Green Light Ahead with ORINOKO

Cooperation for Improved Traffic Flows

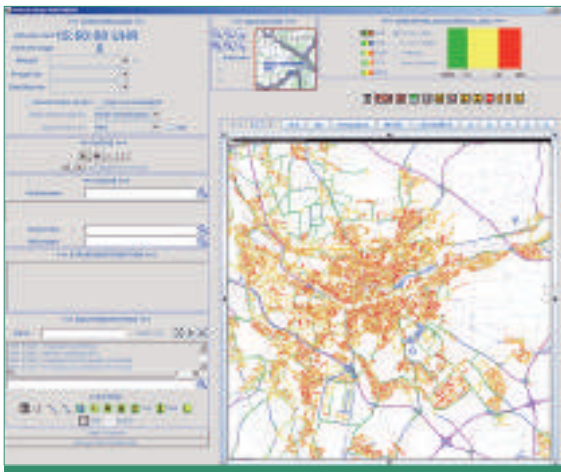
The situation is all too familiar: Instead of a green wave, you are met with a wave of annoyance which immediately spreads through your body. You sit and stare at the red traffic light, which is clearly pointlessly preventing you from continuing on your journey as the intersecting road is empty and behind you the cars are increasingly lining up. This is just one of many situations that show that traffic flows can certainly be improved.

However, this is more difficult than we would generally like to think. Better traffic flows require more efficient and intelligent transport management. And good management requires up-to-date, precise information about the traffic situation.

This is where ORINOKO comes in – a project funded by the Federal Ministry for Economics and Technology. The German abbreviation stands for "Operative Regional Integrated and Optimized Corridor Control." Six partners are currently working together with DLR under the management of the City of Nuremburg. The work of DLR relates to traffic data collection using Floating Car Data (FCD) technology and software development. This technology supports the traffic engineers on location with traffic quality management in their city. The acceptance and degrees of adherence and thus the effects of such traffic information services, which are developed as part of the project, also form the subject of their investigations.

The procedure for improved traffic light signal control (LSA) that has been developed within the ORINOKO project is to be tested in the city of Nuremberg in spring 2008. This testing includes an evaluation of the quality differences between the current traffic light control system and the new one. The evaluation will include the integrated data basis from FCD, video and counting loop data, which is developed in ORINOKO, as well as the results from the DLR traffic flow simulation.

However, new processes for optimized traffic flows are having difficulty in revealing their full effect. This is partly due to the fact that light signal systems are generally in operation for many years and their modernization is a slow process. Step by step, the old systems have to be connected to new network traffic computers. The new technical and scientific developments must therefore also be followed by an adaptation of the infrastructure. Smooth traffic flows thus require the interplay of entirely different actors in research, technology and management. With the know-how from the ORINOKO project, the signs are positive for smooth traffic flows in the long-term which spare the nerves of drivers as well as economize on time and fuel.



Screenshot of the quality assurance tool that has been developed by DLR as part of the ORINOKO project and which is currently being tested by the Nuremberg city administration. Based on the integrated data basis of ORINOKO, the quality of the traffic flows can especially be recorded at traffic lights. This enables a fast reaction to changes in the flow of traffic.

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