CASE STUDY: LED-BASED TRAFFIC SIGNS

Solution: Embedded solutions
Country: Norway
Company: Scandisign AS
Summary: Anybus® IC handles communication between a controlling Profibus network and roadsigns.

The effects

- Quick time-to-market
- Modbus TCP implemented using the same set-up.
- Compatibility with any other network in the future.

"Projects would be lost if it wasn't for the Anybus technology."

Håkon Sahlsten, Managing Director at Scandisign AS.

Scandisign AS brings traffic safety to a higher level

Scandisign, a member of the Norway based company SafeRoad Group, is one of the leading suppliers of LED-based traffic signs and energy effective illuminated signs for multi-storey car parks and airports.

Their customers often require products with various ways of communication. By integrating Anybus-IC from HMS Industrial Networks in their traffic signs they have made sure that they have a short time to market and a flexible solution that runs smoothly.

A fruitful co-operation

Time to market is very important for Scandisign AS, as they must be able to show their customers that they are able to deliver what their customers want within the time provided. So when the need for a sign with Profibus communication came up, Scandisign had to find a solution quickly. The final products were to be used in "Festningstunnelen", an underground tunnel in central Oslo.

Scandesign initiated a co-operation with AD Elektronikk. As AD Elektronikk had used the Anybus-IC technology in previous projects they could quickly develop and design a solution including this, a regulator, a switch and a micro controller. They then integrated the whole thing on Scandisign's already existing printed circuit board. The board was then sent to Scandisigns own

manufacturer for final production. More than 500 circuit boards with Anybus-IC are used in the tunnel today.

Two for one

A few months later Scandisign AS had a new requirement from their customer: They now needed connectivity over Ethernet/Modbus TCP instead of Profibus. Scandisign AS could now fully understand the flexibility of the Anybus solution. Within a few weeks they were up and running with the new connectivity.

AD Elektronikk solved this new way of communicating by designing a second circuit board that was placed on top of the existing board, a so called piggy back. The Anybus-IC and the Ethernet switch were placed on the carrier and then connected to the main board. They also made minor updates of the firmware to handle both Profibus and Ethernet. In this way the same main board is used for both communication solutions.

Today in order to make the product even cheaper to produce AD Elektronikk works on re-designing the circuit board which will give a better solution and give more flexibility to the signs.

About Scandisign AS

Scandisign AS is a member of the SafeRoad Group. Scandisign AS was established 1998 and has today become one of Norway's largest suppliers of LED-based traffic signs and illuminated signs for multi-storey car parks and airports. All their products are in-house developed and then externally produced by co-operation partners.

SafeRoad Group is a leading supplier of products and solutions for traffic safety. The group has 1.500 employees in 10 countries. Their business comprises many solutions - such as road signs, technical products, road marking, roadway illumination, road railings, rock and tunnel securing. SafeRoad is also a supplier of marine systems, balcony systems and street furniture.

Learn more on www.anybus.com or www.scandisign.no

Anybus IC

The Anybus-IC is a family of complete interchangeable single chip interfaces for industrial networks. It is optimized for field devices, where small size and multiple network connectivity are important. Anybus-IC contains all electronic components and software necessary to implement a full featured industrial communication interface. Everything is integrated into a single board solution that fits perfectly into a standard DIL32 chip socket consuming only 9 cm² in size.