

Hanwha Vision Plug-in

User Manual

For Genetec

About This User Manual

This manual describes how to register **Hanwha Vision**'s products, how to install the **Hanwha Vision Plug-in**, and how to use them in **Genetec Security Center**. Please read this manual carefully before using the product for proper use.

- This document explains how to use the product based on its defaults and default screens.
- The content in this document is subject to change depending on the product software updates and company policies and to partial changes without prior notification to users.

Target Audience

This manual contains information for the operator using the products of **Hanwha Vision** and the **Genetec Security Center** program from **Genetec**.

- To learn how to install and set up the **Genetec Security Center** program, please visit **Genetec's** official website (www.genetec.com).

Product Usage

Users of this product can perform the following functions:

- Search for object (person/face/vehicle/license plate/Wisenet Road AI/user defined/AI pack/barcode) detection events analyzed via AI cameras and its video playback
- Similarity search on person detection events
- Control for various camera functions
- Linking various events from IP audio devices and **Genetec Security Center**

The **Hanwha Vision Plug-in** is based on the **Hanwha Vision**'s products and the **Genetec Security Center** program from **Genetec**. Please refer to the following sites for details.

- **Hanwha Vision** : www.HanwhaVision.com
- **Genetec** : www.genetec.com

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Disclaimer

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The user is solely responsible for the consequences of using this document. Hanwha Vision Co., Ltd. may change some parts of this document without a prior notice.

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Learn about the Hanwha Vision Plug-in

What is the Hanwha Vision Plug-in?

The **Hanwha Vision Plug-in** provides the following functions:

- **Search for object detection events of AI cameras and playback of videos**

The plug-in uses the detailed object conditions to search for object (person/face/vehicle/license plate/Wisenet Road AI/user defined/AI pack/barcode) detection events analyzed by AI cameras in the Genetec Security Center program and plays back the desired video.

- **Control for various camera functions**

Various functions supported by the camera can be used in **Genetec Security Center**.

- **Linking various events from IP audio devices and Genetec Security Center**

By linking events from IP audio devices of Hanwha Vision and **Genetec Security Center**, the set audio source can be played when an event occurs.

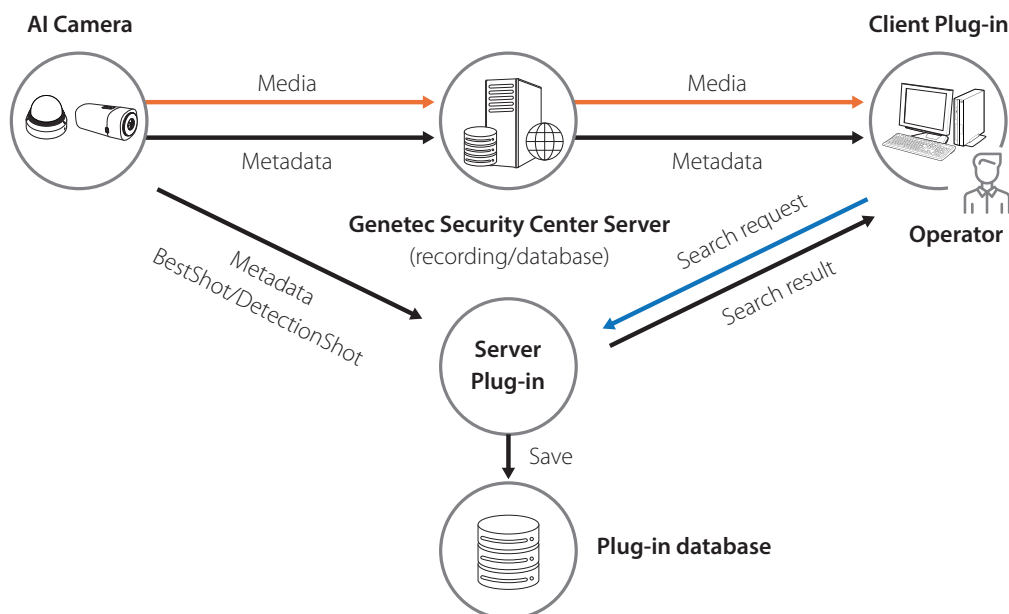


Note

Hanwha Vision Plug-in was developed using the Genetec Security Center SDK.

Learn about the Hanwha Vision Plug-in System Configuration

The **Hanwha Vision Plug-in** consists of the following:



- **AI Camera:** A camera that supports AI analytics.
- **Genetec Security Center Server:** Saves and manages videos and data from the Genetec Security Center program.
- **Server Plug-in:** A plug-in that sends events analyzed by the AI camera to the Genetec Security Center server.
- **Client Plug-in:** A plug-in that adds AI event search menu in the Genetec Security Center program.
- **Operator:** Manages the PC that runs the Genetec Security Center program.
- **Plug-in database:** Saves and manages events analyzed by the AI camera.

System Requirements

The following are the system requirements for running the **Hanwha Vision Plug-in**:

- Genetec Security Center 5.11.0.0 or later
- .Net Framework 4.8 or later

Supported Devices

The following are the Hanwha Vision products that support the **Hanwha Vision Plug-in**:



Note

- The Live features are supported by default, and devices marked with an asterisk (*) offer additional support for AI search.
- The supported AI attributes and detailed functions vary depending on the camera model. Please refer to your camera's specifications for more information.

AI box

AIB-800*

IP audio

SPA-C100B, SPA-C100W, SPA-C110B, SPA-C110W, SPA-H100B, SPA-H100W, SPA-P100B, SPA-P100W, SPA-W100B, SPA-W100W, SPA-S1000, SPA-S2000

Audio beacon

SPS-A100M*

Network camera

• P series

PNB-A6001*, PNB-A9001*, PNB-A9001LP*, PND-A6081RF*, PND-A6081RV*, PND-A9081RF*, PND-A9081RV*, PND-A9081RVG*, PNM-C12083RVD*, PNM-C16013RVQ*, PNM-C16083RQZ*, PNM-C16083RVQ*, PNM-C19183RVTP*, PNM-C32083RQZ*, PNM-C32083RVQ*, PNM-C34404RQPZ*, PNM-C7083RVD*, PNM-C9022RV*, PNO-A6081R*, PNO-A9081R*, PNO-A9081RG*, PNO-A9081RLP*, PNO-A9311R*, PNO-A9311RLP*, PNV-A6081R*, PNV-A9081R*, PNV-A9081RLP*

• Q series

QNO-6082RLP*, QNO-C8083R*, QNO-C9083R*, QNP-6250, QNP-6250H, QNP-6250R, QNP-6320, QNP-6320H, QNP-6320R, QNV-6082RLP*, QNV-C8011R*, QNV-C8012*, QNV-C8083R*, QNV-C9011R*, QNV-C9083R*

• S series

SPS-A8016*

• T series

TNB-9000*, TNM-C3620TDR*, TNM-C3622TDR*, TNM-C4940TD*, TNM-C4940TDR*, TNM-C4942TDR*, TNM-C4950TD*, TNM-C4960TD*, TNO-4030TR, TNO-4040TR, TNO-4050T, TNO-7180RLP*, TNO-A26081*, TNO-C3010TRA*, TNO-C3012TRA*, TNO-C3020TRA*, TNO-C3022TRA*, TNO-C3030TRA*, TNO-C3032TRA*, TNO-C4040T*, TNO-C4042T*, TNO-C4050T*, TNO-C4052T*, TNO-C4060T*, TNO-C4062T*, TNO-C4080T*, TNO-C4082T*, TNO-L4030TR, TNO-L4040T, TNO-L4040TR, TNO-L4050T, TNS-7000M*, TNS-9040IBC*, TNS-9050IBC*, TNS-9060IBC*, TNV-C7013RC*

• X series

XNB-6003*, XNB-8003*, XNB-9003*, XND-6083RV*, XND-8083RV*, XND-8093RV*, XND-9083RV*, XND-C6083RV*, XND-C7083RV*, XND-C8083RV*, XND-C9083RV*, XNF-9013RV*, XNF-A8014R*, XNF-A8014RV*, XNF-A9014R*, XNF-A9014RV*, XNO-6083R*, XNO-6123R*, XNO-8083R*, XNO-9083R*, XNO-C6083R*, XNO-C7083R*, XNO-C8083R*, XNO-C9083R*, XNP-6400*, XNP-6400R*, XNP-6400RW*, XNP-8250*, XNP-8250R*, XNP-8300RW*, XNP-9250*, XNP-9250R*, XNP-9300RW*, XNP-C6403*, XNP-C6403R*, XNP-C6403RW*, XNP-C7310R*, XNP-C8253*, XNP-C8253R*, XNP-C8303RW*, XNP-C9253*, XNP-C9253R*, XNP-C9303RW*, XNP-C9310R*, XNV-6083R*, XNV-6083RZ*, XNV-6083Z*, XNV-6123R*, XNV-8083R*, XNV-8083RZ*, XNV-8083Z*, XNV-8093R*, XNV-9083R*, XNV-9083RZ*, XNV-C6083*, XNV-C6083R*, XNV-C7083R*, XNV-C8083R*, XNV-C9083R*

Camera for Similarity Search Beta

- **P series**

PNB-A9082*, PNB-A9092*, PND-A7082RV*, PND-A9082RV*, PNM-A10084RVD*, PNM-A16084RVD*, PNO-A7082R*, PNO-A9082R*, PNO-A9092R*, PNV-A7082RZ*, PNV-A9082RZ*

- **T series**

TNP-A6550RW*, TNP-A7430RW*, TNP-A9430RW*

- **X series**

XNB-A6004*, XNB-A8004*, XNB-A8004B*, XNB-A9004*, XND-A6014R*, XND-A6084R*, XND-A8014R*, XND-A8084RV*, XND-A9014R*, XND-A9084RV*, XNO-A6014R*, XNO-A6084R*, XNO-A8014R*, XNO-A8084R*, XNO-A9014R*, XNO-A9084R*, XNP-A6374RH*, XNP-A9314R*, XNV-A6014R*, XNV-A6016R*, XNV-A6084R*, XNV-A8014R*, XNV-A8016R*, XNV-A8084R*, XNV-A8084RS*, XNV-A9014R*, XNV-A9048RS*, XNV-A9084R*, XNV-A9084RS*

Camera Setup and Registration

Setting up a Camera

Enable AI analytics for the AI camera to run the **Hanwha Vision Plug-in**.

In order to use the AI analytics function, **BestShot** or **DetectionShot** must be enabled.

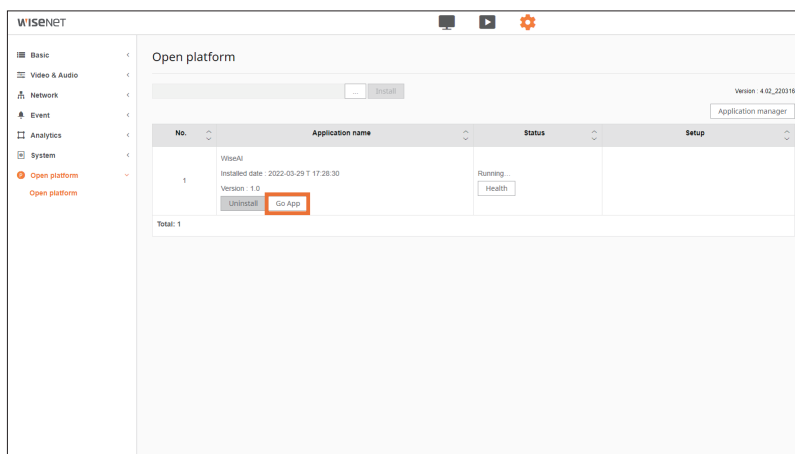


Note

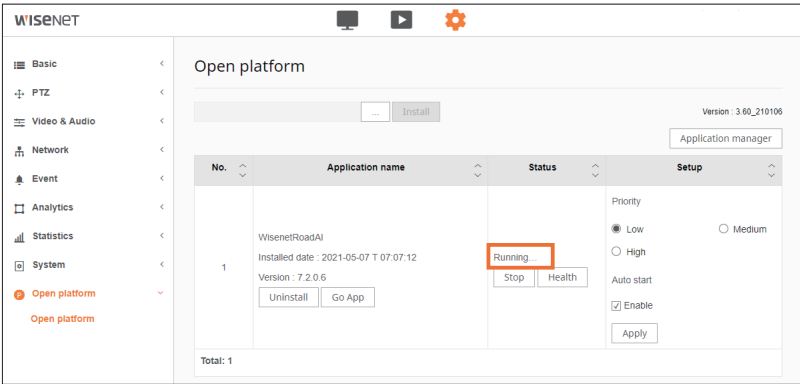
The setting method for object detection may differ depending on the camera model. Please refer to the camera's User Manual for more information.

Setting up in the 'Open platform' Menu

1. Launch the web browser.
2. Enter the IP address of the AI camera. (e.g. <http://192.168.9.107>)
3. Enter **ID** and **Password** to log in to the camera web viewer.
4. Select  **Setup** and click **Open platform** on the left menu.
5. Click **Open platform** and then click **Go App**.



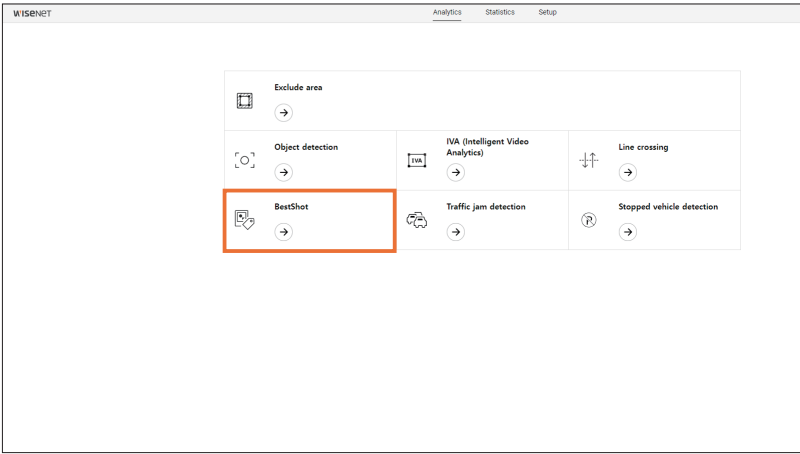
6. Check if the application is running on the **Open platform**.



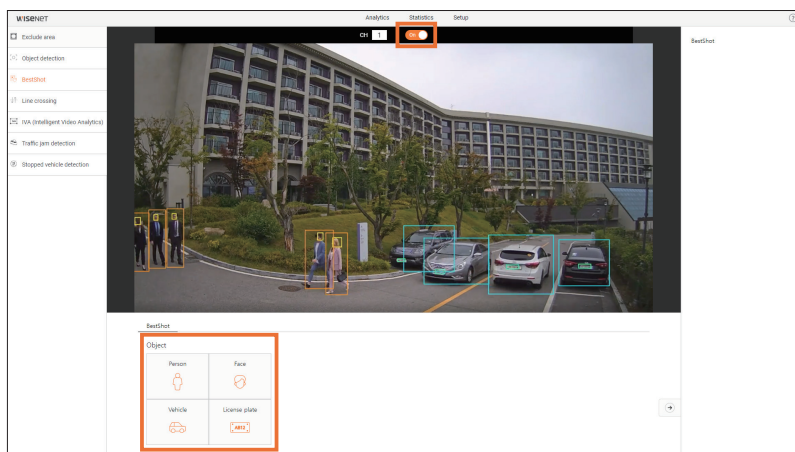
Note

Please refer to the camera's User Manual for more information on the **WisenetRoadAI** application settings and operation.

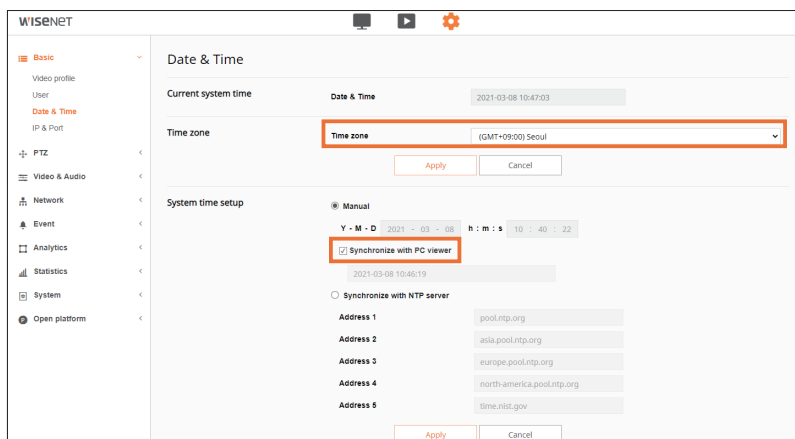
7. Click **BestShot** on the **WiseAI** app screen.



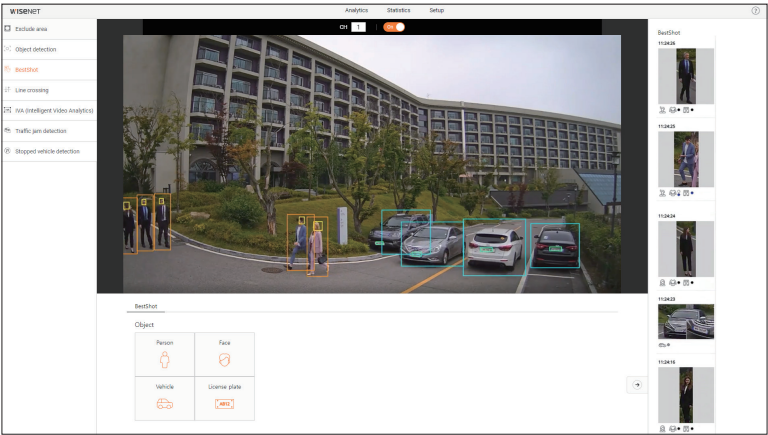
8. Select **On** by clicking the button that enables the function at the top of the screen. On the **BestShot** tab, click the object type you want to detect.



9. Click **Camera web viewer > Setup > Basic > Date & Time**.
Select the **Time zone** identical with the Genetec Security Center Server and click **Apply**.
Check **Synchronize with PC viewer** and click **Apply**.



10. Check the BestShot list on the right to see if AI-analyzed events are detected.

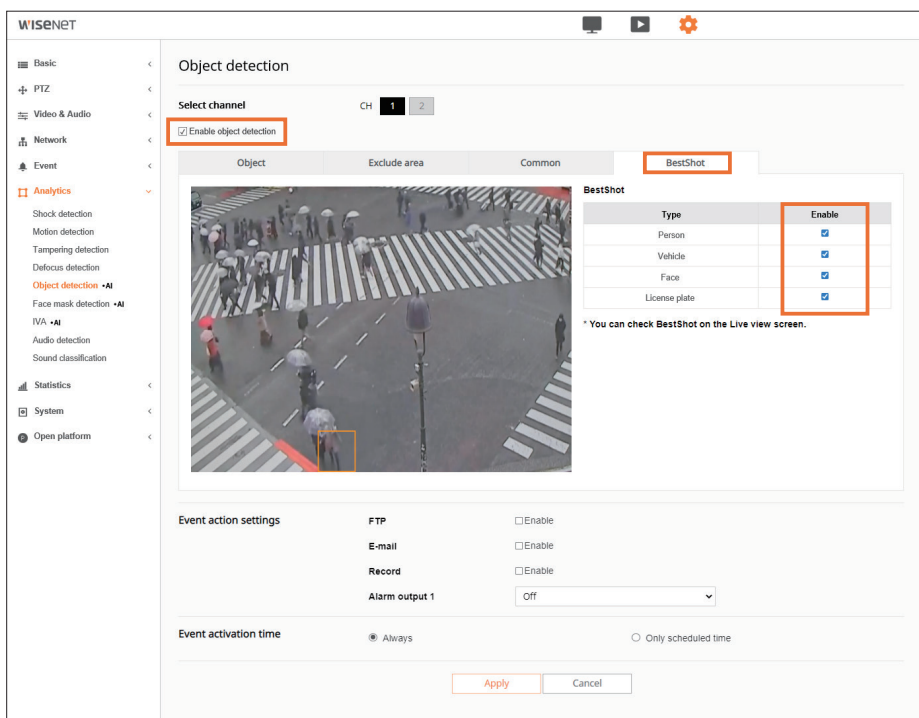


Setting up in the 'Analytics' Menu

1. Launch the web browser.
2. Enter the IP address of the AI camera. (e.g. http://192.168.9.107)
3. Enter ID and Password to log in to the camera web viewer.
4. Select  **Setup** and click **Analytics** on the left menu.
5. Click **Object detection** and check **Enable object detection** box.

On the **BestShot** or **DetectionShot** tab, check the **Enable** box for the object type you want to detect.

Click **Apply**.



Object detection

Select channel CH 1 2

☒ Enable object detection

Object Exclude area Common **BestShot**

BestShot

Type	Enable
Person	☒
Vehicle	☒
Face	☒
License plate	☒

* You can check BestShot on the Live view screen.

Event action settings

FTP ☐ Enable

E-mail ☐ Enable

Record ☐ Enable

Alarm output 1 Off

Event activation time ☒ Always ☐ Only scheduled time

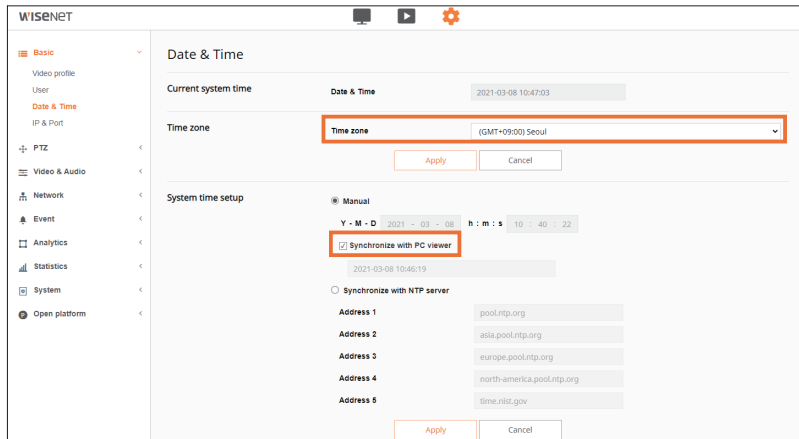
Apply Cancel



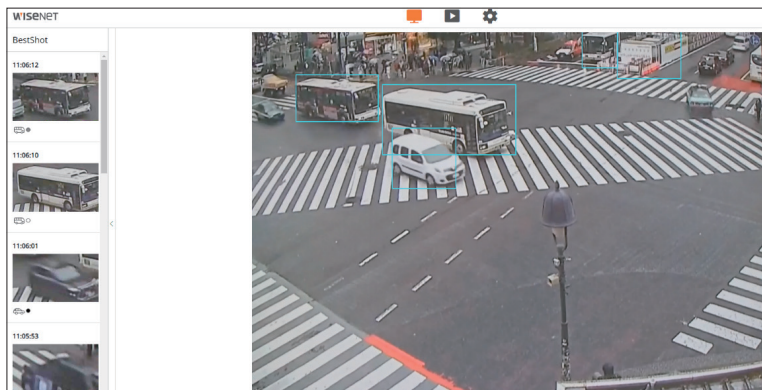
Note

In order to use AI analytics, you must check the **Enable object detection** and **Enable** boxes for the **BestShot** or **DetectionShot** type you want to detect.

6. Click **Camera web viewer > Setup > Basic > Date & Time**.
Select the **Time zone** identical with the Genetec Security Center Server and click **Apply**.
Check **Synchronize with PC viewer** and click **Apply**.



7. To see if AI-analyzed events are detected, select **Live** and check the BestShot list on the left.



Note

When the camera supports DetectionShot, press the **[Ctrl+Alt+S]** key to check the image of DetectionShot on the live page for the camera web viewer.

Registering Cameras

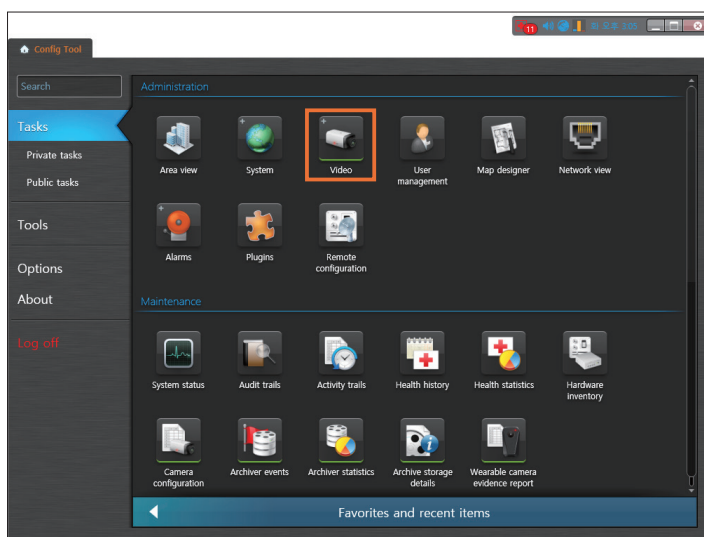
You can register your AI camera to the **Config Tool** program to use the **Hanwha Vision Plug-in**.



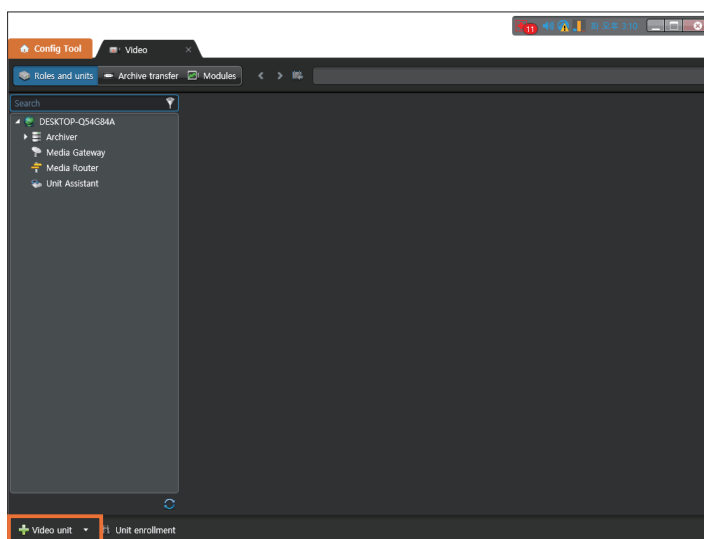
Note

IPv6 cameras do not support search for AI analytics events.

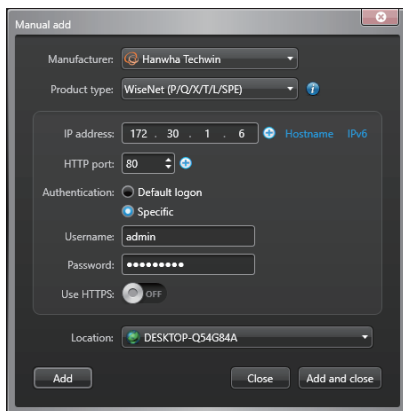
1. Launch the **Config Tool** program.
2. Select **Tasks > Video**.
The **Video** tab will then be added.



3. Click **Video unit** on the bottom left.
Then, **Manual add** window appears.



4. Select **WiseNet(P/Q/X/T/L/SPE)** for the manufacturer and product type
Enter IP address and account information, and click **Add**.



The 'Manual add' dialog box is shown with the following configuration:

- Manufacturer:** Hanwha Techwin
- Product type:** WiseNet (P/Q/X/T/L/SPE)
- IP address:** 172 . 30 . 1 . 6 (with Hostname and IPv6 options)
- HTTP port:** 80
- Authentication:** Specific (selected over Default logon)
- Username:** admin
- Password:** [masked with dots]
- Use HTTPS:** OFF
- Location:** DESKTOP-Q54G84A

Buttons at the bottom: Add, Close, Add and close.

5. Click **Close** to complete adding a camera.

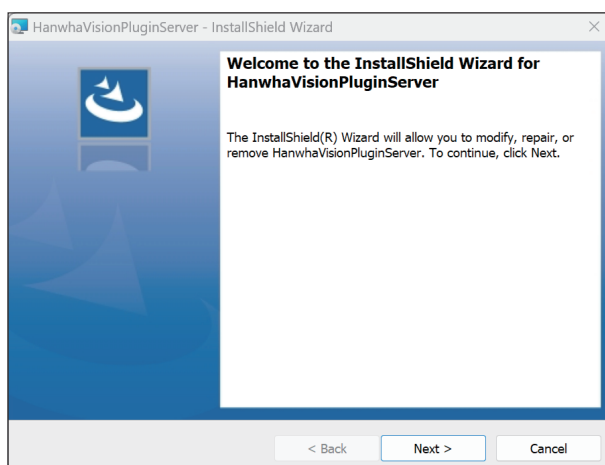
Installing the Hanwha Vision Plug-in

When using a server PC and a client PC respectively, both the server plug-in and client plug-in must be installed on the server PC. For client PC's, only the client plug-in needs to be installed.

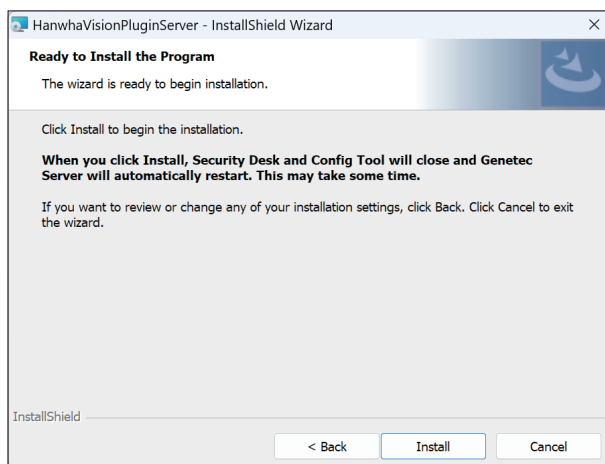
Installing Server Plug-in

The **Server Plug-in** must be installed on a PC configured as a directory or expansion server.

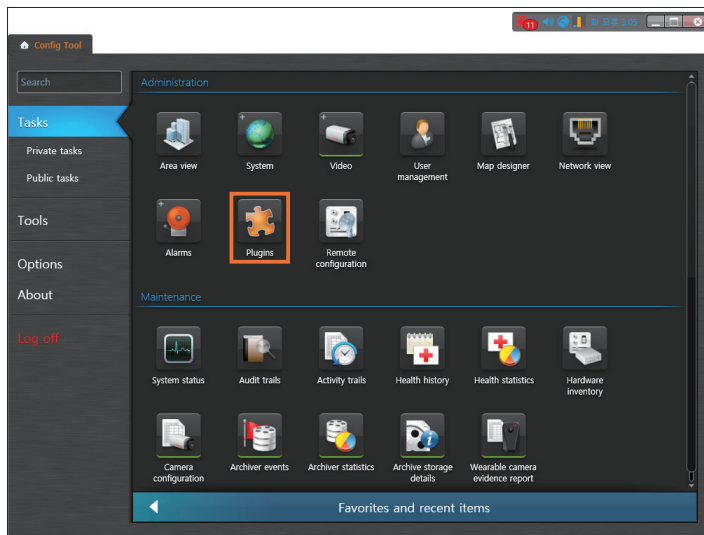
1. Run the Server Plug-in installation file.
When the installation wizard appears, click **Next**.



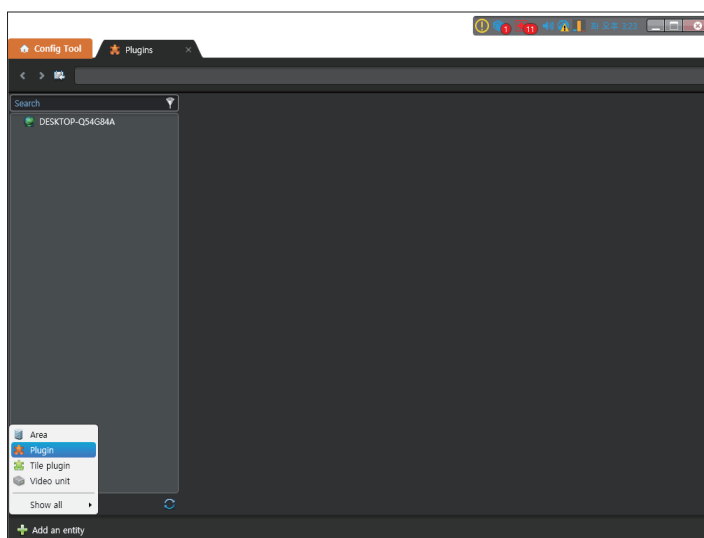
2. Click **Install**.
The active **Config Tool** and **Security Desk** programs ends automatically, and the **GenetecServer** service is also stopped.



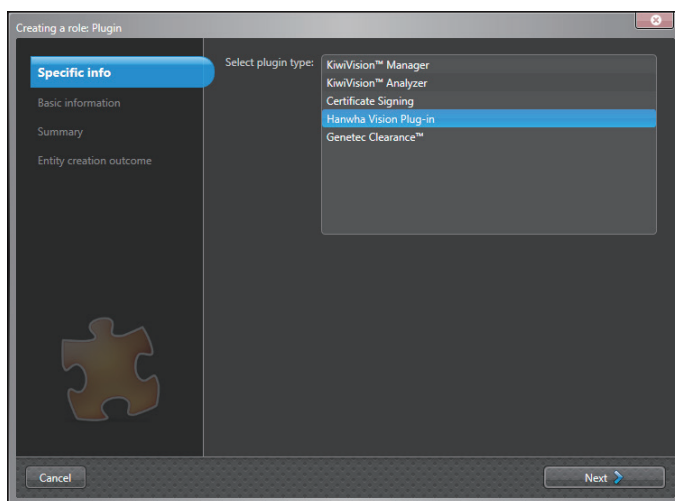
3. After installation, the **GenetecServer** service is automatically started again.
4. Launch the **Config Tool** program.
5. Select **Tasks > Plugins**.
The **Plugins** tab will then be added.



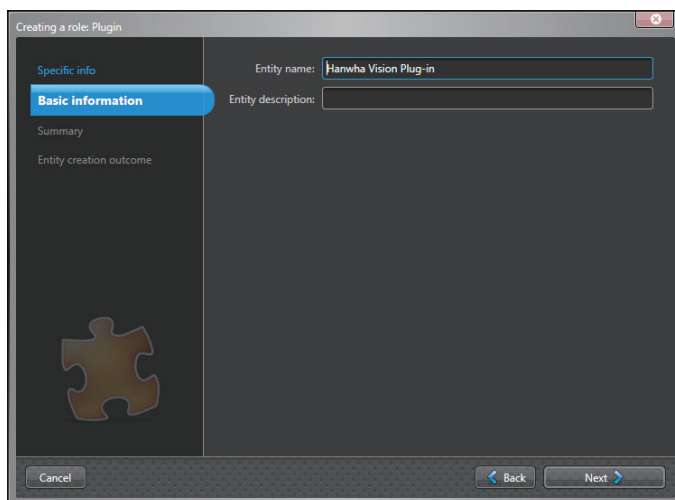
6. Click **Add an entity** on the bottom left and select **Plugin**.



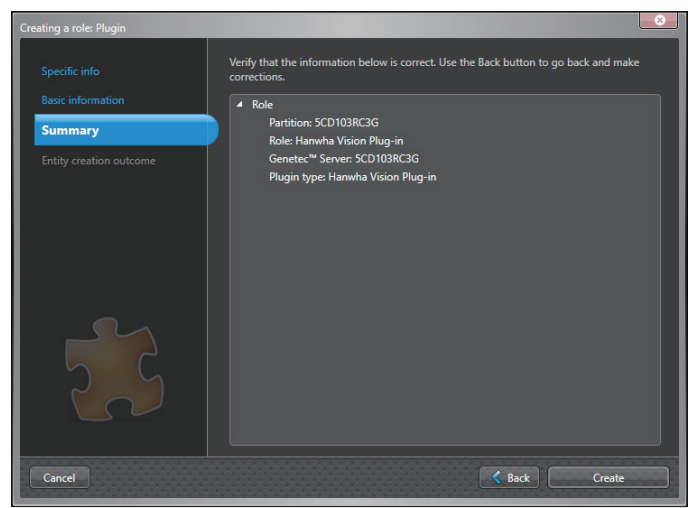
7. Select **Hanwha Vision Plug-in** and click **Next**.



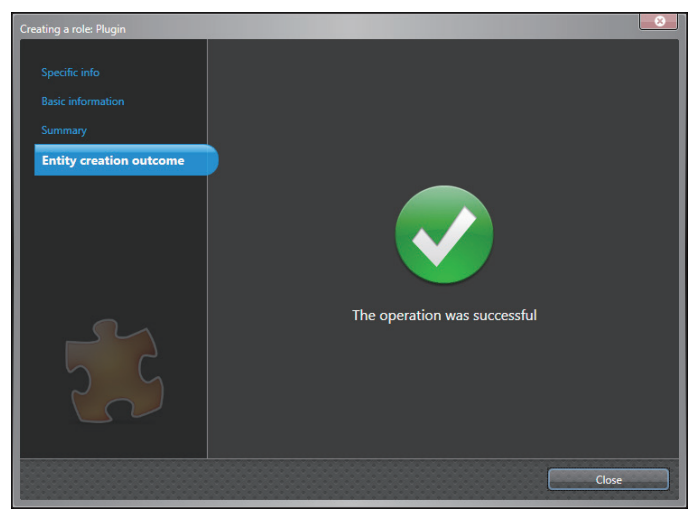
8. Set the Plugin name and description, and click **Next**.



9. Check the Plugin info and click **Create**.

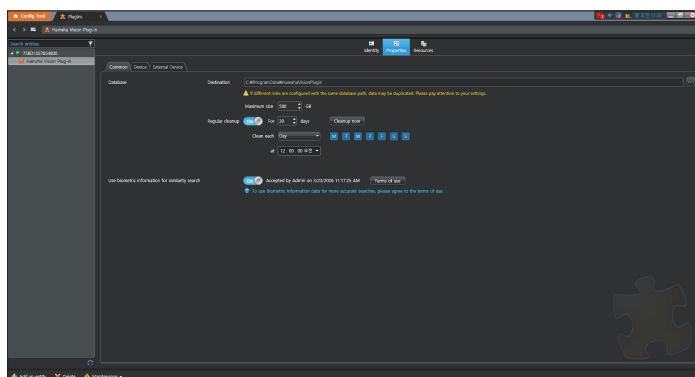


10. Once the Plugin is installed, click **Close**.



11. Select **Hanwha Vision Plug-in** from the list on the left and click **Properties**.

You can set the items for database on the **Common** tab.



• Destination

You can change the database storage location.

- The default database recording path is C:\ProgramData\HanwhaVisionPlug-in.
- To change the location, click the  button to select a desired location. When the location is changed, the saved file is moved to the changed location. Settings cannot be changed while moving, and it may take some time.

• Maximum size

You can set the maximum storage capacity for a database folder.

- The default is 500 GB, and the maximum value is 1 EB.
- If the storage capacity exceeds the set capacity or the user PC's maximum capacity, data will be deleted in chronological order.

• Regular cleanup

You can set the database retention period.

- To set the retention period, select **On** for **Regular cleanup** before setting. The data recorded after the set period will be automatically deleted. Database management files, sound source event files, and blank folders will also be deleted.
- The default of automatic cleanup period is 30 days, and you can set the period up to 9999 days.
- You can set the **Clean each** period by selecting **Day**, **Weekday**, **Weekend day** or **Custom**. To set a desired day, select Custom and click on the desired day.

• Clean now

You can immediately delete the data which are past the set period.

Example: Clicking **Clean now** on the database retention period set to 30 days will delete all data which are past 30 days from the current date.

• Use biometric information for similarity search

For cameras registered with the plugin that support similarity search, you can select whether to use the biometric data of recognition by the camera.

- Set **Use biometric information for similarity search** to **On** and agree to the terms of use.
- When **Use biometric information for similarity search** is switched from **On** to **Off**, all stored biometric recognition data will be deleted.

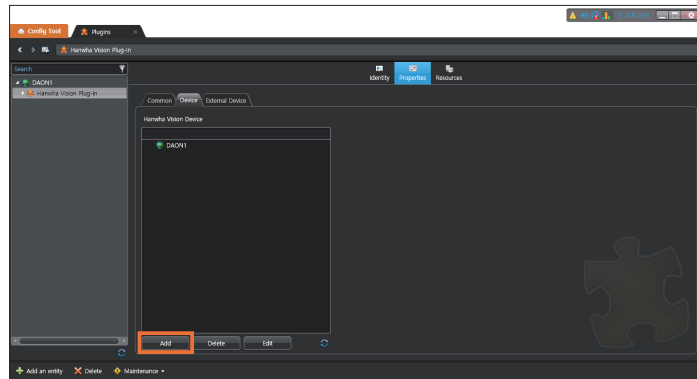


Note

If you create and use multiple **Hanwha Vision Plug-ins**, the same database storage may result in duplicate results after an event search.

12. On the **Device** tab, click **Add** on the bottom left.

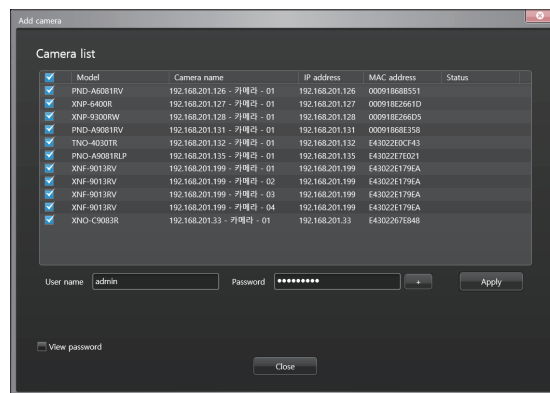
A list of Hanwha Vision cameras registered in the Genetec Security Center program is displayed.



13. Select a camera to activate from the camera list.

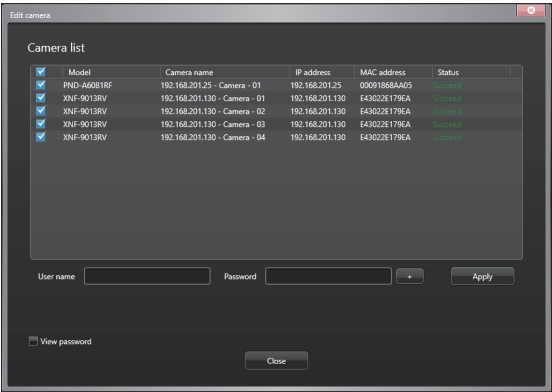
Enter the **User name** and **Password**, and click **Apply**. The connected camera is added to the bottom of the list in the preset site, and the result can be found in the **Status** column.

Click **Close** to complete adding a camera.



- You can register up to 3 sets of **User names** and **Passwords** for each camera that has a set password.

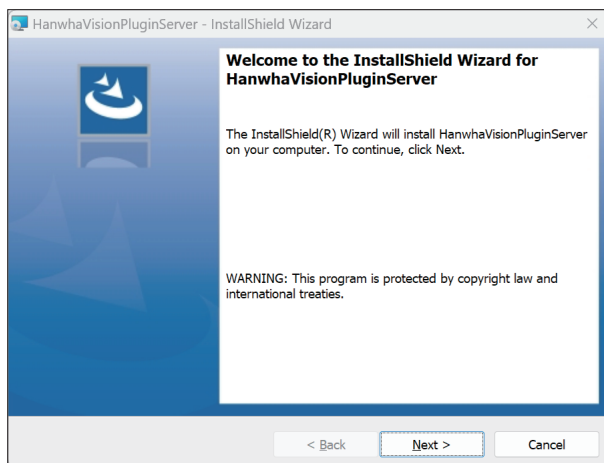
16. Enter the camera's **User name** and **Password**, and click **Apply**. The result can be found in the **Status** column.
Click **Close** to complete changing the information.



17. Click **Apply** to finish installing.

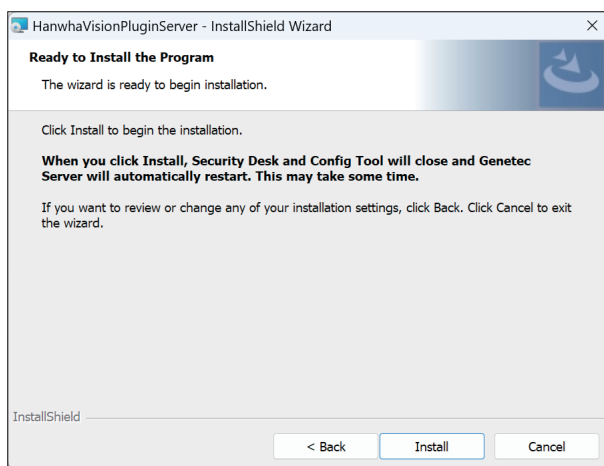
Updating Server Plug-in

1. Run the Server Plug-in installation file.
To start updating, click **Next**.



2. Click **Install**.

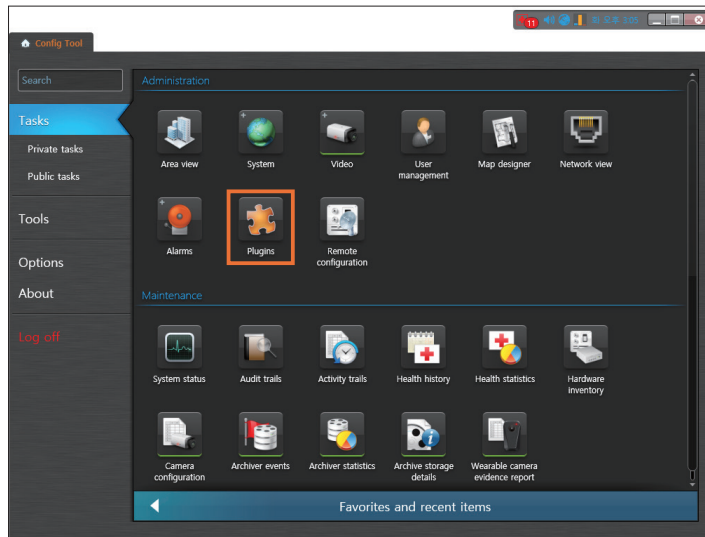
The active **Config Tool** and **Security Desk** programs ends automatically, and the **GenetecServer** service is also stopped.



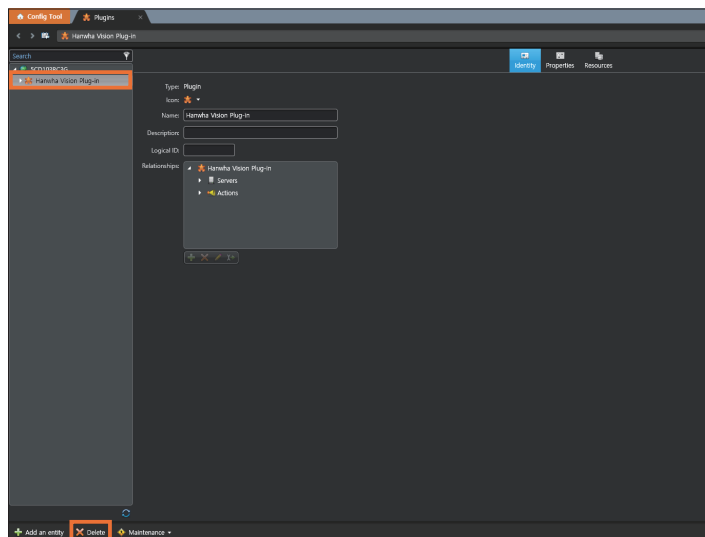
3. After update, the **GenetecServer** service is automatically started again.
To end the service, click **Finish**.

Uninstalling Server Plug-in

1. Launch the **Config Tool** program.
2. Select **Tasks > Plugins**.
The **Plugins** tab will then be added.

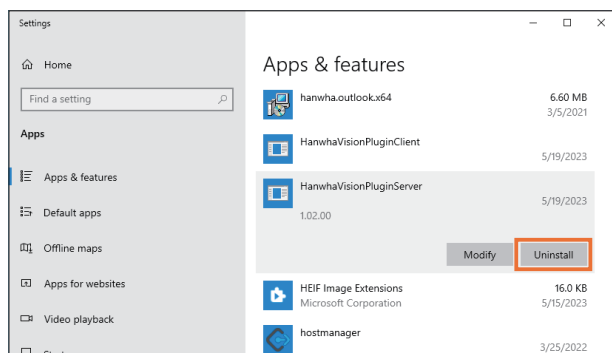


3. Select **Hanwha Vision Plug-in** from the list on the left.
Click **Delete** on the bottom left.



4. Click **Start** > **Settings** > **Apps** > **Apps & features** > **HanwhaVisionPluginServer** > **Uninstall**.

Then, Server Plug-in will be uninstalled.

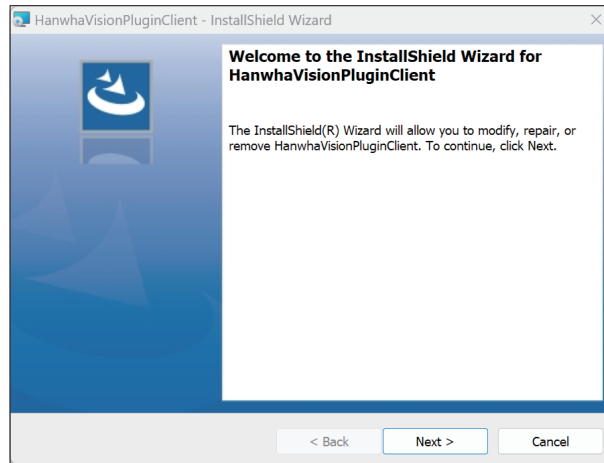


Installing Client Plug-in

Client Plug-in can be installed on the PC where the **Security Desk** program is already installed.

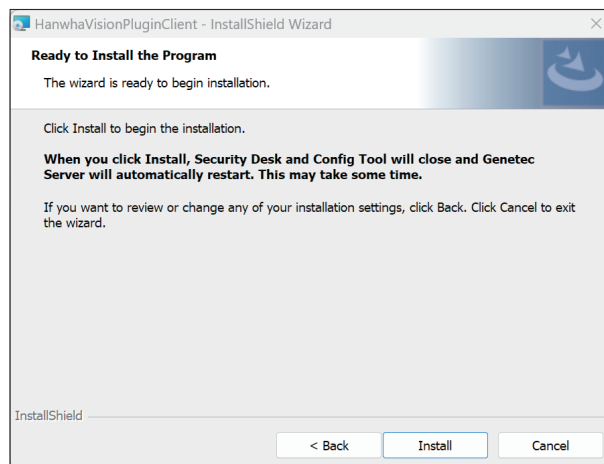
1. Run the Client Plug-in installation file.

When the installation wizard appears, click **Next**.



2. Click **Install**.

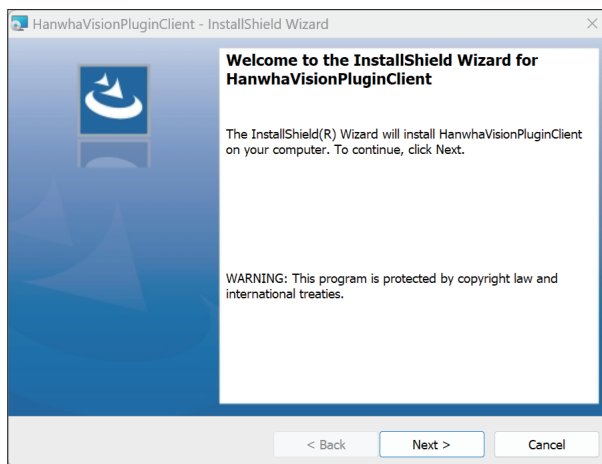
The active **Config Tool** and **Security Desk** programs ends automatically, and the **GenetecServer** service is also stopped.



3. After installation, the **GenetecServer** service is automatically started again.

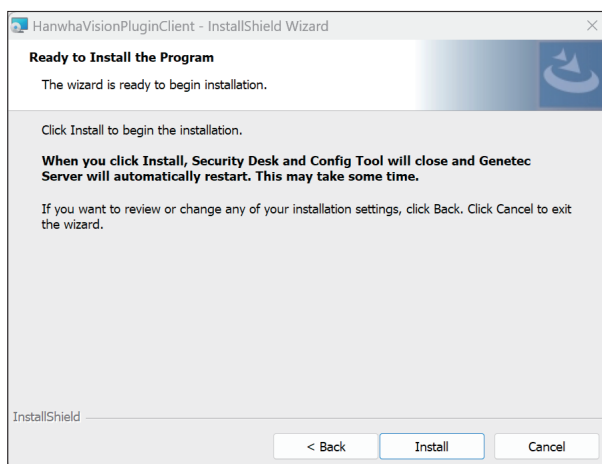
Updating Client Plug-in

1. Run the Client Plug-in installation file.
To start updating, click **Next**.



2. Click **Install**.

The active **Config Tool** and **Security Desk** programs ends automatically, and the **GenetecServer** service is also stopped.

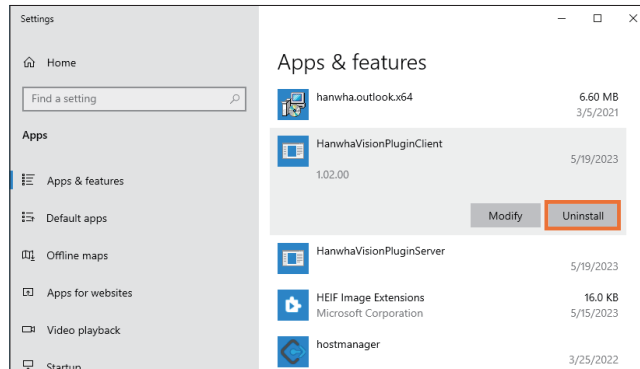


3. After update, the **GenetecServer** service is automatically started again.
To end the service, click **Finish**.

Uninstalling Client Plug-in

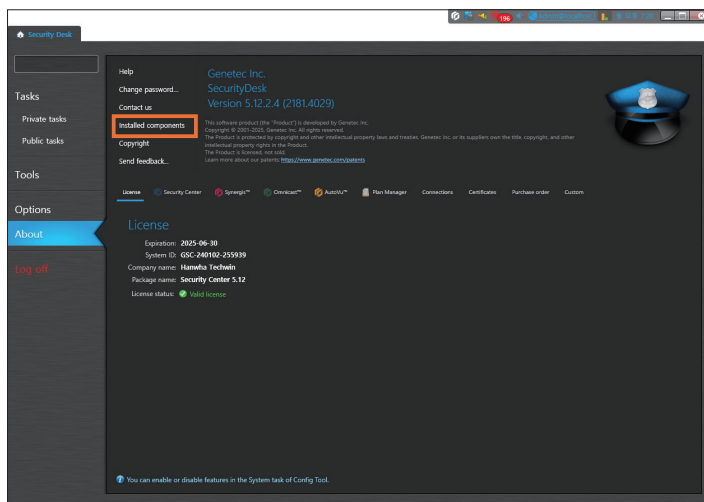
1. Close the **Config Tool** and **Security Desk** program.
2. Click **Start** > **Settings** > **Apps** > **Apps & features** > **HanwhaVisionPluginClient** > **Uninstall**.

Then, Client Plug-in will be uninstalled.

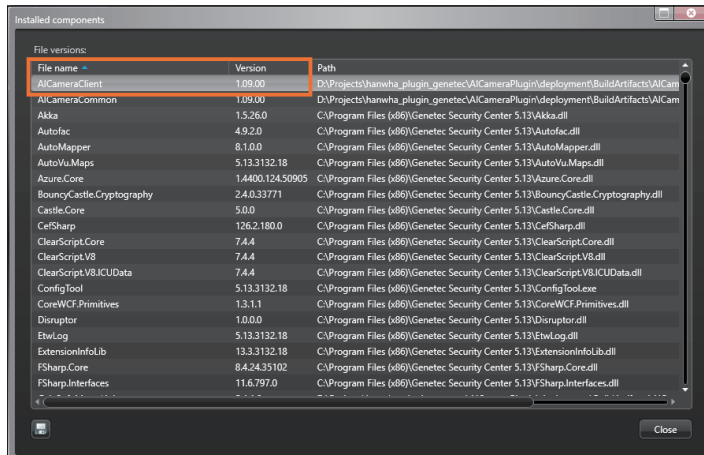


Checking Client Plug-in Version

1. Launch the Security Desk (or Config Tool) program.
2. Click **About > Installed components**.



3. Check the version information of AICameraClient.



Migrating Data

Hanwha Vision Plug-in 1.02.00 and above uses a different database than the one used in version 1.01.00 or lower. Data migration is required to search AI camera event data from version 1.01.00 or lower with Plug-in version 1.02.00 or higher. In version 1.01.00 or lower, use **DBMigration Tool** to safely copy the database to be used in version 1.02.00 or higher.

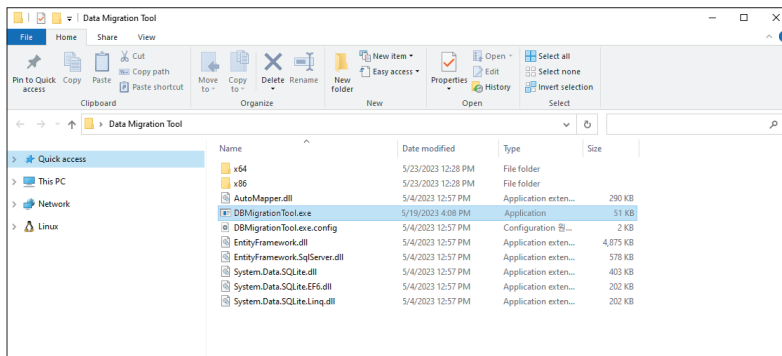
Download **DBMigration Tool** from the Hanwha Vision website (www.HanwhaVision.com).



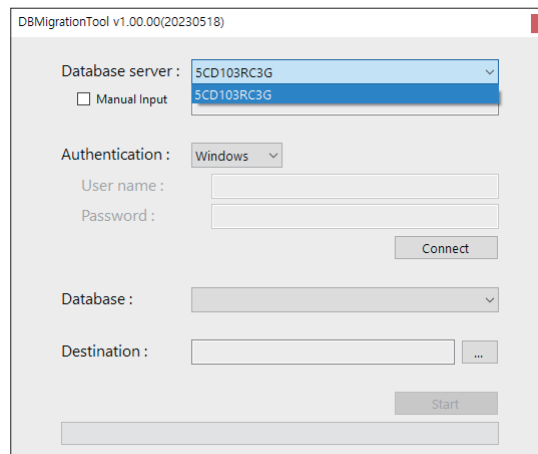
Note

- Migration is not required if you are a new Plug-in user for 1.02.00 or higher or you do not want to search data for the versions lower than v.1.01.00.
- Run **DBMigration Tool** on a PC with the Genetec database server. Remote operation is not supported.
- Data migration may take several minutes or more, depending on your PC's performance.

1. Download **DBMigration Tool** from the Hanwha Vision website (www.HanwhaVision.com).
2. Run the **DBMigrationTool** installation file.



3. Select the Genetec database service for the **Database server** item.



4. Check **Manual Input** and enter the server name if the server you want is not displayed or if you want to manually enter the server name.

DBMigrationTool v1.00.00(20230518)

Database server : SCD103RC3G

☒ Manual Input local

Authentication : Windows

User name :

Password :

Connect

Database :

Destination : ...

Start

5. Select a method to log into the database from the **Authentication** item.
 - **Windows:** Use your Microsoft account to log in.
 - **SQL Server:** Log in with the user account set up on the database server. Enter User name and Password.

DBMigrationTool v1.00.00(20230518)

Database server : SCD103RC3G

☐ Manual Input

Authentication : Windows

User name :

Password :

Connect

Database :

Destination : ...

Start

6. Click **Connect** to access the database server.

DBMigrationTool v1.00.00(20230518)

Database server : 5CD103RC3G

☐ Manual Input

Authentication : Windows

User name :

Password :

Connect

Database :

Destination : ...

Start

7. Select a database to save the AI events from the **Database** item.

DBMigrationTool v1.00.00(20230518)

Database server : 5CD103RC3G

☐ Manual Input

Authentication : Windows

User name :

Password :

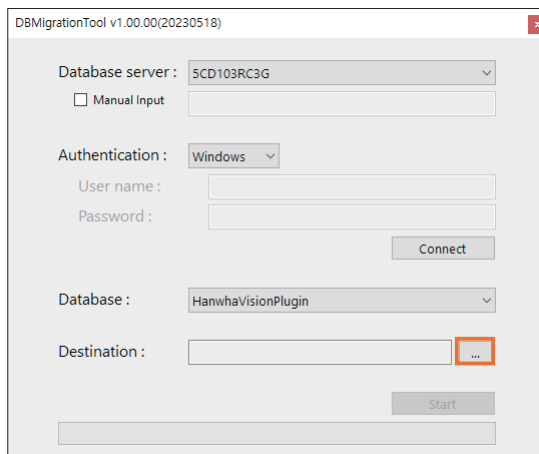
Connect

Database : HanwhaVisionPlugin

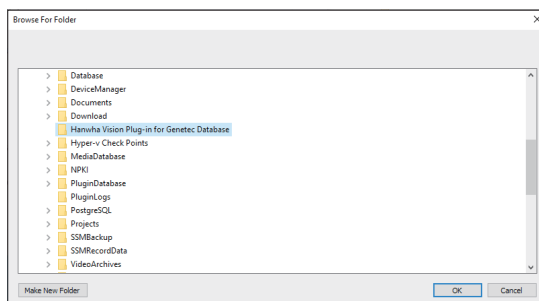
Destination : ...

Start

8. Click the  button on the **Destination** item.
The **Browse For Folder** window will appear.



9. Select the folder setup when creating the Plugin role in **Tasks**, and click **Ok**.
 - The default database recording path is C:\ProgramData\HanwhaVisionPlugin.
 - For more information about creating a plugin role, see [Installing Server Plug-in](#).



- Click **Make New Folder** to create a new directory.

10. Click **Start** to start the data migration.

You can check the progress when the data migration starts.

DBMigrationTool v1.00.00(20230518)

Database server : 5CD103RC3G

☐ Manual Input

Authentication : Windows

User name :

Password :

Connect

Database : HanwhaVisionPlugin

Destination : D:\Hanwha Vision Plug-in for Genetec Datab

Start

11. You can check the result on the **Info** window after the data migration is complete.

Info

From Old Db table[AI_CameraFaceEventModel] to New Db table[Face] : 0 / 0

From Old Db table[AI_CameraFFEventModel] to New Db table[RoadAI] : 805327 / 805327

From Old Db table[AI_CameraLicensePlateEventModel] to New Db table[LicensePlate] : 0 / 0

From Old Db table[AI_CameraPersonEventModel] to New Db table[Person] : 790766 / 790766

From Old Db table[AI_CameraVehicleEventModel] to New Db table[Vehicle] : 500000 / 500000

From Old Db table[AI_CameraWDEventModel] to New Db table[WiseDetector] : 500000 / 500000

확인

Setting up a AI Camera

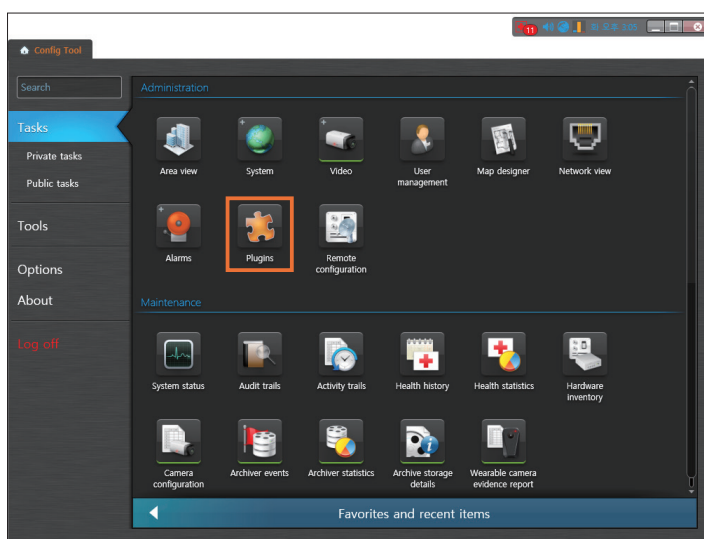
You can enable any AI enabled camera to be used for AI search. For any AI Fisheye camera, you will need to set the installation location, Wall or Ceiling.



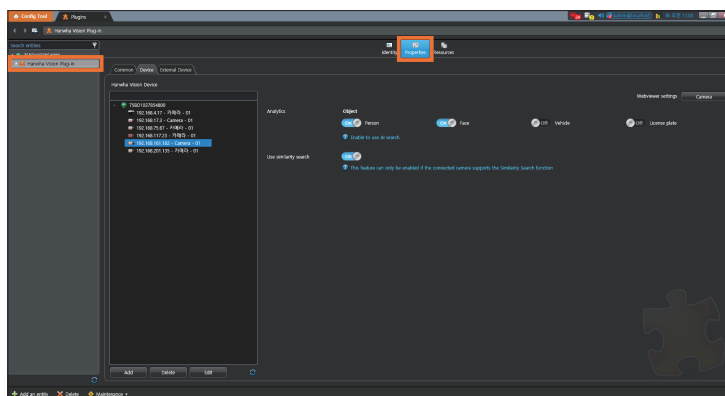
Note

The camera settings displayed may vary depending on the camera model.

1. Launch the **Config Tool** program.
2. Select **Tasks > Plugins**.
The **Plugins** tab will then be added.



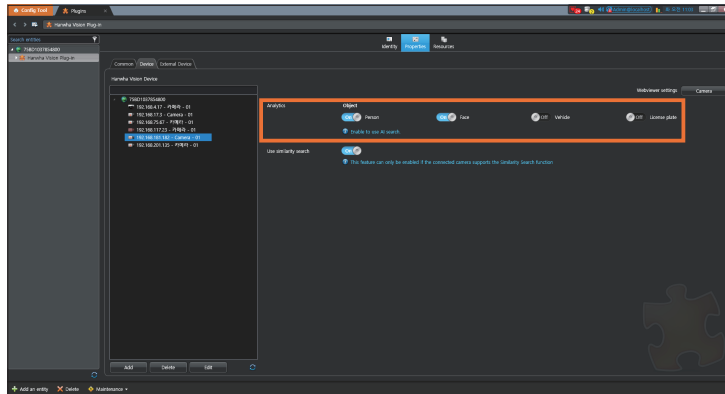
3. Select **Hanwha Vision Plug-in** from the list on the left and click **Properties**.



4. On the **Device** tab, select the camera to be used for AI search.

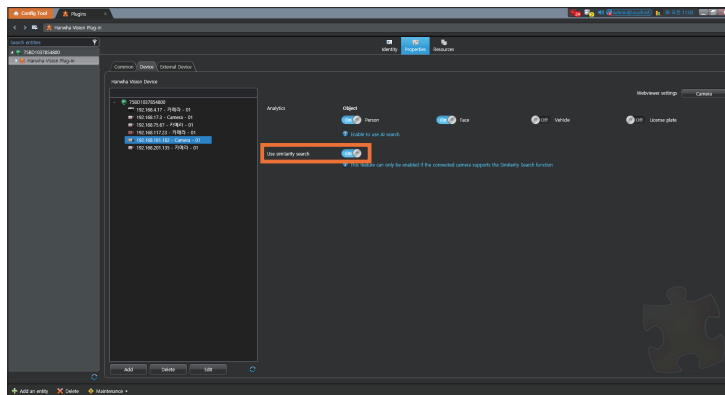
Setting the desired items to **On** in object or sound classification to be detected by the camera allows the collection and search of AI analytics events.

- The object or sound classification options are available only for connected cameras that support the function.

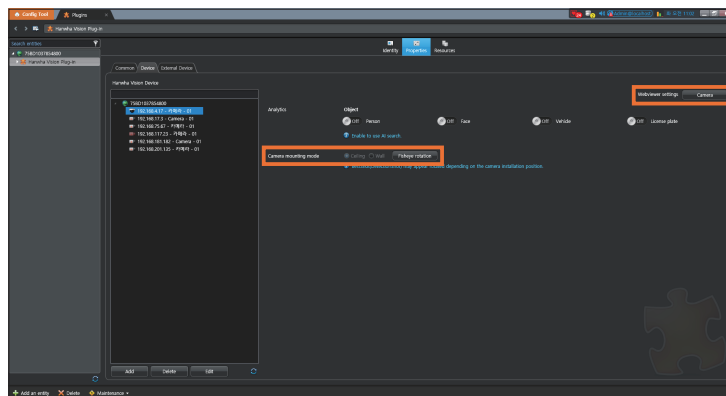


5. Setting **Use similarity search** to **On** allows the collection and search of similar objects (person) within AI analytics event data.

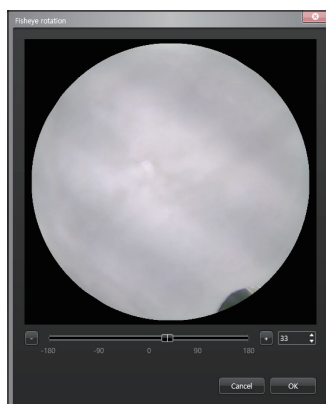
- **Use similarity search** is available only for connected cameras that support the function.



6. In **Camera mounting mode**, check the location where the AI Fisheye camera is installed. If it is different from the actual installation location, you can click the **Camera** button to change it in the web viewer.
- The **Camera mounting mode** option is enabled only when the first channel of the AI Fisheye camera is selected.

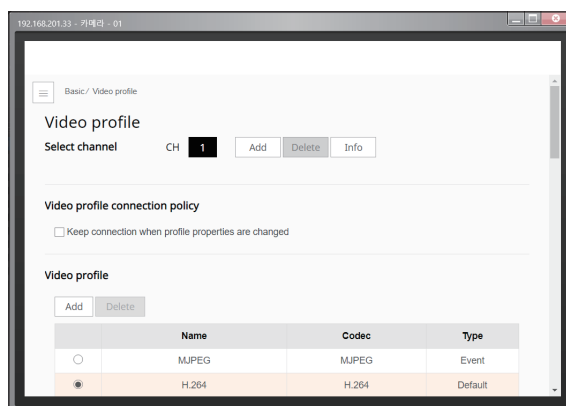
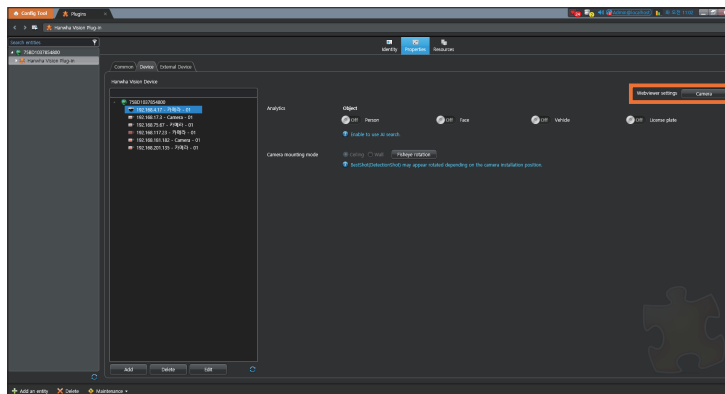


- Click **Fisheye rotation** to change the digital rotation value of the fisheye camera. The camera will restart if you change the settings.



- To change the settings of the camera, select the desired camera on the **Device** tab and click the **Camera** button.

The web viewer of the selected camera is displayed.



Setting up IP Audio

Hanwha Vision Plug-in can add IP audio and register devices and sound sources to be broadcasted. When an event occurs, you can broadcast using the added IP audio.



Note

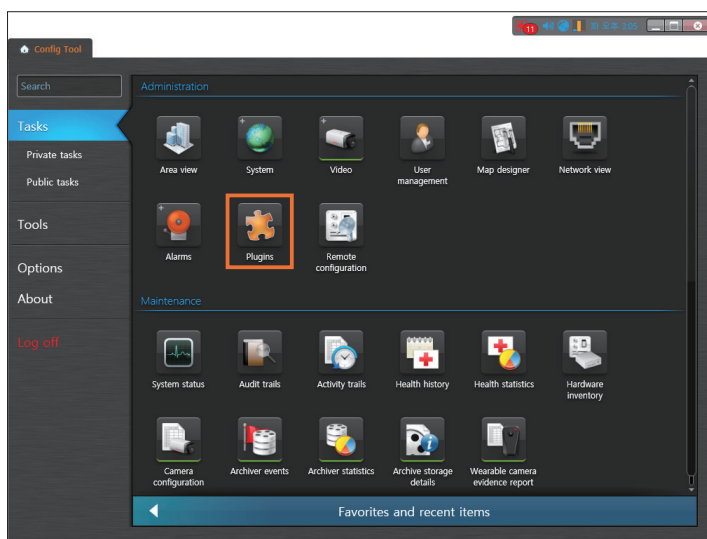
If the operating mode is changed in the web viewer, speakers may not function properly with the current plugin settings. To resolve this, delete the device from the plugin and re-register it.

Adding IP Audio

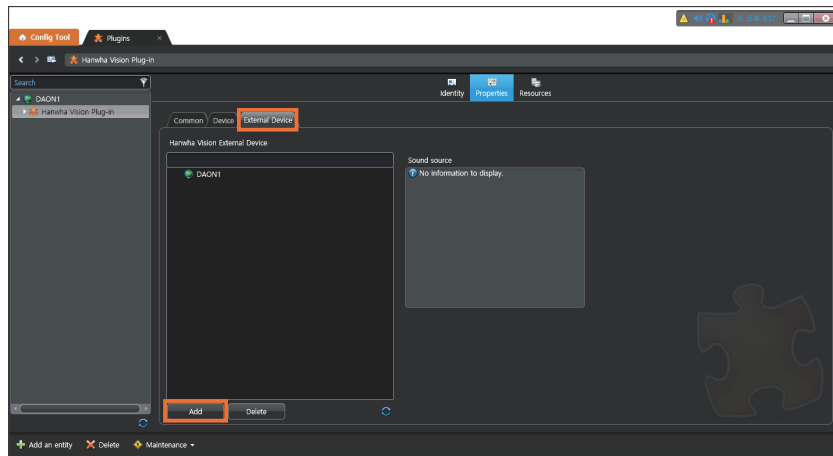
1. Launch the **Config Tool** program.

2. Select **Tasks > Plugins**.

The **Plugins** tab will then be added.



3. Select **Hanwha Vision Plug-in** from the list on the left and click **Properties**.
4. Select the **External Device** tab and click **Add** on the bottom left.

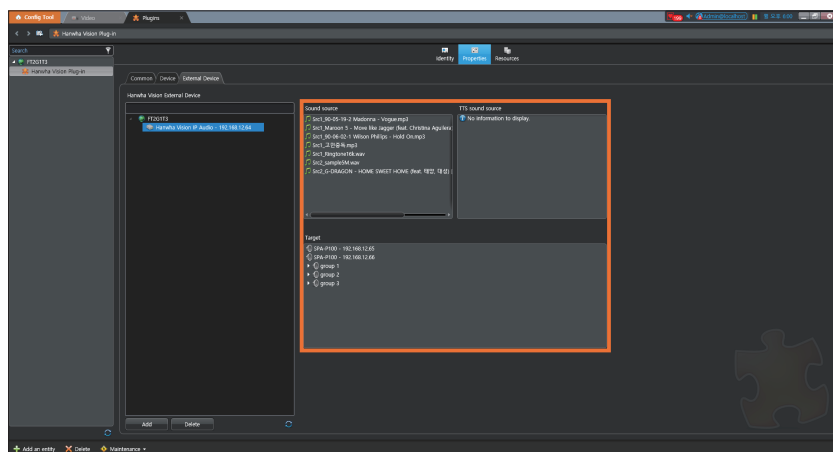


5. Enter the IP address, user name and password of the device you want to add and click **Apply**.

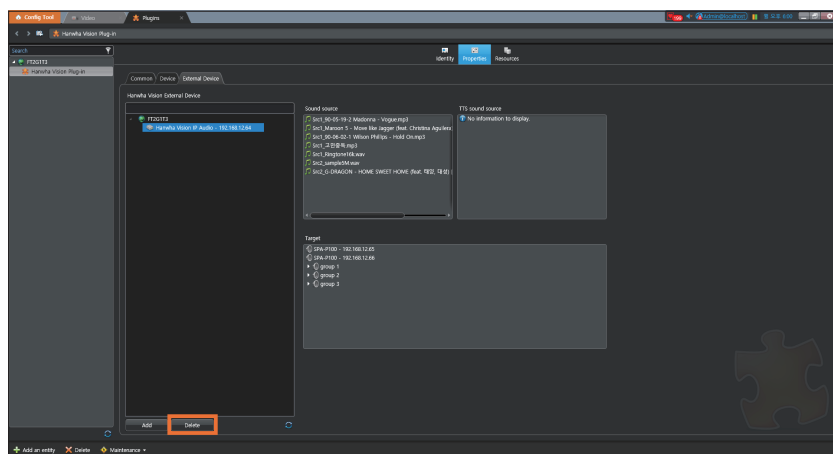
The screenshot shows a dialog box titled 'Add External Device'. It contains three input fields: 'IP address' with a pre-filled value of '0 . 0 . 0 . 0', 'User name', and 'Password'. Below the 'Password' field is a checkbox labeled 'View password'. At the bottom of the dialog, there are two buttons: 'Close' and 'Apply'.

6. Click **Close**.

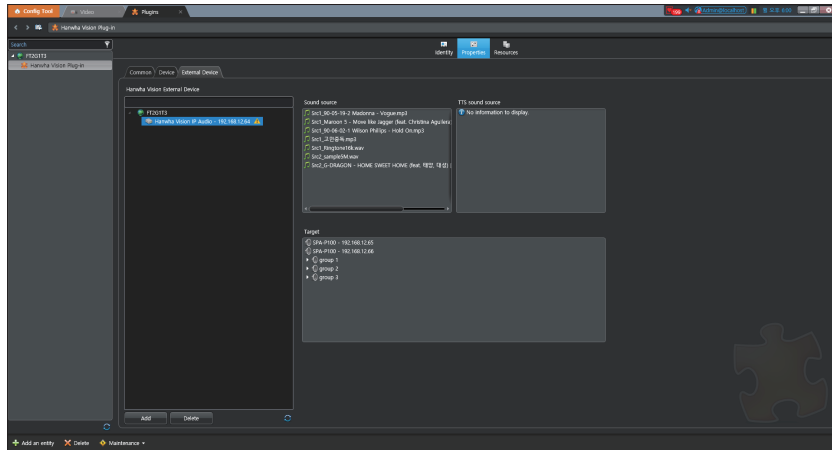
You can check the information of the added device. The displayed information may vary depending on the selected device.



7. Select an unused device from the list and click **Delete**.

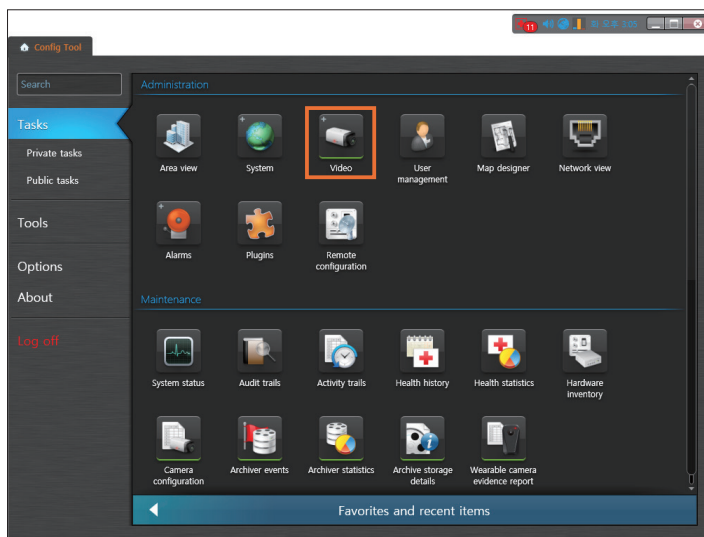


8. The ⚠️ icon on the device is displayed when there is a problem with the device connection status. Check the device connection status.

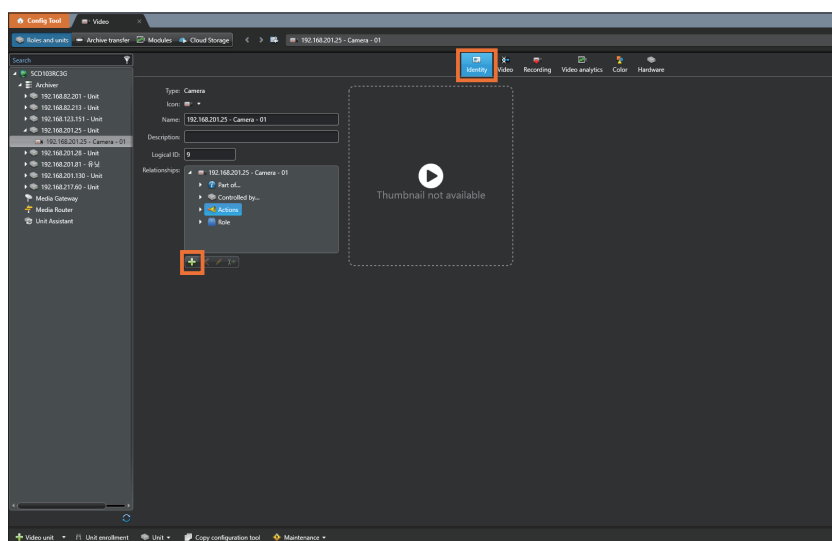


Setting up Event Actions

1. Launch the **Config Tool** program.
2. Select **Tasks > Video**.
The **Video** tab will then be added.

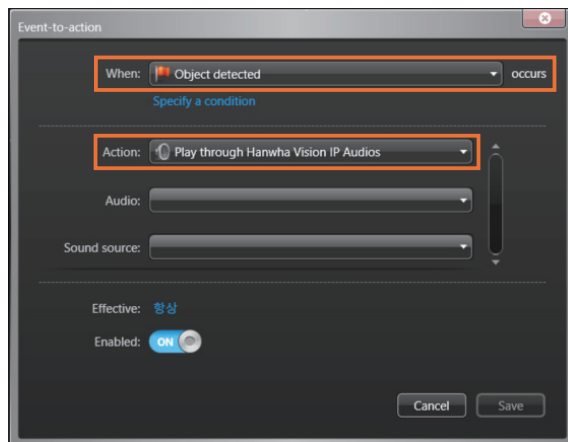


3. Select a camera you want from the list on the left and click **ID**.
Select **Actions** from the **Relationships** list and click the **+** button.
Then, the **Event-to-action** window appears.

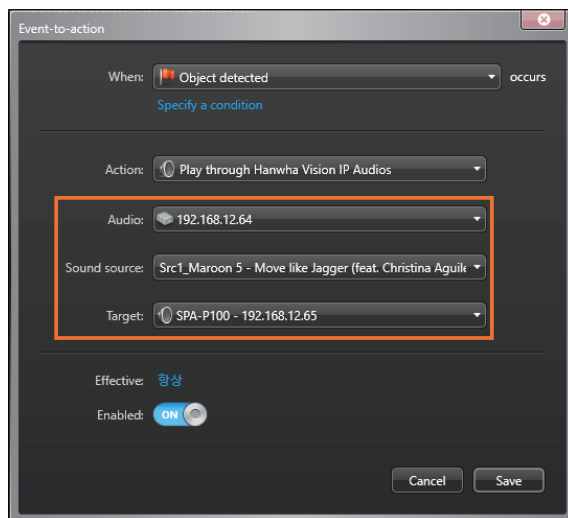


4. Select the event you want.

Select **Play through Hanwha Vision IP Audios** as the **Action**.



5. Select a source or both source and target for the selected audio.



6. Click **Save** to complete the settings.

Setting up Vehicle Management

Hanwha Vision Vehicle Management allows you to add vehicle groups based on a desired classification criteria and register information for management.

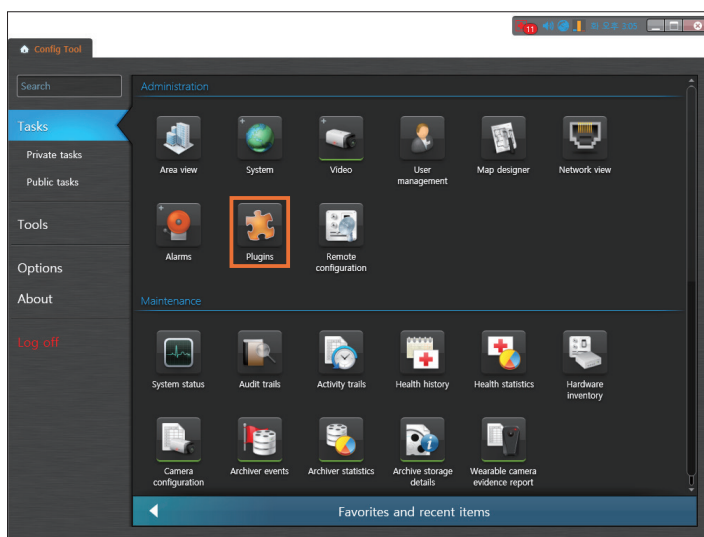
When a registered license plate number is detected, a custom event can be triggered.



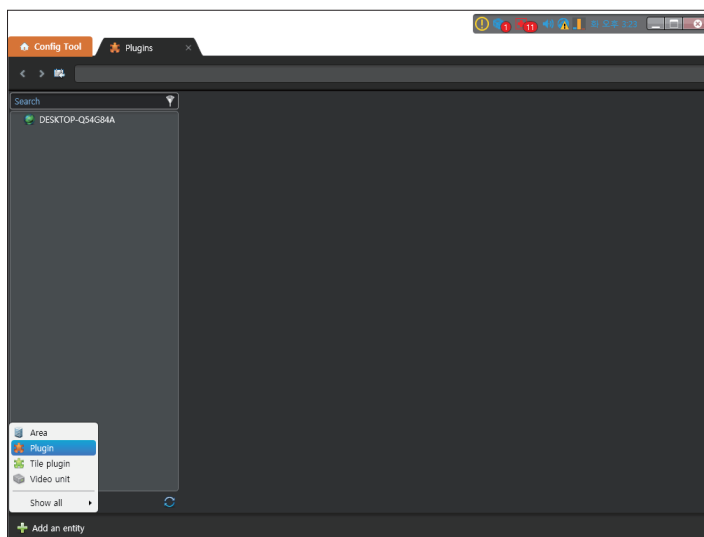
Note

A custom event is automatically generated using the name of the group added in Vehicle Management.

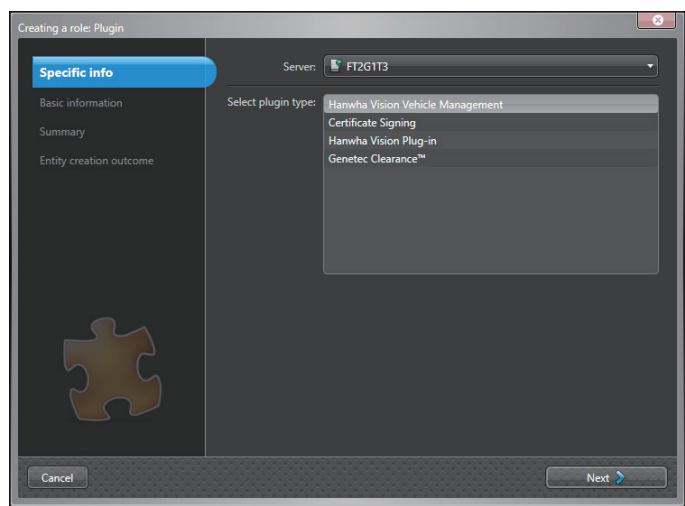
1. Launch the **Config Tool** program.
2. Select **Tasks > Plugins**.
The **Plugins** tab will then be added.



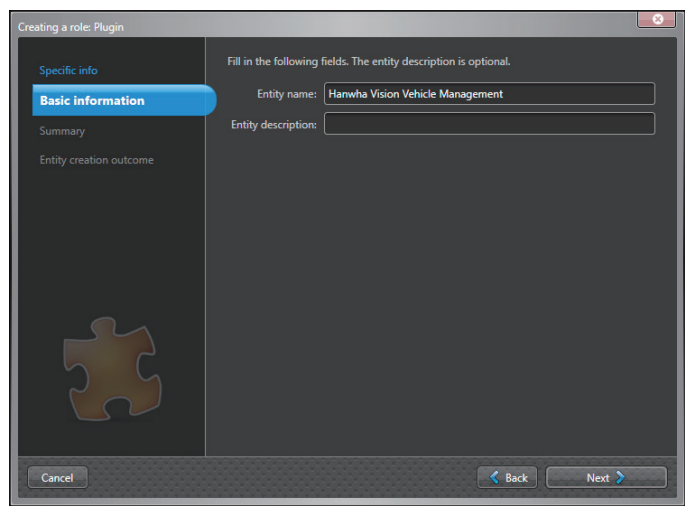
3. Click **Add an entity** on the bottom left and select **Plugin**.



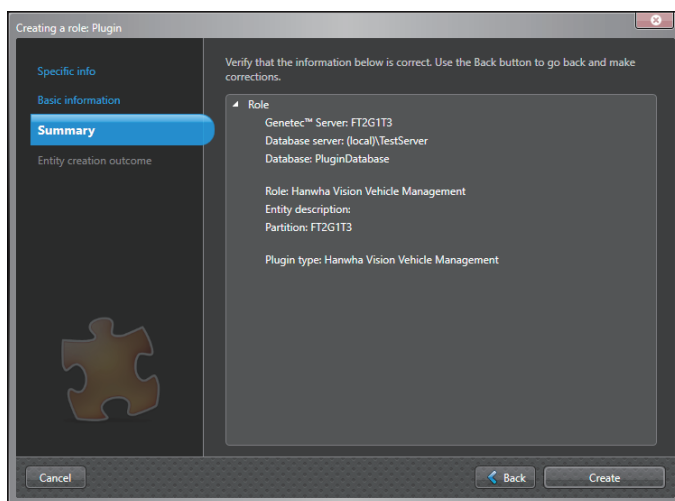
4. Select **Hanwha Vision Vehicle Management** and click **Next**.



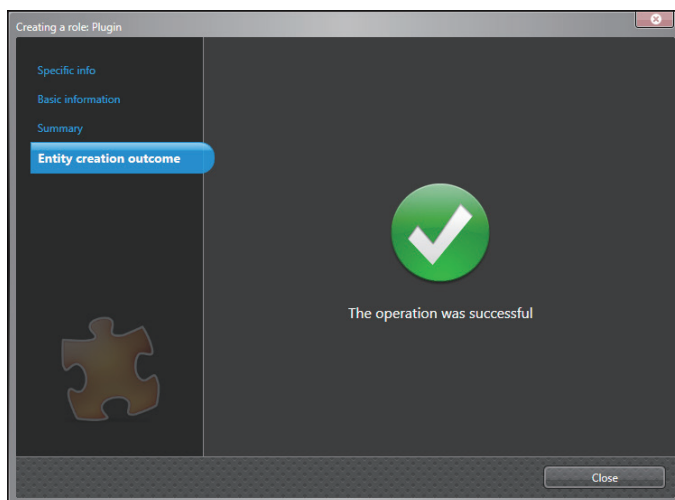
5. Set the Plugin name and description, and click **Next**.



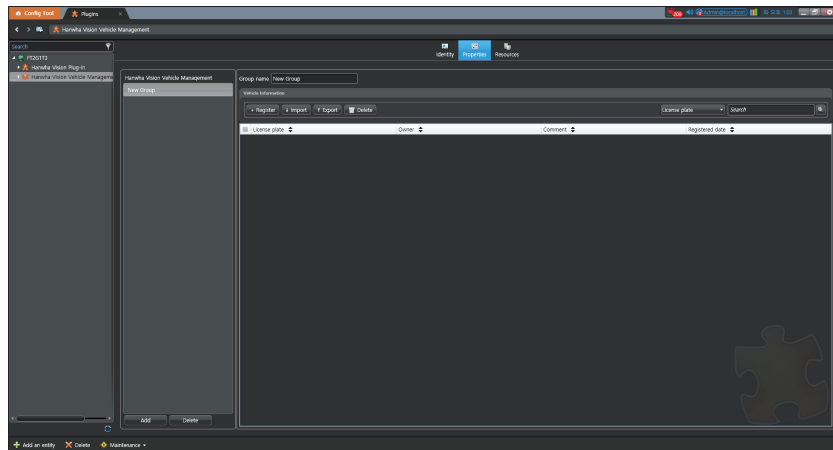
6. Check the Plugin info and click **Create**.



7. Once the Plugin is installed, click **Close**.



8. Select **Hanwha Vision Vehicle Management** from the list on the left and click **Properties**.
You can register and search for vehicle information.



- **Add / Delete:** You can add a new vehicle group or delete a selected vehicle group.
- **Group name:** You can rename a vehicle group. Group names must be unique.
- **Register:** You can register vehicle information.
- **Import:** You can import and register vehicle information from a CSV file.
- **Export:** You can export the registered vehicle information as a CSV file.
- **Delete:** You can delete the selected vehicle information.
- **Search:** You can search by entering the license plate number or owner information.

Using the Plug-in in the Federation Site

Through Security Center Federation settings, you can share and search cameras and AI events registered on subsites. You can also control camera functions.



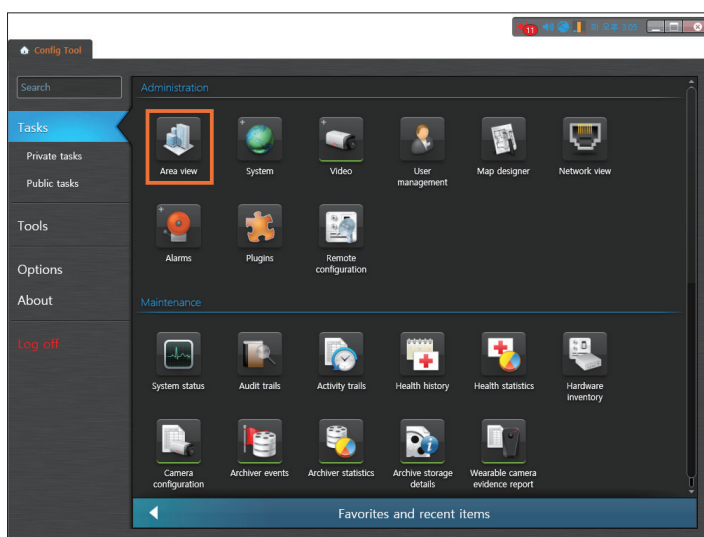
Note

- Make sure that all federated sites use the version 1.03.00 or later for the **Hanwha Vision Plug-in**.
- IP Audio does not support the federation.

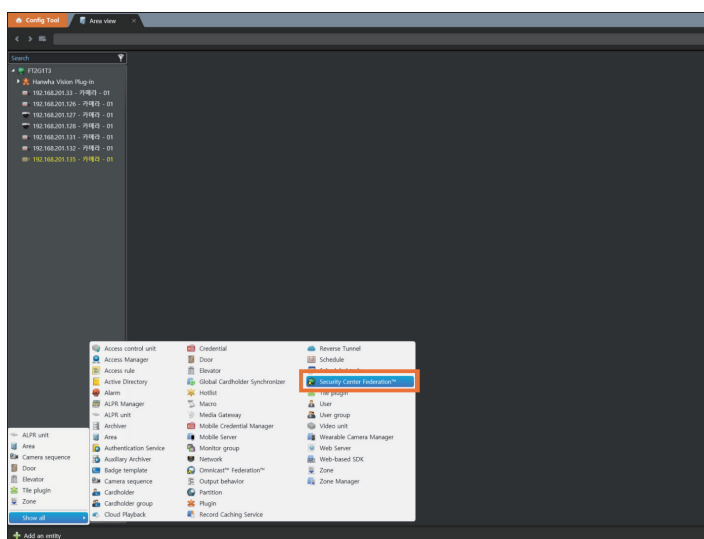
1. Launch the **Config Tool** program.

2. Select **Tasks > Area view**.

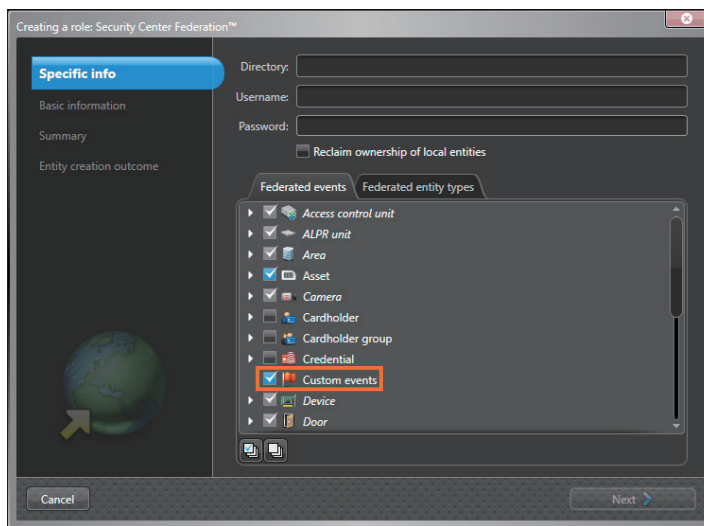
The **Area view** tab will then be added.



3. Select **Add an entity > Show all > Security Center Federation**.



4. Check **Custom events** from **Federated events** and click **Next**.



Note

- To run the realtime event monitoring function for the federation site, be sure to set the use of Custom events.
- You can search events even if the custom events are not activated. Because the camera settings (adding or deleting cameras) on the federation site may not be reflected in real time, open the **Hanwha Vision AI Search Plug-in** tab again.

Using the Camera Function

The **Hanwha Vision Live Plug-in** allows you to control various functions of the camera.



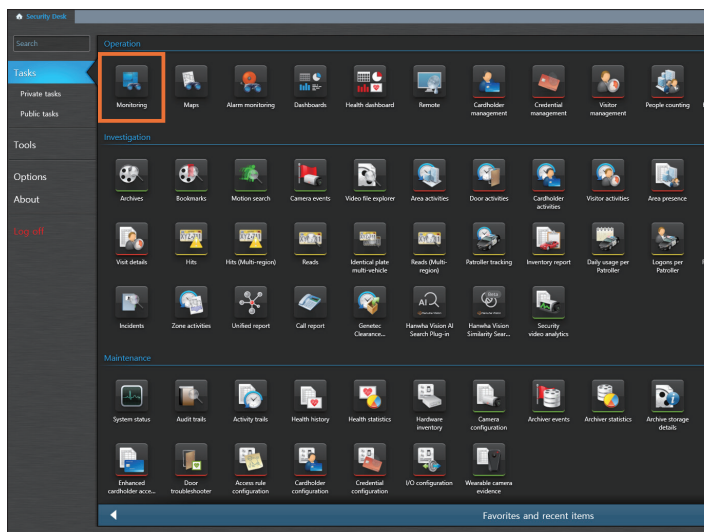
Note

- Only cameras added through the "**Config Tool > Tasks > Plugins > Hanwha Vision Plug-in > Properties**" menu are available.
- The supported functions of the Plug-in are as follows:
 - PTZ and general functions: Heater, wiper, spinning dry, zooming, focusing, auto focusing, focus initialization, backlight, IR, day/night mode, WiseStream, and auto tracking
 - Share thermal/true image metadata
 - Spot temperature display
- Camera functions cannot be used on virtual channels.
- Depending on the camera model, supported control functions may vary. For more details, refer to the camera specifications.

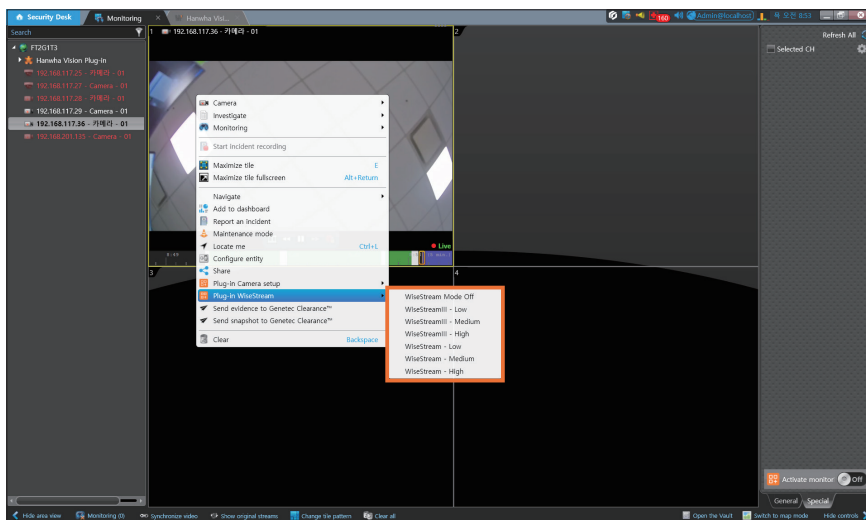
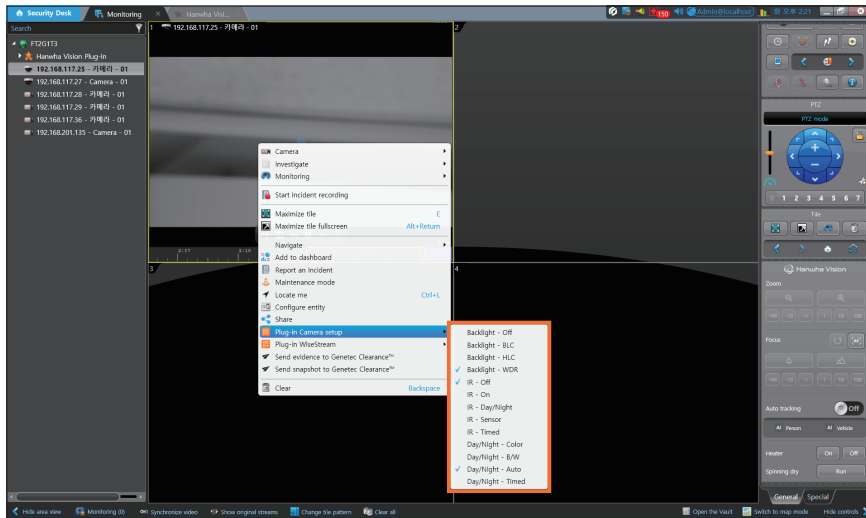
1. Launch the **Security Desk** program.

2. Select **Tasks > Monitoring**.

The **Monitoring** tab will then be added.



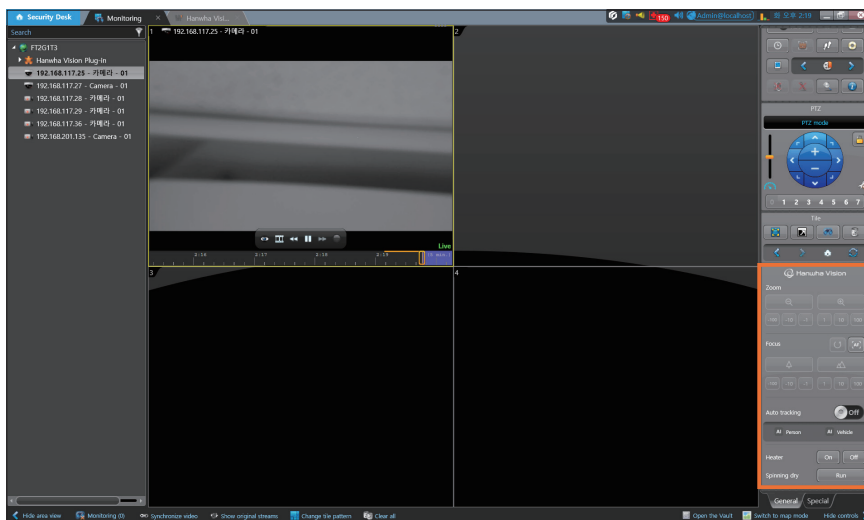
- Right-click on the channel where you want to control the camera's functions.
The supported functions of the camera are displayed on the **Plug-in Camera setup** and **Plug-in WiseStream** menu.
Select the function you want to control the camera.



4. Click a channel to control its camera functions.

The supported functions with the camera are activated in the **Hanwha Vision** menu on the panel to the right.

You can click an activated function to control it.



Note

- Depending on the camera model, supported control functions may vary. The following functions appear on the panel to the right if available.
 - Auto tracking, metadata sharing, spot temperature, wiper, heater, spinning dry

• Heater

If there is frost, run the heater to remove the frost.

Since the heater is activated automatically based on the ambient temperature, it may operate differently from how the user settings are configured.

• Wiper

Run the wiper to clear the lens of rainwater or other foreign substance.

• Spinning dry

Spin the camera at high speed to remove rainwater or other foreign substance.

• Zoom

You can zoom in or out the video by using the camera's zoom.

• Focus

You can manually move the camera's focus closer or further away.

- **Auto focus**

You can automatically adjust the focus of your camera.

Adjust the focus manually, as the function may not properly operate in the following cases.

- When the object moves or disappears during focusing
- When there is a sudden change in luminance during focusing
- When the contrast of the video is low
- When there are strong light sources around
- When the focus was not initialized

- **Initialize focus**

You can initialize camera focusing to default values.

It is recommended to perform a focus initialization when using a camera for the first time.

- **Backlight**

The backlight mode can express both bright and dark areas well at the same time in a backlit situation.

In backlight mode, noise may occur between bright and dark areas.

- **IR**

By using the IR uniformly in an environment without light, the dark areas outside the image are minimized so that subjects can be easily identified.

The supported specifications may differ depending on the camera model. Refer to your camera's specifications for more information.

- **Off:** IR mode is disabled.
- **On:** IR is enabled.
- **Auto:** The IR brightness is automatically adjusted according to the brightness of the subject in the center of the screen.
- **Auto 1:** The IR brightness is automatically adjusted according to the brightness of the subject in the center of the screen.
- **Auto 2:** The IR brightness is automatically adjusted according to the brightness of the subject in the center or periphery of the screen.
- **Manual:** The IR brightness can be adjusted manually.
- **Day/Night:** The IR turns off if the image is expressed in color. Otherwise, the IR turns on.
- **Sensor:** The IR mode is changed depending on the amount of light from the optical sensor.
- **Schedule:** Set the IR On time.

- **Day/Night**

You can change the video to color or B/W depending on your camera conditions. By setting the conversion time, the video can be switched to color or B/W upon the schedule.

While switching between day and night modes, motion detection events or video analysis events are not detected.

Supported specifications may vary depending on the camera model. For more details, refer to the camera specifications.

- **Color:** Videos are always output in color.
- **B/W:** Videos are always output in black and white.
- **Auto:** Videos are switched to color in the daytime and to B/W at night or a low light level.
- **External:** When the alarm input terminal is integrated with an external device, you can switch to the color or black and white.
- **Timed:** The day and night mode changes according to the schedule set in the Web viewer.

- **WiseStream**

You can select a WiseStream mode. Use WiseStream to select the bitrate reduction level to apply: **Low**, **Medium**, and **High**.

If you do not use WiseStream, select **Mode off**.

Supported specifications may vary depending on the camera model. For more details, refer to the camera specifications.

- **WiseStream:** It operates based on motion detection. Bitrate is reduced by lowering the image quality in other areas while keeping the image quality in the target area. In the environment with no movement or low complexity, the bitrate reduction effect may be high. However, in the environment with lots of movements or high complexity, the bitrate reduction effect may be low.
- **WiseStream III:** It operates based on the AI object detection area. As the size of the object detection area becomes smaller, the bit rate decreases, and as the size of the area becomes larger, the bit rate increases.

- **Metadata sharing**

Metadata can be shared between true images and thermal images.

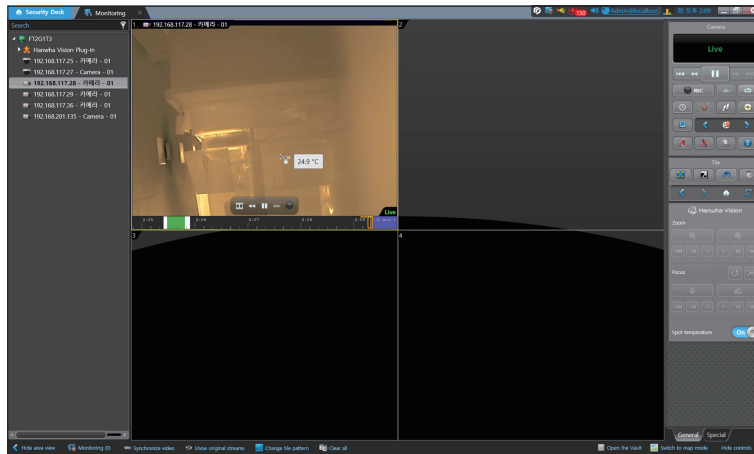
When an event (object) occurs on a specific channel, it transmits the analysis information to other channels and displays an object analysis area on the screen based on the transmitted analysis information.

- **Spot temperature**

You can see the temperature by clicking a desired spot on the view of a thermal imaging camera that supports temperature information.

When you click a spot to check the temperature in the video of the active channel, the temperature appears next to the mouse pointer.

The temperature unit of display may differ depending on the camera setting.

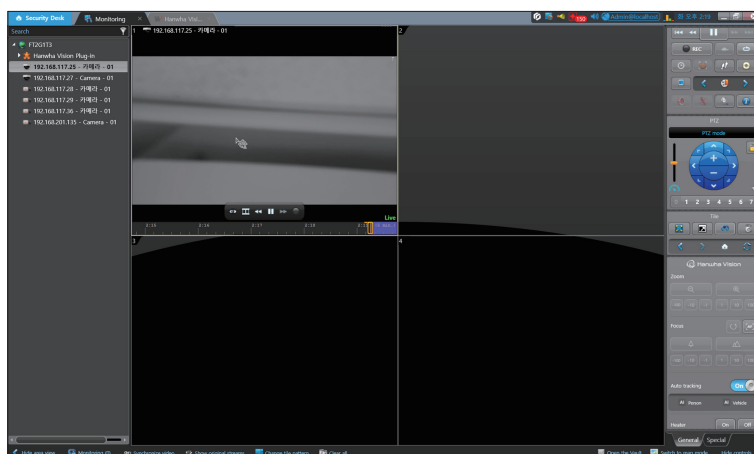


- **Auto tracking**

You can automatically track a moving target by clicking it in the video of the active channel.

- After selecting **Person** or **Vehicle** as an object to track, set **Auto tracking** to **On**. The AI automatic tracking function will run.

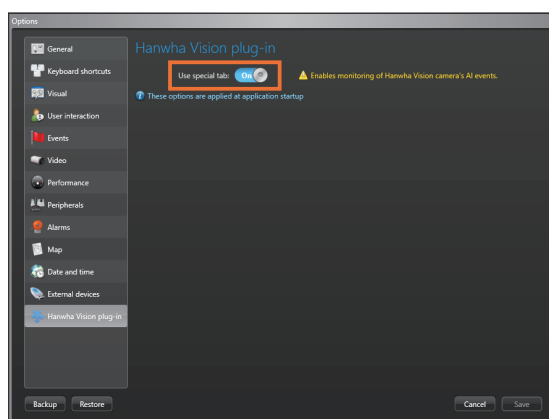
When the object to track is changed, **Auto tracking** will be automatically switched **Off**.



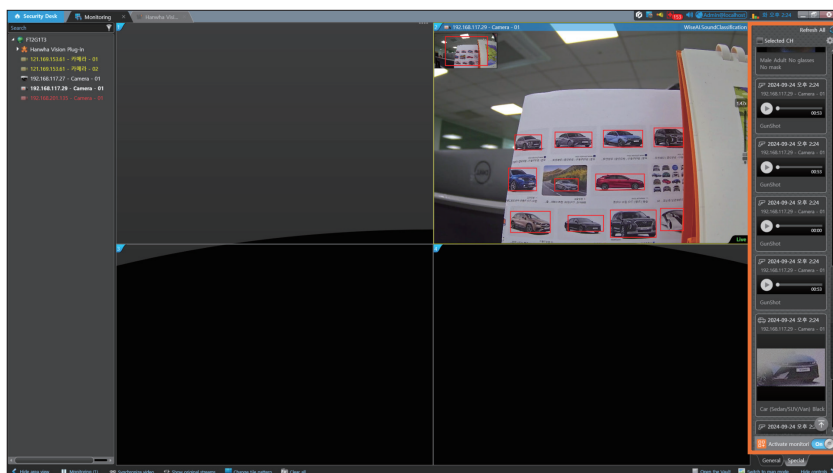
Monitoring Events

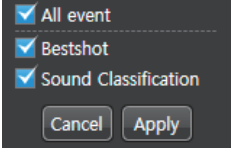
You can check the best shot for the object(person/face/vehicle/license plate/Wisenet Road AI/user defined/AI pack) and the realtime event for the sound source (scream/gunshot/crashing glass) which occur in the registered device.

1. Launch the **Security Desk** program.
2. Select **Tasks > Monitoring**.
The **Monitoring** tab will then be added.
3. Select the **Special** tab on the bottom right.
 - You can enable or disable the Special tab in the "**Security Desk > Options > Hanwha Vision Plug-in**" menu. Set **Use special tab** to **On** or **Off**, then restart the application.



4. Set **Active monitoring** to **On** to use the realtime event monitoring function.
Check the setting items on the event list window and change to a desired setting item.



Screen configuration	Detailed description on functions
Refresh All	You can delete all event lists displayed on the event window.
Selected CH	Displayed is only the event list for the camera video of the selected tile. Cancelling the Selected CH item by ticking a box will display all camera video event lists for video tiles.
	You can select an event item to be displayed on the event window. • Bestshot: This displays the bestshot of the object set in the camera. • Sound Classification: The sound source items depend on the license assigned to the camera. 
Event list	You can check or search the realtime event list occurred in the device. • When a new event occurs, lists are added in order. Maximum 500 lists can be displayed, and on the occurrence of further event, event items are deleted in chronological order. • The event list displays the device where the event occurs, time, information on properties, bestshot or sound source playback control bar.
Activate monitoring	You can set whether to use the event monitoring function.

Monitoring Sound Classification Events on the Map

If you use audio beacons registered with the plugin on the map, you can monitor Sound Classification events in the **Maps** or **Monitoring** tab of the **Security Desk** program.

When the Sound Classification event is detected, the icon on the map will blink for approximately 30 seconds. Clicking the icon will stop the blinking.

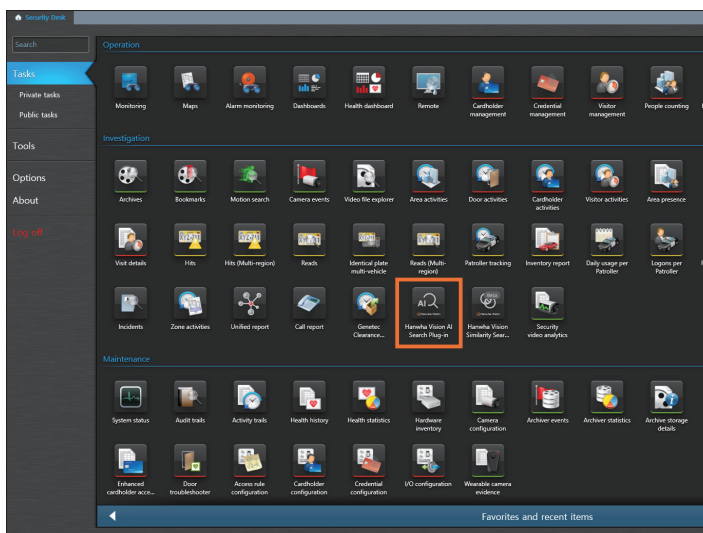


Searching for AI Analytics Events

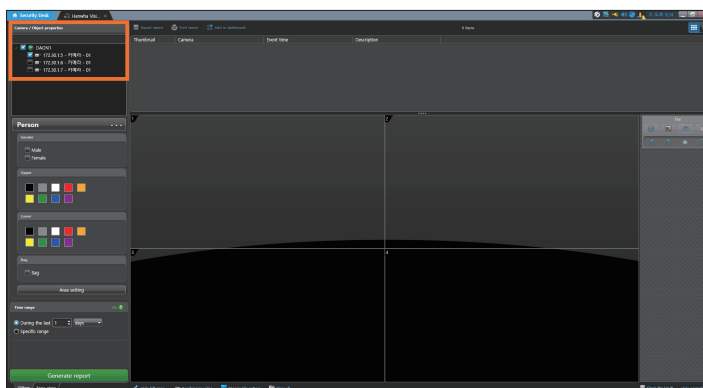
An AI analytics event is saved for each object upon the most accurate moment of recognition (person/face/vehicle/license plate/Wisenet Road AI/user defined/AI pack/barcode) being analyzed by the AI camera.

You can search for the saved events by setting the details of each object or camera area.

1. Launch the **Security Desk** program.
2. Select **Tasks > Hanwha Vision AI Search Plug-in**.
The **Hanwha Vision AI Search Plug-in** tab will then be added.

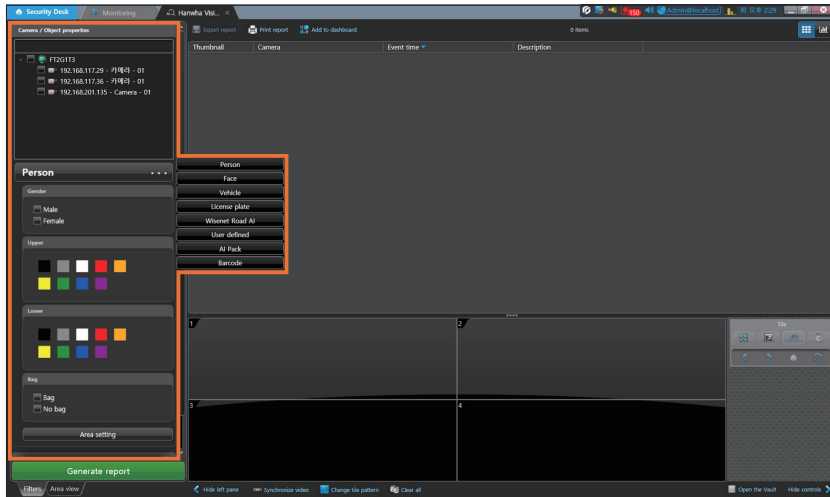


3. 카메라 목록에는 "**Config Tool > Task > 플러그인 > Hanwha Vision Plug-in > 속성**" 메뉴에서 분석 항목이 활성화된 카메라가 표시됩니다.

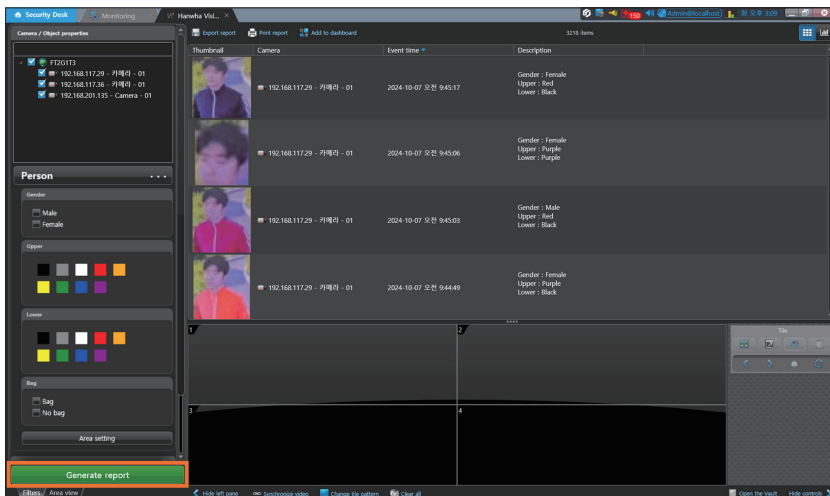


Searching for Person

1. Select the camera and time range that you want to search for.
Click the **Person** button to select **Person** for the AI object type.



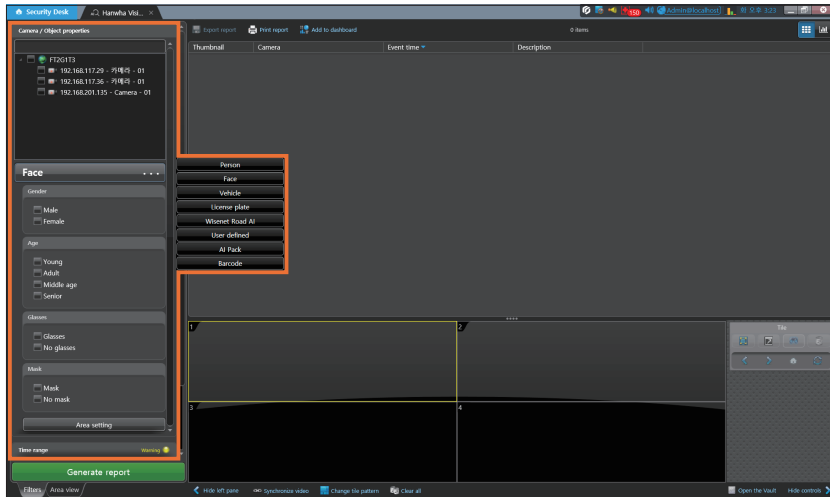
2. After setting the details, click **Generate report**.
Then, search results are displayed. From the list, you can select an event and play its video.



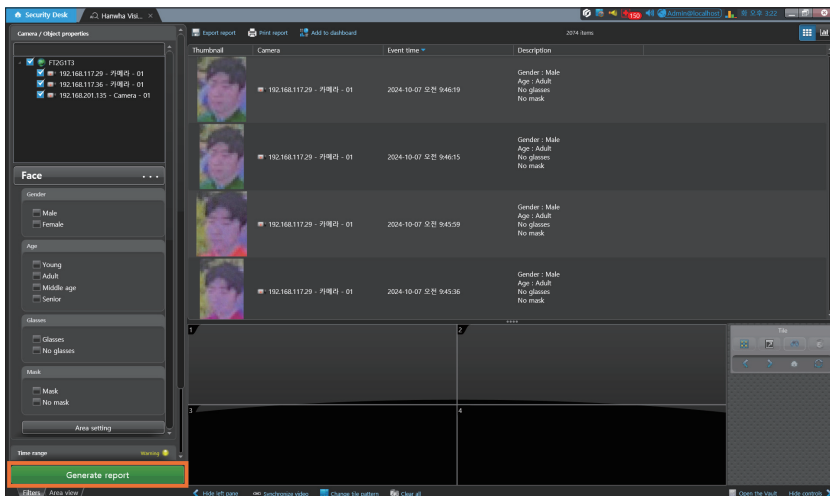
- If a user does not have permission to play recorded videos, the thumbnail images do not appear in the event search results and their event videos cannot be played.
- If you select **Male** only from **Gender**, women and objects with unrecognized gender are excluded from the search results.
If you select both **Male** and **Female**, those objects with unrecognized gender are excluded from the search results.
- If you select **Male** and **Bag**, only those objects recognized as male wearing a bag are included in the search results.
- For **Color**, up to two colors can be selected. Searching is valid if any one of the two colors is present.

Searching for Faces

1. Select the camera and time range that you want to search for.
Click the **Face** button to select **Face** for the AI object type.



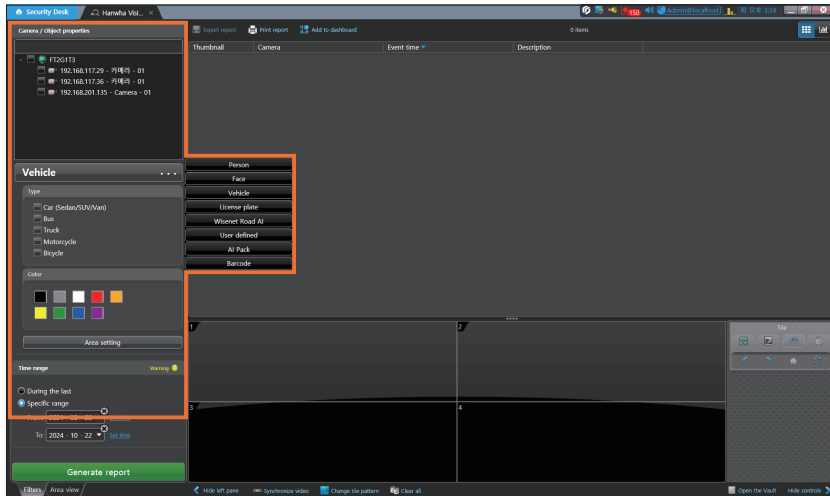
2. After setting the details, click **Generate report**.
Then, search results are displayed. From the list, you can select an event and play its video.



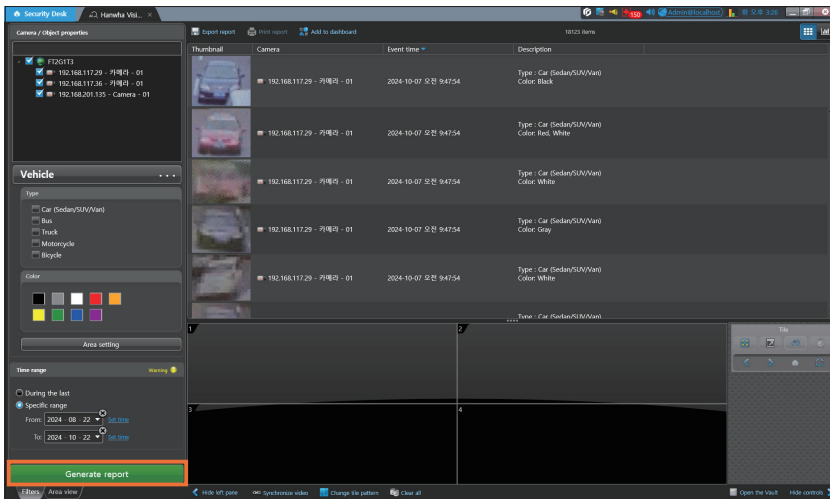
- If a user does not have permission to play recorded videos, the thumbnail images do not appear in the event search results and their event videos cannot be played.
- If you select **Male** only from **Gender**, women and objects with unrecognized gender are excluded from the search results.
If you select both **Male** and **Female**, those objects with unrecognized gender are excluded from the search results.
- If you select **Male** and **Glasses**, only those objects recognized as male wearing glasses are included in the search results.
Objects either not wearing glasses or uncertain of wearing glasses are excluded from the search results.
- If you select **Young** only from **Age**, Adult/Middle age/Senior and objects with unrecognized age are excluded from the search results.
- If you select both **Glasses** and **No glasses**, those objects uncertain of wearing glasses are excluded from the search results.
- If you select both **Mask** and **No mask**, those objects uncertain of wearing a mask are excluded from the search results.

Searching for Vehicles

1. Select the camera and time range that you want to search for.
Click the **Vehicle** button to select **Vehicle** for the AI object type.



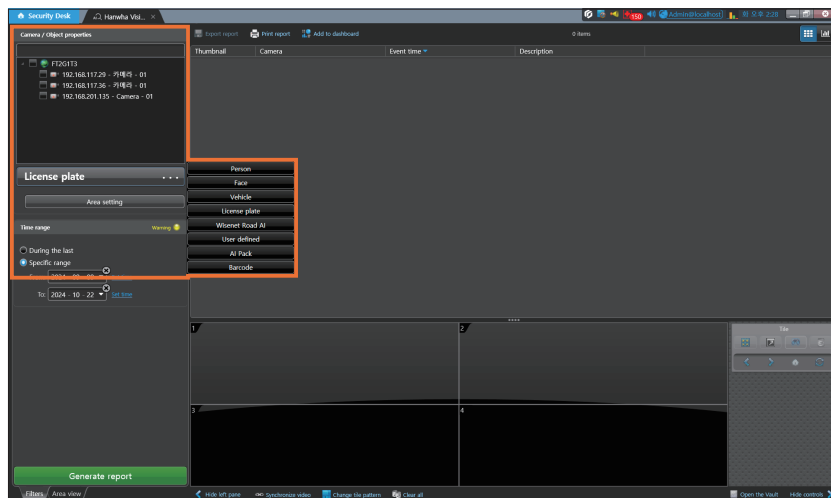
2. After setting the details, click **Generate report**.
Then, search results are displayed. From the list, you can select an event and play its video.



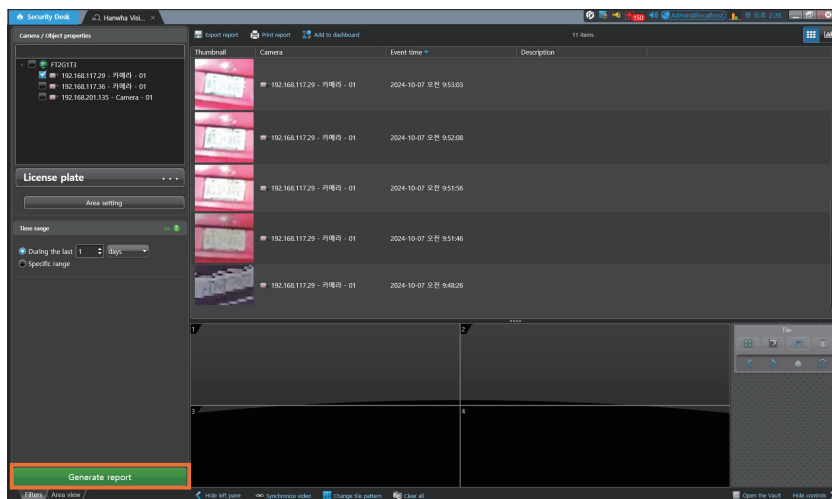
- If a user does not have permission to play recorded videos, the thumbnail images do not appear in the event search results and their event videos cannot be played.
- If you select **Bus** only from **Type**, those objects with unchecked or unrecognized types are excluded from the search results.
- For **Color**, up to two colors can be selected. Searching is valid if any one of the two colors is present.

Searching for Vehicle License Plates

1. Select the camera and time range that you want to search for.
Click the **...** button to select **License plate** for the AI object type.



2. Click **Generate report**.
Then, search results are displayed. From the list, you can select an event and play its video.



- If a user does not have permission to play recorded videos, the thumbnail images do not appear in the event search results and their event videos cannot be played.
- **License plate** searches for a vehicle license plate.
If you want to search by entering a license number, see [Searching for Wisenet Road AI](#).

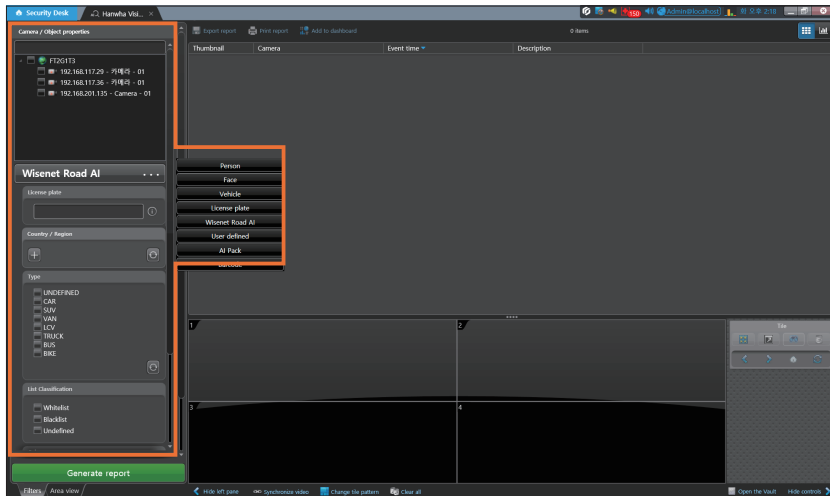
Searching for Wisenet Road AI



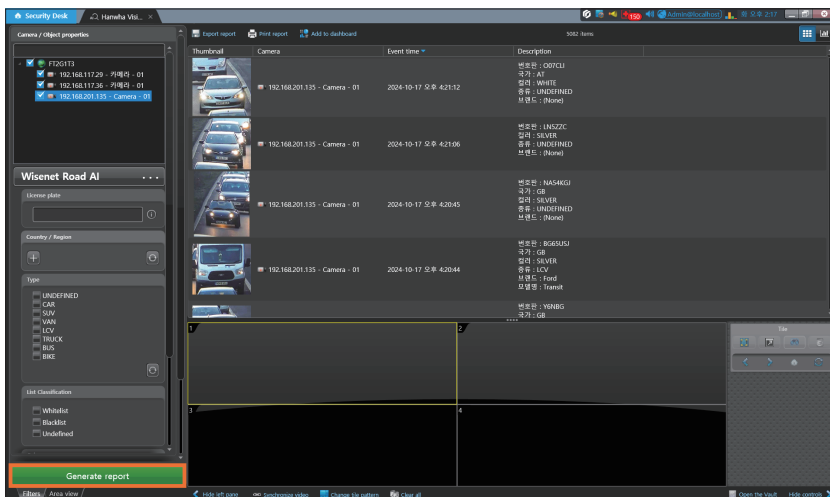
Note

- **Wisenet Road AI** search is only available on cameras with the WisenetRoadAI or ParkWatch application installed.
- The filter items for **Wisenet Road AI** may vary depending on the application version.

1. Select the camera and time range that you want to search for.
Click the **...** button to select **Wisenet Road AI** for the AI object type.



2. After setting the details, click **Generate report**.
Then, search results are displayed. From the list, you can select an event and play its video.



- If a user does not have permission to play recorded videos, the thumbnail images do not appear in the event search results and their event videos cannot be played.
- Click the  button to reset the selections for vehicle **type**, **color**, **manufacturer/model**, or **country/region**.
- You can enter the license plate number of a vehicle that you want to search for in **License plate**. You can also enter multiple conditions for search, separated by commas. (e.g. 3690, ABC1234, 1ABC234)
- For some countries, you can search by selecting specific regions.
- In the search results, the following vehicle information can be found:
 - Vehicle number, country/specific region, vehicle type, brand, manufacturer, vehicle color, license plate color
- You can select **Whitelist** (registered vehicle), **Blacklist**, or **Undefined** on the vehicle classification criteria.
Undefined indicates all vehicles, excluding **Whitelist** and **Blacklist**.

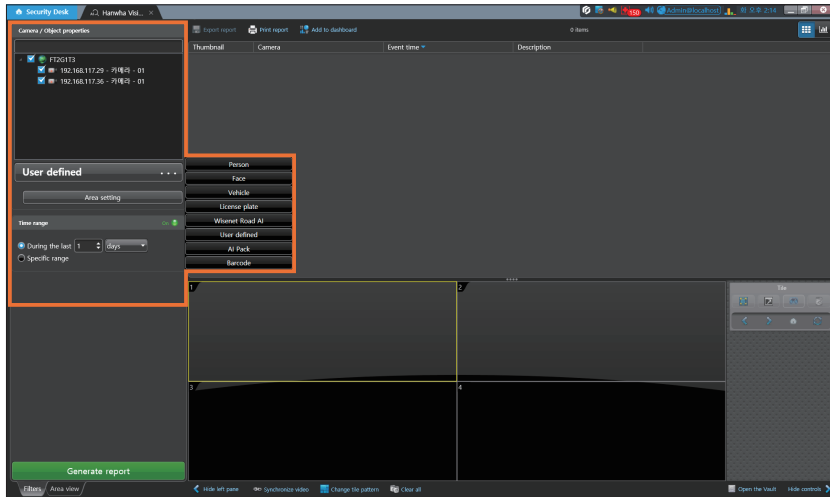
Searching for User defined



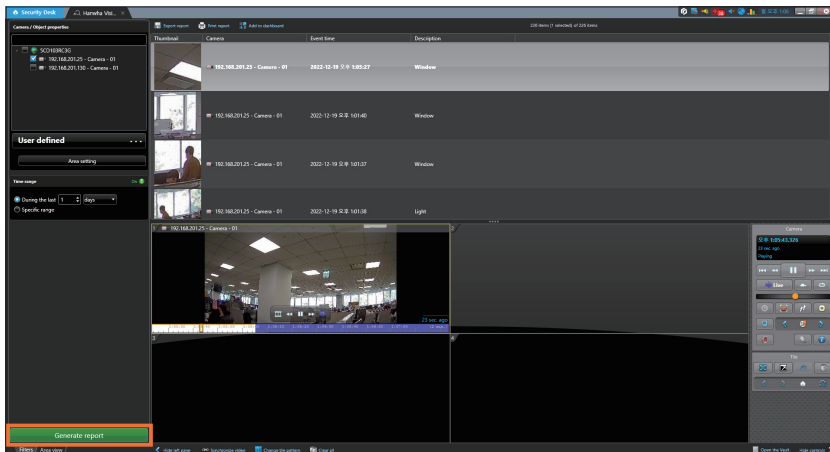
Note

The search for **User defined** is only available on camera models that support the WiseDetector function, such as the P AI series.

1. Select the camera and time range that you want to search for.
Click the **...** button to select **User defined** for the AI object type.



2. After setting the details, click **Generate report**.
Then, search results are displayed. From the list, you can select an event and play its video.



- **User defined** searches the object that is defined through the camera's WiseDetector function. For specific usage methods, refer to How to use WiseDetector on the Device Manager.
- If a user does not have permission to play recorded videos, the thumbnail images do not appear in the event search results and their event videos cannot be played.

Searching for AI Pack

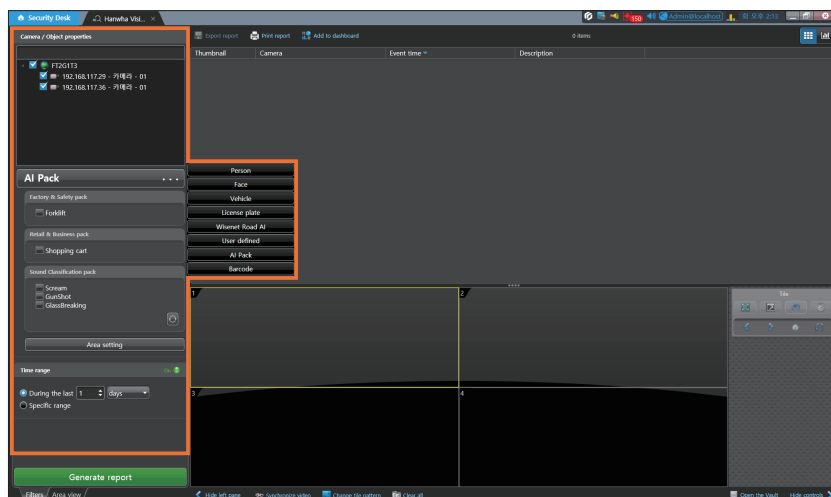


Note

- **AI Pack** search is available only in cameras with the AI Pack license applied. For detailed instructions on the usage, refer to the AI Pack specifications.
- The filter options for **Sound Classification pack** may vary depending on the application version.

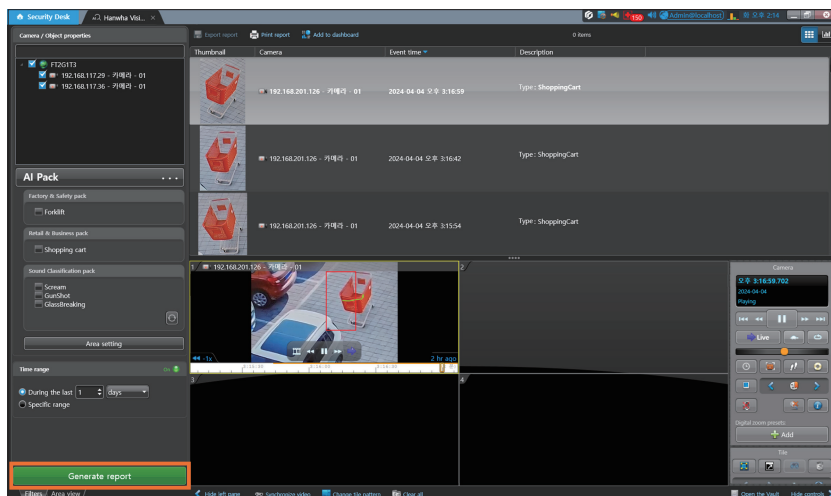
1. Select the camera and time range for a search.

Click the **...** button and then select **AI Pack** for the AI object type.



2. After setting the details, click **Generate report**.

Then, search results are displayed. From the list, you can select an event and play its video.



- If a user does not have permission to play recorded videos, the thumbnail images do not appear in the event search results and their event videos cannot be played.
- Click the button to reset the conditions selected for the **Sound Classification pack**.
- The event search results for the **Sound Classification pack** does not display video thumbnails. To play search results, double-click on a desired result or run the drag-and-drop function on video tiles, then click the button on the right panel.

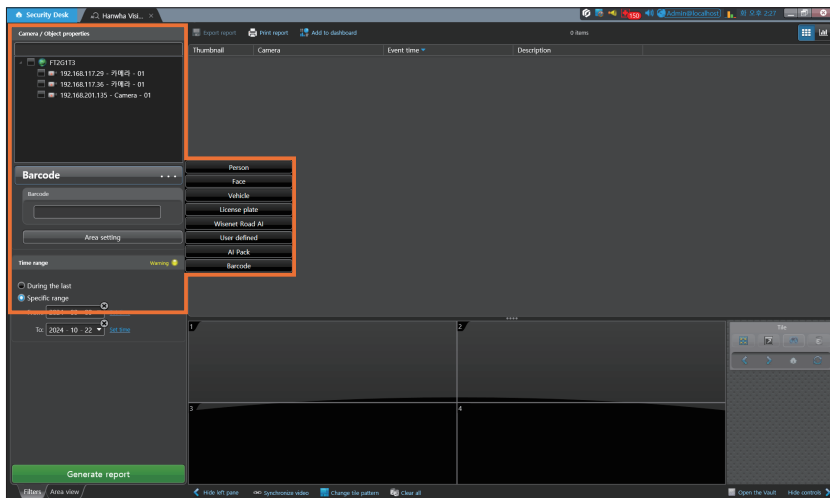
Searching for Barcodes



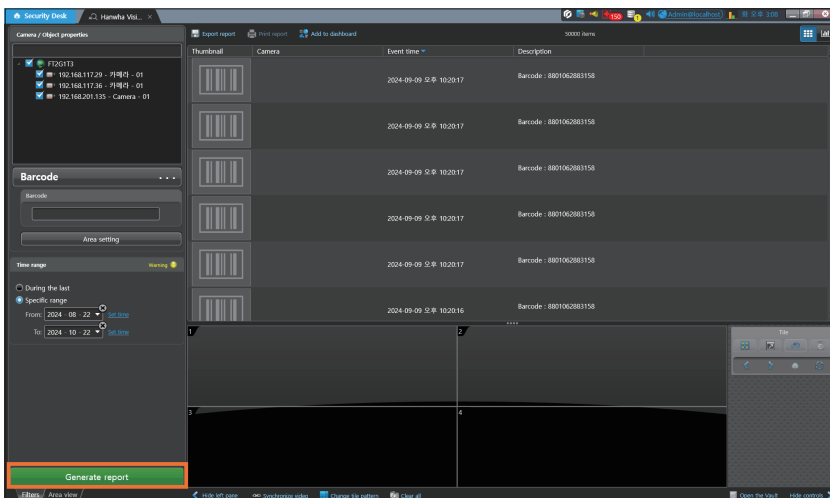
Note

- For BCR cameras that support multiple channels, you must set the resolution of the second profile on Channel 2 to a value different from the profile resolution used by Genetec to ensure the plugin works properly.
- You can change the camera's resolution in the camera web viewer.
- For more information, visit the Hanwha Vision website and refer to the relevant items in **Quick Links** 
> **Support Portal** > **Knowledge Base** > **Hardware** > **Cameras** > **Network Cameras**.

1. Select the camera and time range for a search.
Click the  button to select **Barcode** in the AI object type.



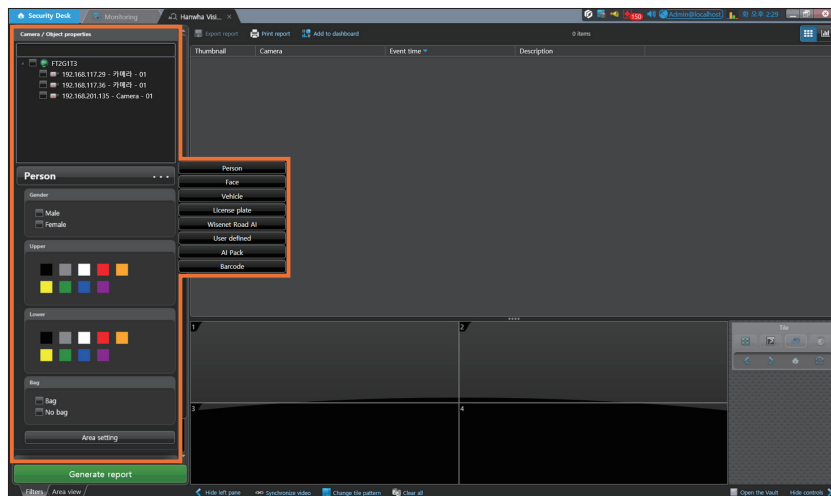
2. After entering the barcode, click **Generate report**.
Then, search results are displayed.



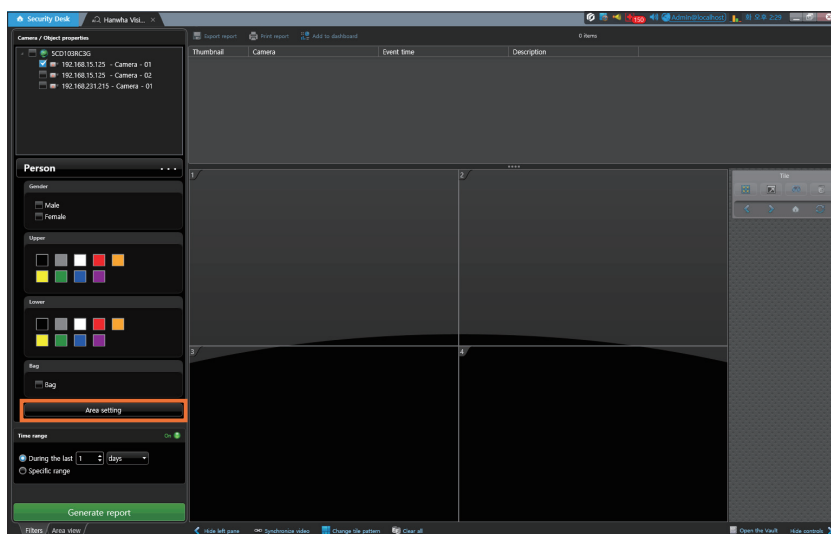
- Even partial input of the barcode will display all search results including the input barcode.
- The thumbnail images do not appear in the barcode event search results.

Setting up Event Area

1. Select the camera and time range that you want to search for.
Click the **...** button to select the AI object type that you want to search for.
 - Any of **person**, **face**, **vehicle**, **license plate**, **user defined**, and **AI pack**, **barcode** can be selected for a search after setting an area.**Wisenet Road AI** does not support area settings.

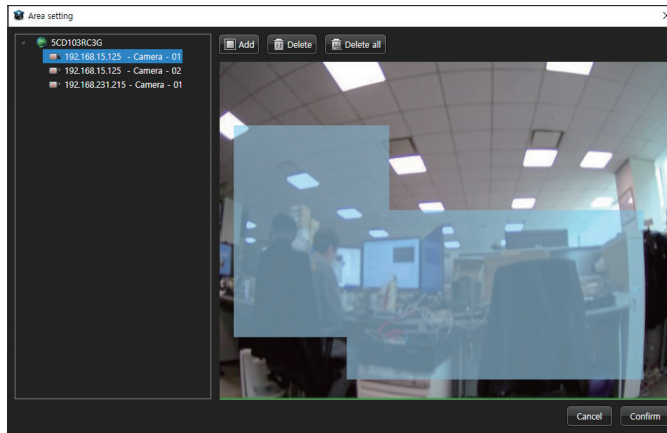


2. After setting the details, click **Area setting**.
Then, **Area setting** window appears.



3. Select the camera for area setting, and set the area you want.

- The camera list displays cameras added for use in the "Config Tool > Tasks > Plugins > Hanwha Vision Plug-in > Properties" menu is displayed.



-  **Add:** You can drag the mouse to set the area you want.
-  **Delete:** You can drag the mouse to delete a previously set area.
-  **Delete all:** You can delete all areas previously set for the selected camera.



Note

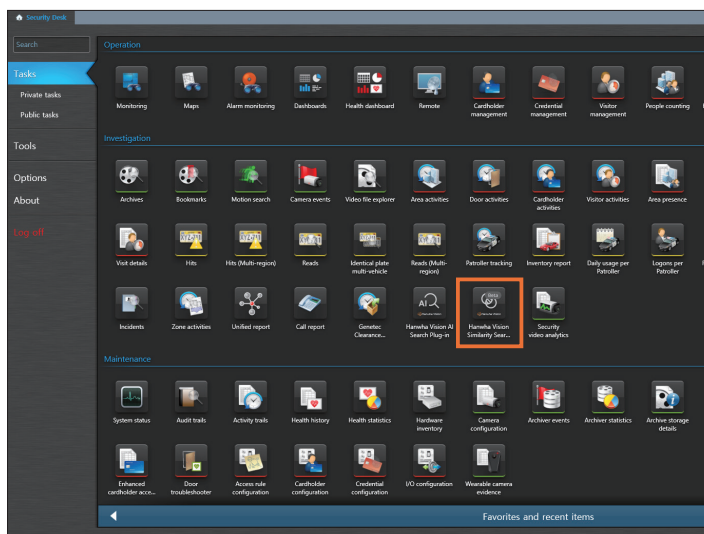
Up to 4 camera areas can be set at the same time.

4. To finish the setup, click **Ok**.

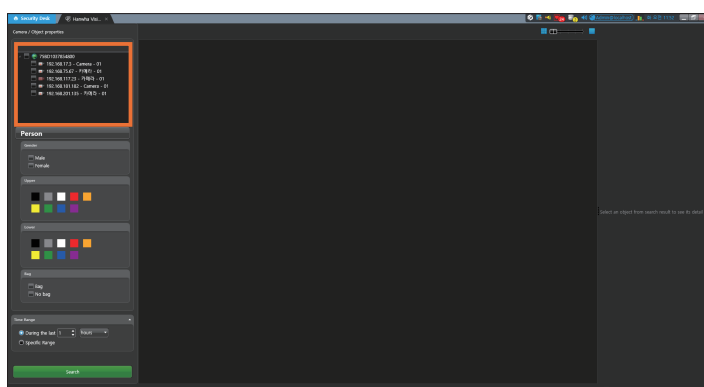
Searching for AI Objects with Similarity Search Beta

You can collect and search for similar objects (person) from stored AI analytics event data.

1. Launch the **Security Desk** program.
2. Select **Tasks > Hanwha Vision Similarity Search Plug-in**.
The **Hanwha Vision Similarity Search Plug-in** tab will then be added.

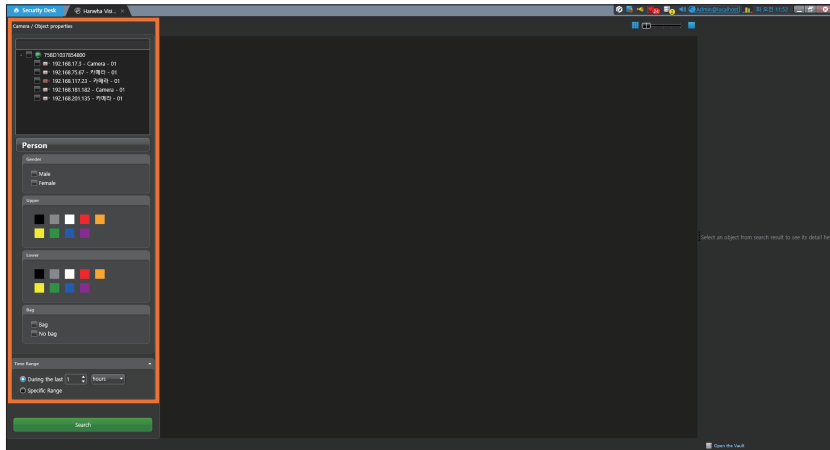


3. The camera list displays cameras for which **Analytics** item is enabled in the "**Config Tool > Tasks > Plugins > Hanwha Vision Plug-in > Properties**" menu.



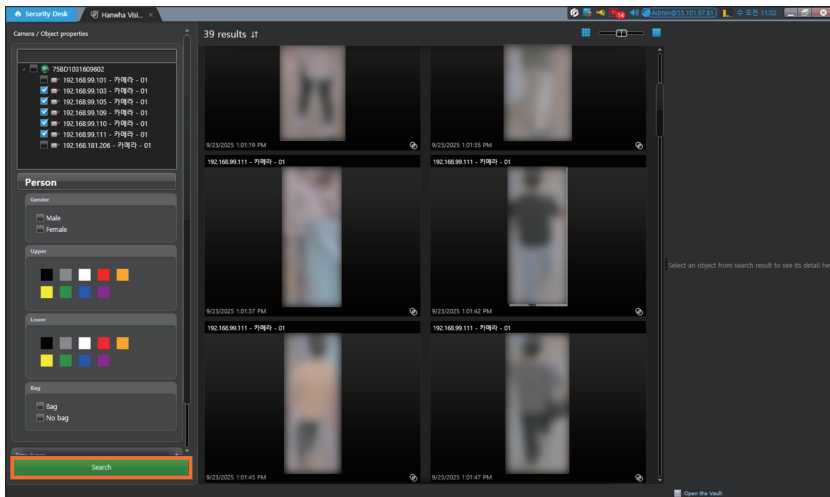
Searching for Person

1. Select the desired cameras, details, and time range.



2. Click Search.

The search results are displayed. Select the event you want to check from the list to view its details and play the video.



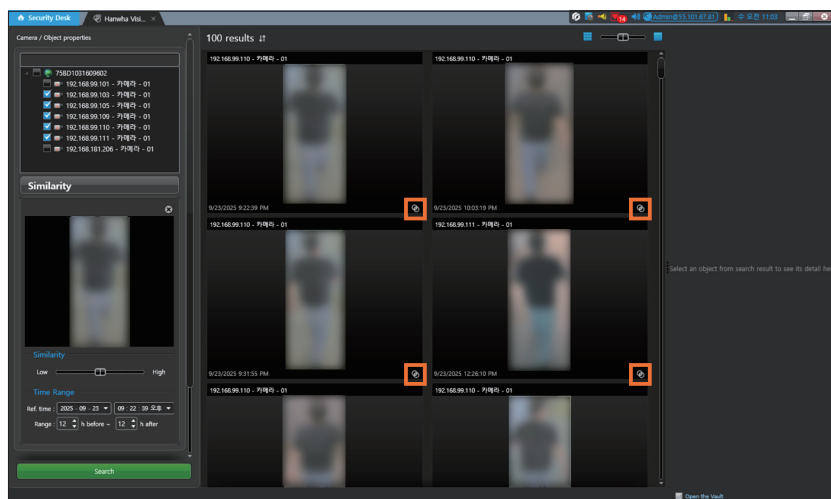
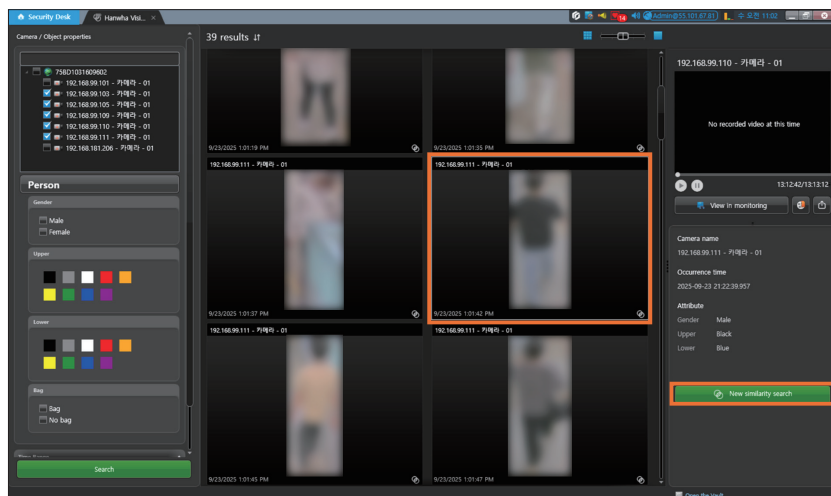
- If a user does not have permission to play recorded videos, thumbnail images will not appear in the event search results, and the event videos cannot be played.
- If you select **Male** only from **Gender**, women and objects with unrecognized gender will be excluded from the search results.
If you select both **Male** and **Female**, objects with unrecognized gender will be excluded from the search results.
- If you select **Male** and **Bag**, only objects recognized as male carrying a bag are included in the search results.
- For **Color**, up to two colors can be selected. The search will return results if either of the selected colors is present.

Using Similarity Search

1. Select an image from the search results, then click **New similarity search**.

The search results are displayed, including the images selected for similarity search.

Depending on the settings, the search results are displayed in chronological order or by similarity.



- Similarity search is only available for images displaying the  icon at the bottom right.

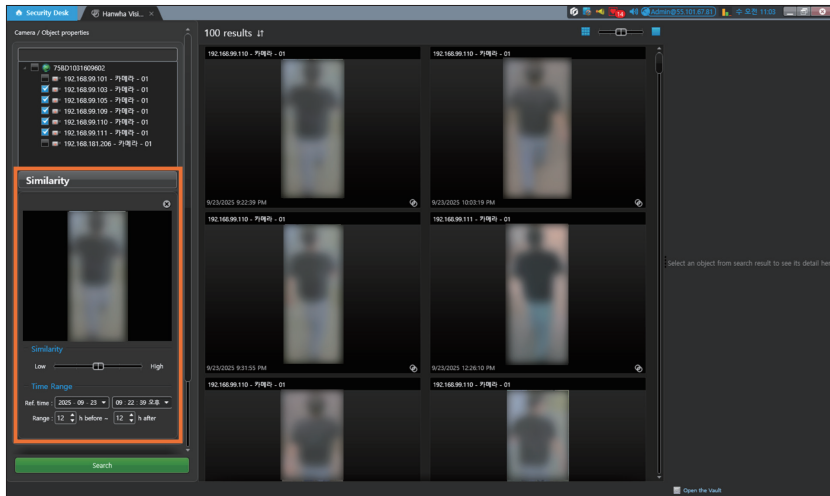
2. Adjust the similarity and time range, then click **Search**.

The updated similarity search results will be displayed.

- **Similarity:** You can set the similarity value for the search results.

- **Time range:** You can set time range for search.

The time range can be set from a minimum of 1 hour to a maximum of 24 hours before or after the reference time.

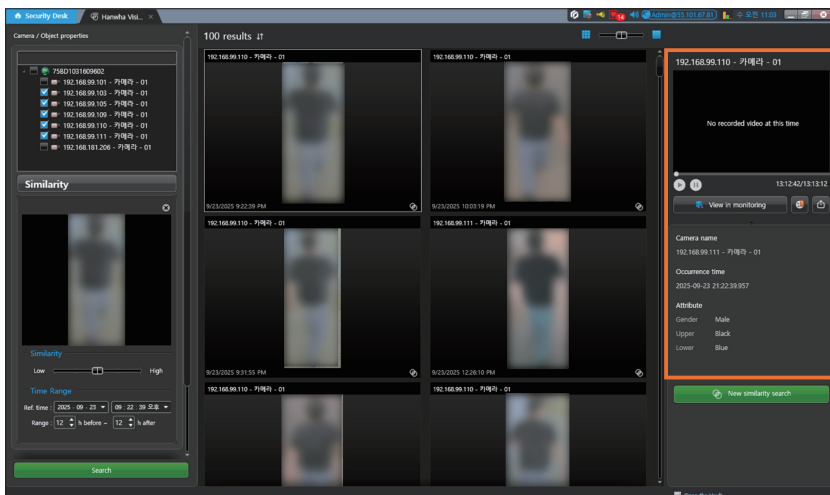


3. Select the event you want to check from the list to view its details and play the video.

- **View in monitoring:** The video will play in the **Monitoring** tab. If necessary, you can use various camera control functions in the right panel.

- 🎬: You can assign a bookmark to the video.

- 📁: You can save the video as a file.



4. Click the  button. This ends similarity search and displays detailed person search options.

