

## MOVE – SHOWCASE Working Days on tracking recreational behavior

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Venue: Department of Geography  
University of Zurich  
Winterthurerstrasse 190  
CH-8057 Zurich (Switzerland)

Date: October 27 – 28, 2011

The Working Days aim at the development of *concepts of recreational behavior* for the analysis of GPS tracks of visitors. The working days *includes an assignment*, by which it is our intention that several people/groups use a common dataset (described below) to test approaches to movement analysis and or visualization tools before the working days, so that we have *a common ground for discussion* during the working days, with a dataset which all participants have had the chance to explore and perform experiments on. The analysis will include different types or stages related to a) entire data sets for a cohort of 'respondents', b) data sets for single respondent, c) tours for a single respondent (between stops), d) 'focal' analysis (involving points in a given (temporal) window around a point (speed, acceleration, angular change, etc) and e) characteristics of single GPS fix points.

Participants are requested to *present their results and considerations* during the working days. This way, the individual experiences and considerations will form as a starting point for our discussions.

Emphasis will be put on specific issues *related to recreational behavior which is focused more on the amenities of the route* – and less on reaching a specified destination - than other types of transport and on application of results to management/planning in relation to recreation: Where does crowding occur? What are the scenic preferences? How far do visitors go? To what extent do visitors leave the trail network? Etc.

### **The Working Days will include:**

- Presentations by the organizers
- Invited presentations of case-studies

- Presentation from participants based on the workshops' assignment; i.e. analysis of the provided data (see below)

### **Data provided for the assignment:**

The *data set covering Val Müstair in the Eastern part of Switzerland* will be provided to the participants first week of September<sup>1</sup>. This data set includes:

- GPS-tracks of hikers, mountain bikers, skiers, and snowshoers (points)
- A detailed digital elevation model (raster)
- A land cover map (polygons)
- Summer trails (poly lines)

### **Assignment:**

Participants are requested to acquaint themselves with the provided data set and prepare a presentation of considered analytical approaches. Prototype applications based on the developed methods should also be presented. The exact terms of reference of the assignment will be provided with the data set one month ahead of the workshop.

### **Analysis can (for instance) include:**

- Automated *pre-processing*:
  - Removal of erroneous points/Noise Handling
  - Detection of stops
  - Trajectory reconstruction for the extraction of tours (e.g. routes between stops etc)
- Analysis of *places*
  - Visitor loads on locations
  - Visitor loads of the trail network (map matching of the points to the path network must be considered)
- Analysis of *visitor types*
  - Tour duration
  - Stop frequency
  - Avg. speed
  - On-/off track activities
- Analysis of *trajectories* (aggregation and generalization)
  - Length
  - Duration
  - Avg. speed
  - Various aggregates – like altitude difference, land cover distribution, visibility characteristics etc.
- Analysis of *choices* made along the route

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<sup>1</sup> As a point of departure the track data are generated by the MAFREINA project (<http://www.mafreina.ch>). The results of the project have not been published yet. The data set is therefore only for internal use in the MOVE Working Days. The data set MUST NOT be distributed to a third party without the permission of the project coordinator of the MAFREINA's project Reto Rupf. Further publications based on this data set will also require a written accept from the coordinator.

## Registration

Send to **Hans Skov-Petersen** ([hsp@life.ku.dk](mailto:hsp@life.ku.dk)) by **15. September 2011**

Name: .....

Affiliation: .....

Full address: .....

Email address: .....

Personal URL: .....

URL's to relevant projects/articles: .....

MOVE Working Group:    ☐ WG1    ☐ WG2    ☐ WG3    ☐ WG4    ☐ none

Financial support requested?    ☐ NO    ☐ YES<sup>2</sup>    Cost estimate in EUR .....

Planned focus of contribution to the assignment (provide a short description using the keywords from the above list):

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<sup>2</sup> Provide short justification in email accompanying your application. Allowable costs according to COST rules: flight/train/car, max. 2 nights at max. €120 per night at hotel, €20 per meal. For details, see COST Vademecum.