A Study of Accuracy Enhancement of GPS Track

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ABSTRACT

In the past decades, the GPS tacking systems play an import role in the position-aware applications. For the cost issue, most of these systems uses the Google MAP to display the track. However, the Google MAP API does not provide the accuracy location information of each street. Therefore, the display track from the original Longitude and latitude GPS information does not match the road track in the Google MAP preciously. In this article, we discuss the impact of the sampling period of GPS and propose a track modified algorithm to correct the track. We implement a tracking system to demonstrate the effect of the modification. The results show the proposed algorithm can enhance the accuracy of GPS track in Google MAP while the sampling period is 10 seconds.

Keywords : Tracking、Google Map API、Accuracy、Android

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