Hanwha Vision

WiseDetector

Detect anything you want with the new WiseDetector

Person

Face

User-defined object 1

User-defined object 2

- User-defined object detection
- Easy to set-up
- Supported by P series AI cameras
- License Free
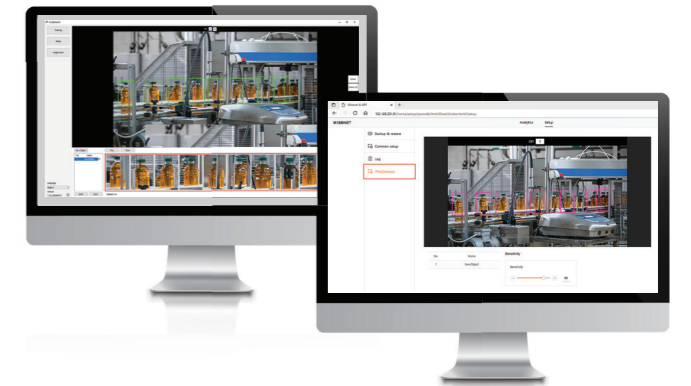
HanwhaVision.com

WiseDetector

The WiseDetector is a Machine Learning Model (ML) where the user can train the camera to detect
a user-specified object.
The WiseDetector consists of two main components : The Wisenet Device Manager and the WiseAI Application.

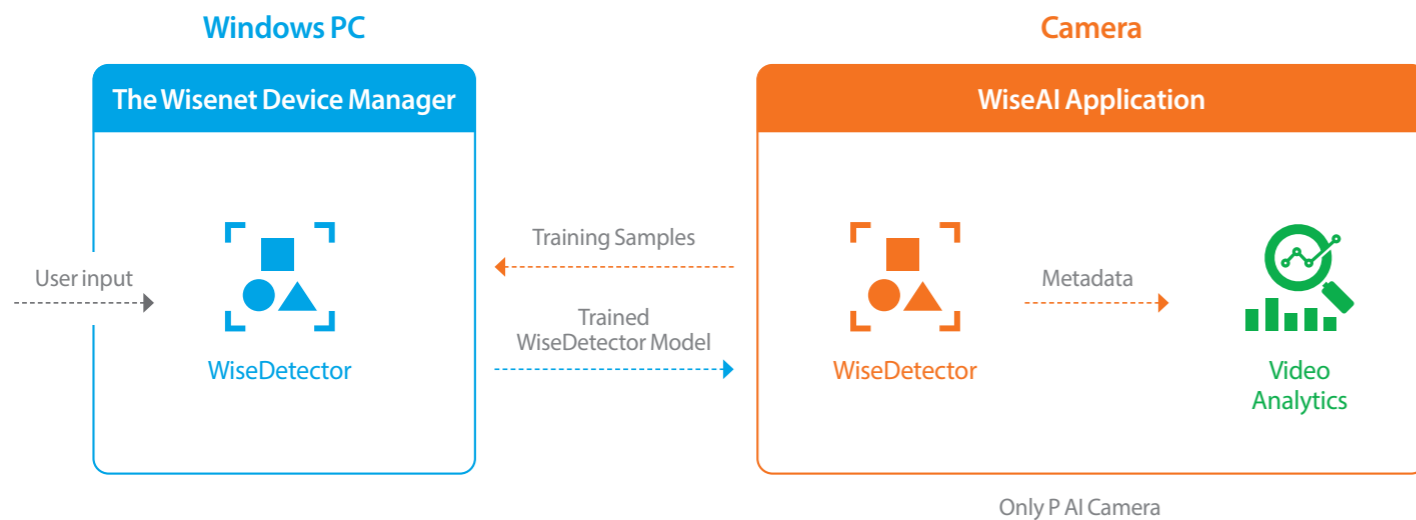1. The Wisenet Device Manager:
   A Free Hanwha PC application that helps scan and configure Hanwha's IP devices
   Train the WiseDetector Model to detect a specific object using the WiseDetector option
   in the Wisenet Device Manager

2. The WiseAI Application:
   An on-camera application that contains AI detection and video analytics
   The fully trained and configured WiseDetector AI model will run within the WiseAI application on
   Hanwha P series IP cameras.

Windows PC

The Wisenet Device Manager

User input

Training Samples

Trained
WiseDetector Model

WiseDetector

Camera

WiseAI Application

Metadata

WiseDetector

Video
Analytics

Only P AI Camera

Simple and easy to use

❶ Object training

In this step, The WiseDetector option in the Wisenet Device Manager software starts the training process.
The user selects a variety of sample images of the object of interest from the target camera that
will be used to detect the user-specific object.

Training Steps:

1. In the Wisenet Device Manager, "Right Click" on the target camera and select WiseDetector.
2. Create a new object, the object name can't include spaces or special characters.
3. Click Snapshot when you see the target object and draw a bounding box around the object.
4. Make sure the bounding box is exactly containing the object (not too small or too big).
5. Click the train button.
6. Repeat these steps until the results are satisfactory.

The WiseDetector Model will also show the results of the training every time a new sample has been detected to
observe the results of the training before uploading the WiseDetector model to the camera.
Once the user is satisfied with the results, then move to the next step.

❷ Color filtering and Sensitivity level (Optional)

Color: The WiseDetector enhances the detection results by offering an optional color filter for up to two colors of
the object, so if an object with a different color is present in the field of view, it will be filtered out.
Note: Color detection will not work during Day/Night mode since the camera will only be generating
a black and white image.

Sensitivity: The WiseDetector will also offer the user the option to increase or decrease the accuracy threshold
of the detection of the model.
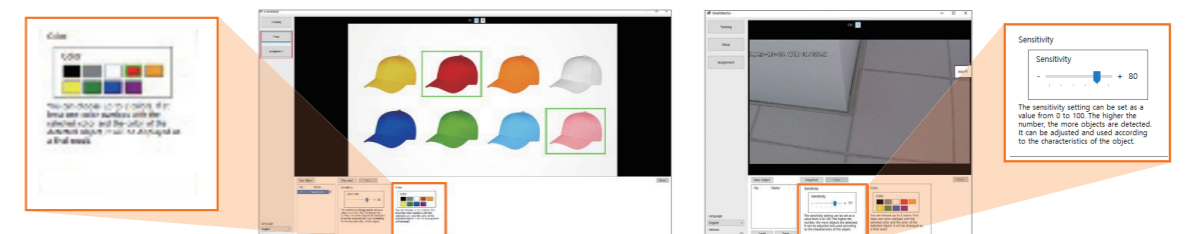
Simple and easy to use

❸ Uploading data into P series AI cameras

After the training and configuration of the WiseDetector model, the user can upload the WiseDetector model to the WiseAI application on a compatible camera. Up to two models can be loaded on to a camera and a user can enable or disable them as needed. Once the WiseDetector is uploaded to the WiseAI application, the detections and metadata generated from the WiseDetector can be used to trigger any of the video analytics rules such as line crossing, loitering, etc. Essentially WiseDetector will function as one of the regular AI detection on the WiseAI application.
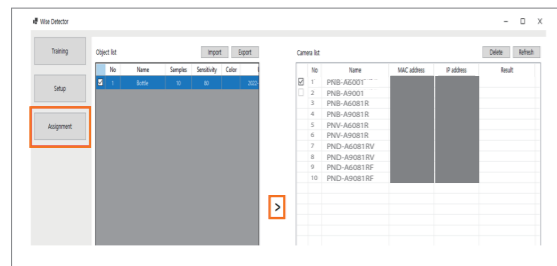
PNB-A6001, PNB-A9001, PNB-A6081R, PNB-A9081R, PNV-A6081R,
PNV-A9081R, PND-A6081RV, PND-A9081RV, PND-A6081RF, PND-A9081RF

Guidelines

• The user-specific object has to be the same shape and size to be detected successfully. Therefore, an object that changes shape or size would result in inaccurate detection.

• Please note that changes in object size or object occlusion will impact the detection accuracy. Also, during the training, the user must include sample images of the object in the same environment the accurate live detection will take place, like light conditions (at night, day, shade, etc), environment (rain, snow, etc) and background scenery.

• The target camera must be a compatible camera with the appropriate firmware and installed in the correct location with the FoV already configured, as any changes in the camera position of FoV after uploading the WiseDetector model to the camera in question will result in inaccurate detection.

• Up to two separate WiseDetectors can be uploaded to P Series AI cameras.

• The trained WiseDetector model can be reused for another camera but the user must include training samples for the other camera to be included during the training.
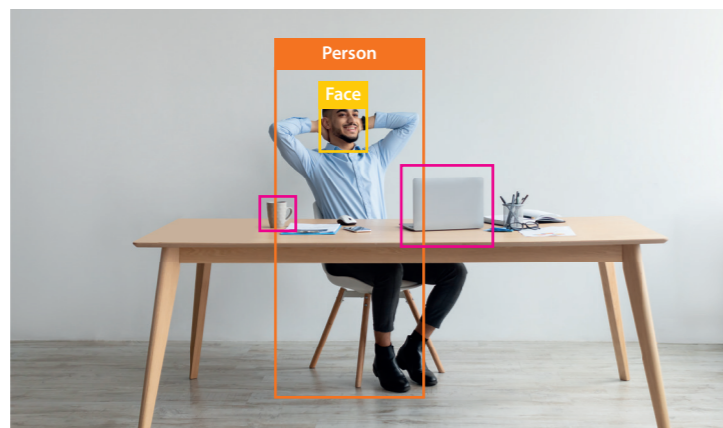
P Series AI cameras with WiseDetector

WiseDetector is dedicated to P series AI cameras under the WiseAI application and co-exists with the included AI detection of existing P series cameras. Each P series AI Camera can be linked up to WiseDetector after installation of the appropriate firmware.

	PNB-A6001	PNO-A6081R	PNV-A6081R	PND-A6081RV	PND-A6081RF
Firmware version	WiseAI app version : 1.01.01 or higher firmware version : 2.21.05 or higher (bridge f/w version : 2.19.99)				

	PNB-A9001	PNO-A9081R	PNV-A9081R	PND-A9081RV	PND-A9081RF
Firmware version	WiseAI app version : 1.01.01 or higher firmware version : 2.21.12 or higher (bridge f/w version : 2.19.99)				

Memo