

# Developing Information Sharing Platform for Road Management

OBARA Hiroshi, Senior Researcher

UEDA Eiji, Guest Research Engineer

Information Technology Division, Research Center for Advanced Information Technology

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## 1. Outline

The information sharing platform for road management (“Road Management PF”) has been developed for the purpose of information sharing between road management administrators, by adding new functions necessary for road management projects to the Space Information Sharing Platform (“Space PF”) which was originally built by the National Institute for Land and Infrastructure Management.

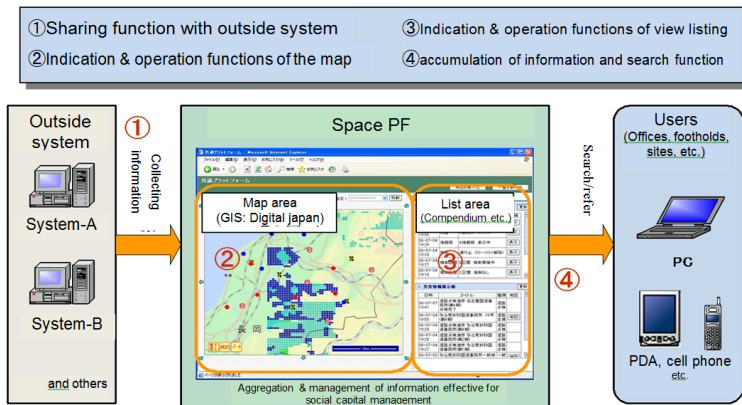


Figure 1: The structure of Space PF

## 2. Location references in road management

Space PF displays a summary of various information (meta-data) from several administrators at once on a digital map, using the “Digital GSI WEB System” provided by the Geospatial Information Authority of Japan. However, because the Space PF was initially created by combining existing technologies, to test if it could be applied to social capital management, location references were made only in longitude and latitude, and it could not handle digital road map (“DRM”) format or VICS (Vehicle information and communication system) format, which are commonly used in road management. These points have been improved in the Road Management PF. (See Figure 2).

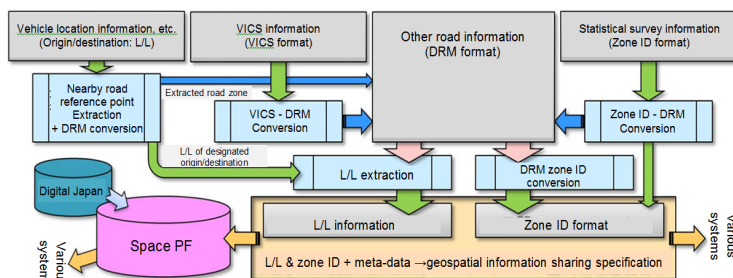


Figure 2: function to convert location information

## 3. Implementing useful road management functions

In order to improve work efficiency in data input and usage, some additional functions have been implemented in the Road Management PF. These functions include: (i) “Route extraction between two locations” which indicates the route between two locations on the map using a line with longitude and latitude and (ii) “Trafficable route estimate function (Figure 3)” which extracts trafficable routes using registered traffic control information.

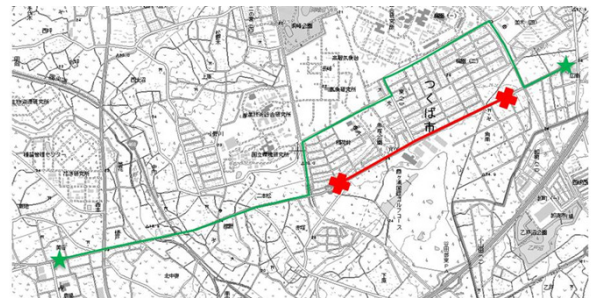


Figure 3: Trafficable route estimate function

## 4. Aggregating information using Road Management PF

In addition to the expansion of basic functions, aggregating disaster information, using meta-data sharing functions, has been a key aspect in developing the Road Management PF..

An efficient development of work application and cross-sectional use of information have been made possible, by aggregating various information from different road administrators in the Road Management PF, and using external applications to implement functions such as report, format preparation and history management.

## 5. Conclusion

The test operation of Road Management PF will commence at the beginning of the 2013 fiscal year. In the meantime, we will evaluate its utility for aggregating disaster information, while verifying its performance in actual operation.

While providing technical support for road management administrators at regional development bureaux, the National Institute for Land and Infrastructure Management aims to gain a better understanding of the needs for further improvements, regarding information sharing using Road Management PF.