WISENET

White Paper

Smart Search

Dec. 22nd 2017



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1. Overview and Background



As video surveillance becomes more important, more cameras are being used and the amount of stored data is increasing. Therefore, most users use event recording function to easily search desired image data.

If event recording is set, the camera transmits video and judges whether or not the event occurs in real time, and the recording device stores the event information together with the video. Using the event information stored in the recording device, it is possible to playback the recorded video conveniently.

Users can easily playback recorded video if event information is stored together with it. However, if there is no preset event, there is no index for searching, so it may need to check all recorded video manually.

To solve this inconvenience, Hanwha Techwin provides network video recorders that have "Smart Search" function to analyze the stored video data to search for the desired video without event information.

2.1. Concept of Smart Search

Unlike the conventional method of video search using event information, the Smart Search function allows users to quickly and conveniently search the footage by analyzing the video data according to the user's interest without event recording pre-setup.

Smart Search analyzes the coordinates of objects in stored video using metadata analyzer and metadata by user's interest. Then, the movement of the object is identified, and the event type and time information are figured out. Based on the result, a thumbnail list of each event footage is created and provided on user interface with the video.

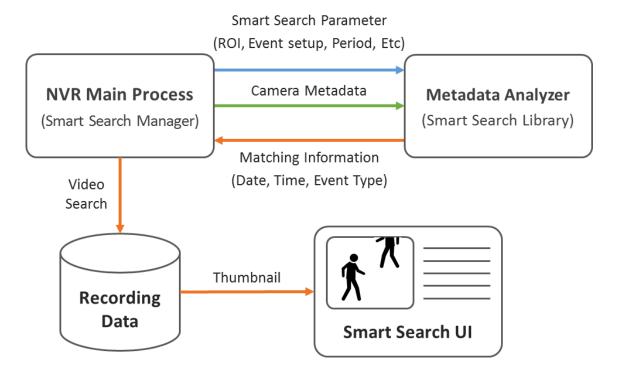


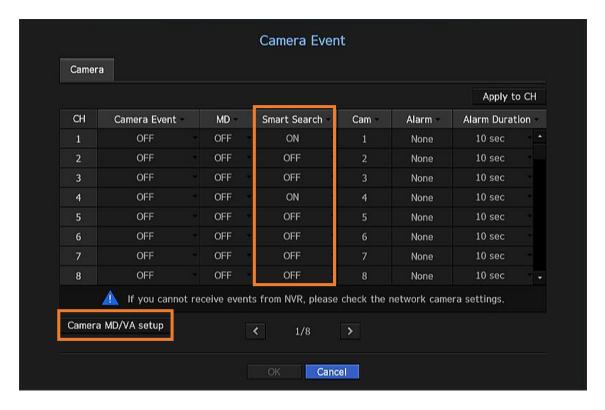
Figure 1. Concept of Smart Search



2.2. Smart Search setup and use

To use Smart Search, it must be turned on in the camera event menu and the camera's motion detection area must be set to the whole area.

When Smart Search function is activated, recorder stores metadata from network camera together with the video. Then, when Smart Search is executed, it searches the video according to the user's interest using the video and metadata. Smart Search allows users to search for four events, such as motion, virtual line passing, entering and leaving. It displays the search result in list, timeline, and thumbnail form.



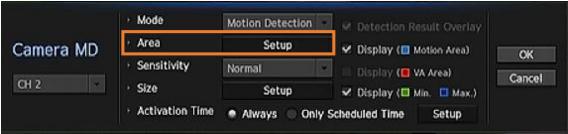


Figure 2. Smart Search setup



In Smart Search menu, after setting search condition using the virtual line, area of interest and exclusion on the preview screen and execute smart search, the shooting date and still image of the relevant video are displayed.

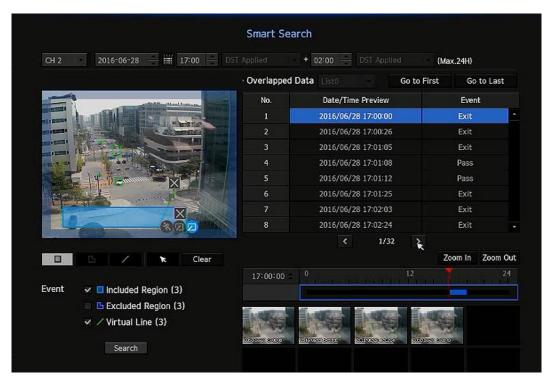


Figure 3. Smart Search menu screen

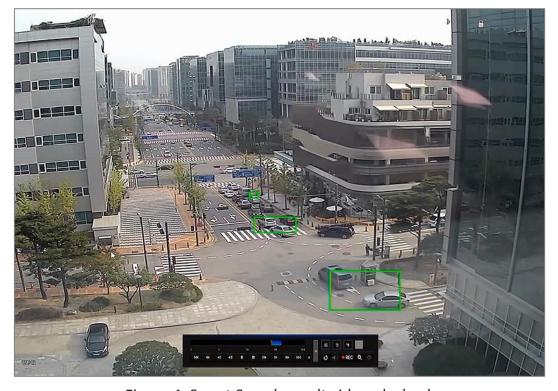


Figure 4. Smart Search result video playback

3. Conclusion



Hanwha Techwin's Smart Search enables the users to easily and quickly search the video of situation of interest on the storage device regardless of event recording setup. With Smart Search, users can get video without inconvenience of checking large amounts of recorded videos manually.

- · Smart Search support model
- : PRN-4011, XRN-3010, XRN-810S/410S, QRN-810/410 (It will be updated if supported product is added.)

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