If you know your past you can improve your future.
MicroSCADA Pro Historian

Vaasan Sähkö Oy is the leading power supplier in the region of Ostrobothnia, western Finland, providing electricity to about 100,000 customers and district heating for about 90 percent of the region’s capital city, Vaasa. As the only supplier of heat and power in the Vaasa region, the company is trying to keep costs down, products affordable, operations efficient and, wherever, green.

Customer need
Vaasan Sähkö Oy needed to upgrade its old monitoring and reporting system, in order to minimize the risk of equipment failure and secure and maintain operational reliability. A ten-year old computer is a risk, but the customer also wanted to have a better user interface, replacing old graphics with a state-of-the-art interface and zoomable options and to improve communication traffic.

The new system the company had in mind had to be well-supported and futureproof, with updated interface, more simple trend and reporting functionalities and, very importantly, the capacity to expand functions and features in the future. It had to be able to receive exact values from substations, turn them into valuable information and maintain the raw measurement and event data for 2 years. Therefore for the company, Historian function was the main requirement.

Vaasan Sähkö asked ABB to update the company’s ten-year old servers from Windows 2003 to Windows 2012 R2, and in addition Pro 9.4, including the Pipeline Library and most importantly, the Historian reporting database.

ABB solution
ABB substation automation systems experts in Finland delivered this turnkey project. The project included a new operating system, new MicroSCADA Pro SYS600 9.4 with the latest interface, Pipeline Library, Historian and new communication interface.

ABB’s MicroSCADA Pro SYS600 9.4 is advanced technology designed for a simple purpose – to gather information from network sensors, and provide it in an informative interface to operators so they can respond.

The Pipeline Library function enables control of pipeline processes, such as gas or water distribution, district heating/cooling, water treatment, etc. The pipeline provides a broader view of the pipeline application, and its new graphical map function provides a better overview and understanding of the geographical locations on the map.

The flexible MicroSCADA Pro Historian function stores reporting and metering data for long periods, and can refine it into meaningful easy-to-understand information, for a clear overview of primary processes and equipment. It provides drag and drop functionality that simplifies main reports, and enables compilation of any data trend.
Customer benefits
Since Vaasan Sähkö’s district heating unit was happy with the existing MicroSCADA Pro system, they wanted to continue using that as with the flexible system the old and new interface work in parallel and enables gradual update of HMI process graphics.

Historian was one of the key requirements why Vaasan Sähkö chose MicroSCADA Pro and the benefits of the company-wide usability were essential to the customer. Most important benefit to the customer was the storing capability; every situation and measurement from the district heating network, such as temperature and currents is measured because the Historian server does not miss fast transients. Because Historian gathers data from remotely readable meters and provides measurement data and information about network behaviour to simulation programs, it helps the customer to build their network.

Benefit from a maintenance perspective is that operators can follow equipment lifetime, operations and operational changes. In the fault situation, the customer is provided with data from the entire period. Fault localization is much easier in utilities where this data is readily available.

Other benefits of Historian include ease of reporting. With the Historian the end customer support improves as Vaasan Sähkö’s customer service personnel are able to detect changes in the district heating network by themselves directly from the Historian.

The document also provides a baseline, covering everything from staff skills to installed firmware, from which the customer can draw to ensure system documentation remains current and valid, facilitating future expansion or modification.