



Operation Manual for AI XVR

DAHUA – HDCVI Product Line

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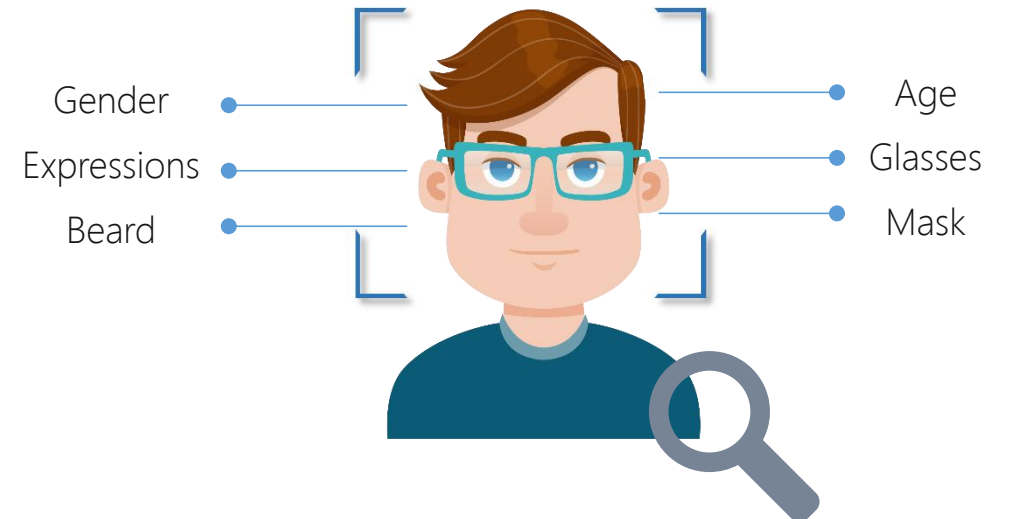
- FACE Detection
- FACE Recognition
- Perimeter Protection



Face Detection

Face Detection Configuration Steps

- Configuring Face Detection parameters
- Display Face Detection result in preview interface
- Searching for and playing detected faces



Configuring Face Detection Parameters

Face Detection

The screenshot shows a configuration window for 'AI' with a sidebar on the left containing 'SMART SEA...', 'PARAMETERS', 'FACE DETECTION', 'FACE RECOGNI...', 'IVS', and 'DATABASE'. The 'FACE DETECTION' section is active. The main area contains the following settings:

- Channel: 1
- Enable:
- Rule: Setting
- Period: Setting
- Alarm Out: Setting
- Latch: 10 Sec.
- Show Message:
- Alarm Upload:
- Send Email:
- Record Channel: [1] [2] [3] [4] [5] [6] [7] [8] [9] [10] [11] [12] [13] [14] [15] [16]
- PTZ: Setting
- Post Record: 10 Sec.
- Tour: [1] [2] [3] [4] [5] [6] [7] [8] [9] [10] [11] [12] [13] [14] [15] [16]
- Snapshot: [1] [2] [3] [4] [5] [6] [7] [8] [9] [10] [11] [12] [13] [14] [15] [16]
- Video Matrix:
- Buzzer:
- Log:
- Voice Prompts: None

At the bottom, there are buttons for 'Default', 'Apply', and 'Back'. A teal text overlay at the bottom of the window reads: 'Enable Face Detection function and configure alarm linkage in this page'.

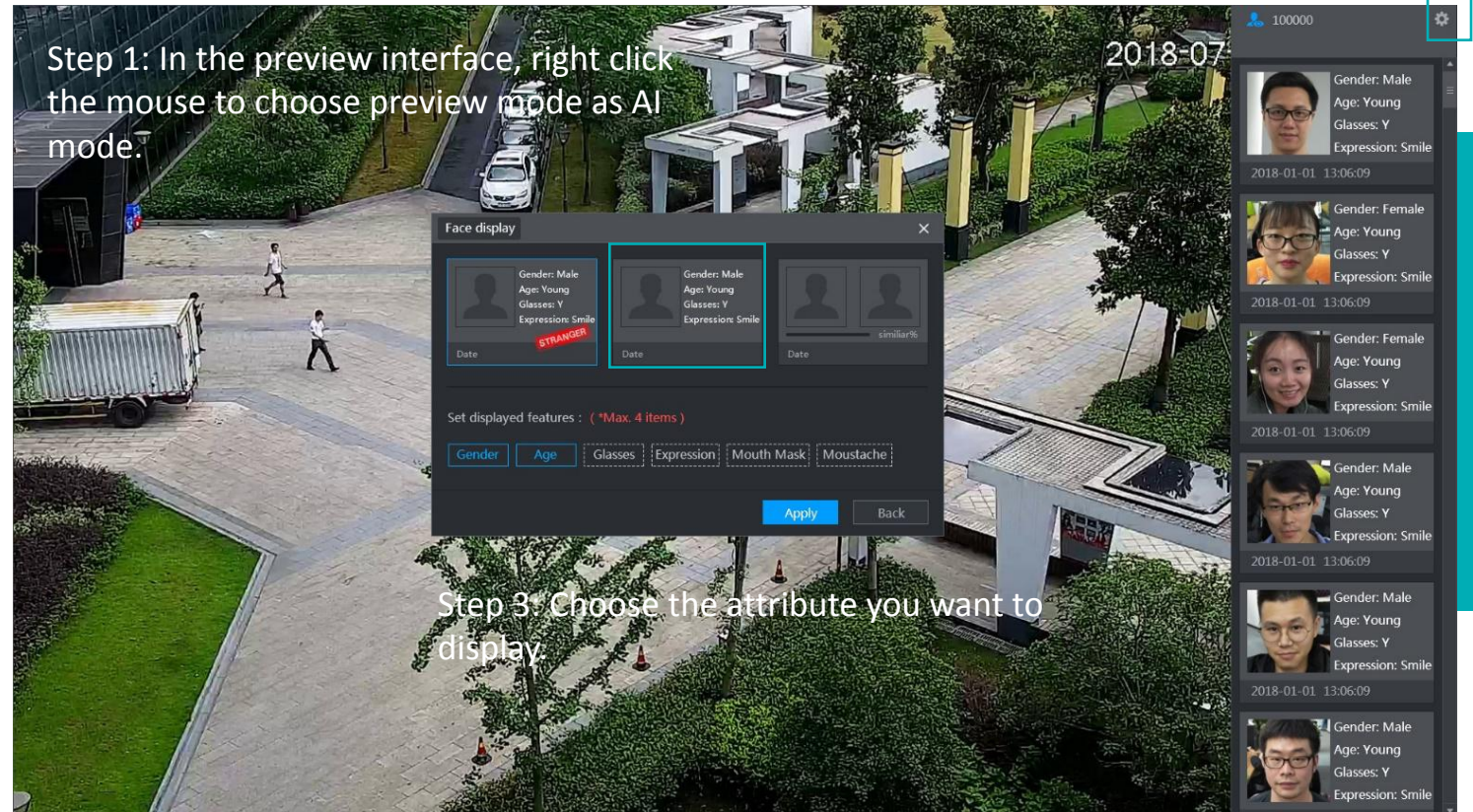
- Face detection function supports 4 analog channels.
- Face detection and IVS function cannot be enabled at the same time for the same channel.

Display Face Detection result in preview interface

Face Detection

Step 2: Click the setting icon to choose face display mode.

Step 1: In the preview interface, right click the mouse to choose preview mode as AI mode.



The screenshot shows a software interface for face detection. On the left, a camera feed displays an outdoor scene with a paved area, greenery, and a white van. A 'Face display' dialog box is open in the center, allowing users to select which attributes to display for detected faces. The dialog includes three preview cards, each showing a face with attributes: Gender: Male, Age: Young, Glasses: Y, and Expression: Smile. The first card has a red 'STRANGER' label. Below the cards, a section titled 'Set displayed features : (*Max. 4 items)' contains buttons for 'Gender', 'Age', 'Glasses', 'Expression', 'Mouth Mask', and 'Moustache'. The 'Age' button is highlighted. At the bottom of the dialog are 'Apply' and 'Back' buttons. On the right side of the interface, a vertical list of detected faces is shown, each with a small portrait and the same set of attributes. A settings gear icon is visible in the top right corner of the interface.

Step 3: Choose the attribute you want to display.

Searching for and Playing Detected Faces

Face Detection

The screenshot shows the AI interface with search parameters on the left and a grid of detected faces on the right. The search parameters include Channel (1), Start Time (2018-10-22 00:00:00), End Time (2018-10-22 23:59:59), Gender (All), Age (All), Glasses (All), Beard (All), and Mask (All). The grid displays 20 detected faces with their respective attributes (Age, Gender, Face, Glasses) and timestamps. A red box highlights the 'Face Detect' toolbar at the top of the grid, which includes buttons for 'All', 'Export', 'Backup', 'Lock', and 'Add Mark'.

Step1: Input the search requirements

Step2: Select the face to play back

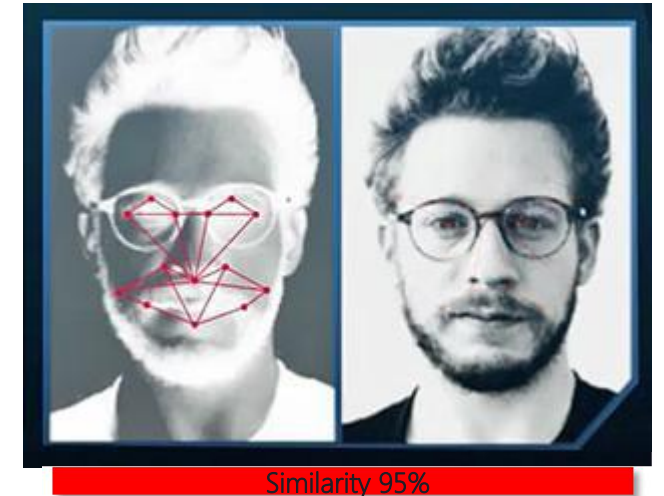
A close-up of the 'Face Detect' toolbar, showing the following buttons: All, Export, Backup, Lock, and Add Mark.

- Export format: csv
- Backup format: DAV/MP4
- To Lock the files to make it unable to be overwritten
- To add a mark to the file

Face Recogniton

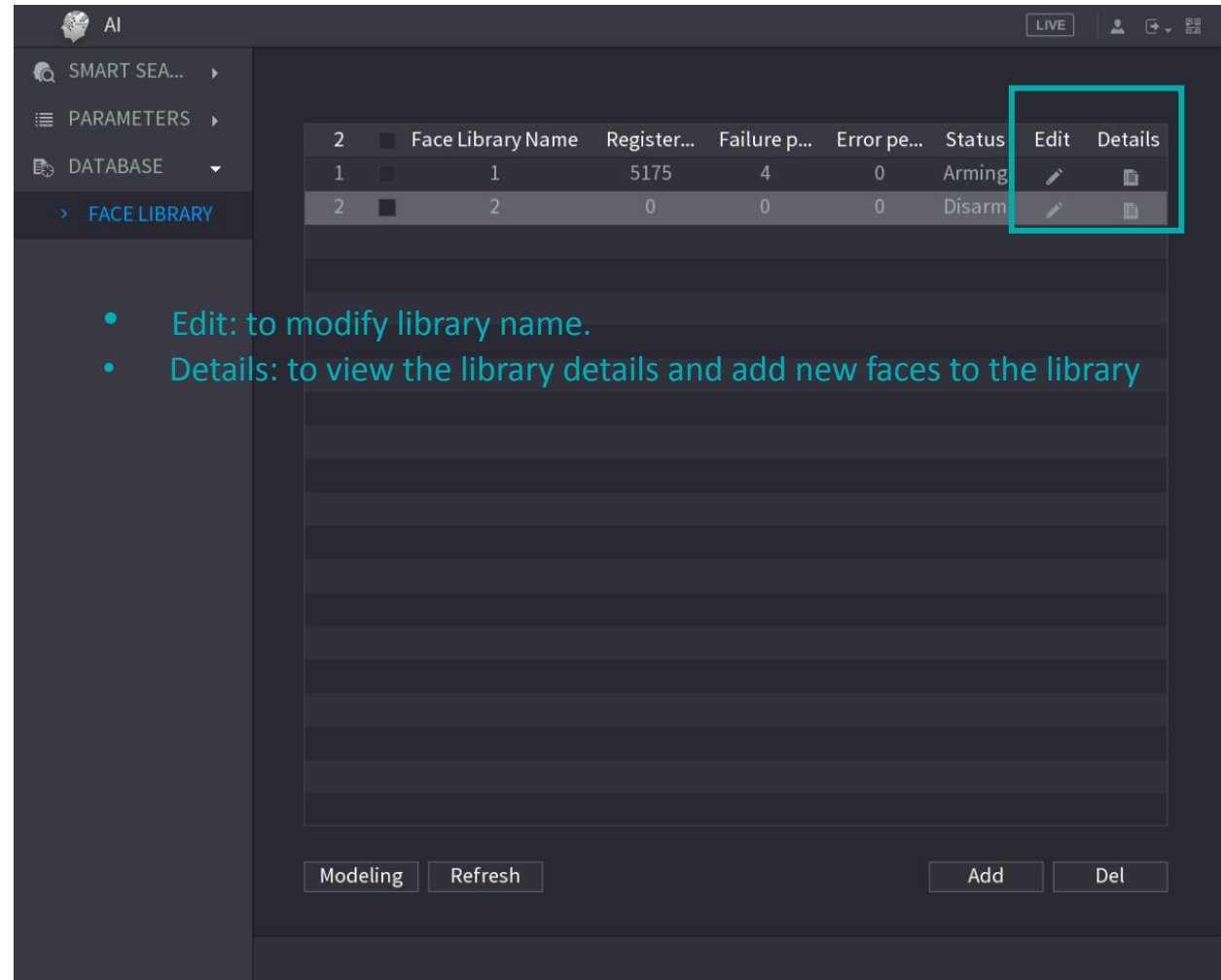
Face Recognition Configuration Steps

1. Enabling Face Detection
2. Managing the Face Library
 - 3 ways to add face image
 - Searching the face in library
 - Deleting face or deleting liabrary
3. Enabling Face Recognition
4. Real-time Display of Face Recognition
5. Smart Search for Face Recognition



Adding Face Image to Face Library

Face Recogniton



The screenshot displays a software interface for managing face libraries. The interface includes a sidebar with navigation options: SMART SEA..., PARAMETERS, DATABASE, and FACE LIBRARY. The main area shows a table with the following data:

	Face Library Name	Register...	Failure p...	Error pe...	Status	Edit	Details
1	1	5175	4	0	Arming		
2	2	0	0	0	Disarm		

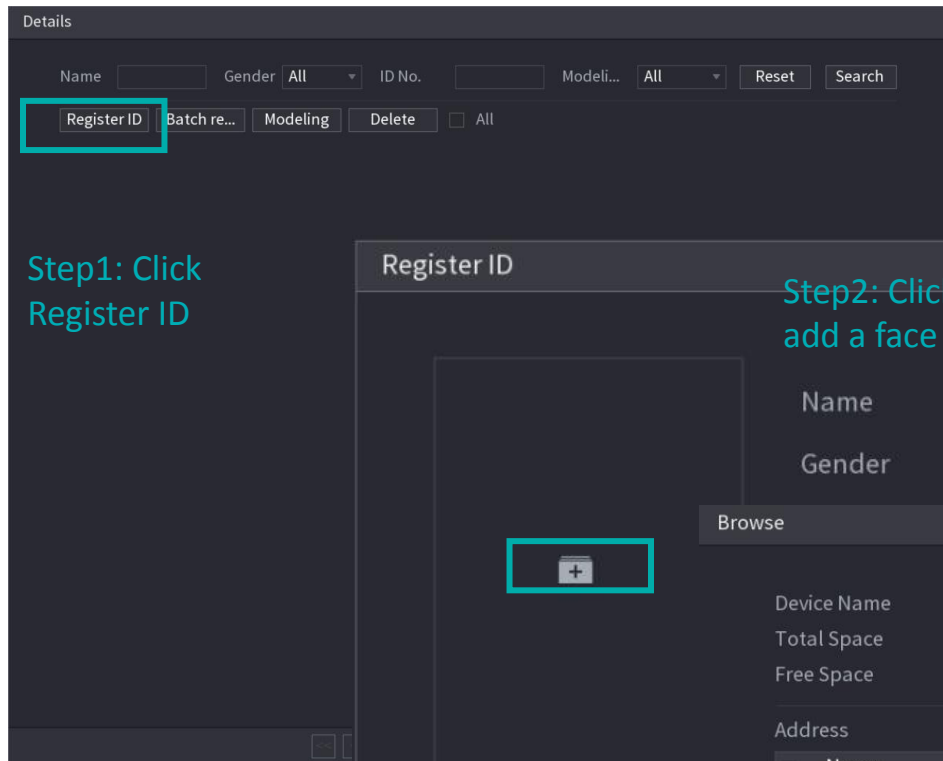
Below the table, there are buttons for Modeling, Refresh, Add, and Del. The 'Edit' and 'Details' columns in the table are highlighted with a red box.

- Edit: to modify library name.
- Details: to view the library details and add new faces to the library

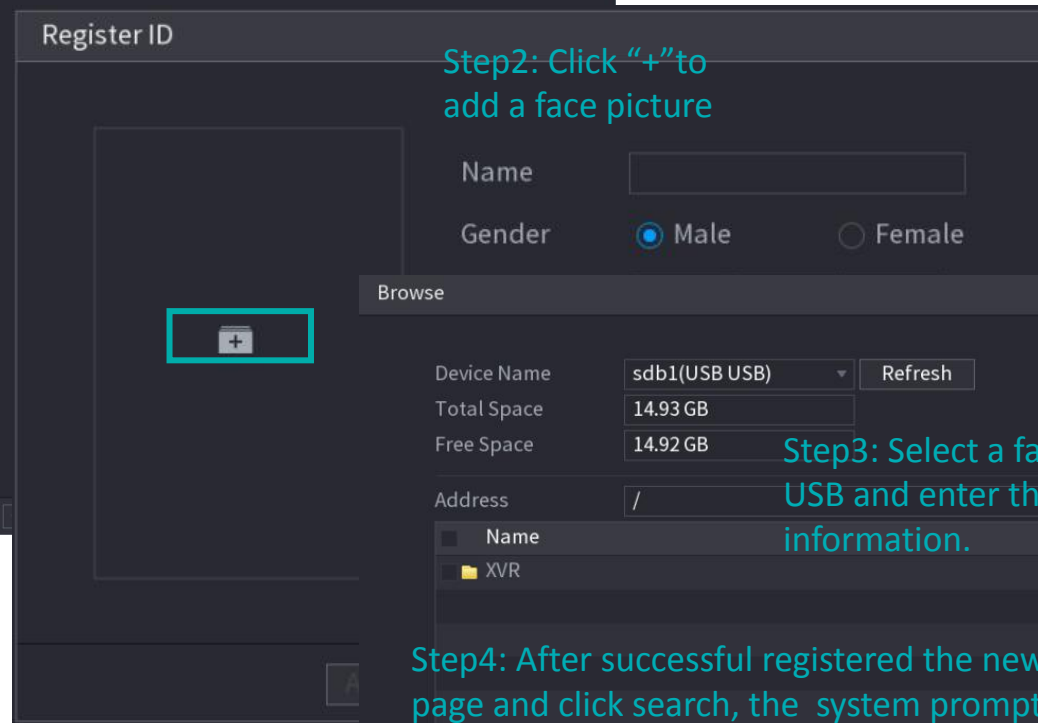
- Max 20 face databases with up to 100,000 face images in total

Adding Face Image to Face Library---Adding One Face Picture

Face Recogniton



Step1: Click Register ID



Step3: Select a face picture from USB and enter the registration information.

Step4: After successful registered the new ID, back to Details page and click search, the system prompts modeling is successful. If the system prompts the message indicating modeling is in process, wait a while and then click Search again. If modeling is failed, the registered face picture cannot be used for face recognition.

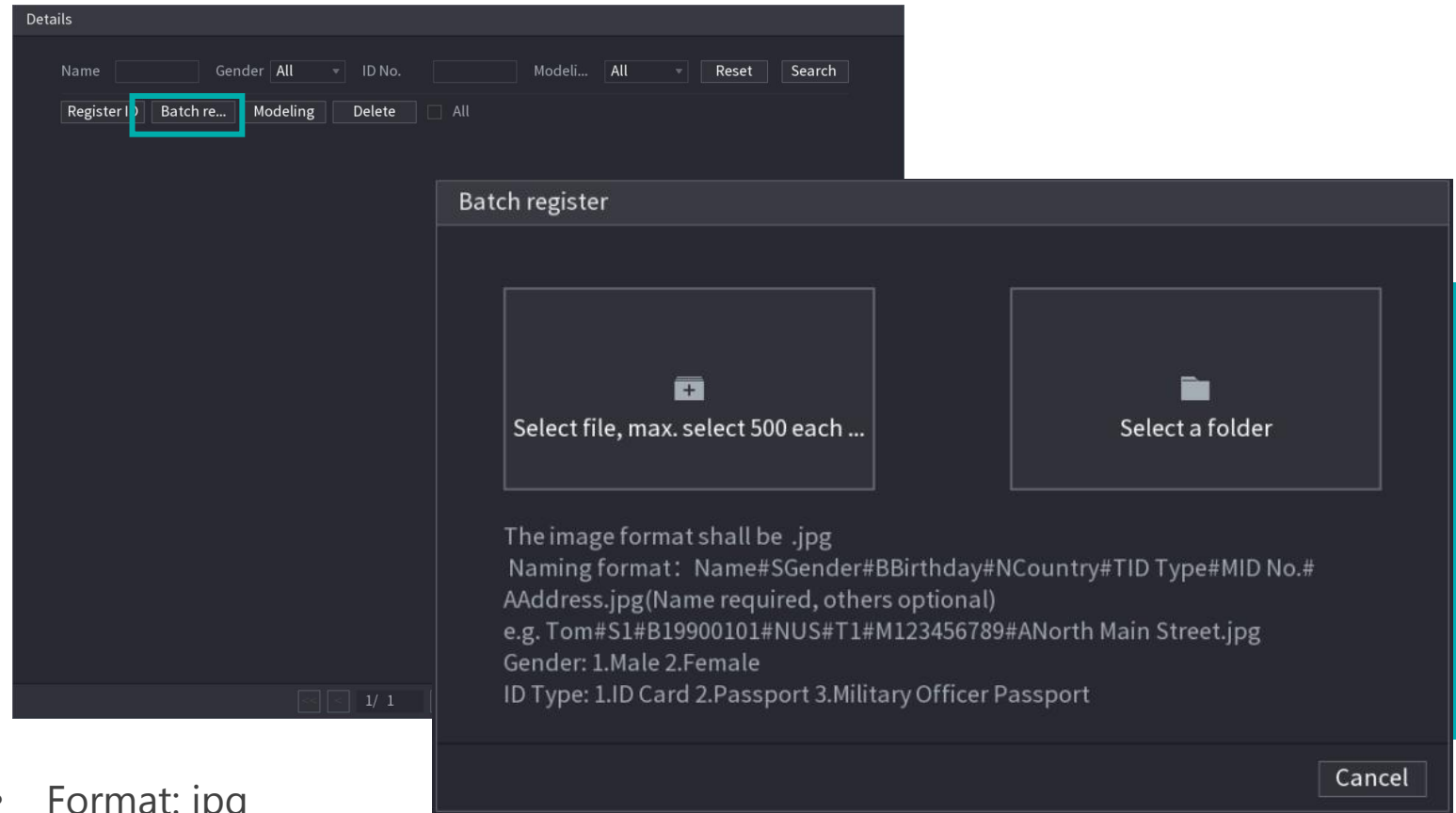
- Format: jpg
- Size: ≤256K
- Resolution: 200×200~6000×5000

OK

Back

Adding Face Image to Face Library --- Adding Face Pictures in Batch

Face Recogniton

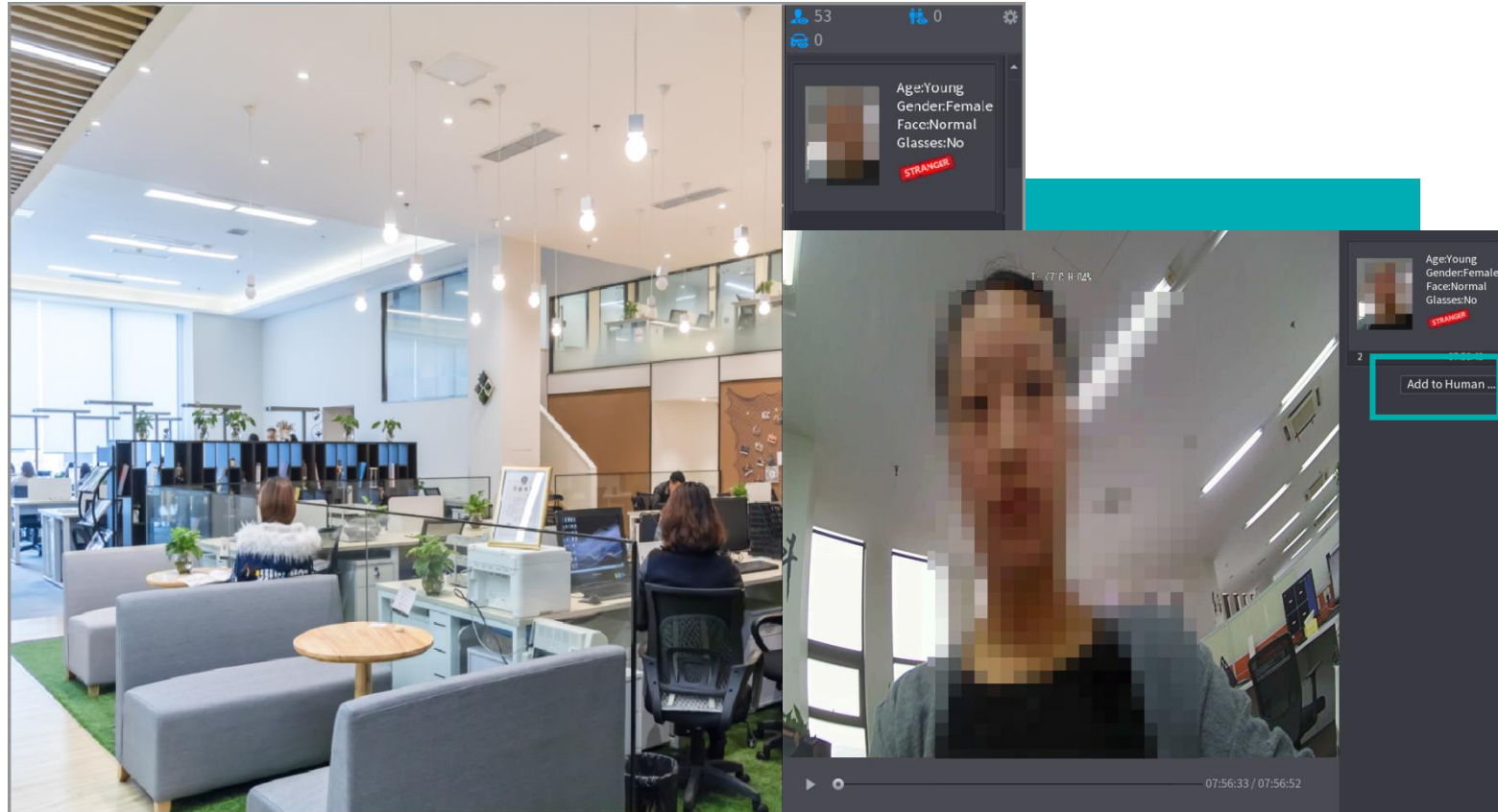


- Format: jpg
- Size: ≤256K
- Resolution: 200×200~6000×5000
- Name is required, other info is optional

Naming format	Description
Name	Enter the name.
Gender	Enter 1 or 2. 1 represents male, and 2 represents female.
Birthday	Enter numbers in the format of yyyy-mm-dd.
Country	Enter the abbreviation of country. For example, CN for China.
ID Type	1 represents ID card; 2 represents passport; 3 represents military officer password.
ID No.	Enter the ID number.
Address	Enter the address.

Adding Face Image to Face Library---Adding the Detected Faces

Face Recogniton



Step1: In the AI preview mode, double click the snapshot

Step2: Click Add to Human Face Database

Searching Face in Library

Face Recogniton

The screenshot shows a 'Details' window with a search interface. At the top, there are input fields for 'Name', 'Gender' (set to 'All'), 'ID No.', and 'Modeli...' (set to 'All'). To the right of these fields are 'Reset' and 'Search' buttons. Below the search fields are buttons for 'Register ID', 'Batch re...', 'Modeling', and 'Delete', along with an 'All' checkbox. The main area displays two face recognition results. The first result shows a blurred face with the text 'Name : nic', 'Gender: Male', and 'ID No.:', followed by 'Modeling Successful'. The second result shows a blurred face with the text 'Name : margie', 'Gender: Female', and 'ID No.: 111111111111...', followed by 'Modeling Successful'. At the bottom of the window, there are navigation controls including '<<', '<', '1/ 1', '>', '>>', and 'Go To'.

Step1: Input Name/Gender/
No. /Modeling state

Step2(optional): Click reset to
clear the research requirements

Step3: Click Search

Deleting Face and Deleting Library

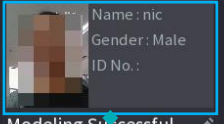
Face Recogniton


Details

Deleting Face Image

Name Gender **All** ID No. Modeli... **All**

All

 Name : nic
Gender : Male
ID No. :
Modeling Successful

 Name : margie
Gender : Female
ID No. :
11111111111111...
Modeling Successful

Step 1: Choose the face you want to delete

Step 2: Click Delete

AI

Deleting Face Library

SMART SEA...
PARAMETERS
DATABASE

> FACE LIBRARY

	Face Library Name	Register...	Failure p...	Error pe...	Status	Edit	Details
1	1	5175	4	0	Arming		
2	2	0	0	0	Disarm		

Step 1: Click here to choose the face library you want to delete

Step 2: Click Del

Face Recognition Configuration

Face Recognition

Channel: 2

Enable:

Period: Setting

Target Face Data...: Setting

Stranger Mode:

	Face Library Name	Similarity	Edit	Trigger	Delete
2		80			
1		80			

Default

Step1: Enable Face Recognition function

Select one or multiple face libraries

(Optional) Enable the Stranger Mode

To modify the similarity

Step2: Choose preview mode as AI mode. Besides, the stranger and comparison display mode should be enabled.

Note: Face Recognition comes into effect only when Face Detection also enabled.

Face display

Gender: Male, Age: Young, Glasses: Y, Expression: Smile

Gender: Male, Age: Young, Glasses: Y, Expression: Smile

Gender: Male, Age: Young, Glasses: Y, Expression: Smile

Set displayed features: (Max - 4 items)

Gender, Age, Glasses, Expression, Mouth Mask, Moustache

Apply, Back

Age: Young, Gender: Female, Face: Laugh, Glasses: Yes, STRANGER

2, 12:39:20

2, nic

99%

2, 12:38:34

Age: Young, Gender: Female, Face: Normal, Glasses: No, STRANGER

2, 12:38:28

Age: Young, Gender: Female, Face: Normal, Glasses: No, STRANGER

2, 07:56:43

Age: Young, Gender: Female, Face: Disgusting, Glasses: No, STRANGER

Smart Search for Face Recognition ---Searching by Attributes

Face Recogniton

The screenshot shows a software interface for face recognition. On the left, a sidebar contains menu items: 'FACE DETECTION', 'FACE RECOGNITION', 'IVS', 'PARAMETERS', and 'DATABASE'. The main area is titled 'Search by Attributes' and contains several dropdown menus for 'Channel', 'Start Time', 'End Time', 'Gender', 'Age', 'Glasses', 'Beard', and 'Mask', along with a 'Similarity' input field set to '80'. A 'Smart Search' button is located at the bottom of this section. On the right, a 'Face Recognition' window displays a video frame with a face and a similarity score of '99%' shown in a red bar. Below this, a legend explains the color coding for similarity: 'Red: ≥90%', 'Orange: 85-90%', and 'Blue: ≤85'. To the right of the video frame, there are 'Face Properties' and 'Person Details' sections. At the bottom of the interface, a status bar shows 'Search Results:1' and navigation controls.

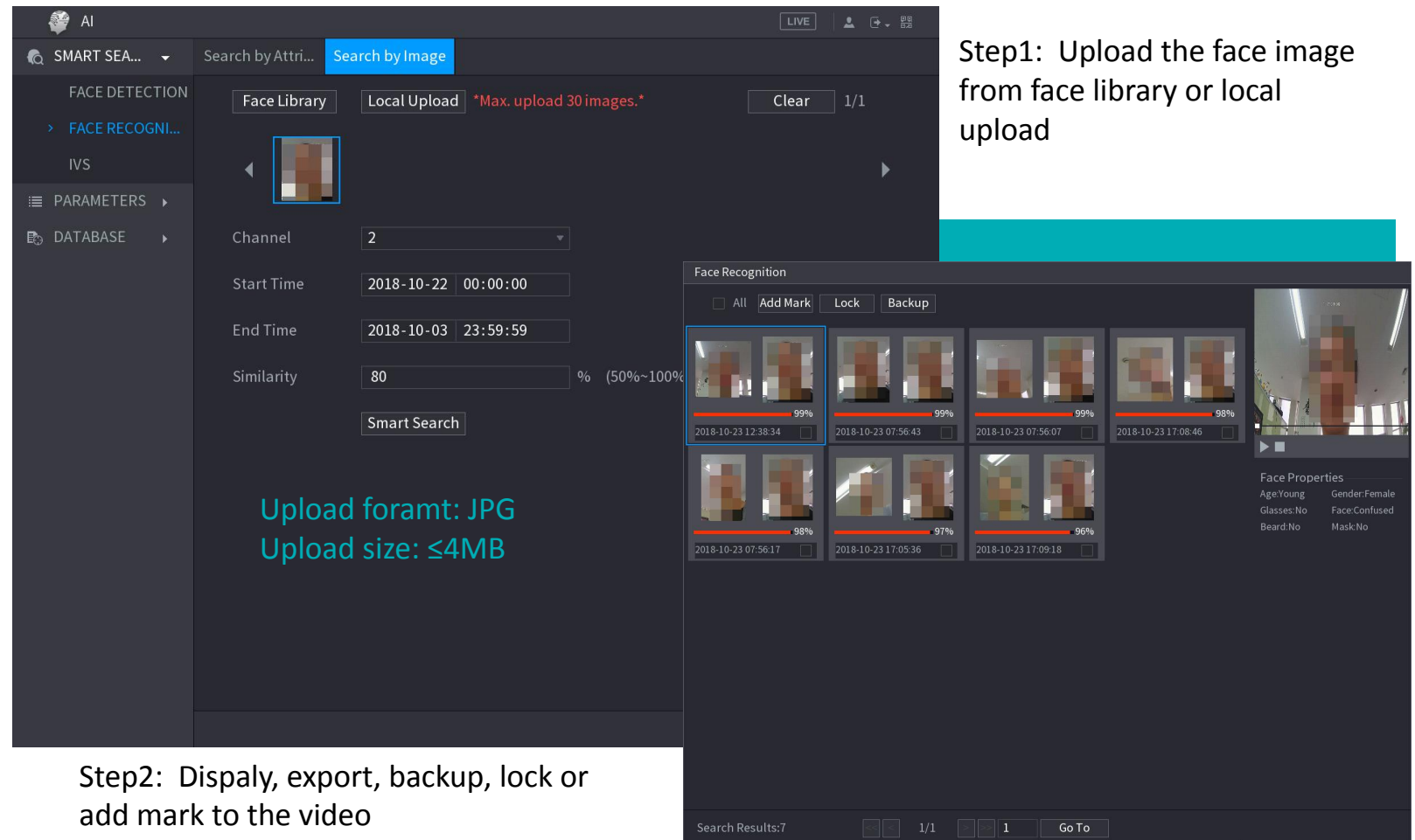
Step1: Input searching attributes and click search

Step2: Display, export, backup, lock or add mark to the video

Color of the represented similarity:
Red: $\geq 90\%$
Orange: 85-90%
Blue: ≤ 85

Smart Search for Face Recognition ---Searching by Image

Face Recogniton



The screenshot displays a software interface for face recognition. The top navigation bar includes 'AI', 'LIVE', and user icons. The main search area is titled 'SMART SEA...' and 'Search by Attri...' with 'Search by Image' selected. Below this, there are options for 'Face Library' and 'Local Upload' (with a note '*Max. upload 30 images.*') and a 'Clear' button. A small thumbnail of a face is shown in the center. The search parameters are set to: Channel: 2, Start Time: 2018-10-22 00:00:00, End Time: 2018-10-03 23:59:59, and Similarity: 80% (50%~100%). A 'Smart Search' button is visible. A red text overlay indicates 'Upload format: JPG' and 'Upload size: ≤4MB'. The search results are displayed in a grid of 7 thumbnails, each with a similarity percentage (99%, 99%, 99%, 98%, 98%, 97%, 96%) and a timestamp. A 'Face Recognition' panel on the right shows 'All', 'Add Mark', 'Lock', and 'Backup' options. Below the thumbnails, 'Face Properties' are listed: Age: Young, Gender: Female, Glasses: No, Face: Confused, Beard: No, Mask: No. The bottom status bar shows 'Search Results: 7', '1/1', and 'Go To'.

Step1: Upload the face image from face library or local upload

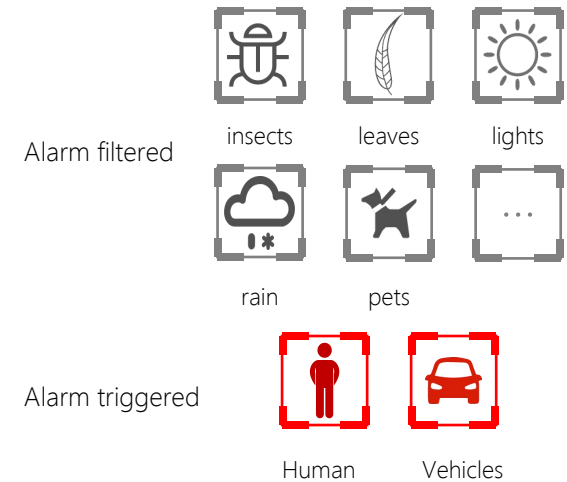
Step2: Display, export, backup, lock or add mark to the video

- Maximum 30 pictures can be uploaded at one time, and the system support searching 8 pictures at one time.

Perimeter Protection (IVS) Configuration Steps

Perimeter Protection (IVS)

- Configuring Perimeter Protection parameters
- Display Perimeter Protection result in preview interface
- Smart Search for IVS video



Configuring Perimeter (IVS) Parameters

Perimeter Protection (IVS)

Channel: 2

1	Enable	Name	Type	Draw	Trigger	Delete	P
1	<input type="checkbox"/>	Rule1	Tripwire				

Tripwire

Name: Rule1

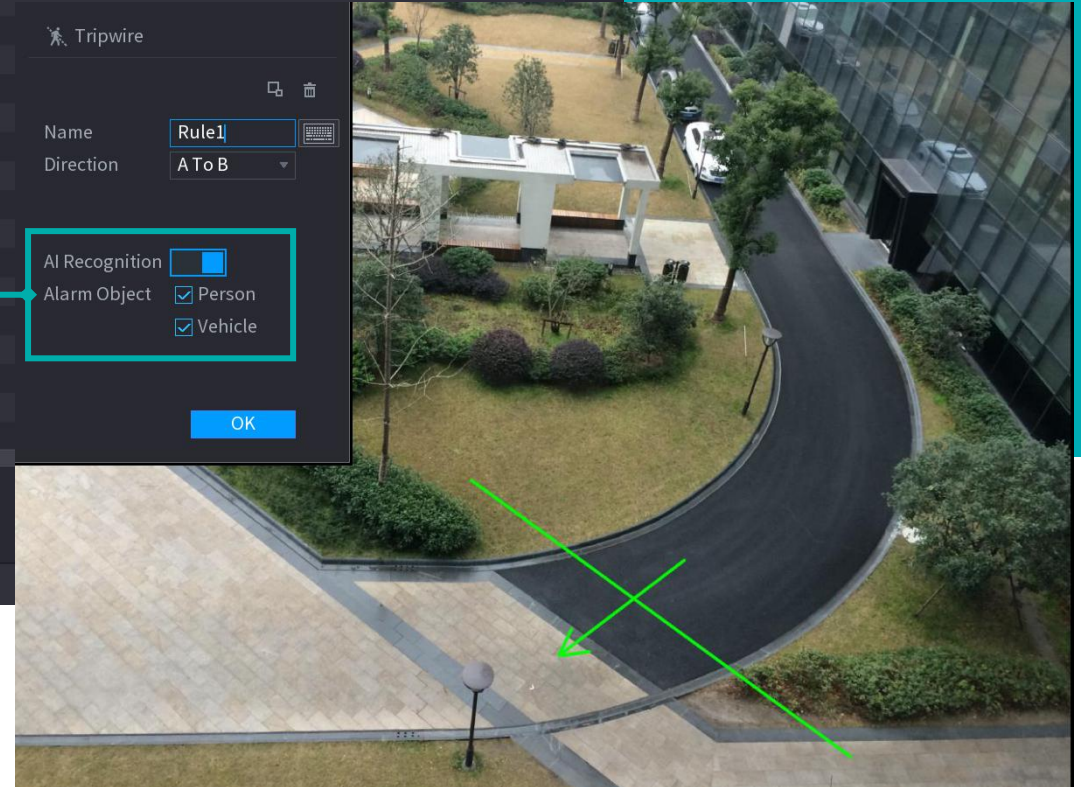
Direction: A To B

AI Recognition:

Alarm Object: Person, Vehicle

OK

Note: If AI Recognition not enabled, the IVS function is as same as normal IVS.



- The IVS function cannot be enabled at the same time with Face Detection and Face Recognition function for the same channel.

Display Perimeter Protection Result in Preview Interface

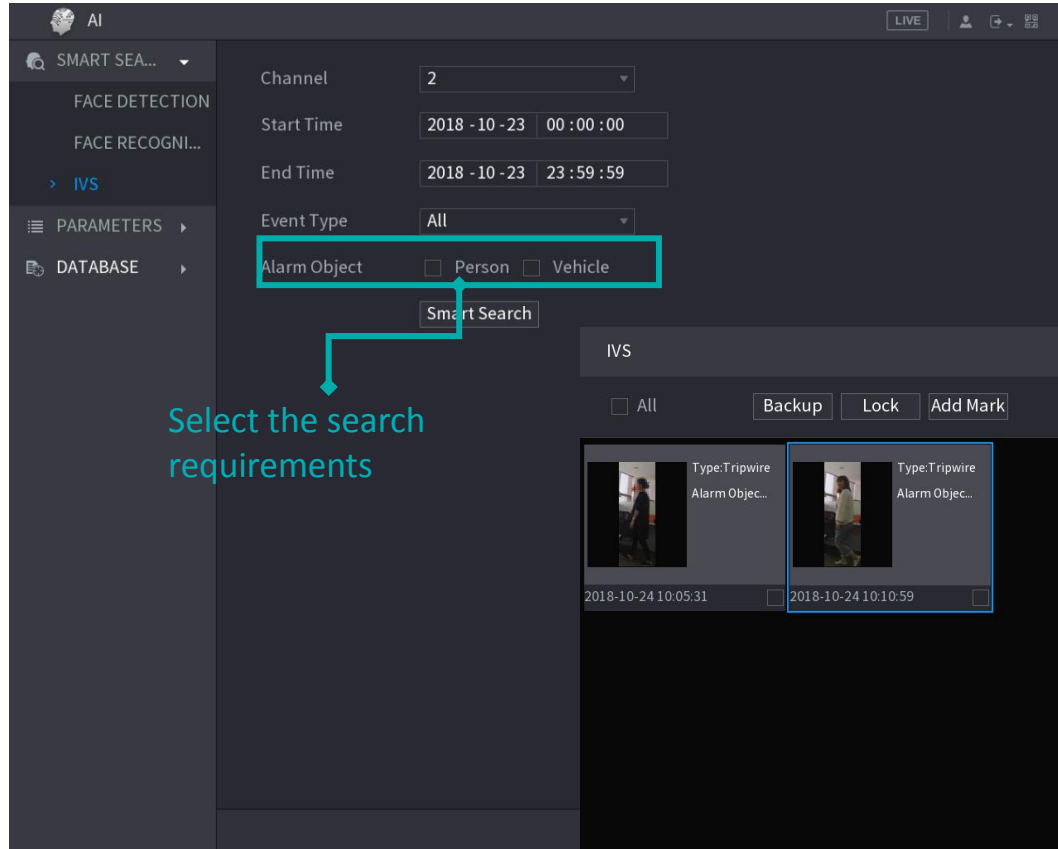
Perimeter Protection (IVS)



Choose preview mode as AI mode, and the result of IVS will be displayed.

Smart Search for IVS Video

IVS
(Perimeter
Protection)



Step1: Configure the search requirement

Step2: Display, export, backup, lock or add mark to the video

