



TRANSDEV

OPTIMIZATION MODULE FOR DESIGNING THE TRANSPORT OFFER

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Aims:

- to enrich Transdev's proprietary business solution for designing the transport offer that it proposed to its networks, with an optimization module: automatic blocking and run cutting
- business guidance

Solutions:

- to supply and implement an optimization module incorporating Eurodecision's LP-EasyDriver software
- to help with deployment, assistance and support for the Business Division and networks
- Business Process Outsourcing

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Results:

- the number of drivers, working time, and vehicles are minimized – and that is true of complex transport networks (urban, interurban, peri-urban)
- significant time savings for planners

“Optimization engine configuration is well advanced. It takes into account complex constraints, yet enables our users to change the parameter values themselves.” Samir Zaouchi, DSI Corporate, Transdev

“We appreciate being able to count on opposite numbers who have real qualities... a stable committed team that understands and analyses our demands. The human side of dealings with Eurodecision is important for Transdev. We welcome the fact that they don't treat us like yet another customer number with a procedure assigned to it.” Edith Juillien, Operating Methods Unit, Transdev

Transdev, one of the world's mobility leaders with operations in 20 countries, designs and operates public transportation systems for cities and rural areas. France is Transdev's main operating territory, where it operates more than 20 000 vehicles, primarily buses and trams, and more than 200 networks. Its business is organized into 16 regional centres including four in the Greater Paris conurbation (outside of the major urban networks).

The regional directors are aided by the Group's Business Division in their continual quest to enhance their service, primarily by providing them with transport offer design software developed in-house by the Information Systems Division (DSI). The tool helps the planners with their vehicle service (graphic display) and cyclic roster (run cutting) building tasks.

In 2006, the Group (that was Veolia Transport at the time prior to its merger with Transdev) wanted to integrate an optimization engine. Eurodecision, the publisher of the automatic graphic display component LP-EasyDriver, was tasked with this mission.

The operator's choice was vindicated by the computing time and results delivered by the first trial. The Nice urban network, ST2N, was the first to be rolled out in 2007, followed by that of Nancy, STAN. The Nancy trial resulted in saving 4 runs on the 60 tramway routes.

The in-house business tool was subsequently rewritten, and its new version, known as TEO, was rolled out from 2009 onwards in more than half the group's networks in France. The TEO Optim module, implemented by Eurodecision that incorporates LP-EasyDriver, is used by the operating networks or by the units' methods offices when bidding for tenders. As it factors in numerous constraints and parameters (regulatory or network-specific), the tool offers planners a solution that is optimized for the relevant economic and social criteria. Users can monitor the optimization to fine tune the solution and test various scenarios.

Having been put through its paces by the urban networks, TEO Optim's scope was extended to address interurban networks' more complex criteria, primarily by adding automatic vehicle scheduling. The tool has been upscaled to meet the hybrid requirements of the "peri-urban" networks in the Greater Paris conurbation.

Transdev regularly calls on Eurodecision's experts as and when its requirements expand to add new features to the tool. After discussions between the DSI and the Business Division, those that deliver that highest added value to deal with practical needs are integrated into TEO Optim.



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Eurodecision has developed real transport offer design expertise. When requested by Transdev, it carries out ad hoc BPO (Business Process Outsourcing) missions to help it when overhauling the transport offer of a network that is unwilling to acquire the tool, or at critical junctures for example when a new organization is being set up in a network abroad.

The Transdev-Eurodecision collaboration does

not stop at the design of the transport offer. Downstream of this issue, run control is a vital link in the human resources planning process. It assigns the runs built during the run cutting process to the drivers. By adopting the same approach as it did for TEO, the FDS II ("Time sheet") business tool also developed by the Group's DSI, now incorporates an automatic planning module implemented by Eurodecision with its LP-ShiftPlanner component.