



# Toronto Transit Commission SCADA System

**Client: Toronto Transit Commission**

**Location: Toronto, Ontario**



## System Features

- DYNAC™ SCADA Software
- Redundant SCADA Servers
- Data Warehousing
- Redundant Historian Servers
- Redundant LAN with Gigabit Fiber Link
- Interfaced with Alstom Train Control System using ICCP Protocol
- Group Control to Automate Complex Control Operations
- Landis and Gyr RTU Protocol to 135 RTUs on Redundant Communication Links

**DYNAC™**

Every weekday, an average of 1.2 million people ride the subway, buses and streetcars of the Toronto Transit Commission (TTC). The TTC owns and operates subway and surface transit systems for the City of Toronto, Ontario and provides mass transit for the entire Metro area.

Development of TTC's new Power SCADA System was awarded to Transdyn in early 1999 as a joint effort with Alstom Signaling (formerly GRS). This system monitors power distribution to all transit lines (subway, trolley and light rail), ventilation subsystems, and passenger station facilities.

The power management capabilities of the SCADA system are very extensive with many operations fully automated, e.g. scheduled shutdowns, emergency ventilation, and emergency trip recovery. Operators are able to monitor and control power to track segments, substations, and surface street catenary subsystems. They can also view switch and power status, execute grouped control commands, execute and monitor pre-placed power, generate system and user-level reports, and archive system generated data.

The SCADA system is based on a fully redundant network consisting of high-performance, high-availability servers, workstations, front-end communication processors and field RTUs. Transdyn's DYNAC™ software is a fully integrated SCADA package that provides all the features required for a power distribution system plus many of the unique requirements for a rail transit system.