

CASE STUDY: OKMETIC



Company Overview

Okmetic, located near Helsinki Finland, is a rapidly growing high-tech company which manufactures high-quality silicon wafers and other products based on silicon, and markets these products to semiconductor and sensor industries world-wide. Okmetic manufactures mainly three types of silicon wafers: application specific wafers, sensor wafers for micromechanics and highly doped wafers for manufacturers of power and discrete semiconductors.

Background

During 1996/97 Okmetic increased puller production and purchased some new pullers from Ferrofluidics. They already had several older Ferrofluidic pullers with InTouch trending, but the new models included Canary Trending version 3.1. When compared to their previous capabilities, the new software opened many new possibilities. Production capacity was increased again in 2000 with additional pullers from CGS in Germany. Okmetic considered Canary Trending to be a key tool in their production process and requested that it be included with their new pullers. Now all existing CGS pullers have Canary Trending as a standard part of the software.

System Configuration

Most of Okmetic's crystal pullers are PLC controlled and have the Wonderware, InTouch HMI. Canary Trending is used for the logging and display of all trending data. The ActiveX component of Trend Link is integrated within the InTouch screens.

Okmetic uses pullers from Kayex/ Ferrofluidics (Rochester, NY) and from CGS in Germany. All the pullers using Trend Link are networked together so production engineers can view the running puller from a remote computer.

Wonderware Specific Integration

Canary has developed a mini-opc server to bridge from Wonderware's InTouch software to the OPC-DA standard. It utilizes the configuration files of InTouch in conjunction with their proprietary Point Access Interface DLL, to provide real-time data to the Canary Logger through the OPC DA standard.



Results

Canary Trending is the main tool used by operators to monitor over 30 critical process & machine parameters in the crystal growth process prescription. The result is improved quality with less waste and a higher output to meet the growing demand for silicon.

"I can honestly say that without Canary data logging we would be lost. The resulting benefit is both higher production and improved quality. Putting the benefit into numbers is difficult. I would say we can not run the process without Canary's good trending and logging application."

Ari Saarnikko,
Production Engineer

Configuration Overview:

- Trend Historian
- Trend Link
- CanaryInTouchHistStart

Canary Labs Integration:

- Direct PLC
- Wonderware InTouch

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