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Street View Maker – Easily become a Street View Expert

Driving Video Recorder (DVR) becoming popularized has led to an increasing demand for road video management by road maintenance agencies and the general public. To manage the increasing masses of road video files efficiently for various users, the Institute of Transportation (IOT) developed the easy-to-use and cost-effective "Street View Maker" which can enhance video management and access efficiency. By utilizing the features of the "Street View Maker", anyone can easily become a street view expert.

The total length of the highways in Taiwan is approximately 22 thousand kilometers. To ensure the safety and quality of road use, highway maintenance agencies not only patrol the road conditions according to the regulations, but also record the field conditions on videos by using DVR. Following video data increasing with time, how to manage the data, make them accessible, and compress them for storage efficiently become key issues.

The IOT has developed the "Street View Maker" which successfully integrated the video-recording and satellite-positioning functions of DVR currently available on the market. This system can be applied easily and cost-effectively to enhance the management and access efficiency of videos. This application enables highway maintenance agencies and the general public to not only create latest street views rapidly, but also access data and display previous locations effectively for comparison purposes by dragging markers onto or directly entering road positions

into Google Maps. In addition, this application greatly reduces the space required for storing street videos. By utilizing the features of the "Street View Maker", you can easily create various street views (including those of streets and roads, railways, bicycle routes, footpaths, and forest trails), becoming a veritable street view expert.



Figure 1. Compressing Street Videos Using the "Street View Maker"



Figure 2. Accessing Street Views Using the "Street View Maker"



Figure 3. Displaying Street Views Using the "Street View Maker"

Q&A

Q1: What equipment should I have before I am able to create street views with the "Street View Maker"?

A1: When using the "Street View Maker" to create street views, street videos and corresponding GPS coordinates should first be obtained. Because most DVR that are currently available on the market are equipped with video-recording and GPS coordinate-detecting functions, only a general DVR is required as a prerequisite for creating street views with the "Street View Maker".

Q2: What is the application scope and primary purpose of the "Street View Maker"?

A2: The "Street View Maker" can automatically integrate the video-recording and GPS coordinate-detecting functions of an EVR, and further combine image and space information to create street views that can be accessed at any time. Moreover, these street views can be stored and displayed at different recording times to compare and determine the changes in street conditions. The application scope of the "Street View Maker" includes roads and streets, railways, bicycle routes, footpaths, and forest trails.

Q3: How do I create and access street views from the "Street View Maker"?

A3: After acquiring street video and the corresponding GPS coordinates from your DVR, simply set up the "Street View Maker" and it can then be used to compress and convert excessive video information into equidistant street views. If you desire to access an already-stored street view, the "Street View Maker" enables you to drag markers onto or directly enter road names into Google Maps, which would subsequently access and display the previous street view of that location. The "Street View Maker" also allows you to export the relevant street view into .jpg or .doc formats, which can then be used for other value-added applications.