

# Herta Security BioSurveillance NEXT

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Device Driver Specification.

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## 1 Document Versions

Version	Date	Name	Change
1.0	2015-12-10	AH	Document Created.
1.1	2017-6-04	ML	API update

## 2 Referenced Documents

Document	Version	Description
<b>Driver Project Requirements (DDK-PR)</b>	1.0	The Herta Security BioSurveillance NEXT driver must conform to all the requirements detailed in this document.
<b>Driver Connection and Online States Requirements (DDK-DC)</b>	1.0	The Herta Security BioSurveillance NEXT driver must conform to all requirements in this document detailed in the section: <a href="#">Device Connection and Online States</a>

## 3 Manufacturer

**Name** Herta Security



**Website** <http://www.hertasecurity.com/>

**Description** Herta Security is a world leader in the development of cutting edge facial recognition solutions. Based in Barcelona, Spain, – with offices in Madrid and London -, the company offers fast, accurate, robust, end-customer oriented solutions for video surveillance, access control, and marketing requirements.

## 4 IPSecurityCenter Versions

The driver must be compatible with the following IPSecurityCenter versions:

IPSecurityCenter Version	Supported
DDK 2.4+	<input checked="" type="checkbox"/>

## 5 Operating Systems

### 5.1 Client Side Functionality

Operating Systems	Supported
Windows 7 64 bit	<input checked="" type="checkbox"/>

### 5.2 Server Side Functionality

Operating Systems	Supported
Windows Server 2008 R2	<input checked="" type="checkbox"/>
Windows Server 2012	<input checked="" type="checkbox"/>

## 6 Models / Firmware Versions

Model	Versions	SDK
Herta BioSurveillance NEXT 2	2.3	
Herta BioSurveillance NEXT 2	2.5	

## 7 Driver Package

The driver package is named:

CNL.IPSecurityCenter.Driver.Herta.BioSurveillanceNext2.Version.[BUILD-VERSION].ipsedriver

## 8 Driver Features

### 8.1 BioSurveillance NEXT

#### 8.1.1 Device Connection and Online States

The full requirements for these features can be found in the [Device Connection and Online States Requirements](#)

Feature	
<b>DC1.0 Device Online Status</b>	None
<b>DC2.0 Authentication</b>	None

#### 8.1.2 Video

This device does not support video.

#### 8.1.3 Properties

General requirements for properties can be found in [Driver Project Requirements](#).

## 8.1.4 Methods

General requirements for methods can be found in [Driver Project Requirements](#).

### 8.1.4.1 Enroll Image

Returns EnrollStatus.

#### Performance

The method must complete within 2 seconds.

#### Parameters

Name	Type	Description	Default Value and Ranges
<b>Encoded Image</b>	string	An image in Base64 encoded format. Use the FilePicker GUI plugin to create this.	Default: Min: Max:
<b>Last Name</b>	string	The last or surname of the subject being enrolled.	Default: Min: Max:
<b>Forename</b>	string	The forename of the subject being enrolled.	Default: Min: Max:
<b>Subject Code</b>	string	An identification code for the subject.	Default: Min: Max:
<b>Group</b>	string	The group to enroll the subject in.	Default: Min: Max:
<b>Comments</b>	string	Free text entry for additional information about the subject.	Default: Min: Max:

### 8.1.4.2 Remove Image

Remove an image from the watch list.

Returns bool.

#### Performance

The method must complete within 2 seconds.

## Parameters

Name	Type	Description	Default Value and Ranges
<b>Subject Code</b>	string	The identification code for the subject.	Default: Min: Max:

### 8.1.4.3 *Get Watch List*

Output the entire watch list via the WatchListEntry event

Returns bool.

#### Performance

The method must complete within 2 seconds.

## Parameters

Name	Type	Description	Default Value and Ranges
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### 8.1.4.4 *Get Watch List Entry*

Output a single entry from the watch list via the WatchListEntry event

Returns bool.

#### Performance

The method must complete within 2 seconds.

## Parameters

Name	Type	Description	Default Value and Ranges
<b>Subject Code</b>	string	The identification code for the subject.	Default: Min: Max:

### 8.1.4.5 *GetFrameForAlarm*

Get the whole captured frame for the specified

Returns byte[] (IPSC Image variable).

#### Performance



The method must complete within 2 seconds.

#### Parameters

Name	Type	Description	Default Value and Ranges
Alarm Id	int	Alarm Id	Default: Min: Max:

#### 8.1.4.6 *GetMatchImageForAlarm*

Get the matching area of the frame for the specified alarm

Returns byte[] (IPSC Image variable).

#### Performance

The method must complete within 2 seconds.

#### Parameters

Name	Type	Description	Default Value and Ranges
Alarm Id	int	Alarm Id	Default: Min: Max:

#### 8.1.4.7 *GetSubjectImageForAlarm*

Get the reference image for the specified alarm

Returns byte[] (IPSC Image variable).

#### Performance

The method must complete within 2 seconds.

#### Parameters

Name	Type	Description	Default Value and Ranges
Alarm Id	int	Alarm Id	Default: Min: Max:

#### 8.1.4.8 *GetSubjectImageForSubjectCode*

Get the reference image for the specified subject

Returns byte[] (IPSC Image variable).

#### **Performance**

The method must complete within 2 seconds.

#### **Parameters**

Name	Type	Description	Default Value and Ranges
<b>Subject Code</b>	string	The identification code for the subject.	Default: Min: Max:

### 8.1.5 Events

General requirements for events can be found in [Driver Project Requirements](#).

#### 8.1.5.1 Image Enrolled

Raised when an image has been enrolled in the watch list

##### Performance

The driver must be able to handle 4000 events per hour.

##### Event Properties

Name	Type	Description
Subject Code	string	The identification code for the subject.
Comments	string	Additional information about the subject.

#### 8.1.5.2 Image Removed

Raised when an image has been removed from the watch list

##### Performance

The driver must be able to handle 4000 events per hour.

##### Event Properties

Name	Type	Description
Subject Code	string	The identification code for the subject.

#### 8.1.5.3 Watch List Entry

##### Performance

The driver must be able to handle 4000 events per hour.

##### Event Properties

Name	Type	Description
Last Name	string	The last or surname of the subject.
Forename	string	The forename of the subject.
Subject Code	string	An identification code for the subject.
Group	string	The group that the subject is a member of.
Comments	string	Additional information about the subject.

## 8.2 BioSurveillance Analytics Source

### 8.2.1 Device Connection and Online States

The full requirements for these features can be found in the [Device Connection and Online States Requirements](#)

Feature	
<b>DC1.0 Device Online Status</b>	None
<b>DC2.0 Authentication</b>	None

### 8.2.2 Video

This device does not support video.

### 8.2.3 Properties

General requirements for properties can be found in [Driver Project Requirements](#).

### 8.2.4 Methods

General requirements for methods can be found in [Driver Project Requirements](#).

## 8.2.5 Events

General requirements for events can be found in [Driver Project Requirements](#).

### 8.2.5.1 BioSurveillance Alarm

Raised when a match is detected between a captured image and an image on the watch list.

#### Performance

The driver must be able to handle 4000 events per hour.

#### Event Properties

Name	Type	Description
Alarm Id	int	ID within the BioSurveillance device for this identification event
Score	int	Probability score that this is a correct identification
Subject Id	int	Id of the watch list entry that raised this match
Subject Last Name	string	Last name of the watch list entry
Subject Fore Name	string	First name of the watch list entry
Group	string	Group that the watch list entry is a member of
Subject Code	string	Subject Code

## **9 Installation**

### **9.1 Prerequisites**

There is no SDK to install for this integration.

## 9.2 Driver Installation

- Start the IPSecurityCenter™ client and any supporting services
- Open the Device Driver Manager from the System Configuration
- Click the ***Install*** button
- Select the Herta Security BioSurveillance NEXT Driver Package in the Open file dialog
- Wait for the driver to be uploaded

The driver packages should be listed in the Device Driver Manager.

The **Enroll Image** method on this driver requires an image stored as a Base64 encoded string. This can only be achieved by using the **File Picker** GUI Plugin control for IPSC. This should be installed on IPSC Clients in the Plugins\ folder.

In DDK 2.4 versions of IPSecurityCenter™, there is a limit of approximately 600KB for the image. Exceeding this causes the call to EnrollImage to fail with no return value.

### 9.2.1 Device Configuration

- Right click in a folder (e.g. Devices) in the System Configuration: **New** → **Device On** → **Server**
- Click **Next** on the introduction
- Select **Herta Security** in the **Device Manufacturer** list
- Select **BioSurveillance NEXT** in the Available Devices list
- Click **Next** to enter the device details: Enter the Herta Security BioSurveillance NEXT hostname or IP address, the port (use 0 to use the default port), and user name and password if integrated security is not being used.
- Click **Next** and **Finish** to add the device.
- Enable the device to bring it online.



## 10 Known Limitations

Hertha updated the API from 2.3- 2.5 bioCom with the underlying functionality remaining the same i.e. API functions. The only change in Herta was their ability to process 16 bit images which was causing certain Avigilon cameras not to identify facial recognitions in previous months.

>>

- >> When testing the driver integrations on the methods exposed on BioServeillance server object in IPSC and when a identification alarm gets raised in Alarm stack from running 'GetMatchImage', a process guidance gets populated from Ayham commissioning that populates with camera name, date time of alarm but with no image. The fix for this was to update the local c:programFiles(x86) directory for herta with the new encoder dll.