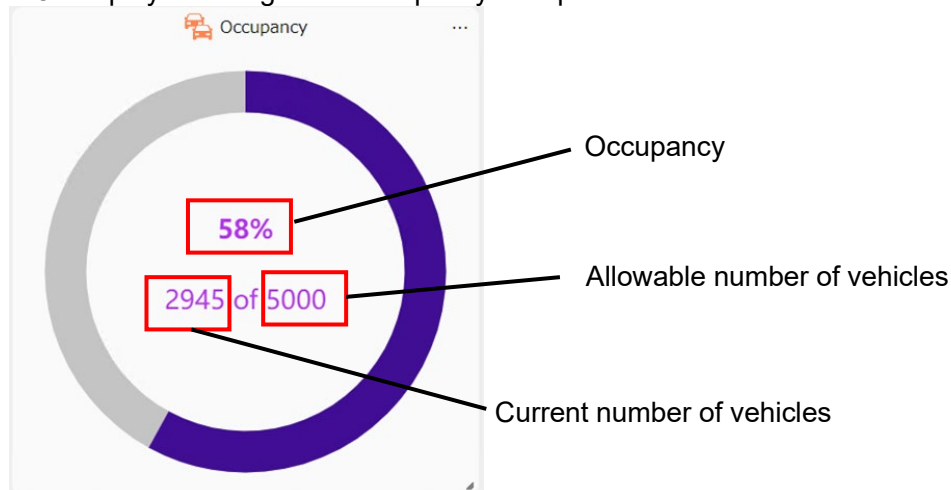
Occupancy: Shows how crowded the aggregation target area is. Current number of vehicles ÷ Allowable number of vehicles (%).
Current number of vehicles: Estimated value of the number of vehicles in the aggregation target area.
Allowable number of vehicles: The allowable number of vehicles in the area to be aggregated.
Count number: The degree of occupancy is displayed numerically.
Time transition: Time transition of occupancy is displayed when [Last 1 hour] or [Today] are selected for [Display duration]. The value at the start time of the chart is calculated as zero.

● Threshold

Set the allowable number of vehicles.

Note:
- When displaying the Occupancy, [Comparison] cannot be selected.
- The number of counts displayed may temporarily increase/decrease but will be restored after a certain period of time. The stored data will not be affected.

About the reset function in Vehicle Count

In the [Occupancy] chart, the number of vehicles currently in the area is estimated by subtracting the number of vehicles who have left the area, from the number of vehicles who have entered the area from that point to the present, assuming that the business start time on the target day is 0. Therefore, if there are vehicles which enter and leave the area without detection, errors will accumulate.
Select [Reset] to reset the number of vehicles in the area to 0 at that time and start estimating the current number again from there.

2.11.2. Search Mode

This section describes the charts that can be displayed in Search Mode.

2.11.2.1. Statistics graphs

It is a format to display the number of vehicles count information as a graph in chronological order or in camera units. The displayed contents are basically the same as [Live Mode]. Please refer to [Statistics graphs].

The differences from [Live Mode] are as follows:
  - Search is no reset function

2.11.2.2. Time transition of occupancy

It is a format to display the time transition of occupancy. The displayed contents are the same as [Live Mode]. Please refer to [Occupancy chart].

2.11.2.3. Table chart

It is a chart that displays the number of vehicles counting information as a table.
When the time interval is 1 month, unlike other charts, the data of the month including the set date is displayed.

● Display contents of the chart

The following is an example when the time interval is 1 day and there is a comparison with the past.

Camera title	Count type	Date	Total	Increase/ Decrease	Composition ratio	00:00-01:00	01:00-02:00	02:00-03:00	03:00-04:00	04:00-05:00	05:00-06:00	06:00-07:00	07:00-08:00	08:00-09:00	09:00-10:00	10:00-11:00	11:00-12:00	12:00-13:00	13:00-14:00
Total	Towards/in	2024/02/27	224	0.90%	100.00%	9	14	22	17	19	19	21	10	17	10	12	13	18	23
		2024/02/22	222		100.00%	11	11	21	13	20	20	11	19	14	13	21	23	10	15
	Away/out	2024/02/27	237	4.41%	100.00%	19	14	18	12	22	20	10	9	20	27	15	16	19	16
		2024/02/22	227		100.00%	15	17	17	17	11	19	12	17	15	21	19	17	14	16
	Towards/in-Away/out (cumulative)	2024/02/27	0	-	-	-10	-10	-6	-1	-4	-5	6	7	4	-13	-16	-19	-20	-13
		2024/02/22	0		-	-4	-10	-6	-10	-1	0	-1	1	0	-8	-6	0	-4	-5
i-Pro Cam1	Towards/in	2024/02/27	112	-4.27%	50.00%	5	6	10	11	11	10	14	4	3	5	8	6	9	10
		2024/02/22	117		52.70%	4	7	10	8	14	10	8	10	8	6	9	9	9	5
	Away/out	2024/02/27	116	-5.69%	48.95%	13	5	10	7	9	12	2	2	10	13	10	6	10	7
		2024/02/22	123		54.19%	9	9	6	10	5	9	9	9	10	11	10	11	7	8
	Towards/in-Away/out (cumulative)	2024/02/27	-	-	-	-8	-7	-7	-3	-1	-3	9	11	4	-4	-6	-6	-7	-4
		2024/02/22	-		-	-5	-7	-3	-5	4	5	4	5	3	-2	-3	-5	-3	-6
i-Pro Cam2	Towards/in	2024/02/27	112	6.67%	50.00%	4	8	12	6	8	9	7	6	14	5	4	7	9	13
		2024/02/22	105		47.30%	7	4	11	5	6	10	3	9	6	7	12	14	1	10
	Away/out	2024/02/27	121	16.35%	51.05%	6	9	8	5	13	8	8	7	10	14	5	10	9	9
		2024/02/22	104		45.81%	6	8	11	7	6	10	3	8	5	10	9	6	7	8
	Towards/in-Away/out (cumulative)	2024/02/27	-	-	-	-2	-3	1	2	-3	-2	-3	-4	0	-9	-10	-13	-13	-9
		2024/02/22	-		-	1	-3	-3	-5	-5	-5	-5	-4	-3	-6	-3	5	-1	1

Camera title: Displays the camera title. The upper row shows the total value.
Count type: Aggregate by Towards/In, Away/Out, Towards/In - Away/Out (cumulative).
Date: The upper row is the date of the comparison source, and the lower row is the date of the comparison destination.
Total: Total for all cameras.
Increase / Decrease: Shows the rate of increase / decrease between the comparison source and the destination.
Composition ratio: When the multiple cameras are selected, this shows percentage for each camera.

Note:
- When displaying the table chart, [Display Duration] can only be selected for [1 day], [1 week], and [1 month].

2.12.   TROUBLESHOOTING

Before asking for repairs, check the symptoms with the following table.
Contact your dealer if a problem cannot be solved even after checking and trying the solution in the table or a problem is not described below.

Symptom	Cause/solution
When access the Web setting page after a certain period of time, "A timeout has occurred." is displayed.	For security protection, if you do not operate for a while with the WEB setting page, a timeout will occur, and you will not be able to change the settings. In such a case, close the web browser, access it again, and enter the authentication information.
The data displayed on the dashboard is not updated	Depending on the operating status of your web browser (Google chrome, Microsoft Edge, or Firefox), it may not be updated properly. Please close the web browser and then display it again.
The display is misaligned.	Please try clearing the cache in your web browser, and close the web browser, access it again.
Chart creation takes time.	When you specify the camera with "AI-VMD/AI People Counting" registered it may take some time to create a chart.

2.13.   OPEN-SOURCE SOFTWARE

This product uses open-source software.

For details concerning licensing, read license.txt included in install package.

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