

RESTRICTIONS WITH IMPLEMENTATION OF GIT FOR CYCLING COMPETITIONS

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Abstract

This paper completely assesses problems and benefits of implementation geoinformation technologies for cycling competition. There are three different points of view from cyclists, because it is necessary to separate amateur cycling or cycle tourism, professional cycling and organizers of races. The article brings latest information about modern geoinformation technologies in cycling from these three parts. Nowadays it is very popular to use GPS for navigation on the bike and then upload your track on the special servers on the Internet. Usually there are map and general information about the track and altitude profile. But on the other side professional riders need complex evaluation of their races – they use GPS with cadence sensor, sportster (heart-rate sensor) and wattmeter (power sensor) for analysis and visualize their track. Using GIT in cycling is not very often today, but there is a great potential for the future. On the biggest world races like Tour de France or Giro d'Italia we can see monitoring riders in real time which is known like GPS tracking. Almost every example of these servers are based on API, but actually are used Google Maps API, Open Street Maps API or Yahoo API. Use API and mashup technologies is easy and popular, but on the other side it brings many problems. One of the aims was to make an application for organizers of bike competition. It is made for "Kolo pro život" series and it contains interactive map with general information about these tracks and many special functions, like interactive profile and itinerary, animation, video, etc. It is made by Google Maps Mash-up technology. On this practical example are demonstrated some restrictions and unsolvable problems with programming of application, especially cartography visualization faults (narrow editing of polyline and polygon layers, random generalization, different representation of one layer between Google Earth and Google Maps, etc.) and also technical faults (using Flash, validation, combination of different API version, etc.) and of course other examples like OSM, Yahoo...

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