



## UNITRANSMODEL Joint Public Transport Information System as a Unified Model

SERBIA-HUNGARY IPA CROSS-BORDER COOPERATION PROGRAM  
Project ID: HUSRB/1203/112/246.

In 2013, the JGSP Novi Sad (Novi Sad Transportation Company) and the University of Szeged acquired the funding „Hungary-Serbia IPA Cross-border Co-operation Program (2007-2013)” of the European Union, co-funded by the Hungarian government under the title „Joint Public Transformation System as a Unified Model”, to develop a cross-border coordinated passenger information system. The amount of the funding that belongs to the project is 278.332 EUR. The idea to emerge this project was given by the vivid communication between the cross-border regions of Serbia and Hungary. Tourists, workers and students travel to the other side of the border on a daily basis. The passenger information system developed as part of the project provides the possibility for those who travel to plan their journeys with regards to the place, the roads, the costs, and also the time constraints.

Passenger information is a diversified problem. Two different functions have been integrated into our project: a searchable online timetable and a journey planner. Both of the above functions are present in other software packages. Running a query in the Elvira system of the Hungarian railway company MÁV is a good example, and iGo – developed by NNG – is an excellent application to plan a journey.

Therefore, we needed to implement functions in our system that provide something new compared to the existing software solutions. Timetable-handling is a well-known database management task, so we took a „well-trodden path”.

*The journey planner, however, provides the novelty of our system by integrating the following functions:*

- Unified database containing cross-border data from Dél-Alföld and Vojvodina.
- Data structure based on European standards.
- Free choice of the start- and end-point of the journey (*either address or station*).
- Use of different public transport means (*bus, tram, trolley*), including walking.
- Free choice of travel conditions (*shortest travel distance, shortest walking distance, shortest time, etc.*).

With these parameters a software was developed to visualize the itinerary and other details of the journey on an on-line map. The users can access the system through a website as well as two smart-phone applications (*iOS, Android*). The website is available in multiple languages: Serbian, Hungarian and English.



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