

Design of a Location Information Capturing Tools using Multiple-Sensors for Field Works

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Recently GPS (Global Positioning Systems) and digital camera are widely used by many users. Then users are able to record and share the location information easily. Almost these location information is information about view of users, is not information about object observed by them. Furthermore, in fields works of area studies, archeology and so on, it is more important for researchers to record the positions of an object observed by them than to record the researchers' positions. Especially the researchers have to try to record an object position from a distance in consideration of the following situation.

- Dangerous place, such as top of cliff, devastated district and so on.
- A place, in which a users can not use GPS, such as inside of a room, cave and so on.
- A place, about which there is no actually map, such as devastated district, jungle and so on

In this research, therefore, we design and develop location information capturing and management tools using multiple-sensors such as GPS, digital camera, laser distance meter and acceleration sensor for field works. By this tool a user can get object positions measured by sensor devices easily and can annotate the object positions by text or voice data. In this presentation, we demonstrate prototype system and discuss effects of our proposal for field works.