

# Plug-in Suite for Genetec Security Center



User manual

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### 1 Introduction

The plug-in suite for Genetec enables you to use Forensic Search and Bosch IVA configuration in the Genetec Security Center.

Forensic Search is a powerful functionality for video security cameras that allows users to quickly and efficiently find relevant video footage based on various criteria.

With Forensic Search, users can filter video data by motion, color, direction, size, speed, and object type. Forensic Search also supports face detection and license plate recognition for enhanced accuracy and convenience.

Forensic Search is compatible with Bosch IP cameras and video management systems, and can be easily integrated with third-party solutions via plug-ins. Forensic Search is an ideal tool for forensic investigations, evidence collection, and incident management.

The Bosch IVA configuration plug-in brings IVA configuration for Bosch devices to the Genetec Security Center, making it easier to manage your configuration in a centralized location.

### 2 System overview



#### Notice!

Use latest software

Make sure that you install the latest applicable release of your software version.

For consistent functionality, compatibility, performance, and security, regularly update the software.

The Forensic Search plug-in allows the user to leverage the full power of Bosch Video Analytics' forensic search tools for Genetec Security Center™.

The Bosch IVA configuration plug-in enables centralized configuration of your Bosch devices.

### 2.1 Requirements

BOSCH Plug-in Suite	Minimum required version
Forensic Search plug-in	Version 1.0
Bosch IVA configuration plug-in	Version 2.0

GENETEC Security Center	Minimum required version
To install and use the plug-ins	Version 5.10.4
To use internal authentication to execute the IVA configuration without user credentials	Version 5.12.1



#### Notice!

Visit the Genetec TechDoc Hub to consult the latest Genetec Security Center system requirements.

You will need to have a valid user account to access the Genetec TechDoc Hub!

#### 2.2 More information



#### Support

Access our **support services** at www.boschsecurity.com/xc/en/support/.

Bosch Security and Safety Systems offers support in these areas:

- Apps & Tools
- Building Information Modeling
- Warranty
- Troubleshooting
- Repair & Exchange
- Product Security

### **⇔** Bosch Building Technologies Academy

Visit the Bosch Building Technologies Academy website and have access to **training courses**, **video tutorials** and **documents**: <u>www.boschsecurity.com/xc/en/support/training/</u>

### 3 Installation

To install the Plug-in Suite for Genetec Security Center, follow the steps below:

Download the Plug-in Suite for Genetec Security Center from the Bosch Download Area:

<a href="https://downloadstore.boschsecurity.com/index.php?type=IPPG">https://downloadstore.boschsecurity.com/index.php?type=IPPG</a>

Make sure the application is compatible with the version of Genetec Security Center you have installed.

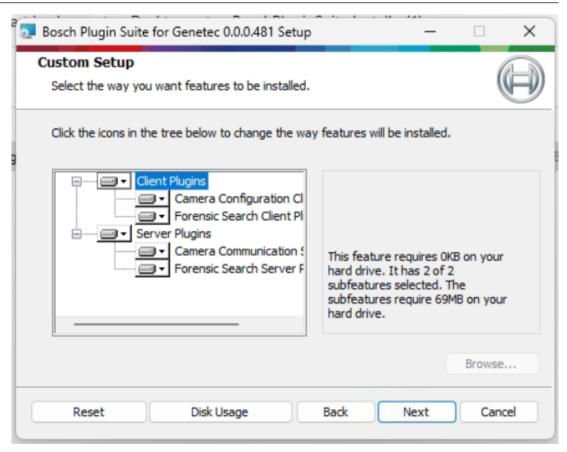
► Execute the Plug-in Suite for Genetec Security Center installer (.msi file). Follow the installation wizard's instructions.



#### Notice!

The Plug-in Suite for Genetec Security Center installer includes both server and client components.

Make sure you select the correct option for your use case.



After the installation is concluded:

- 1. Open the Config Tool and login to your account.
- 2. Click **Plugins** to open the **Plugins** tab.
- 3. Click the **Add an entity** button at the bottom of the window, and choose **Plugin** from the list.

This will open a wizard to create a new plugin role.

- 4. **Specific info:** Select at least one of the available plugins from the **Select plugin type** list, and press **Next**.
- 5. **Basic information**: The information fields are filled in by default. Modify the **Entity** name and **Entity description** fields if required and press **Next**.

- 6. **Summary**: This page summarizes the information for the plugin role that is being created. If all fields are correct, click **Create** to finalize the process or click **Back** to go back to the previous pages in the wizard.
- ⇒ The outcome of the final creation process will be displayed in the final **Entity creation outcome** page.
- ⇒ The installed plugin will now be listed in the **System** and **Plugins** tabs in the Config Tool.



#### Notice!

The system requires the selection of a database resource to enable Forensic Search.

To select the database resource, do the following steps:

- Open the Config Tool
- 2. Login to your account
- 3. Click Plugins
- 4. Click Resources
- 5. Click Database
- 6. Select BoschForensicSearch
- 7. Click Camera Config
- 8. Select the cameras you want to link to the database resource
- 9. Click Apply
- Attribute-based search is now enabled.

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### 4 Operation

### 4.1 Configuring search criteria

Forensic Search allows you to search for specific properties in selected video recordings. After installing the Bosch Forensic Search plug-in, open the Genetec Security Center:

- Go to **Tasks** and double click the Forensic Search icon.
- ⇒ The Forensic Search tab opens in the taskbar.

#### **Bosch Camera Selection**

This section lists the systems and respective devices currently available.

- ▶ Select a device by clicking the corresponding checkbox. Clicking the checkbox on a system level will select all associated devices.
- ⇒ The recordings for the selected devices will be included in forensic search tasks.



#### Notice!

Device management is done via the Genetec Config Tool.

### 4.1.1 Configuring criteria for Forensic Search

#### **Date & Time Settings**

This section allows the user to specify the date and time range for the forensic search.

#### Start/End Date

Click the **Date** field to input the required date directly with the following format: MM/DD/YYYY.

If your input is not valid, the outline of the Date input box turns red.

Alternatively, you can open an interactive calendar by clicking the calendar icon.

- Navigate to the desired date and click the respective day.
   The selected day will be highlighted.
- 2. Confirm the selected date by pressing **Select**.

#### Start/End Time

Click the **Time** field to input the required time directly in a 12-hour format: HH:MM:SS AM/PM.

If your input is not valid, the outline of the **Time** input box will become red.

Alternatively, you can open an interactive clock menu by clicking the clock icon.

- 1. Select AM or PM.
- 2. Use the arrows to increase or decrease the Hours, Minutes and Seconds respectively.
- 3. Confirm the selected time by pressing **Select**.

Click to expand the **Search in a specific time range** field.

Use the A V arrows to increase or decrease the time range for the forensic search. This will increment/decrement the time range by one hour from the set End Time.

**Note**: This will override the Start Time manually set by the user.

Click x to collapse this field.

#### **Configure tasks**

- ▶ Click the **Configure tasks** button to open the Video Content Analysis (VCA) tasks window.
- A task is always created or edited using a wizard. When you use the wizard to create or edit a task, you have access to the device image and the commands, for example to create, edit or delete fields. The configured tasks for a specific device will then serve as alarm triggers for the forensic search process.
- ▶ The device associated with the currently listed VCA tasks is identified in the top left corner of this window.
- ⇒ If the user selected multiple devices in **Bosch Camera Selection**, click v to expand the dropdown list of available devices and select the one you want to configure.



#### Notice!

Refer to the latest <u>Bosch Intelligent Video Analytics (IVA) Pro Configuration Manual</u> for detailed instructions on how to configure VCA tasks.

Click Apply Settings to apply all changes and close the VCA tasks window.
 Alternatively, click x to close the VCA tasks window without applying any changes to the settings.

### 4.1.2 Configuring criteria for attribute-based search

Attribute-based search enables you to specify people, vehicle, or item attributes for Forensic Search.

To select the criteria for the attribute-based search, do the following steps:

- 1. Click What field
- 2. Select a category from among the available options
- 3. Choose the required attributes. Refer to the table below for the attributes available for each category.



#### Notice!

Not all attributes are available for all devices.

People	Vehicles	Items
Gender	Vehicle type	Guns
Hair	Color	
Тор	Brand	
Bottom	Model	
Shoes	Speed	
Accessories	License Plate	

- 4. Click **Next** to start Forensic Search
- Based on the criteria selected, the relevant video footage shows on the screen.

#### 4.2 **Forensic Search report**

Forensic Search reports list all entries (clips) that match the configured forensic search criteria. You select individual clips to consult the respective details or bookmark clips for more detailed analysis in the Monitoring tab.

- To generate a Forensic Search click the **Generate report** button on the bottom left portion of the Forensic.
- The following elements are displayed in the Forensic Search tab:

#### Timeline results bar

Click the individual entries to jump to that specific clip in the Snapshot bar and Details below.

#### **Snapshot bar**

- Click an individual clip to select it and learn more details about that specific alarm event. The currently selected clip is highlighted by a purple header in the respective snapshot and by the title "Current Alert".
- You can scroll through the snapshots with the **left** and **right arrow** buttons.
- Selecting an entry will automatically play the recorded clip. These are approximately 10 seconds long.

#### **Details**

- The details section identifies the camera that triggered the selected alarm event along with the details of that alarm event, such as time and alarm type. This section also includes a video player interface to replay the selected clip.
- Click **Bookmark Clip** to add a bookmark to the selected clip. Bookmarks serve as a reminder for further analysis of bookmarked clips.
- The clip will be available from the **Bookmarks** tab in Genetec Security Center.

The **Bookmark** icon on the top right section of the screen also displays the number of clips currently bookmarked.

Click the **Bookmark** icon to open a dropdown list with all bookmarked clips. Click the bookmarks in this list to quickly navigate and highlight them in the Snapshot bar.



#### Notice!

Forensic search can list a maximum of 1000 results at a time!

A pop-up window will appear when a forensic search exceeds 200 results. The user can then decide either to continue with the current search or to refine the search criteria.

#### Forensic Search results filtering

You can use the Cameras and Rules dropdown lists on the top right section of the screen to filter the Forensic Search results.

Search results display entries for All cameras and All rules by default.

Use the respective dropdown lists to limit the search results to specific cameras (if multiple cameras are configured in the system) and/or specific alarm rules (configured for the camera in the Configure tasks wizard).

#### **Export Forensic Search results**

You can also export your current Forensic Search results.

- Click the **Export** icon on the top right section of the screen.
- You can now save a CSV file in a folder of your choosing.

#### Configuring IVA applications in Config Tool 4.3

You can start video analysis (VCA) as follows:

Access the Bosch IVA configuration plug-in in Genetec's Config Tool.

The following applications are available based on the installed licenses:

- MOTION+
- Tamper detection
- IVA Pro Buildings
- IVA Pro Perimeter
- IVA Pro Traffic
- IVA Pro Visual Gun Detection

#### Notice!



You must move the camera to the required position first in each case. When using AUTODOME and MIC cameras, the individual presets must be specified before configuring the VCA application for each preset. All settings you make, relate to the selected camera position. This means that you must reconfigure the VCA application for this camera whenever you change the direction or position of the camera.

#### To start VCA:

- Start the Genetec Security Center.
- 2. Navigate to the **Video** task.
- 3. In the **camera tree**, select a compatible Bosch device.
- 4. Click on the Bosch IVA configuration plug-in, and authenticate if needed. The VCA start page is displayed and the camera image appears to the right.
- In the Operating mode list, select Profile #1 or Profile #2.

**Note:** To rename the profile, click **1**.



6. Only AUTODOME cameras: In the Pre-position list, select an entry.

The camera positions for individual presets must be defined in advance. These presets may already be named individually.

Only presets that are not yet linked to one of the profiles are available.

7. In the **Scenario** list, select the desired pre-defined scenario, then click **Apply** to activate the selection.

**Note:** A camera calibration is required for all scenarios.

Intrusion (one field)

Use this scenario for intrusion detection for medium distances.

Intrusion (two fields)

Use this scenario for intrusion detection for long distances, for example, along fences.

People counting

Use this scenario for counting people crossing lines.

**Traffic incidents** 

Use this scenario for general traffic incidents, for example wrong way drivers, pedestrians on the road and slow and stopped vehicles.

**Traffic wrong way** 

Use this scenario for vehicles driving the wrong way.

In the **Analysis type** list, select the respective VCA type.

If you change the analysis type, the motion detection and tamper detection parameters revert to the default settings.

As soon as the analysis becomes active, meta data is generated and, depending on the configuration, additional information is overlaid on top of the camera image — an object bounding box for example.

- 9. In the **Tracking Parameters** list, select the desired tracking mode.
- IVA Pro Buildings:
  - Base tracking (2D): Detection and tracking of moving and stationary people and vehicles. No calibration needed.
- IVA Pro Perimeter:
  - Perimeter tracking (2D): Standard tracking of moving regions in the image plane. A calibration is not required. Can be used if the scene consists of multiple floors, a staircase, for example. Objects are separated if possible and shapes are automatically smoothed.
  - Perimeter tracking (3D): Three-dimensional tracking of objects on the ground plane. Objects are separated if possible. Object shapes are automatically smoothed and for upright persons a 3D shape model is fitted. This improves detection and tracking in scenes with one main ground plane. A scene that consists of multiple floors or a staircase, for example, is not suitable for Perimeter tracking (3D) mode.

#### Note:

**Perimeter tracking (3D)** mode only takes effect after calibrating the camera. Calibration is required to detect and track objects on the ground plane and to classify objects by their real size. Do not use Perimeter tracking (3D) mode if the camera height is below 2,50 m (recommended for optimal results: above 3 m).

People tracking (3D): All objects are interpreted as persons and separated accordingly. 3D person shapes are fitted onto the persons. This feature is optimized for detecting and tracking people from above and in closed areas.

#### Note:

**People tracking (3D)** mode only takes effect after calibrating the camera. Calibration is required to detect and track objects on the ground plane and to classify objects by their real size.

If People tracking (3D) mode is selected, the aspect ratio of a person does not change even if the person falls down or stands up. In People tracking (3D) mode the person shape remains in upright position.

- Ship tracking (2D): Tracking that is optimized to detect an object above the water surface similar to watercrafts.
- Museum mode (2D): Tracking that is optimized to detect any motion close to a museum exhibit and then generating an alarm event, for example, if a person is to close to exhibits or is touching a painting. No separation of objects is available.

Note: Use Museum mode (2D) in combination with the intersection trigger Edge of hox

- IVA Pro Traffic:
  - **Traffic tracking (2D)**: Detection and tracking of moving and stationary people, cars, trucks, busses, bicycles and motorbikes. No calibration needed.
  - **Traffic tracking (3D):** Detection and tracking of moving and stationary people, cars, trucks, busses, bicycles and motorbikes. Adds 3D processing for speed, geolocation and metric sizes. Calibration needed.
- IVA Pro Visual Gun Detection:
  - Visual gun tracking (2D): Detection and tracking of people and guns. No calibration needed.

- 10. Configure the VCA type using the following tabs.
  - Tasks
  - Metadata
  - **Metadata Inspection**
  - **Tamper Detection**



#### Notice!

If the VCA configuration of this camera is in use, no other users can configure VCA of this camera at the same time. Only the first user is able to do this. Other users receive a message that configuration is not possible.



#### Notice!

Refer to the latest Bosch Intelligent Video Analytics (IVA) Pro Configuration Manual for detailed instructions on how to configure VCA tasks.

### 5 Troubleshooting

Visit the Bosch Building Technologies Knowledge Base to access FAQs, How to articles and other Bosch support resources.

Click the link below to be directed to the knowledge base resources specific for the Plug-in Suite for Genetec Security Center:

https://community.boschsecurity.com/t5/Security-Video/tkb-p/bt\_community-tkb-video/label-name/genetec?labels=genetec

#### Notice!



This software is not designed, intended, or authorized for use in any type of system or application in which the failure of the software could lead to a risk to health and safety of human lives. The user is responsible to verify that the software and its specified functionalities are suitable for the intended application, in particular with respect to accuracy, latency and availability.

The following links provide more information:

- General information: https://www.boschsecurity.com/xc/en/support/product-security/
- Security advisories, that is a list of identified vulnerabilities and proposed solutions: <u>https://www.boschsecurity.com/xc/en/support/product-security/security-advisories.html</u>

Bosch assumes no liability whatsoever for any damage caused by operating its products with outdated software components.

#### **Appendices** 6

#### 6.1 **Training**

Visit the links below to access Bosch training videos for the Plug-in Suite for Genetec Security Center:

https://www.youtube.com/playlist?list=PLz97rFi-OzLchEsoub5BAIo0B7pKR88KK

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