



### Customer

Rotterdam Elektrische Tram (RET)  
([www.ret.nl](http://www.ret.nl))

### Location

The Netherlands, Rotterdam

### Date of delivery

February 2008

### Summary

- Central server system for communication and management of 175 stop columns
- Design of stop columns and displays
- Production, installation and operational start-up of stop columns
- Delivery, installation and start-up of vehicle tracking systems in trams
- Five-year guarantee for entire system

## DRI TramPlus Rotterdam

The dynamic passenger information (Dutch acronym: DRI) system produced by Strukton Systems provides clarity for passengers using TramPlus lines in Rotterdam. The TramPlus concept relates to high-quality public transport on trams in Rotterdam. The DRI system contributes towards this by displaying the expected departure times in real-time at all TramPlus stops. As the system integrator, Strukton Systems was responsible for the system's design and realisation, including project management, basic and detailed engineering, procurement, installation, testing and operational start-up.

In addition to installing and developing the necessary software, Strukton Systems also took care of the design and creation of aesthetically pleasing structures for the displays. Also because of this, the displays delivered now form an architectural whole with the surrounding environment. A service and maintenance contract was closed simultaneously for the project. The DRI TramPlus system already covers some 80 trams and 175 stops along 5 tramlines.





**Information**

Displays at each stop show updated next-tram times. Changing departure times caused by delays, for example, can be registered and compared with the scheduled times. The new, updated departure times are calculated and the expected departure times are sent through to the displays at all the remaining stops.

Apart from application software, the system consists of extensive testing and diagnostics functionality. This enables RET to analyse the operation of the infrastructure and display systems without having to maintain a physical presence. For dynamic behaviour, use is made of the actual position of the vehicles. These positions can be calculated using combined GPS and Odometer readings. This information is transmitted to the central system wirelessly from the vehicles via KAR or GPRS. The expected departure times are then calculated by combining the actual position of the vehicles with the usual scheduled travelling times.



*Schematic diagram of DRI TramPlus*

