



### Benefits Realized

- Safe operation of pipeline
- Robust and reliable control
- Exceptional visibility into process
- High-availability 99.999%
- Effective engineering support
- Affordable life-cycle costs

*“Our D/3 based Pipeline Control System has performed flawlessly and NovaTech helped move our control center to another location two miles away, in less than 3 hours.”*

**Gilles de Kok**  
**Integrity Engineer**  
**ZEBRA Gasnetwerk B.V.**

## Ever thought about using D/3 as a SCADA replacement? ZEBRA did...and their profits have been flowing ever since.

### OVERVIEW

ZEBRA Gasnetwerk, a natural gas transport company, manages and maintains 139 miles of high-pressure pipeline and delivery stations. This intricate system provides a clean and reliable source of energy to consumers throughout the Netherlands. The network includes 40 stations, 30 of which are PLC controlled and connected to the D/3<sup>®</sup>.

The D/3 “SCADA” system is responsible for product quality, network security, and control station status which is vital for reliable transport of natural gas to all ZEBRA affiliates. The status of the piping and all critical system components are monitored through the D/3<sup>®</sup> system. Information is displayed in a modern, centralized control room where operators utilize D/3’s built-in visualization components to make informed and accurate decisions.

### BUSINESS CHALLENGE

ZEBRA asked NovaTech to assist in developing a SCADA system to monitor and control their high-pressure natural gas pipeline in a safe, efficient, and cost-effective manner. The control system would need to monitor and control gas flow, temperature, pressure, consumption, and component integrity at 28 remote gas delivery and control stations. Furthermore, the system must provide reliable archival and accurate trending of performance and consumption data and would need to provide 99.999% availability.

### NOVATECH SOLUTION

NovaTech provided a comprehensive D/3 system tailored specifically for ZEBRA’s stringent criteria. NovaTech engineers designed, developed, and commissioned sophisticated control strategies and powerful graphical user interface components to facilitate safe and efficient control of all managed stations.

Diagram A (below) represents the D/3 network topology of the delivered system. Diagram B shows a customized TotalVision<sup>®</sup> graphic illustrating the entire pipeline. Users can drill down on individual stations to access detailed displays, alarms, trends, and consumption data.

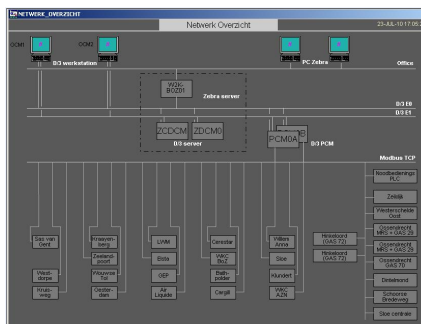


Diagram A

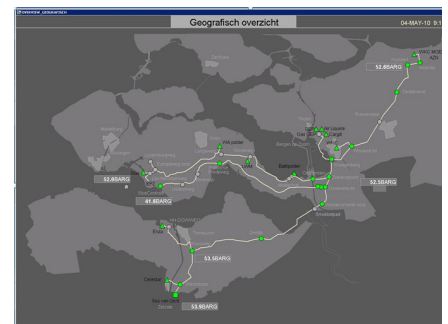


Diagram B