WayFiS: From Geospatial Public Transport Information to Way Finding Seniors

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Workshop on User Issues in Geospatial Public Transport Information

FACULTÉ DES SCIENCES ÉCONOMIQUES ET SOCIALES
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WayFiS

- European project
  - Hungary
  - Spain
  - Switzerland
- Ambient Assisted Living program
- Started on 1 March 2011

Overview

- Background, starting point
- Contribution of WayFiS
- Challenges and difficulties (surface scratch)

Background

- Existing navigation systems
  - Navigon, Nokia, Garmin, Google Navigator, ...
- Existing map and points of interest providers
  - Google Map, Bing, ArcGis based systems, ...
- Existing public transport information systems
  - Google Transit, Public transport companies

Background

- Problems
  - Services heterogeneity
  - Services data not up to date
  - Services data lack of important information
    - for example for users with special needs (elderly, disabled, and etc...)
  - Indoor navigation?
- Navigation systems are **not** targeted to be **used by people with reduced mobility!**

WayFiS Aim

- Help **elderly people to move** in unknown indoor and outdoor environments
  - Plan, manage and execute travels independently
- People older than 70 years old
  - Not familiar with technology
  - Living alone and suffering from health limitations

WayFiS Aim

- Public transport and paths by foot
- Take into account specific limitations and healthy habits
- Extensively use of points of interest like: toilet, pharmacy, bench, park, hospital, and etc...

Example Prototype

- Plan trips from point A to point B
- Explore the concept of *buffer*
  - User walking ability
  - Points of interest
- ArcGis Android API + ArcGis Server

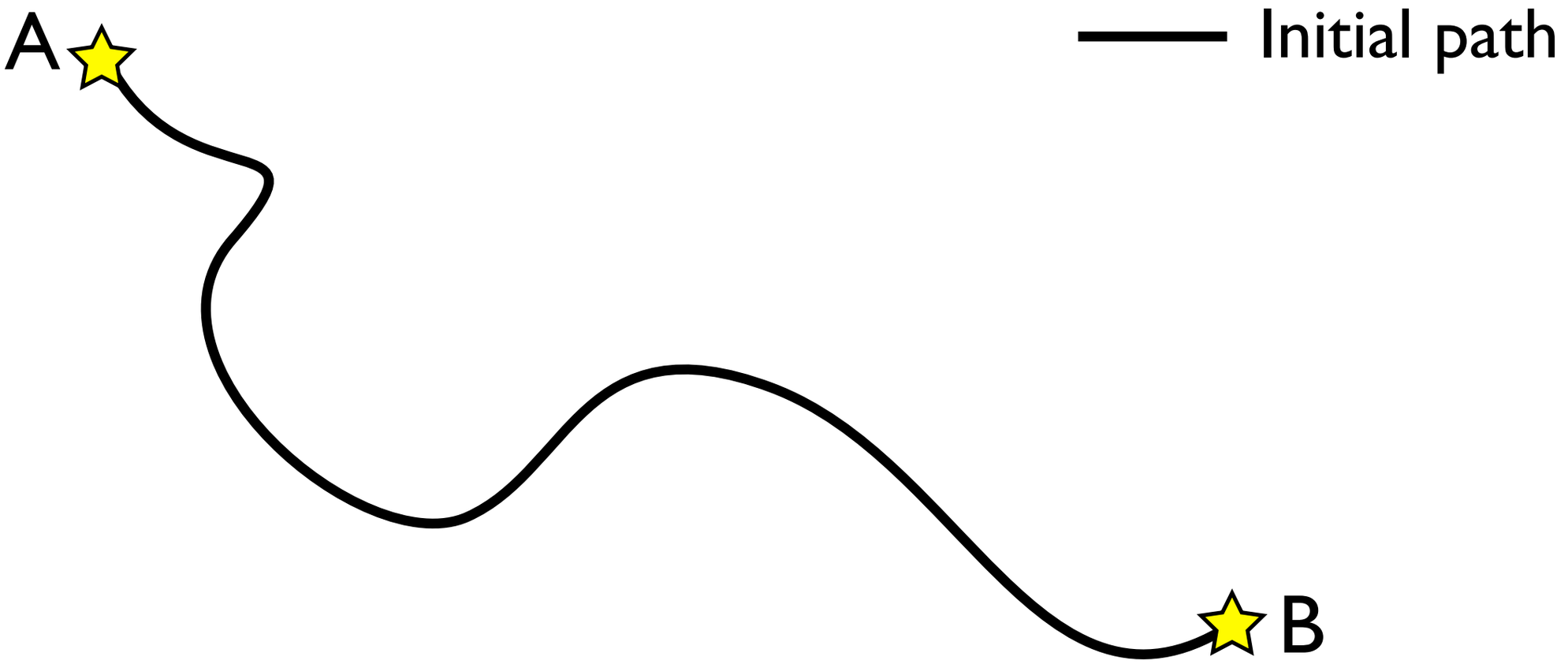
Example Prototype

Example Prototype

A

B

Example Prototype



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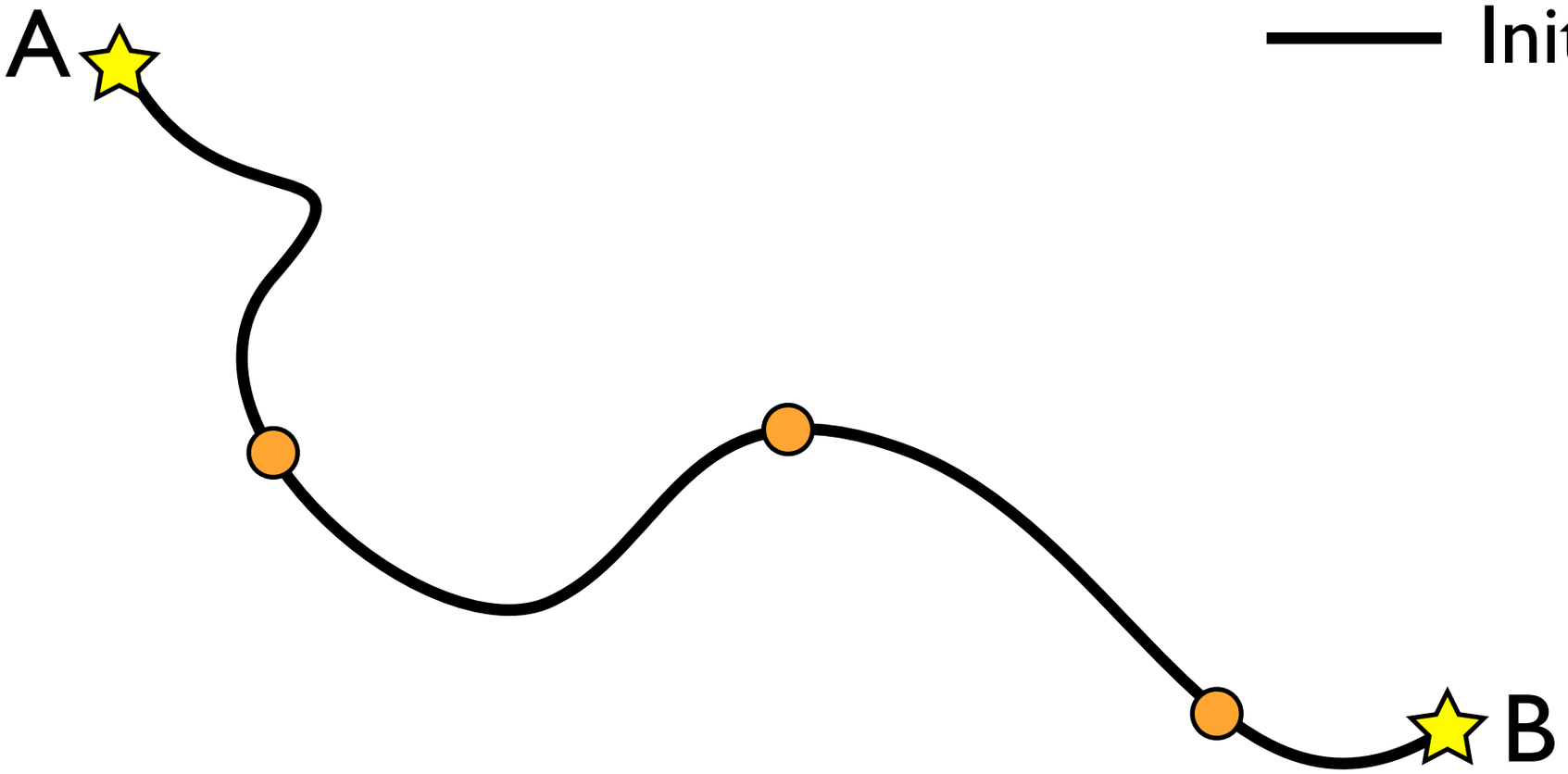

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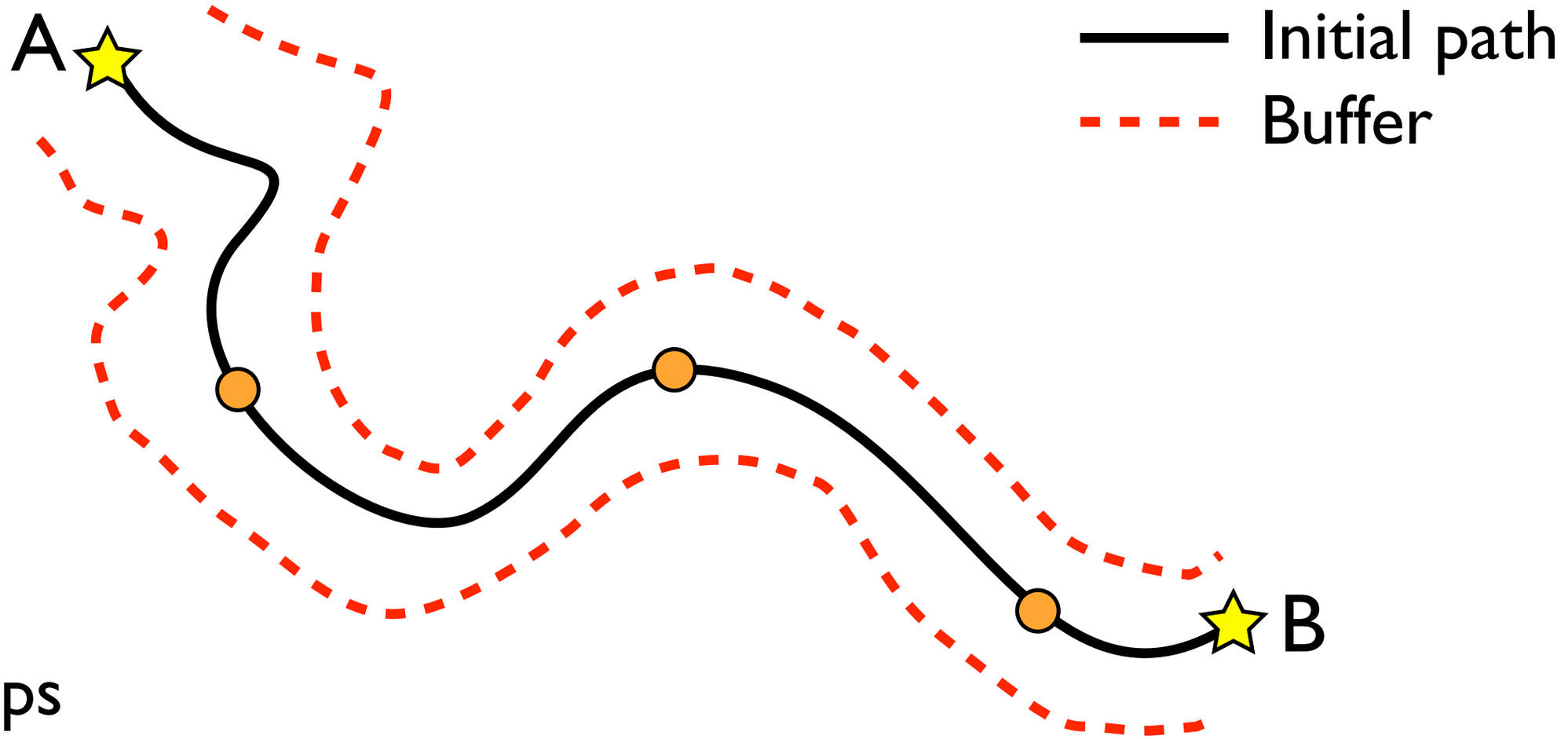
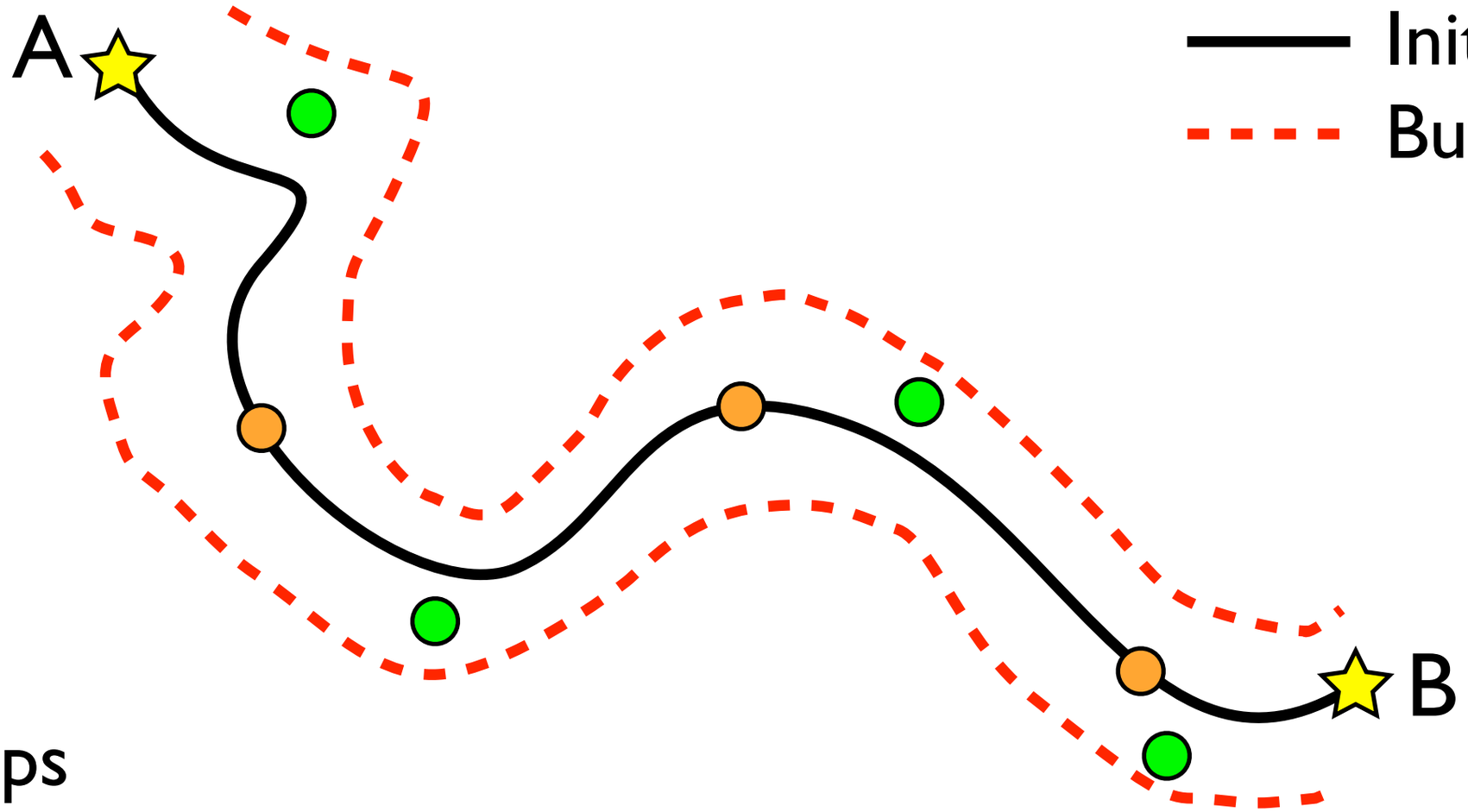


- Bus stops

Example Prototype



- Bus stops
- Points of interest (bench, park, pharmacy, ...)

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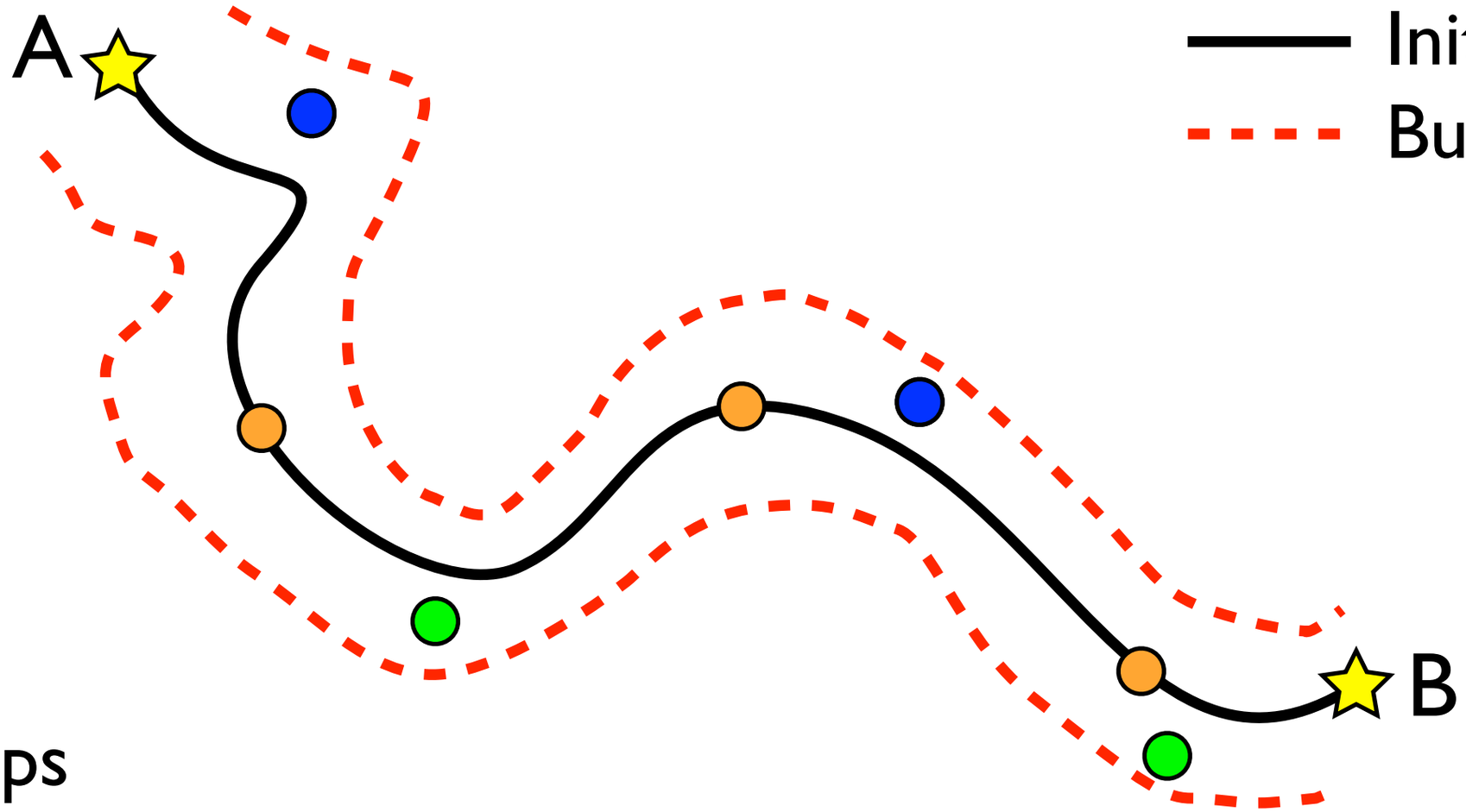

- Bus stops
- Points of interest (bench, park, pharmacy, ...)
- Selected points of interest

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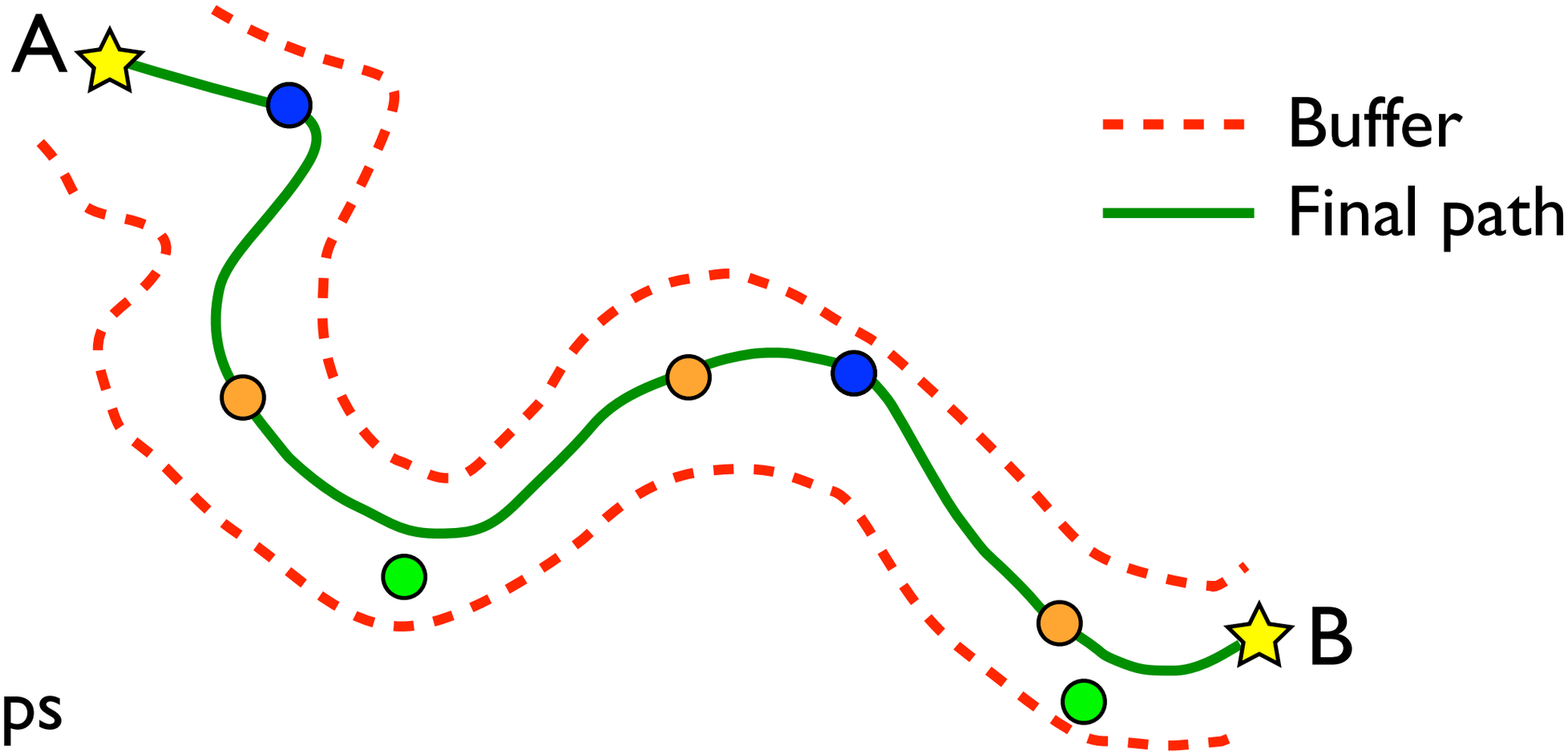

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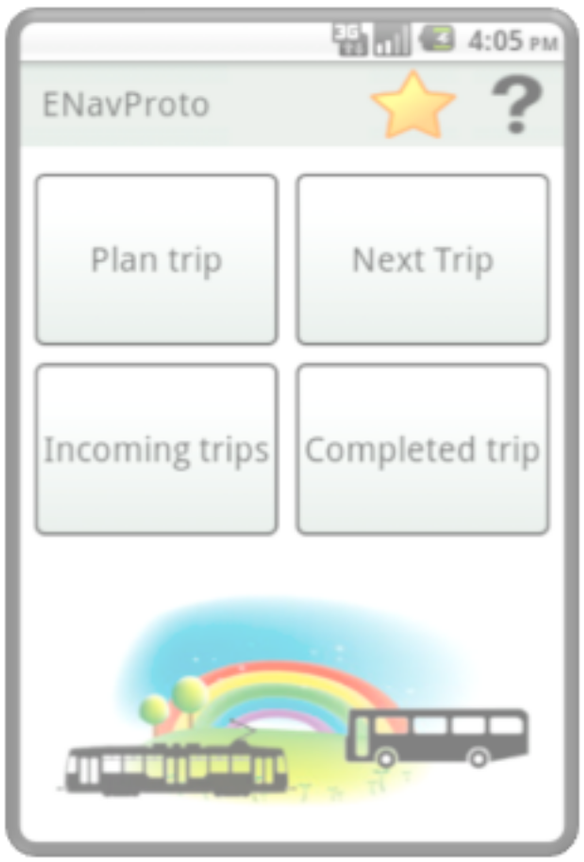

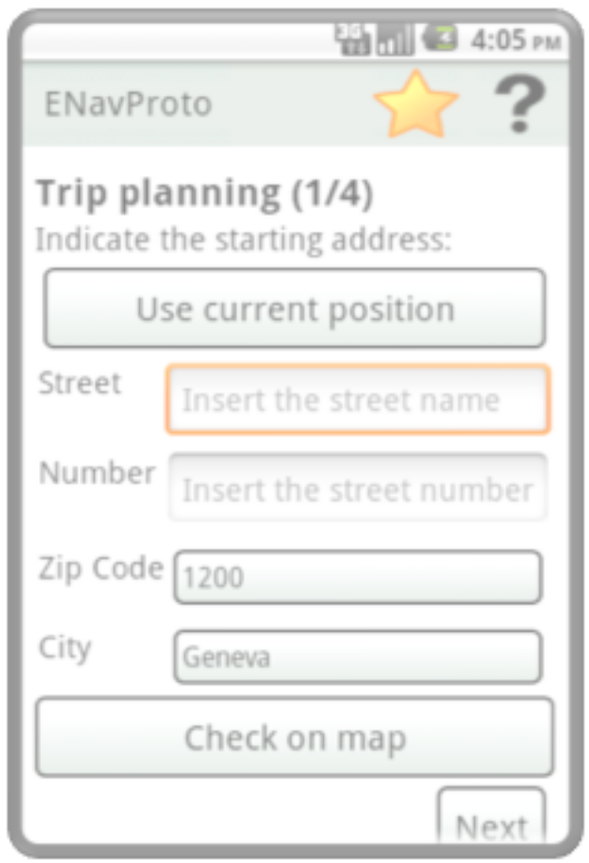

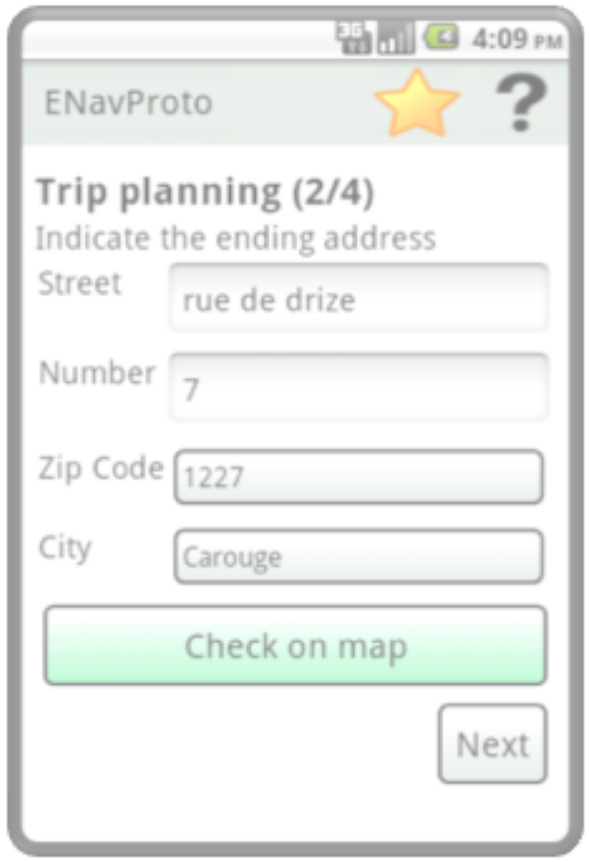

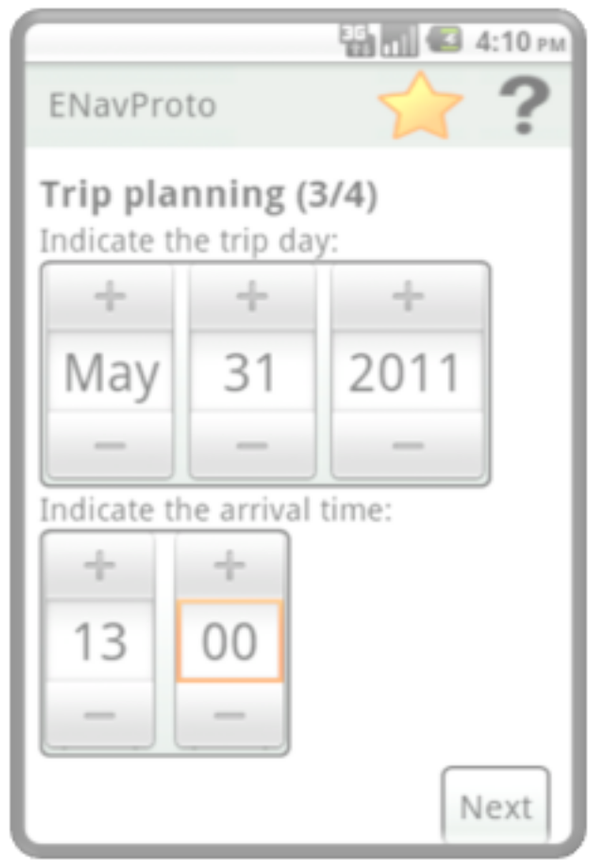

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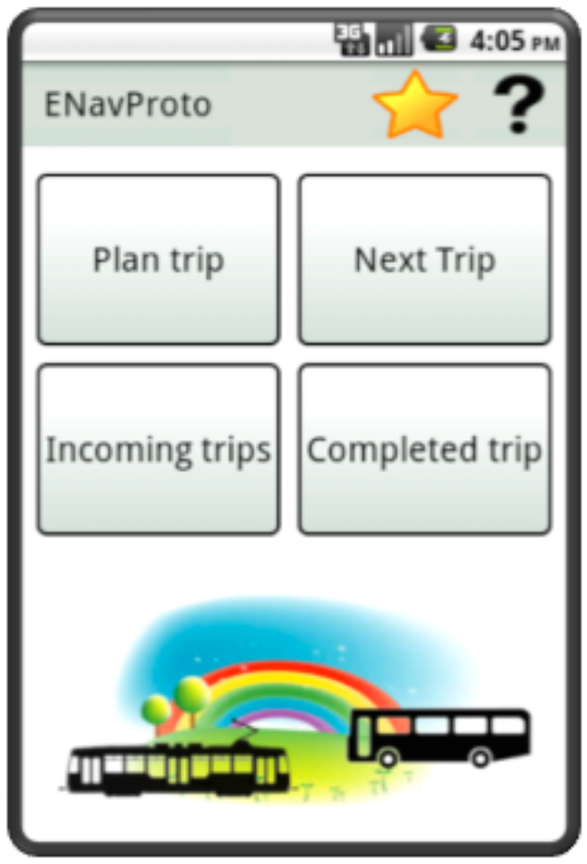

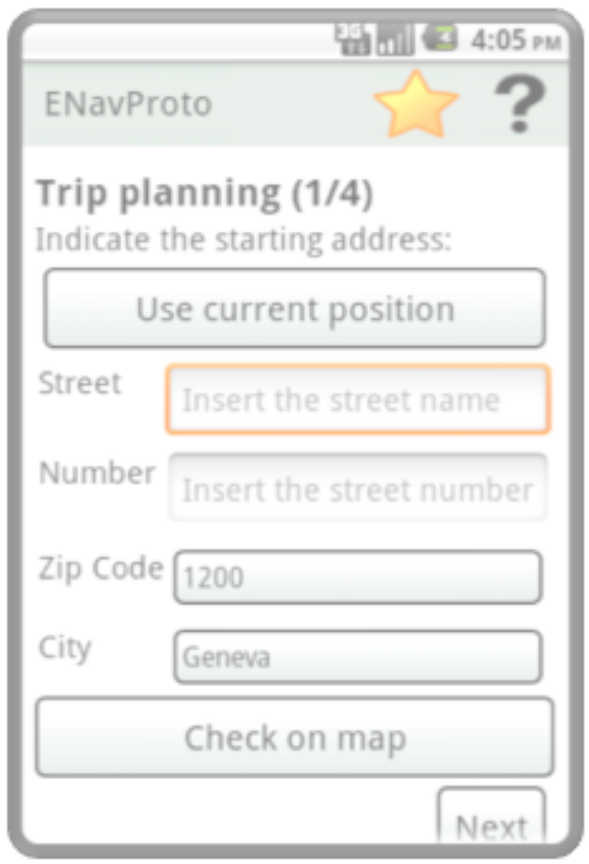

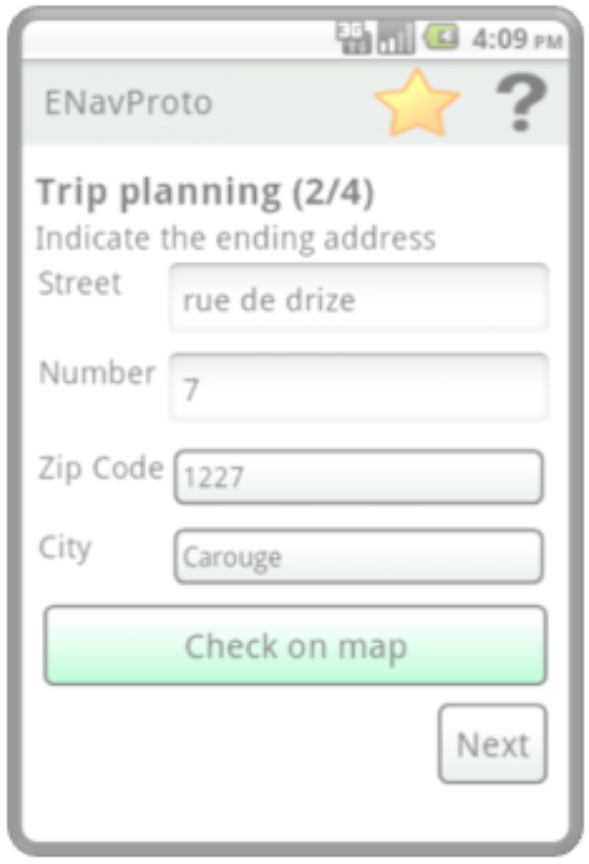

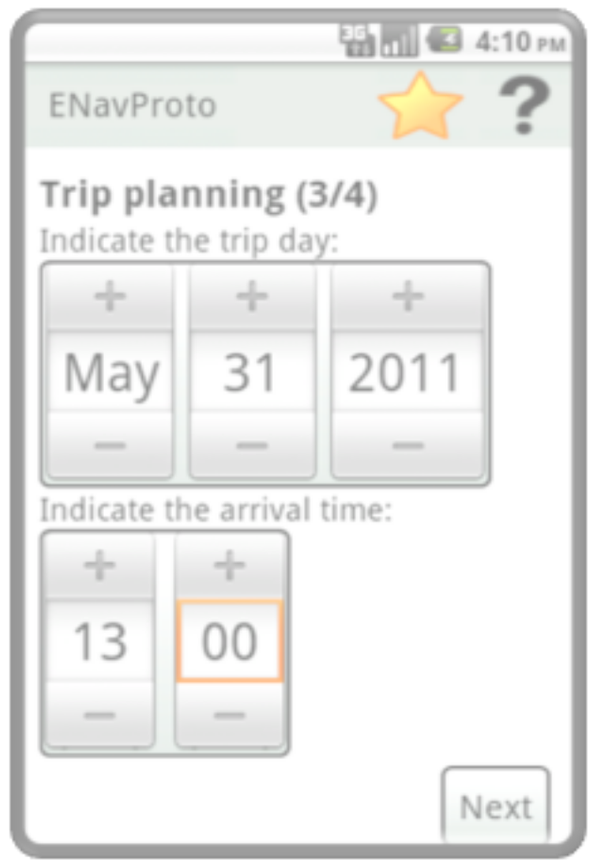

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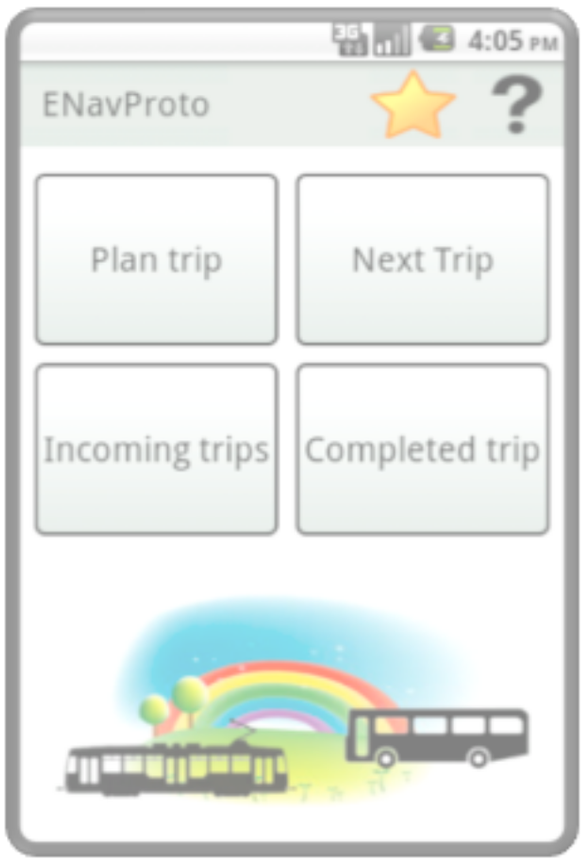

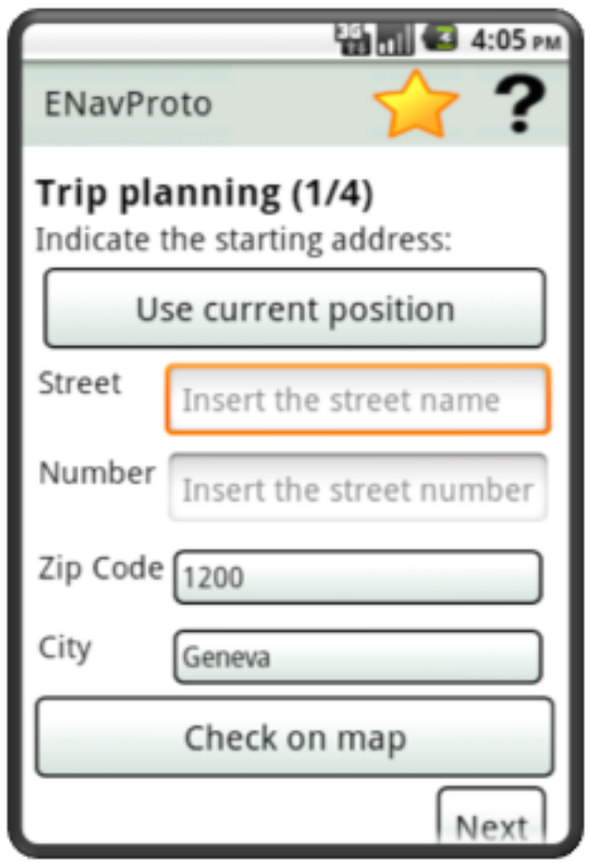

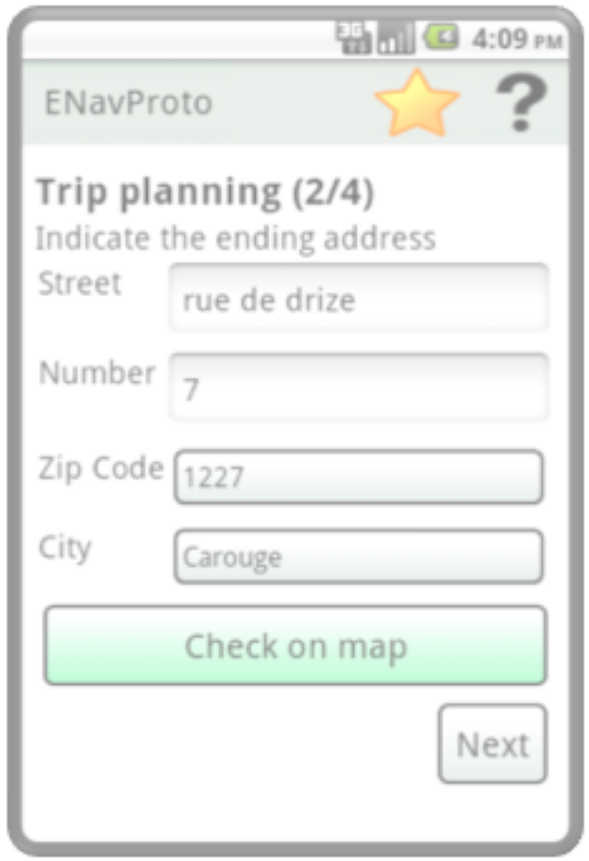

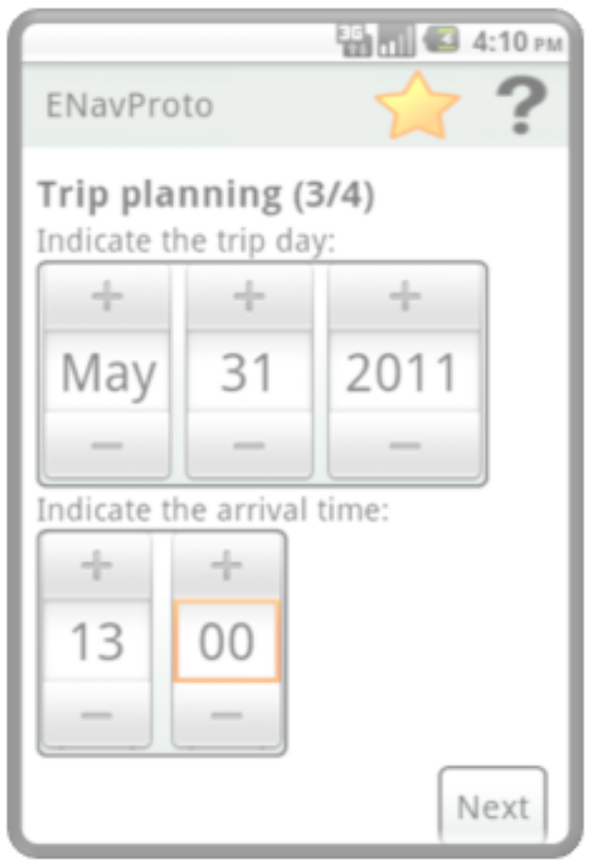

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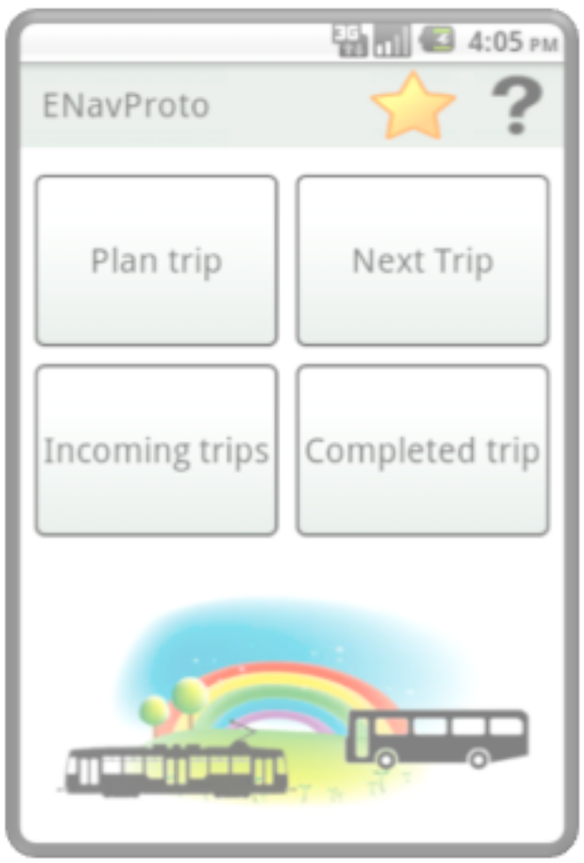

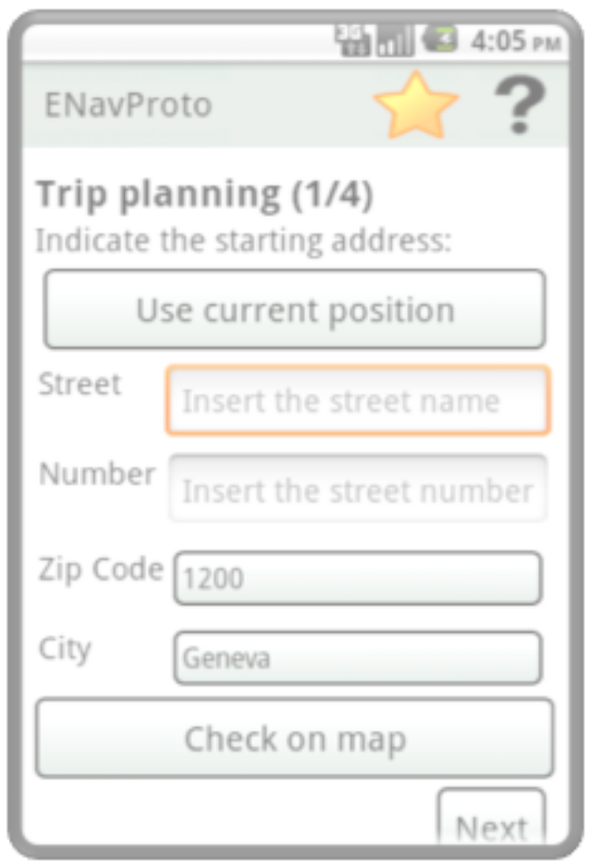

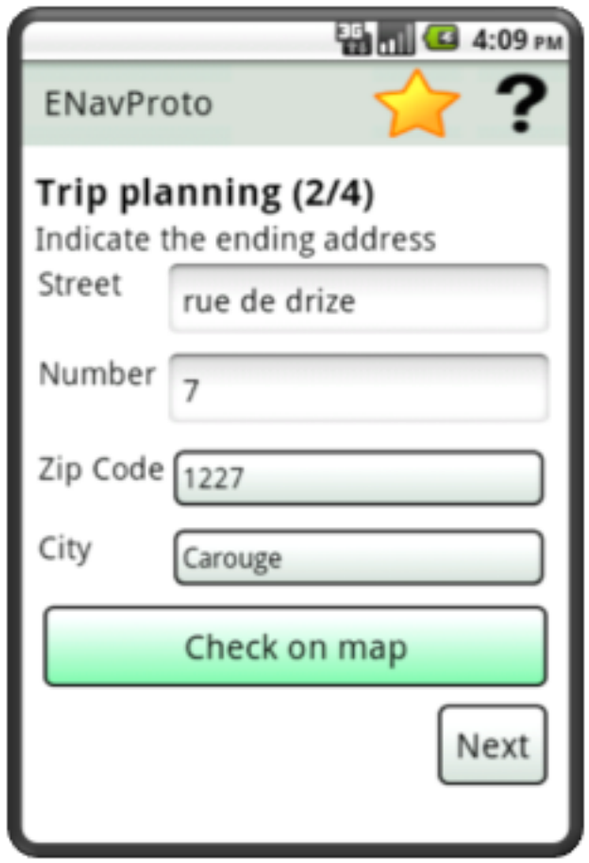

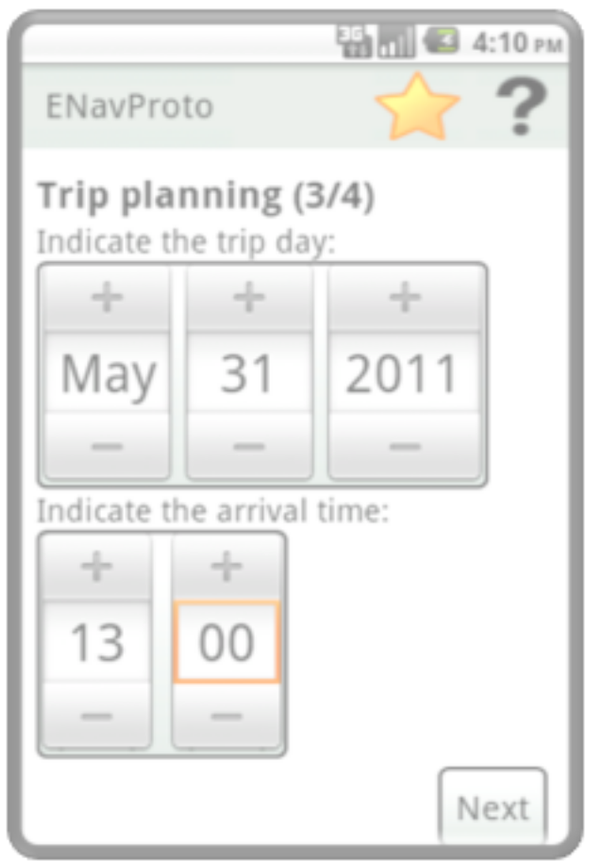

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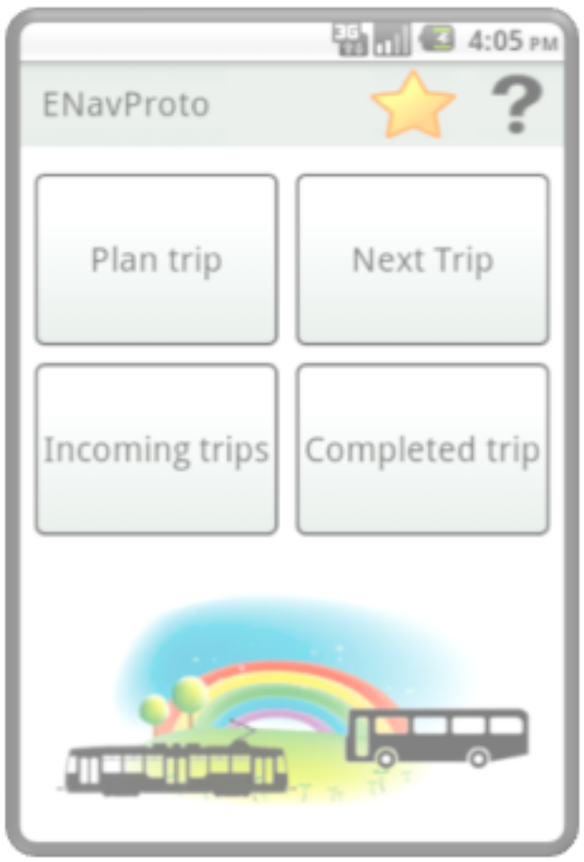

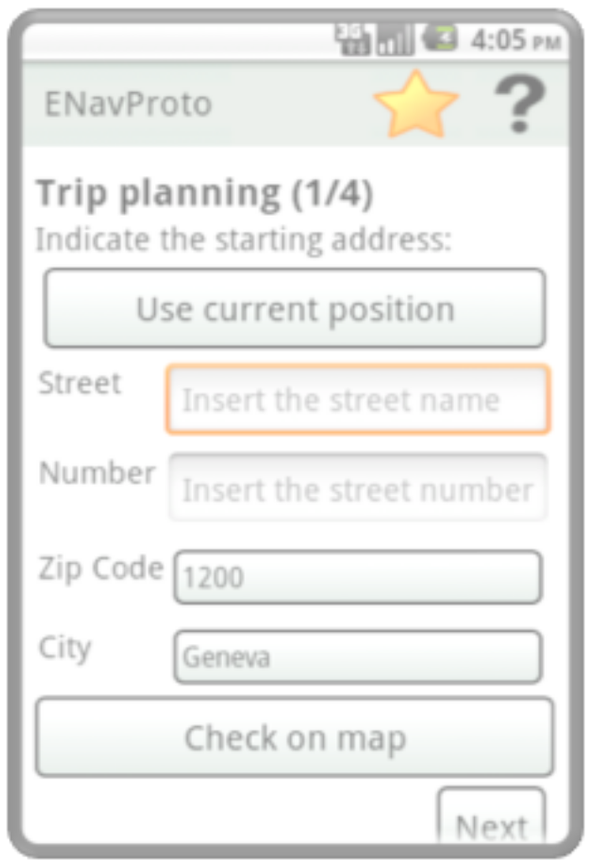

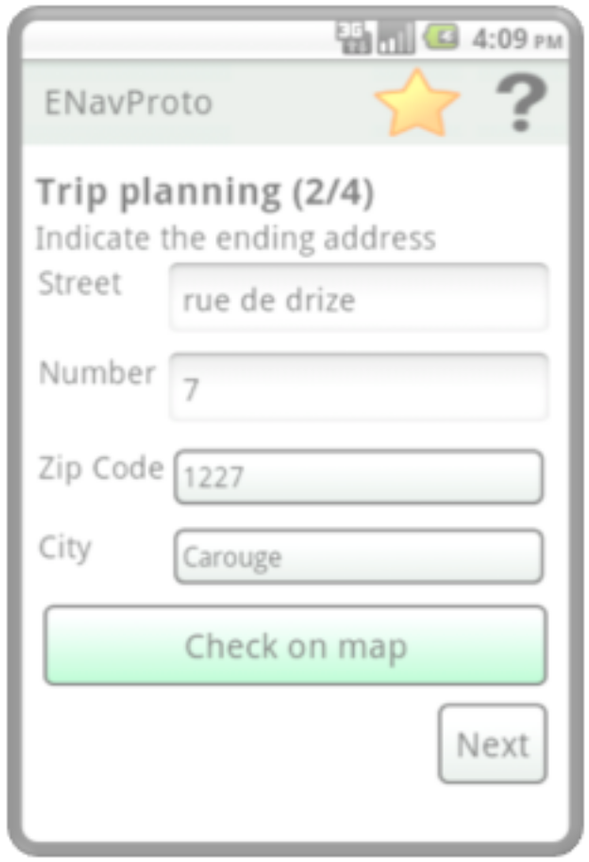

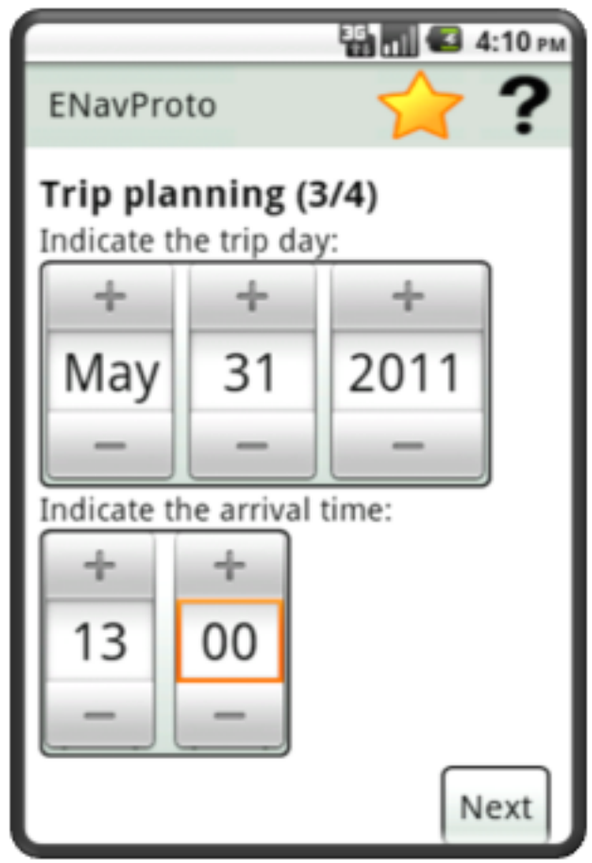

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Challenges

- Collect the requirements from elderly of different countries
  - Where do we can find them?
  - Different needs
  - Different environment
  - Different culture

Challenges

- System evaluation (service and interface)
- How to involve elderly people and quantify results? Acceptance of the technology?

Conclusions

- New "world" where to apply geographical services and utilities
  - How much the user will adapt
  - How much the current systems must evolve (quantity and quality of information)
  - How to evaluate the system
  - How to promote the system once is ready, users acceptance...

Thank you!

- Questions?

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