AutoLog® Application Note 101: Wireless Bus Depot

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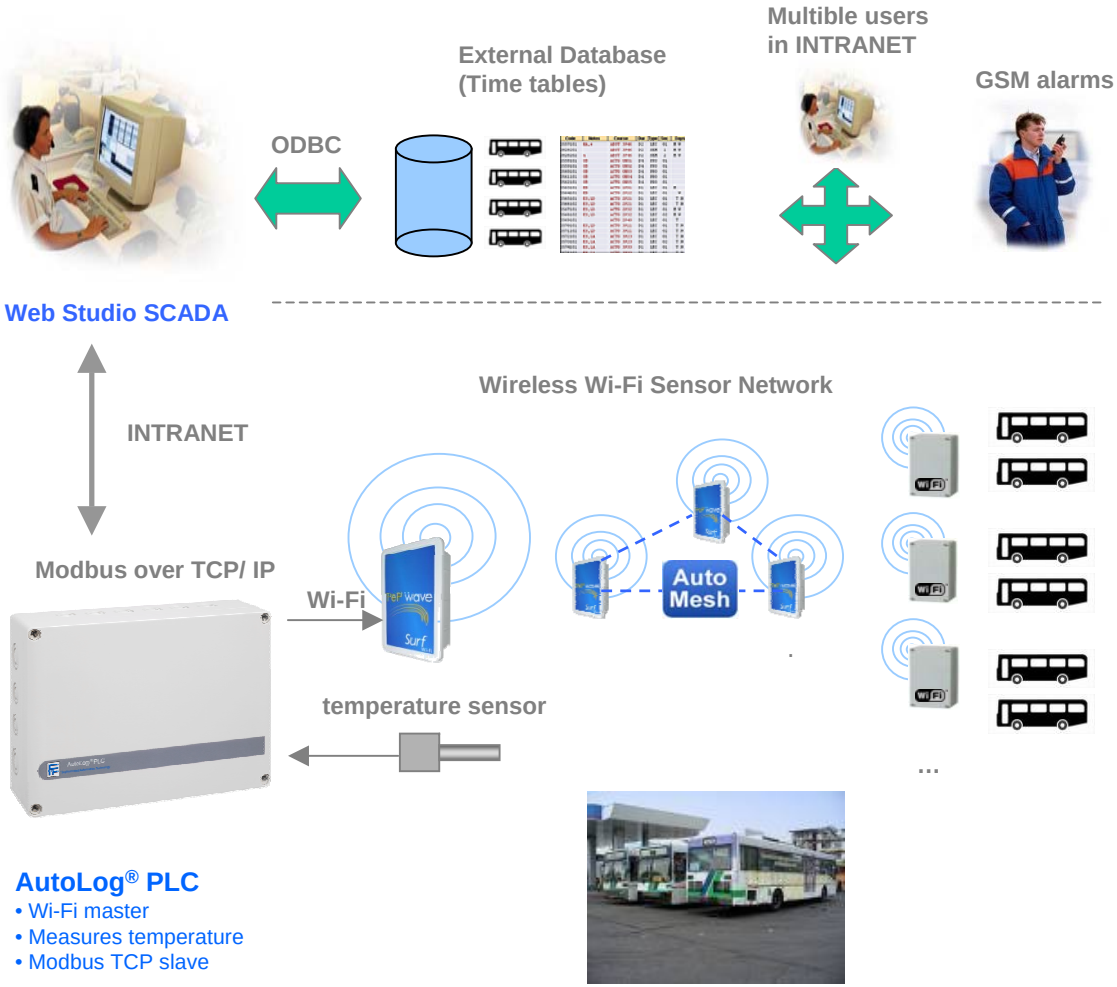

OPERATION:

Controls bus heaters according to bus route start times and outside temperature.

- Web Studio SCADA reads bus route start times from the BUS TIMETABLE database using ODBC interface.
- AutoLog PLC measures outside temperature. This information is read to Web Studio SCADA through Ethernet.
- According to these informations Web Studio calculates the needed bus heating time and sends this informtation to PLC.
- PLC controls Heater contacts in Wireless sensor modules accoring to this information and its own clock. (PLC can operate independently from SCADA so it will increase systems fail tolerancy).

MAIN BENEFITS:

SAVES HEATING ENERGY

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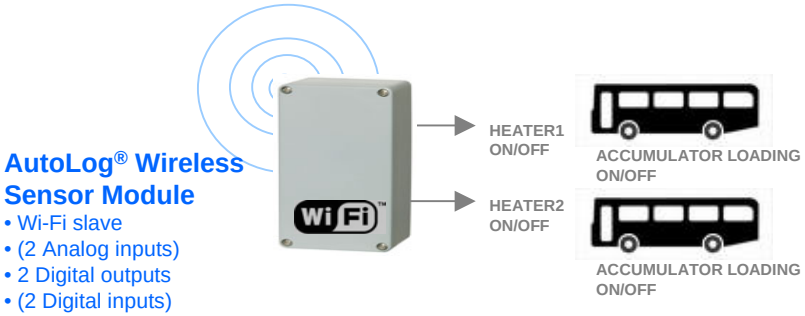

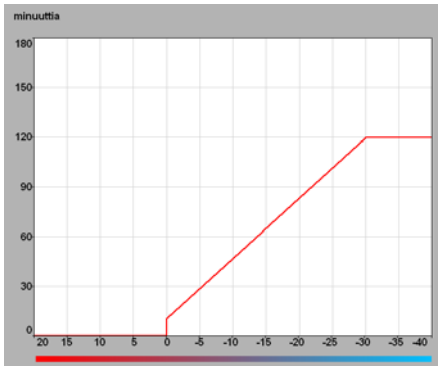

Heating time (y) / temperature (x)

Heating curve can be set in Web Studio SCADA

EQUIPMENT:

- AutoLog Wireless (Wi-Fi) Sensor Modules
- AutoLog 8 PLC + Wi-Fi master + Temperature sensor
- AutoLog Wi-Fi routers
- Web Studio SCADA software

INSTALLATION:

- Wireless sensor modules can be installed in weather proof enclosures with power and relays. One sensor module can control two heaters.
- System can be expanded easily with wireless I/O moduless.
- Network coverage can be expanded easily. Just adding new Wi-Fi routers. (Auto Mesh)
- System can be expanded also by adding new PLCs in the company's INTRANET.

BENEFITS:

- In old system, the heaters were always ON, so energy consumption was enormous. New intelligent heater control system saves more than 80% of energy.
- Allows remote controls of heaters / accumulator loading. Accumulators can be loaded automatically e.g. after weekend.
- Installation cost savings. Wireless Wi-Fi sensors doesn't need communication wirings.
- Old heating system can be easily replaced.