Canon

Auto Tracking Application

User Manual

ENGLISH

Table of Contents

Introduction

This document explains Auto Tracking Application RA-AT001 (hereafter referred to as "this application") settings and operations. Carefully read this document before use to ensure correct use of this application.

Before Using the Application

This application is intended for exclusive use with compatible Canon remote cameras (hereafter referred to as "cameras"). For details regarding installation, refer to the License Activation Tool User Manual.
This application utilizes image processing to detect* tracking targets, but depending on the shooting environment (setting, target moving speed, etc.), the target may be misdetected, mistaken or lost. Be sure to use the application in an environment that allows for correction from the operator in case of target misdetection or loss.
Canon shall assume no liability for any outcome of using this application.

* Face recognition is not available.

What Is Possible With the Auto Tracking Application

This application allows for automatic pan/tilt/zoom operation according to the tracked target's movement.
The main uses for this application are the following:

Automatic shooting while tracking the selected target

- Automatic tracking target selection is possible.
- Automatic zoom according to the tracking target's size is possible.
- Pan/tilt/zoom speed adjustment according to the tracking target's movement is possible.

For details on camera operation and features, refer to the camera's User Manual. Also, make sure to configure initial camera settings before using this application.
Some features and settings are not supported depending on the camera you are using. For details, refer to your local Canon website.

About this Manual

Symbols and Icons Used in This Document

🔳 Cautions and restrictions during operation. Make sure to read these carefully.

📑 Supplementary descriptions and reference information.

- For the most part, screens shown in this manual were captured on a computer running Windows 10. Actual screens may differ slightly.

Operating Environment

For details on the operating environment of this application, refer to the camera's User Manual.

■ Supported Cameras

To see which cameras are compatible, check the compatible models listed on the product download page.

📑 Note

When using a mobile environment, it is recommended to use a screen size of 10 inches (or larger) in landscape mode.

Auto Tracking Application (Lite)

Depending on the camera firmware version, Auto Tracking Application (Lite) may be included as a standard pre-installed application. Auto Tracking Application (Lite) can be used without authenticating a license. In the settings screen, ▣ is displayed on restricted functions. In order to use all the functions, purchase and authenticate a license for the Auto Tracking Application. It is also possible to authenticate a trial license to use the application within a trial period. For details about how to authenticate a license, refer to the License Activation Tool User Manual.

Setting Items with Restricted Values

Setting values for the following settings are limited.

Tracking Execution Screen/ Settings Page	Setting Value	Selectable Setting Value
Tracking Execution Screen/ Composition	Display Size	2, 4

Setting Items with Fixed Values

Setting values for the following settings are fixed.

Tracking Execution Screen/ Settings Page	Setting Value	Fixed Setting Value
Tracking Execution Screen	App Settings	1
	Silhouette View	On
	Display Position	Locked to screen center
	Auto Zoom	On
	Tracking Sensitivity	9
	Initialization	— (Disabled)
All Settings Page	Application Settings Name	— (Cannot be changed)
Pan/Tilt Operation Control	Fix Tilt Operation	Off
	Specify Shooting Range	Off
Priority Display Area / Fixed Viewing Angle Area	Priority Display Area	Off
	Fixed Viewing Angle Area	Off
Tracking Target Auto Select	Auto Select	On *
	Tracking Start Time (Sec)	0
	Auto Select Area	Off
	Restart Tracking After Manual Operation	On
Composition	Display Position	Locked to screen center
	Auto Zoom	On
	Pan/Tilt Halting Area	Off
	Tracking Sensitivity	9
Auto Select Exclusion Area	Auto Select Exclusion Area	Off

* You cannot manually select a tracking target.

Mouse Operation Select Button (P. 9)

Mouse operations available on the Settings Page (P. 13) are as follows.

⊞ Click Centering
- Pan/Tilt Operation Control
- Initial Position
- Priority Display Area/ Fixed Viewing Angle Area
- Composition
- Auto Select Exclusion Area
- Tracking Halting Area

⊡ Set Area
- Tracking Halting Area

Starting / Stopping Applications
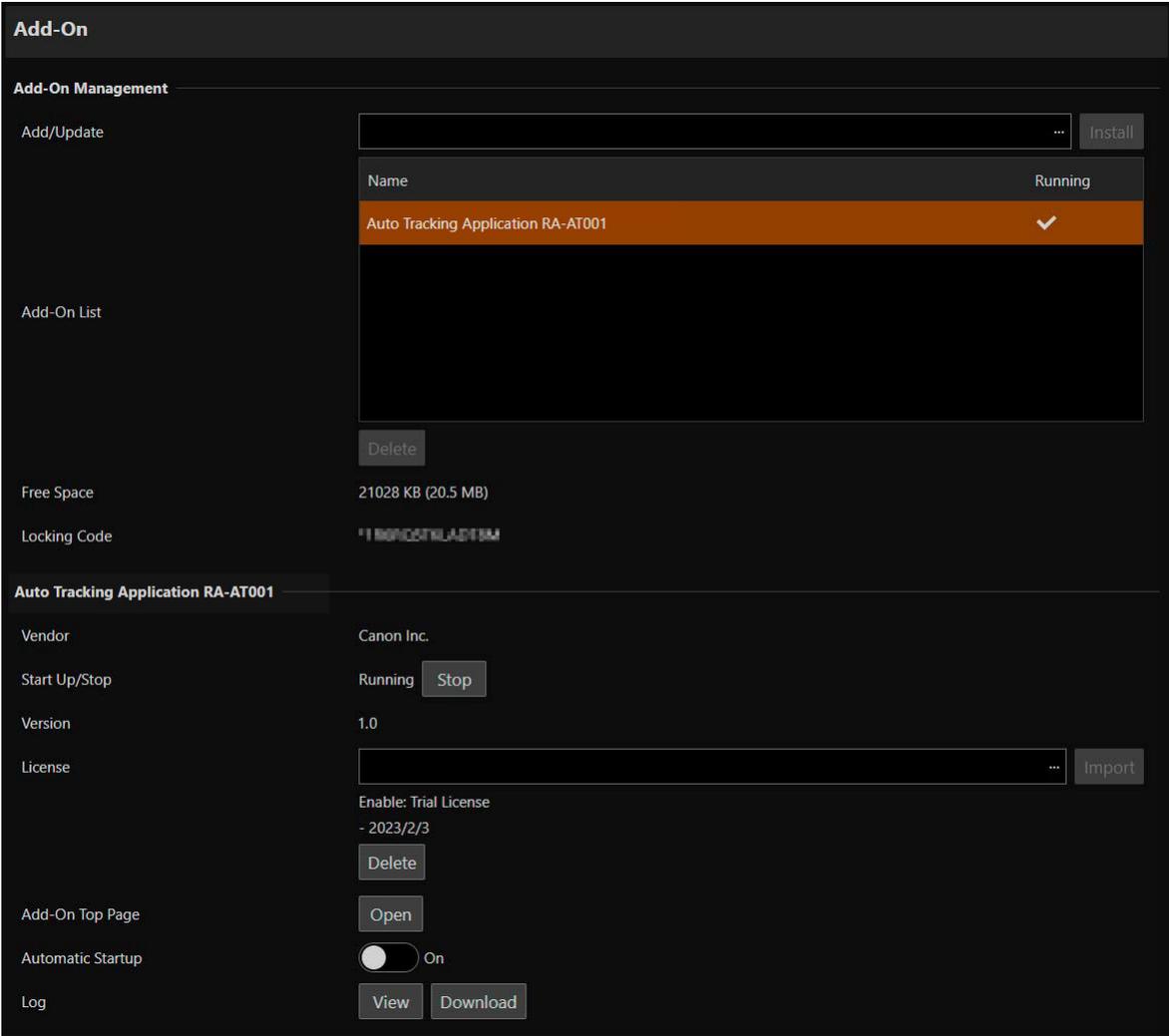
Starting Applications

Applications are started from the camera's Settings Page. Only an administrator account can start applications.

1 Open the camera's Settings Page > [⚙ System] > [System] > [Add-On].

2 Select the application to start from [Add-On List].

3 Click [Start Up/Stop] > [Start Up].

The selected application starts, the application status changes to [Running] and a check mark appears under [Running] in the [Add-On List] area.

📑 Note

If [Automatic Startup] is set to [On], the application starts automatically when the camera is booted up.

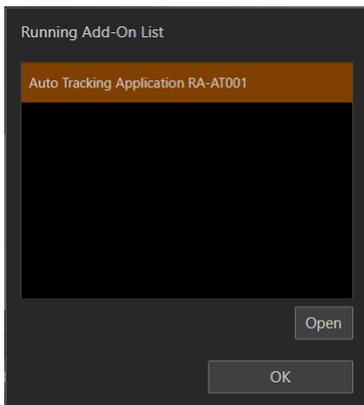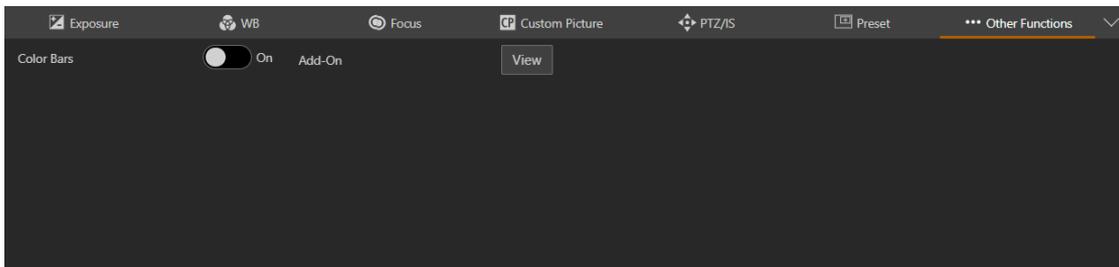| Add-On		
Add-On Management		
Add/Update	[ ] ...	Install
	Name	Running
Add-On List	Auto Tracking Application RA-AT001	✔
	Delete	
Free Space	21028 KB (20.5 MB)	
Locking Code	' ████████████	
Auto Tracking Application RA-AT001		
Vendor	Canon Inc.	
Start Up/Stop	Running Stop	
Version	1.0	
License	[ ] ... Import	
	Enable: Trial License	
	- 2023/2/3	
	Delete	
Add-On Top Page	Open	
Automatic Startup	⬤ On	
Log	View Download	

Opening the Application's Settings Screen

The application's settings screen is opened from the camera's Settings Page.

1 Click [🎯 Camera Control 1] > [⋯ Other Functions] > [Add-On] > [View] from the camera's Settings Page.

The running Add-On list is displayed.

2 Select the application to be launched from [Running Add-On List] and click [Open].

The application's settings screen window is displayed.

📝 **Note**

- For a single camera, do not open and operate the settings screen of multiple PTZ operating applications simultaneously.

- In case [View] cannot be selected or the application to be launched is not displayed on [Running Add-On List], launch the application using an administrator account (P. 6).

- An administrator can also open the settings screen from the camera's Settings Page by clicking [⚙ System] > [System] > [Add-On], selecting the application to be started from the Add-On list, then clicking [Add-On Top Page] > [Open].

Stopping Applications

Applications are stopped from the camera's Settings Page. Only an administrator account can stop applications.

1 Open the camera's Settings Page > [⚙ System] > [System] > [Add-On].

2 Select the application to stop from [Add-On List].

3 Click [Start Up/Stop] > [Stop].

Once you stop the application, the settings screen is closed, the application's status changes to [Stop] and the check mark under [Running] in the [Add-On List] area disappears.

Screen Configuration

Tracking Execution Screen

Settings Menu Button

[App Settings] Select Button

Mouse Operation Select Button

[View Initial Position] Button

Language List

Application Info.

[Save] Button

[Initialization] Button
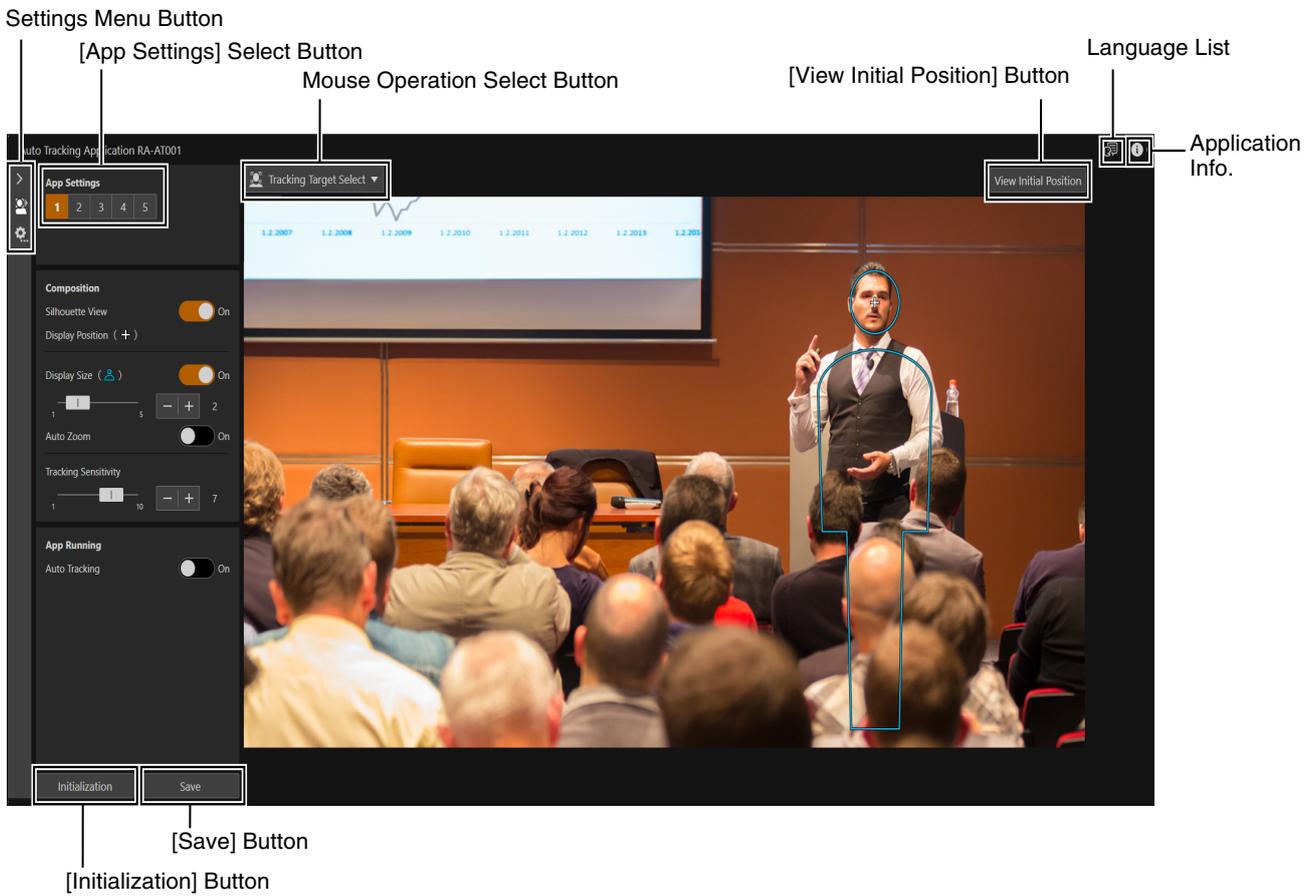
Settings Menu Button
Opens the Settings Menu. You can navigate to the tracking execution Screen, the settings wizard, and each Settings Page.

[Setting Wizard] Button

Settings Page
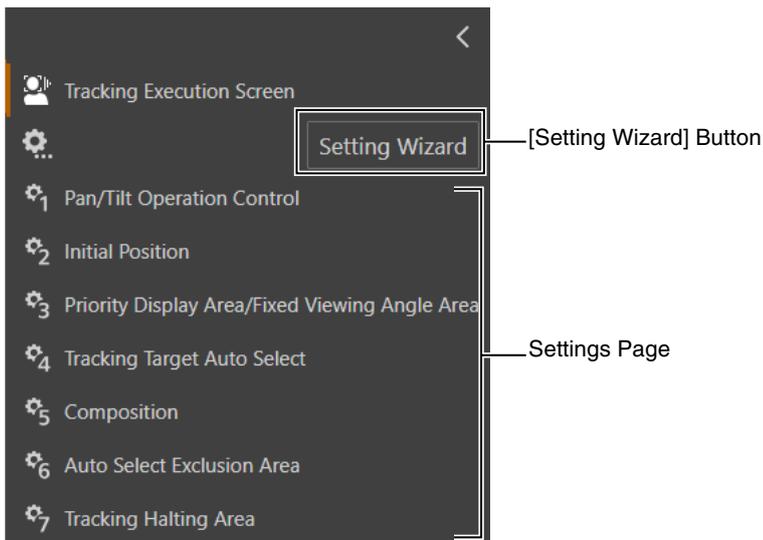
[App Settings] Select Button
Selects the number of the application setting to set for automatic tracking. Up to five settings can be saved.

Mouse Operation Select Button

By clicking the button on the top left corner of the video display area, you can switch the operation performed when clicking on the video. The following five modes are available and allow you to adjust setting items. Additionaly, available modes differ depending on the settings screen.

Item	Operation
⊞ Click Centering	The camera angle moves so that the clicked position is at the center of the screen.
🖳 Tracking Target Select	The clicked target is assigned as the tracking target.
⛎ Silhouette Manipulation	The tracking target moves when the silhouette is dragged.
⊡ Set Area	By dragging, you can change the size and position of the area displayed on the video display area.
⊡ Silhouette Manipulation / Set Area	Allows you to perform silhouette and area setting operations.

[View Initial Position] Button
Displays the initial position (P. 15).
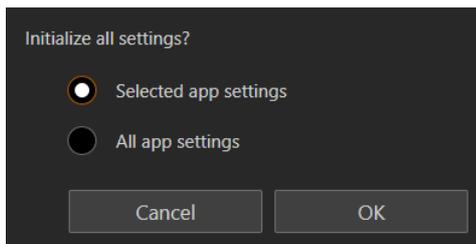
Language List
Select the displayed language.

Application Info.
Check information related to the application.
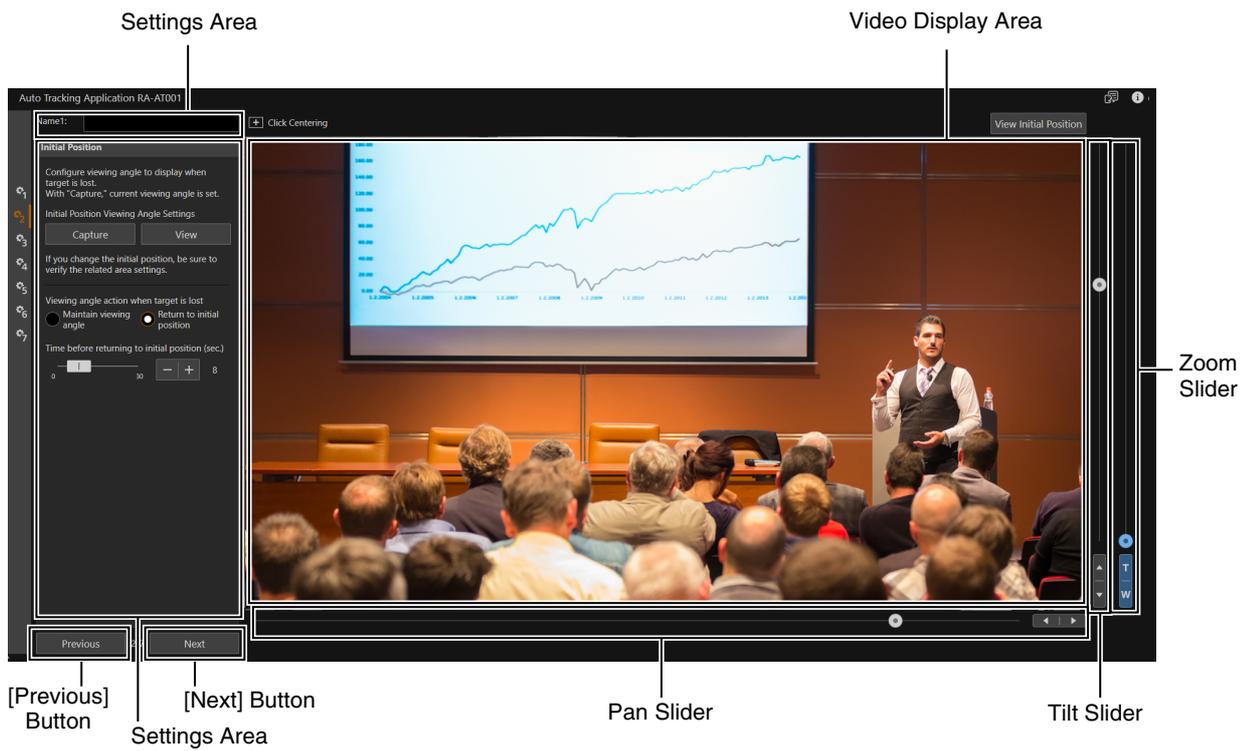
[Initialization] Button
Initializes automatic tracking shooting settings. If you click the button, you can choose which settings to initialize: the selected application settings or all application settings.

[Save] Button
Saves the tracking execution screen settings.

Settings Wizard

Settings Area

Video Display Area

Zoom Slider

[Previous] Button

[Next] Button

Settings Area

Pan Slider

Tilt Slider

[App Settings] Name

You can change the application settings name. Up to 40 characters can be entered.

Settings Area

Area for detailed tracking operation settings.

Video Display Area

The camera's video is displayed.

Pan Slider

Move the camera angle left or right. Use the ◀ or ▶ button to fine-tune the position.

Tilt Slider

Move the camera angle up or down. Use the ▲ or ▼ button to fine-tune the position.

Zoom Slider

Move up to zoom in (telephoto) or down to zoom out (wide angle).

Use the T or W button to fine-tune the position.

[Next] Button

Moves to the next wizard page.

[Previous] Button

Moves to the previous wizard page.

Preparations

Checking the Setting Procedure

■ Available Area

This section explains about the area used when setting the automatic tracking function.

When using a Priority Display Area:
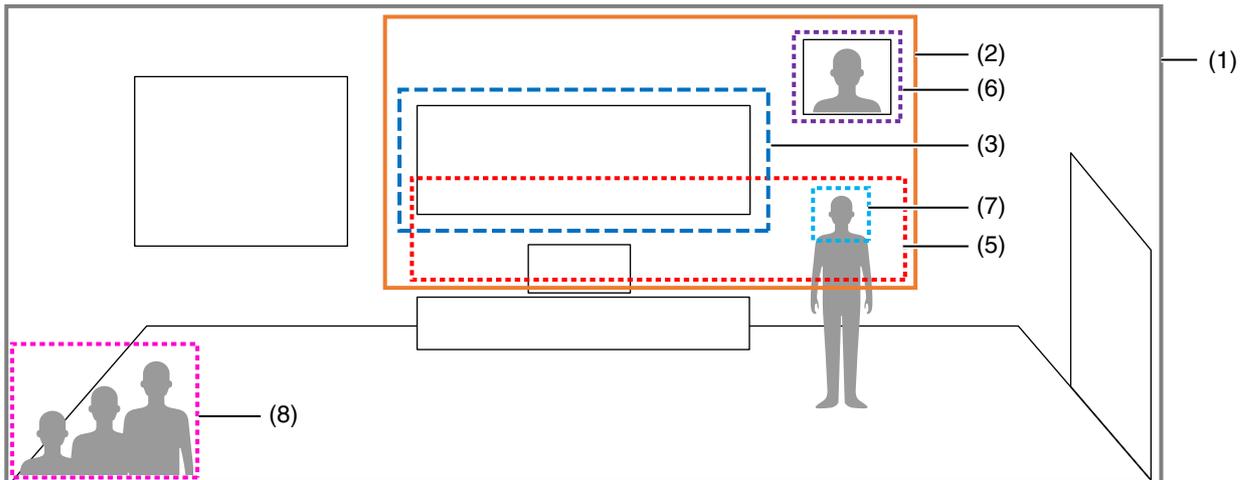
When using a Fixed Viewing Angle Area:

☐	: Shooting Range	
☐	: Initial Position	
☐	: Priority Display Area	
☐	: Fixed Viewing Angle Area	

☐	: Auto Select Area
☐	: Auto Select Exclusion Area
☐	: Pan/Tilt Halting Area
☐	: Tracking Halting Area

(1) Shooting Range
Range where the remote camera is allowed to shoot peforming pan/tilt actions (P. 14)

(2) Initial Position
Initial position when automatic tracking starts (P. 15)

(3) Priority Display Area
Priority area you always want to display (such as a whiteboard) (P. 16)

(4) Fixed Viewing Angle Area
Fixed area where the angle does not change even if the target moves (P. 16)

(5) Auto Select Area
Area where the tracking target is detected automatically (P. 17)

(6) Auto Select Exclusion Area
Area where tracking target auto select is excluded (such as posters or photos) (P. 19)

(7) Pan/Tilt Halting Area
Area where pan/tilt actions are not performed as long as the subject is inside it (P. 18)

(8) Tracking Halting Area
Area where tracking is stopped during tracking shooting. When tracking is stopped, tracking target detection and selection is not performed in this area (P. 20).

📖 Important

- Priority display area and fixed view angle area cannot be set simultaneously.

- Set the initial position within the shooting range.

- Set the fixed view angle area within the shooting range.

- Priority display area and auto select area are set within the initial position.

- When the auto select area and the auto select exclusion area overlap, the latter is prioritized.

- The tracking halting area is prioritized when it overlaps with the fixed viewing angle area, auto select area, or auto select exclusion area.

- Depending on the shooting conditions, the following phenomena may occur.
  - Shooting outside of the shooting range.
  - Shooting outside of the priority display area's viewing angle.
  - Shooting outside of the fixed view angle area.
  - A person inside the auto select exclusion area or the tracking halt area is automatically selected.
  - Tracking continues even when the tracking target is inside the tracking halting area.

■ Setting Procedure

Automatic tracking shooting is set up from the settings wizard. Configure the settings in advance according to the shooting conditions and desired results.

The setting procedure follows the seven steps listed below. You can also access the Settings Page of each step from the [Settings] menu button, and perform each setting individually (P. 21).

Click [Setting Wizard] > [OK] in the [Settings] menu.

↓

1. Pan/Tilt Operation Control (P. 14)
• Set the pan/tilt operation during tracking
• Set the angle (shooting range) that allows for pan/tilt operation

↓

2. Initial Position (P. 15)
• Set the initial position (angle displayed when target is lost)
• Control the angle displayed when the target is lost
• Set the transition time when returning to the initial position

↓

3-1. Priority Display Area (P. 16)
• Set the priority display area

↓

3-2. Fixed Viewing Angle Area (P. 16)
• Set a fixed viewing angle area (up to 4)

↓

4. Tracking Target Auto Select (P. 17)
• Set the tracking target auto select setting

↓

5. Composition (P. 18)
• Set the display position and size of the tracking target
• Set the pan/tilt halting area
• Set the tracking sensitivity

↓

6. Auto Select Exclusion Area (P. 19)
• Set the auto select exclusion area (up to 4)

↓

7. Tracking Halting Area (P. 20)
• Set the tracking halting area (up to 4)

↓

Click [Finish] to start tracking.

Set Automatic Tracking Shooting Settings in One Go

This section explains the setting items for each step. Settings for each wizard page are saved when the [Previous]/[Next] button is clicked. If the application is stopped or the camera is turned off before clicking [Previous]/[Next], changes will not be saved.

■ Step 1: Set the Pan/Tilt Shooting Range

Set the angle (shooting range) that allows the camera to perform the pan/tilt operation.
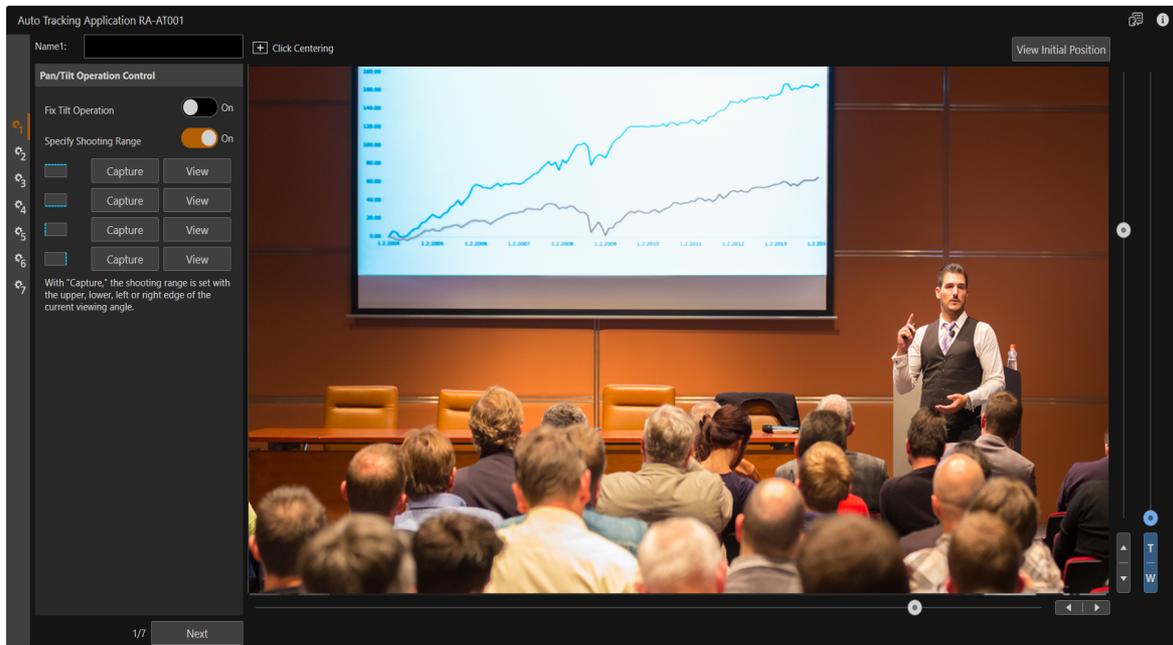
1 Setting each item on the Settings Area.

[Fix Tilt Operation]
If set to [On], the tilt operation will not be performed during tracking.

[Specify Shooting Range]
Specifies the shooting range area (upper/lower/left/right edges). Useful in situations such as a lecture, since it is possible to set a shooting range that leaves out the attendees and other subjects you do not wish to shoot.

(1) Use the pan/tilt/zoom sliders to set the desired displayed angle.

(2) Click [Capture] on the edge you want to set.
   • If [Fix Tilt Operation] is set to [On], the upper and lower edges cannot be set.

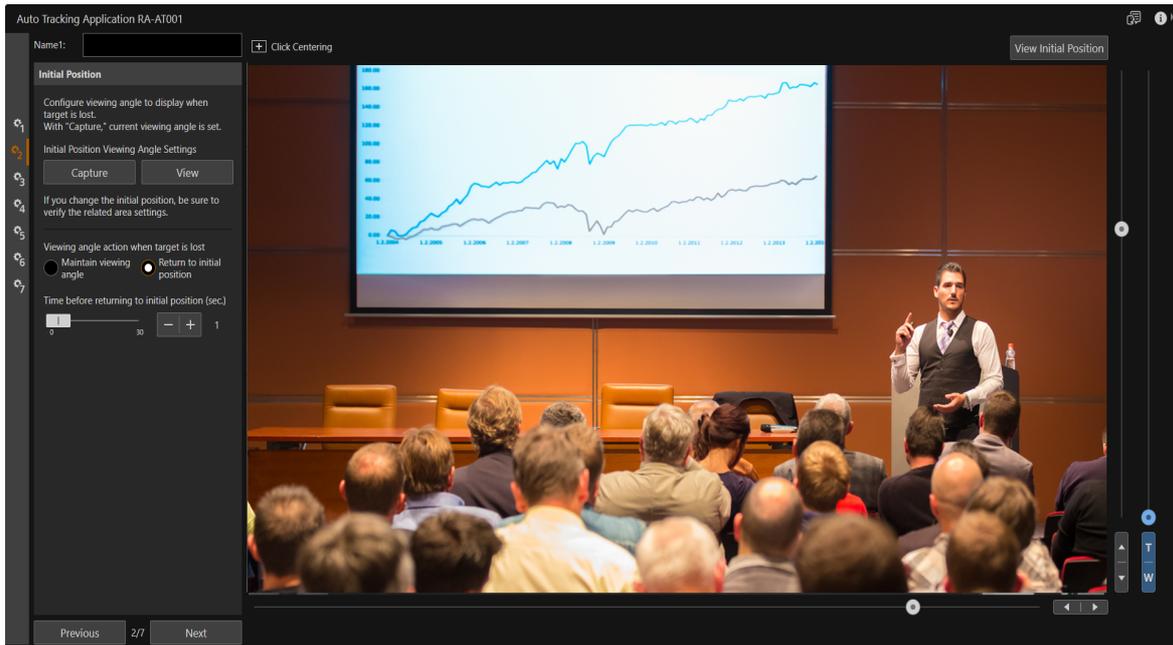(3) Repeat step 1 and 2 to set the 4 sides of the shooting range.

📑 Note
If you click [View], the view angle of the set side is displayed.

2 Click [Next].

Step 2: Set the Initial Position

Set the angle to display when tracking starts. It will also be the angle to move to when the target is lost during tracking shooting.

1 Set the initial position.

Use the pan/tilt/zoom slider to display the desired angle, then click [Capture] to set.

📝 Note

- In case the tracking target is lost, the initial position is the angle displayed until the tracking target is detected again. Make sure to set an area wide enough to allow for target detection within the shooting area.

- If you click [View], the currently set angle will be displayed.

2 Select the [Viewing angle action when target is lost] setting.

[Maintain viewing angle]
Keeps the last angle displayed. Useful during lectures to maintain the last angle displayed if target loss occurs, for example if the tracking target leaves the picture or faces backwards during the lecture.

[Return to initial position]
The viewing angle returns to the initial position after a certain period of time.

3 Set [Time before returning to initial position (sec.)].

Set the time it takes for the displayed angle to return to the initial position (when the target is lost) if you selected [Return to initial position] in step 2.

4 Click [Next].

■ Step 3: Set the Priority Display Area/Fixed Viewing Angle Area

Set the prioritized shooting area during tracking, or the viewing angle area to be fixed if a tracking target enters the area. Priority display area and fixed viewing angle area cannot be set simultaneously. You can set up to 4 fixed viewing angle area settings.
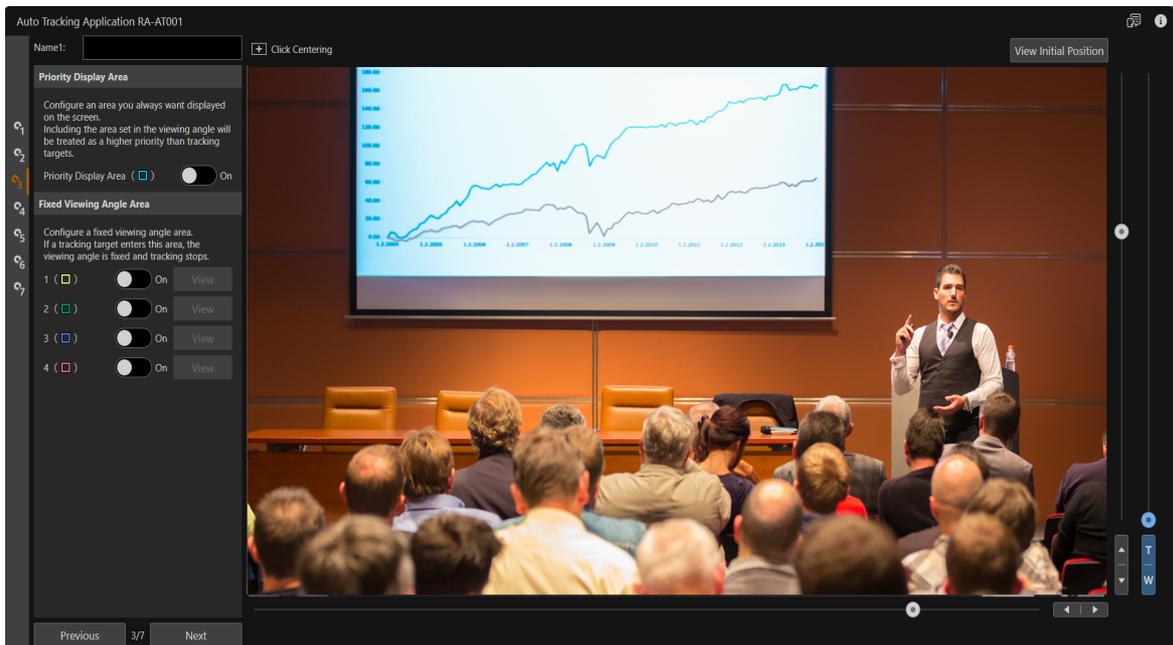
1 Setting the Priority Display Area.

The priority display area will be prioritized over target tracking, and fit in the viewing angle. Useful for areas you wish to shoot continuously (such as a blackboard or a screen).

(1) Set [Priority Display Area] to [On].
  • A frame will appear on the video display area.

(2) Adjust the position and size of the frame.
  • Drag the inside of the frame to change the position.
  • Drag the outer sides of the frame to change the size.

2 Set the Fixed Viewing Angle Area.

A fixed viewing angle area allows you to shoot without moving the viewing angle as long as the target remains inside the set area. Useful when you want to track a target only when it leaves a specific area (such as near a podium or a blackboard).

(1) Set [Fixed Viewing Angle Area] to [On] (up to 4 areas can be enabled).
  • For each area set to [On], a [Fixed Viewing Angle Area] frame is displayed on the video display area. Each frame is displayed in a different color.

(2) Adjust the size and position of the frame.
  • Use the [⊞ Set Area] mode (set by clicking the Mouse Operation Select Button) to adjust the position and size of the frame.
  • Use the pan/tilt/zoom slider or the [⊞ Click Centering] mode (set by clicking the Mouse Operation Select Button) to change the viewing angle.

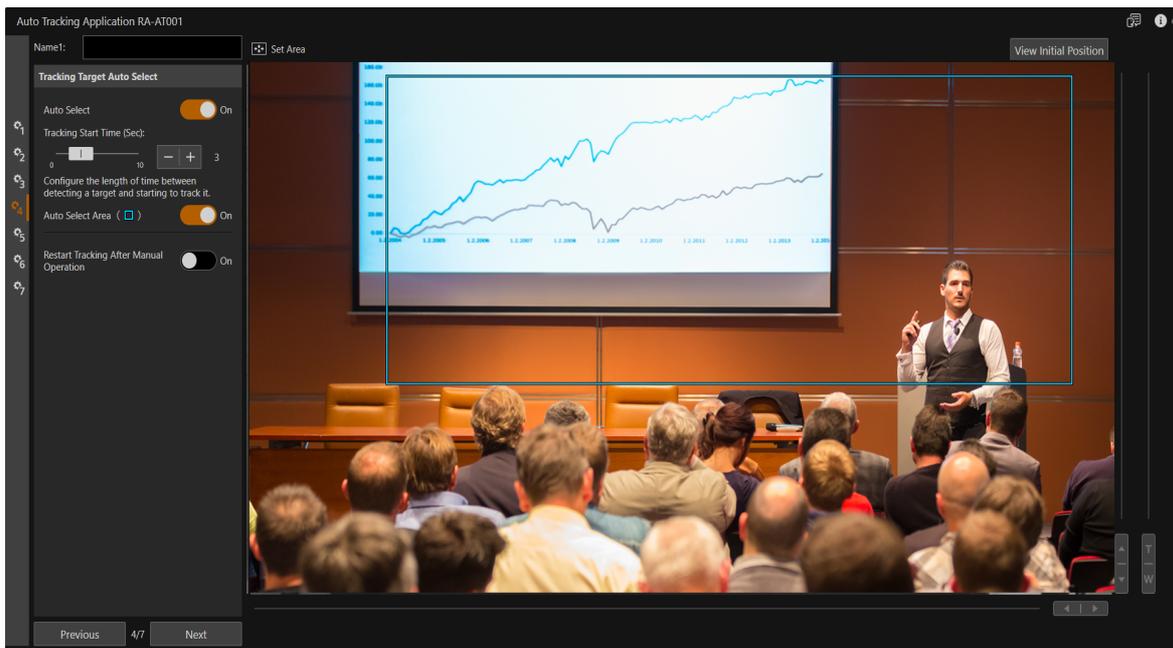(3) When setting multiple fixed viewing angle areas, repeat steps 1 and 2.

📑 Note
• The fixed viewing angle area is set within the shooting range.

• If you click [View], the currently set angle will be displayed.

3 Click [Next].

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■ Step 4: Set Tracking Target Auto Select

Automatically select the tracking target, and configure tracking start settings.

1 Set [Auto Select].

If set to [On], a person who enters the auto select area will be defined as the tracking target and tracking will start.

2 Set [Tracking Start Time (Sec)].

Configure the length of time it takes to start tracking a target once it has been detected in the auto select area. Can only be set when [Auto Select] is set to [On].

3 Set [Auto Select Area].

(1) Set [Auto Select Area] to [On].
  • A frame will appear on the video display area.

(2) Adjust the size and position of the frame.

📝 Note
• Can only be set when [Auto Select] is set to [On].

• When [Auto Select] is set to [On] and [Auto Select Area] is set to off, the entire viewing angle being shot is selected automatically.

4 Set [Restart Tracking After Manual Operation].

Pan/tilt/zoom control during automatic tracking will stop* if a manual pan/tilt/zoom operation (using Remote Camera Control Application or another function other than this application) is performed. If this setting is set to [On], tracking will restart automatically after a manual operation.

* It may not stop depending on the conditions.

5 Click [Next].

■ Step 5: Setting the Composition

Set the tracking target's display position, the zoom magnification, the pant/tilt halting area and the tracking sensitivity.

1 Set [Display Position].

A silhoutte will appear on the screen. Drag the silhouette to set the display position of the tracking target within the screen.

📋 **Note**

• Cannot be set at the edges of the screen due to tracking target loss being more likely to occur.

• The priority display area will be prioritized if it has been set.

2 Set [Display Size].

If set to [On], a silhouette that sets the display size of the tracking target will be displayed. The silhouette's face size is reference for the tracking target's face size. Adjust the size accordingly when shooting.

• If [Auto Zoom] is set to [On], the zoom magnification is adjusted during tracking in order to maintain the defined display size.

📋 **Note**

When [Fix Tilt Operation] is set to [On] (P. 14), zooming will stop if the tracking target is left out of the screen due to zooming in.

3 Set [Pan/Tilt Halting Area].

If set to [On], a frame will appear on the video display area. You can configure an area for which pan and tilt actions are not performed, as long as the subject is inside the set area. Useful when you do not wish for pan/tilt actions to react to small movements, such as a lecturer's movement. To make pan/tilt actions nimbler, make the area smaller.
If set to off, the tracking operation is performed according to the [Tracking Sensitivity] setting.

📋 **Note**

• The center position for [Pan/Tilt Halting Area] is the same as the center of the face silhouette set with the [Display Position] setting.

• If the [Display Size] setting is changed, readjust [Pan/Tilt Halting Area] so that the tracking target fits within the area.

• The image may be unstable if pan/tilt actions react to slight movements of the tracking target.

• When [Silhouette Manipulation / Set Area] is selected with the Mouse Operation Select Button, turn off [Pan/Tilt Halting Area] to perform silhouette operations, or set it to [On] to perform area setting operations.

4 Set [Tracking Sensitivity].

Adjust the tracking sensitivity level. The higher the sensitivity, the nimbler tracking will be.

📝 **Note**

When placing the camera on equipment such as a rail and shooting in movement, set [Tracking Sensitivity] to [1] and [Pan/Tilt Halting Area] to the smallest possible size.

5 Click [Next].

■ ## Step 6: Setting an Auto Select Exclusion Area

Configure an area to exclude from tracking target auto select. Useful when there are elements resembling people (such as posters) in the the tracking target auto select area. Up to 4 auto select exclusion areas can be set.
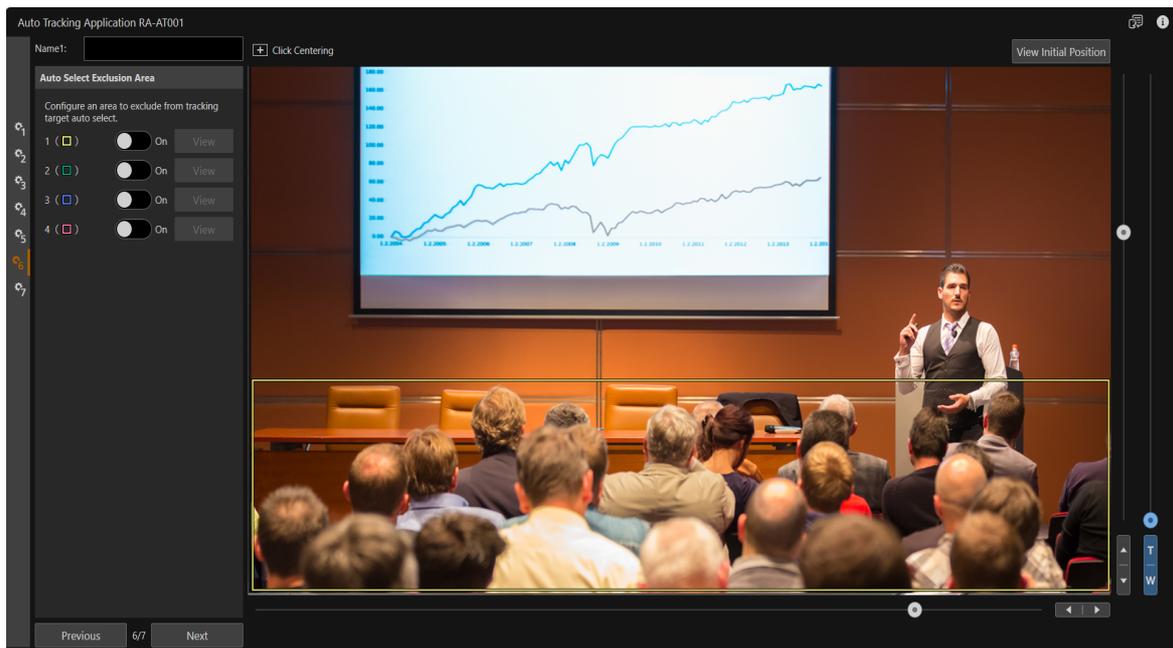
1 Set an Auto Select Exclusion Area.

(1) Set [Auto Select Exclusion Area] to [On] (up to 4 areas can be enabled).
   - For each area set to [On], an [Auto Select Exclusion Area] frame is displayed on the video display area. Each frame is displayed in a different color.

(2) Adjust the size and position of the frame.
   - Use the [🔲 Set Area] mode (set by clicking the Mouse Operation Select Button) to adjust the position and size of the frame.
   - Use the pan/tilt/zoom slider or the [➕ Click Centering] mode (set by clicking the Mouse Operation Select Button) to change the viewing angle.

(3) Repeat the previous steps for the areas you wish to set.

📝 **Note**

If you click [View], the currently set angle will be displayed.

2 Click [Next].

◼ Step 7: Setting a Tracking Halting Area

Configure a tracking halting area in which tracking is stopped during tracking shooting. When stopped, tracking target search and selection are not performed. This mode is useful in situations such as when a speaker at a lecture is waiting within the shooting range and takes turns to take the stage. Up to four tracking halting areas can be set.

1 Set a tracking halting area.

    (1)   Set one of the [1] to [4] options for [Tracking Halting Area] to [On].
        • A color frame corresponding to the tracking halting area set to [On] appears on the video display area.

    (2)   Adjust the size and position of the frame.
        • Use the [▣ Set Area] mode (set by clicking the Mouse Operation Select Button) to adjust the position and size of the frame.
        • Use the pan/tilt/zoom slider or the [⊞ Click Centering] mode (set by clicking the Mouse Operation Select Button) to change the viewing angle.

    (3)   Repeat the previous steps for the areas you wish to set.

📝 Note

If you click [View], the currently set angle will be displayed.

2 Click [Finish].

In the Tracking Execution Screen, [Auto Tracking] changes to [On], and automatic tracking starts.

Configuring Auto Tracking Shooting Settings Individually

Settings pages for each step can be set individually. Use this function when changing only specific settings. When performing individual settings, settings are saved when you move to the Tracking Execution Screen or another settings page, then click the [Finish] button. If the application stopped or the camera's power supply is interrupted before saving the settings, the changed settings are not saved.

1 Open the settings menu and click one of the ⚙₁ to ⚙₇ options to open the respective settings page (P. 8).

2 Change the settings.

Setting items are the same as for the wizard setting items.

3 Open another settings page and change its settings as necessary.

4 Click [Finish].

In the Tracking Execution Screen, [Auto Tracking] changes to [On], and automatic tracking starts.
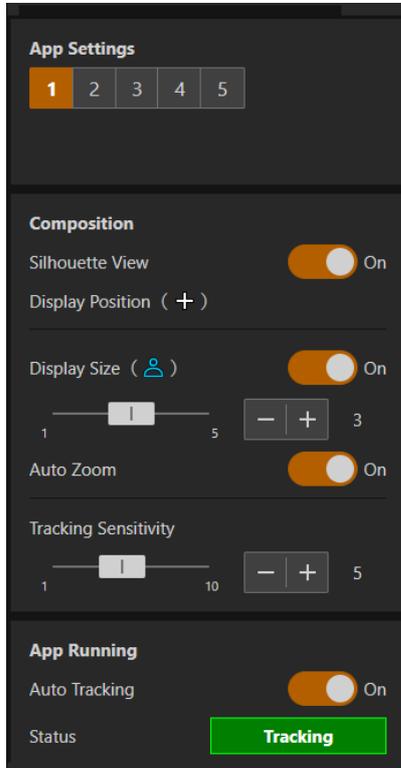
📑 Note

If the initial position was changed from the Settings Page, configure areas set within the initial position area (priority display area, auto select area) again (P. 11).

Shooting

Start/End Auto Tracking Shooting

■ Starting/Ending Auto Tracking Shooting

App Settings

| **1** | 2 | 3 | 4 | 5 |

Composition

Silhouette View [On]

Display Position (+)

Display Size (👤) [On]

1 ——|—— 5   [− | +] 3

Auto Zoom [On]

Tracking Sensitivity

1 ——|—— 10 [− | +] 5

App Running

Auto Tracking [On]

Status [Tracking]

Start Auto Tracking

Use the [App Settings] select button to select the application settings, then set [Auto Tracking] to [On] to start auto tracking.

• When [Auto Select] is set to off, select the tracking target manually (P. 17).
• When auto tracking starts, the [Status] icon will change as follows:

Status	Meaning
No target selected	No target has been selected
Searching	Target detection currently in process
Tracking	Tracking in process
Target lost	Target has been lost
Angle Fixed	Viewing angle is fixed

**Ending Auto Tracking**

Set [Auto Tracking] to off.

📄 Note

If the following operations have been performed on the camera, set the areas again after clicking [Initialization] to initialize all the areas.

• Changing the [Digital Tele-Converter] focal length magnification.
• Changing the [Video Flip] setting.

■ Adjustable Settings during Auto Tracking

During auto tracking, adjustable menu items are displayed on the settings area. For menu items other than [Silhouette View] refer to step 5 (P. 18).
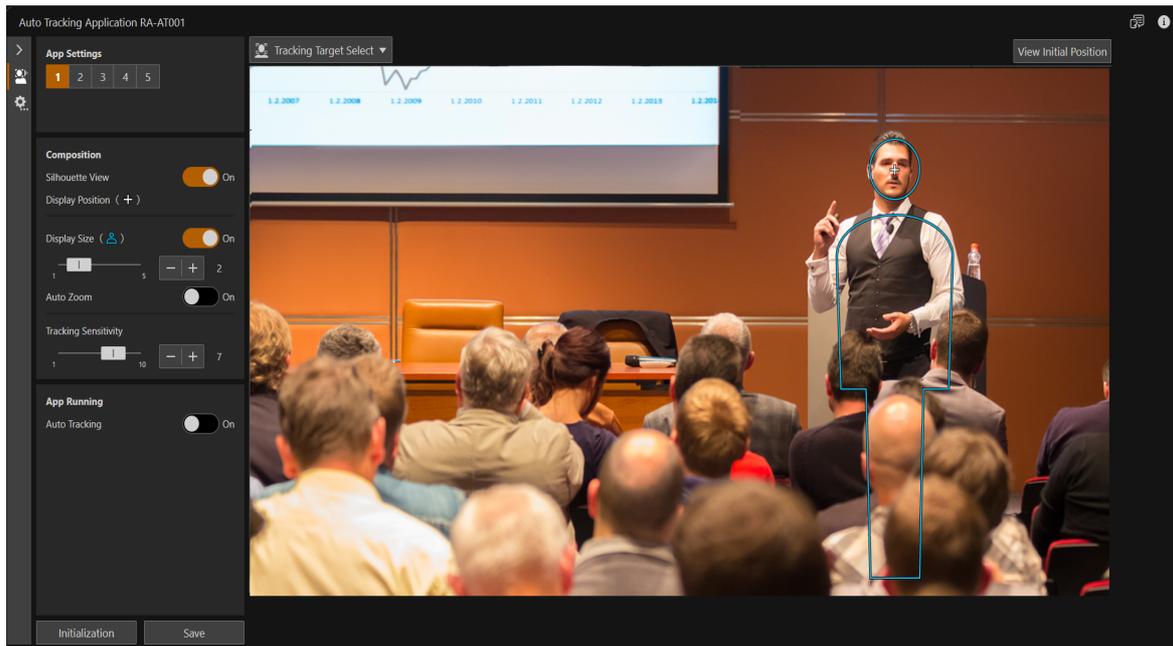
[Silhouette View]
If you set [Silhouette View] to [On], the tracking target silhouette is displayed. You can drag the silhouette to adjust the tracking target display position.

> **📖 Important**
>
> Settings changed while tracking is being executed will not be saved if the Auto Tracking Application is stopped or the camera is turned off. Click the [Save] button* to save the settings.
>
> * [Silhouette View] settings are not saved.

> **📝 Note**
>
> Drastic changes to the [Display Position], [Display Size] or [Tracking Sensitivity] setting may result in target loss. Adjust these settings gradually while checking the video display area.

■ About the tracking target

It is possible to track targets at a distance of up to approx. 3 to 30 m* (9.8 to 98.4 ft.) from the camera.

* Approximate distance. It may differ depending on the shooting environment (shooting size, target moving speed).

> **📝 Note**
>
> Depending on the camera's zoom ability, it may not be possible to adjust to the size set for [Display Size].

Others

Troubleshooting

Before contacting the retailer from where the product was purchased or a Canon sales representative, check the following items.

📝 **Note**

- For information on troubleshooting for the camera, controller, etc., refer to each manual.

- Some features and settings are not supported depending on the camera you are using.

Problem	Solution
The application does not start.	• Check that the license has been correctly authenticated. • Check that the camera's date and time settings are correct.
The application does not open.	• Check that the application is running.
The tracking target is not selected automatically.	• The [Auto Select] setting is disabled. Set it to [On] or select the target manually. • Check the [Auto Select Area] settings and adjust as needed if the area is too narrow.

Cannot follow the movement of the tracking target.
The wrong target is tracked.
	• Depending on the shooting environment (shooting size, target moving speed and the number of people), target loss may occur or the wrong target may be tracked. Checking the following setting values may result in improved performance.
	  – When the [Display Size] setting value is too large.
	  – When the [Tracking Sensitivity] setting value is too small.
	  – When the set area for [Pan/Tilt Halting Area] is too wide.
	  – When [Display Position] is set at the edges of the screen.
	  – When the target is too far from the [Priority Display Area].
	• Setting the position or movement range of a person you do not wish to track in the [Tracking Halting Area] may prevent tracking the wrong target.

An area you wish to include in the continuous viewing angle (such as a black board or a screen) is out of view.	• Set the area you wish to include in the continuous viewing angle in the priority display area or fixed viewing angle area.
Manually operating pan/tilt/zoom during auto tracking causes tracking to stop.	• The [Restart Tracking After Manual Operation] setting is disabled. Set it to [On]. • Manually select the tracking target, then restart auto tracking.
Tracking targets are not detected correctly.	• Consult the camera's user manual for examples of failure to detect faces, and verify the shooting conditions accordingly. • The tracking target in the viewing angle of the initial position may appear too small. Adjusting as necessary so that the target appears larger may improve detection. • If there are elements resembling people (such as posters) or multiple people in the [Auto Select Area], a wrong target may be detected. Check that the [Auto Select Exclusion Area] settings allow for the correct selection of the tracking target. If the shooting conditions make it difficult to avoid such elements, shoot in an environment that allows for correction from the operator.
Faces are not detected when shooting in dark conditions.	• Enabling [Face Detection AE] on the camera's Settings Page may improve face detection in dark conditions.
The tracking target is not detected correctly when facing backwards.	• When using a model that supports tracking of subjects facing backwards, adjusting the settings so that the tracking target appears larger may improve detection. For models that support this function, refer to the download page of this application. • Shoot in an environment that allows for correction from the operator.

The target is lost and the viewing angle changes when the tracking target faces backwards.	• Check the following settings (P. 15).
	  – [Viewing angle action when target is lost]
	  – [Time before returning to initial position (sec.)]

Problem	Solution

Operation during tracking becomes difficult, unresponsive.	• Check the network's communication status.
	• In the following cases, operation during tracking may become unresponsive. Adjust the settings as needed.
	  – When the [Tracking Sensitivity] setting value is too small.
	  – When [Pan/Tilt Halting Area] is too large.

The camera's tracking is too responsive.	• In the following cases, tracking may become too responsive. Adjust the settings as needed.
	  – When the [Display Size] setting value is too large.
	  – When the [Tracking Sensitivity] setting value is too large.
	  – When [Pan/Tilt Halting Area] is too small.
	• Set a low value for [Tracking Sensitivity] when shooting a tracking target displayed in a large size.
	• When the zoom operation is not necessary, set [Auto Zoom] to off.
	• When you want to track a target only when it leaves a specific area (such as near a podium or a blackboard), use the [Fixed Viewing Angle Area] setting.

Some setting items on the screen are missing.	• Some items may not be displayed depending on the environment in use.

Even though [Tracking] is displayed, pan/tilt/zoom is not performed.	• In the following cases, pan/tilt/zoom operation is not performed.
	  – When the priority display area is near the edges of the viewing angle.
	  – When there are people in the fixed viewing angle area.
	  – When the viewing angle being shot is near the edges of the shooting range.
	  – When [Restart Tracking After Manual Operation] is set to [On] and pan/tilt/zoom is operated using a different function during tracking.
	  – When tracking target auto select ([Auto Select]) is set to off, and the tracking defined is not set manually.

After returning to the initial position due to tracking target loss, the tracking target is not detected even if [Auto Select] is set to [On].	• The tracking target may not be detected due to the initial position's viewing angle being too wide. Adjust the initial position's viewing angle.
The auto tracking settings screen does not reflect the current status.	• Refresh the web browser used to access the application.
The application's operation is slow. The network streaming video presents frame dropping.	• Set a lower setting for [System] > [Video and Audio] > [IP Streaming Video] > [Mainstream] > [Target Bit Rate (Mbps)] from the camera's Settings Page. • Reduce the number of video display screens displayed by a client at the same time.
The auto tracking operation range is narrower than the set area. The camera does not move to the viewing angle of the area you wish to set.	• Check if the camera's available movement range has been set on the camera's Settings Page.

Error Messages

If an error message appears on the screen, proceed as suggested below.

Message	Solution
An area setting outside the shooting range was found. Change the shooting range or the area setting outside the shooting range.	The set area exceeds the available shooting range (P. 11). Set a wider shooting range or change the area settings (other than the shooting range).
Setting is outside shooting range.	
Inconsistency in area settings. Adjust the settings for which a warning is shown.	
The area is outside of range.	The set area cannot be displayed by the camera. Change the [Fixed Viewing Angle Area] setting.
Verify the Face AF settings.	The [Face AF] setting is disabled. Enable it from the camera's Settings Page.
An error occurred. Please reboot the camera.	An internal error occurred. Restart the camera.
Cannot view video because there are more connections to the camera than the maximum number of clients.	• Disconnect other clients connected to the camera. • On the camera's Settings Page, increase the number of clients that can be connected from [System] > [Server] > [HTTP/Video] > [Video Server] > [Maximum Number of Clients].
Could not connect to the camera.	Cannot connect to the camera. Check the camera settings, or restart the camera.
Some features are disabled or restricted. Verify your purchased license or trial license to enable all features.	Auto Tracking Application (Lite) is in use. To remove the restrictions, purchase and authenticate a license for this application. Authenticate a trial license when using a trial version. Doing so allows for use within the trial period.

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Third Party Software

This camera contains third party software modules. Confirm each module's license conditions in 🛈 > [Third Party Software License Conditions] on the auto tracking settings screen.

The information in this document is verified as of June 2024. Subject to change without notice.