

AUTOMATIC EMISSIONS MONITORING CONTROL SYSTEM FOR A1-CBISS

Founded in 1989, **a1-cbiss Ltd** is an industry leading company specialising in the design, build and integration of continuous emissions monitoring system (CEMS) projects. a1-cbiss caters for personal safety and environmental protection within a variety of industries including: oil & gas, energy from waste, shipping/marine, petrochemical and wastewater.

THE REQUIREMENT & THE SOLUTION

The a1-cbiss team are often asked by their customers to supply two emissions analysers acting as a redundant pair to ensure maximum monitoring uptime. These two analysers are used for acquiring the data, displaying and reporting data.

a1-cbiss approached Amplicon to design a cost effective and easy to install solution that would also take account of the criticality of the application. The hardware requirement included the following instrumentation: HMI screen for operator input (touch screen), relay outputs, programmable logic control and a TCP communications interface.

At the time a1-cbiss contacted Amplicon they were using a system based on a PC with distributed I/O modules. It was quickly ascertained that the application did not require the processing power of a PC and as there was a limited footprint, this was an area where improvements could be made by selecting more suitable hardware. The application did however require an HMI screen, so using a PLC solution would have proved unsuitable.

The Amplicon team realised that this application would require a device that had the features of an industrial computer to drive the HMI screen plus the I/O and control capabilities of a PLC.



Having understood the customer requirements Amplicon recommended the ViewPAC product line of programmable automation controllers. The **ViewPAC** is a programmable automation controller offering HMI, data acquisition and control functions in one unit.

Amplicon specified the ViewPAC series as it has a choice of different operating systems (WinCE 5.0, Linux and MiniOS7), as well as different sized touch screen displays (3.5", 5.7" and 10.4"). For this particular application, the WinCE model with a 10.4" was selected.

THE RESULTS

The ViewPAC units perfectly met the customer budget requirements because the need for a separate display was eliminated, as well as the requirement for installing communication and power cabling to distribute I/O units, all of these factors contributed to a much reduced cost of installation.

The ViewPAC with its support for Windows CE meant the customer could apply their expertise with Visual Studio .Net to create a Windows program that acts as the user interface and provides the logic control for the relays contained within the unit.

The a1-cbiss engineers are extremely pleased with the ease of use and the performance offered by the touch screen interface. Also because additional communications networks were not required to connect distributed I/O units, the build time of the panels was much reduced.

"Amplicon provide second to none customer service and provide solutions to challenges we pose them in a professional and timely manner. The ViewPAC solution offered by Amplicon has enabled a1-cbiss to be more competitive through a reduction of installation costs and a reduced bill of materials." **Phil Kewish, Engineering Manager.**

WHY AMPLICON

a1-cbiss Ltd has worked with Amplicon over many years for both remote I/O and network communications equipment. Amplicon have always met the high standards expected from a company with such a strong reputation.

With an extensive range of automation and control products, including Panel PCs, HMIs, I/O modules, PACs and SCADA hardware the Amplicon measurement and control engineers are able to assist with the design and integration of high performance systems to industry.