

# The location referencing method for distribution diverse road related information —Establishing the Road Section Referencing method—

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### 1. Information

With the advance of Intelligent Transport Systems, diverse road related information is circulated using maps. And if it circulated smoothly between organizations and between fields, it would be possible to improve existing information provision services and to create new services. The Information Technology Division has established the location referencing method “Road Section Referencing method (below called “ID method”)", necessary to realize the creation of new services.

### 2. Outline of the ID method

Applying the ID method, a permanent ID is assigned to a road section and to a reference point, relatively expressing the location based on the section and reference point and on the route from the reference point. Figure 1 shows how the ID method is used to represent the position of a gas station on the left side at the 150m point of a road (section) starting at an intersection (reference point) on the road and linking intersections. Using the ID method in this way, even if various organizations which use information use different maps, they can circulate information with accurate location representations.

### 3. Situations where the ID method is used

A few situations in which the ID method is used are introduced. Following the Great East Japan Earthquake, the public and private sectors cooperatively created and provided information about open roads and closed roads in the disaster region<sup>1)</sup>. But because the methods of expressing the location in their information differed, they were forced to collect and process the information employing human wave tactics.

If the ID method were applied in such a case, even if each organization used its own unique location representation method, it would be possible to unify

the location representation methods to circulate the information between the organizations. As a result, visualization using maps and preparation of spreadsheets would be performed efficiently, achieving prompt and accurate information provision (Fig. 2).

### 4. Conclusion

At this time, the Information Technology Division is working to build a technique for circulating road-related information through public-private sector links using the ID method, and plans a social experiment in 2012. We are eager to continue to work to achieve our goal of realizing circulation of diverse road related information.

[Reference]

- 1) ITS Japan: Open roads/closed roads information ><http://www.its-jp.org/saigai/>< (obtained Sept. 2011)
- 2) Road section method introduction page [http://www.nilim.go.jp/lab/qbg/rs\\_id\\_2.html](http://www.nilim.go.jp/lab/qbg/rs_id_2.html), (released December 2011)

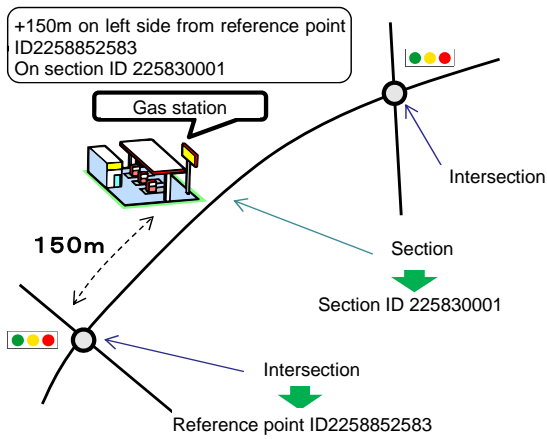
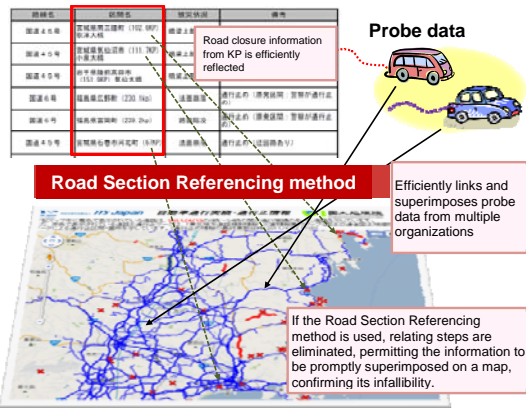


Figure 1. Example of Representation of Location Reference by the Road Section Referencing Method

Selected from Great East Japan Earthquake (Report No. 46)



Source of map image: <http://www.its-jp.org/saigai/>

Figure 2. Image of Use of the Road Section Referencing Method During a Disaster