

PERTRONIC INDUSTRIES LTD

FIREBITS

FIRE-NZ Edition - September 2011

Welcome to the **FIRE-NZ** Conference edition of **FIREBITS**, Pertronic Industries' quarterly newsletter. Our company is proud to be a regular supporter of this important annual event for our industry.



Viaduct Events Centre Opens On Auckland's Waterfront

As part of the revitalisation of Auckland's waterfront, the first stages of Wynyard Quarter (formerly part of the oil 'tank farm') opened to the public in August, providing Aucklanders and visitors with greater access to a range of marine activities, events, restaurants and open spaces at the water's edge.

A focal point of Wynyard Quarter is the new multi-purpose Viaduct Events Centre, developed on a site formerly occupied by America's Cup yacht bases. The Centre's fire protection system is a Pertronic F120A analogue addressable control panel supporting over 100 COPTIR multi-criteria detectors. These detectors use CO, Photoelectric, Thermal and Infra Red sensors to provide a very accurate and fast response to real fire conditions while rejecting a greater range of false alarm conditions than other detectors - necessary with the diverse type of activities and functions the Centre will host. Two Isolate Timer Modules are installed to isolate devices for a predetermined period, should that be necessary, in the main exhibition space and the level three exhibition area. An LCD mimic display is located in the reception area to provide device-specific information to security personnel, with AS1668-compliant fire fan controllers installed to control the extract fans and roof-mounted louvres. There is also a separate interface to the Centre's electrical services to shut down the audio-visual systems throughout the complex in the event of an alarm.



VESDA



New Audio Visual Sign Range From Pertronic

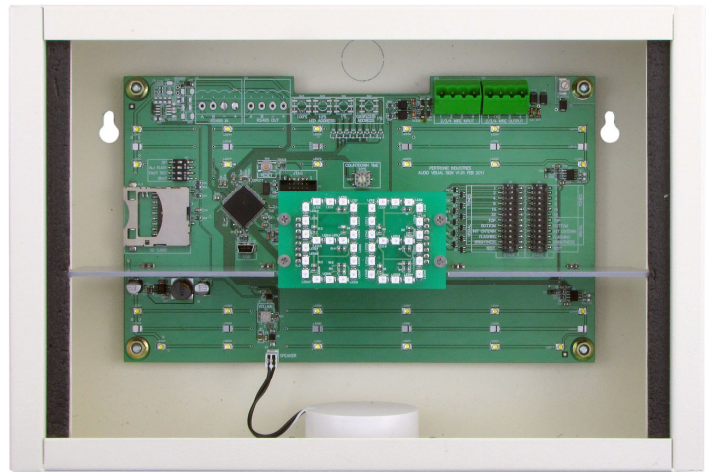
Pertronic Industries has developed a range of audio visual signs to meet the requirements of AS4214 and ISO 14520. The signs use the latest LED technology to provide high visibility at lower power levels when compared to other technologies. An inbuilt microcontroller and amplifier produce clear audible tones and voice messages at sound levels up to 98dBA. An LED matrix can be added to the sign to provide a visual countdown indication - for example the time remaining to a gas suppression discharge. The sign supports 2, 3 or 4-wire connections to switch between the two different stages of operation. Two banks of dip switches are used to configure the different visual and tonal requirements for those two stages, with 47 different tones (including AS2220 Evac and Alert with voice messages) pre-programmed into the sign's software.

The standard range of fascia messages include:

Fire Alarm, Do Not Enter
Do Not Enter, Gas Discharged
Warning, Sliding Fire Door

Fire Alarm, Evacuate Area
Extinguishing System Inoperative
Fire Door Closing

Custom messages can be printed as required for a small additional cost. For full details and order codes, please go to the Pertronic web site - www.pertronic.co.nz - and look under products/alerting devices/av sign.



Installation And Fault Finding Tips

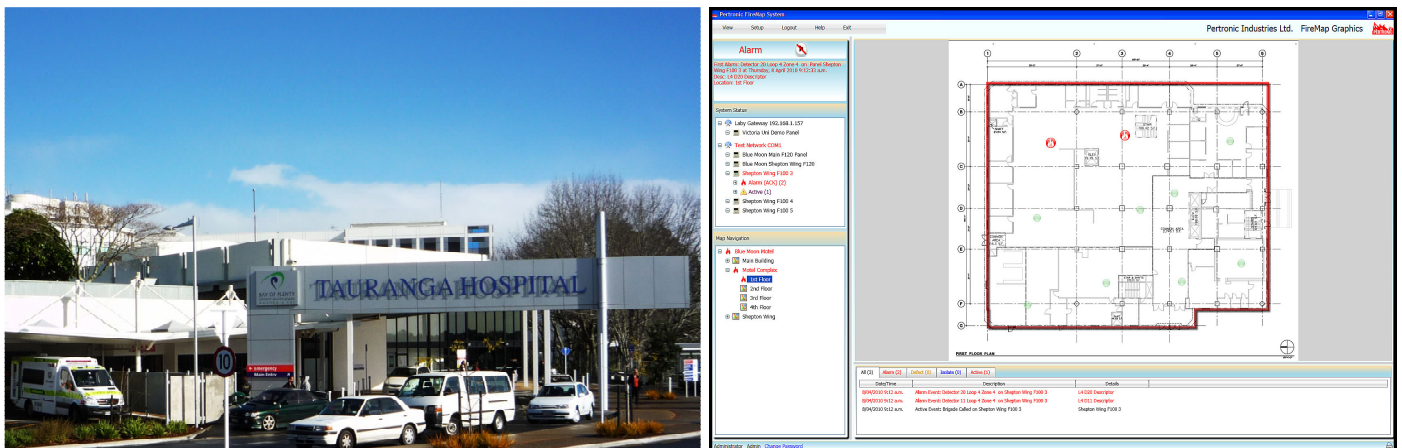
- Beam detectors were recently installed in a large retail store, spanning a distance of 60 metres between the beam transmitter/receiver and reflector. The detector correctly powered up in a normal condition but when alarm tests were carried out the detector would not go into alarm. The problem was identified as being natural light entering the building through clear roof panels casting additional light onto the beam detector. This interfered with the signal back from the reflector and kept the detector in a normal condition. Increasing the reflector size up to that used for beam transmission distances between 70-100 metres overcame this problem by sending a stronger reflected signal back to the beam unit.
- We have become aware of a number of installations where indicating heat detectors (non-encapsulated) have been installed externally under canopies and walkways (well back from the edge of these structures) and have subsequently failed, or gone into alarm, from moisture damage. Although these detectors are not directly getting wet from rainfall, the combination of rain and wind as well as high humidity levels at different times of the year can impact on these electronic devices. We recommend that all externally mounted indicating heat detectors should be of the encapsulated type. Fire engineers are encouraged to specify this requirement to ensure that projects are correctly priced at the tender stage.
- A site recently experienced intermittent defects on the RS485 comms line connecting different LED mimic displays. The fault was identified as a negative cable not connected to one of the mimics. One of the problems of - or benefits with - RS485 comms is the receivers are so good they will work most of the time even with a wire missing! It is important to check that all RS485 field terminations are correct.

Pertronic FireMap® Graphics System installed in major hospital upgrades

Providing fast, accurate information on fire events to key response personnel is critical in any building and all the more so in hospitals, with large numbers of bed-ridden patients creating special evacuation requirements. As part of major building upgrades and extensions at Tauranga and Whakatane Hospitals, Bay of Plenty District Health Board management wanted to ensure their staff had the best information possible from their fire protection systems to assist their evacuation and life protection responses.

Engineers at Beca researched and recommended Pertronic FireMap®, a PC-based Graphics System, to provide this critical information at multiple locations in both hospital complexes. Developed in-house by Pertronic Industries, FireMap is designed with ease of installation and ease of use as prime requirements. Most PC-based graphics systems are complex to develop. Unless the fire alarm company has staff with comprehensive training in graphics development, this work is usually undertaken by a third party contractor, adding cost and delays in the communication chain to the end client.

Pertronic FireMap simplifies the entire process. The fire alarm company develops and maintains the entire FireMap graphics system for their client. FireMap can also communicate between multiple PC's and fire panels over the client's ethernet LAN, removing the need for additional cabling. At Tauranga Hospital, FireMap is displayed on a PC in the property management office and on two 24 inch touch screens (with inbuilt PC's); one at the Fire Service attendance point, the second in the Hospital's Telephony Centre. Once FireMap is operational, navigation is via a hierarchical map viewing system, which is always visible to the left of the screen. When an alarm occurs, the relevant map (or zone) automatically displays and shows the physical location of the device in alarm together with its details.



While FireMap is designed to operate primarily with Pertronic analogue addressable fire panels it can also interface with non-Pertronic panels to provide basic information in the graphics display from other alarm systems. This feature will give the Bay of Plenty District Health Board information not previously available from a number of remote buildings, providing management and staff with valuable data to ensure the correct response to any alarm event site wide.

On The Lighter Side...

A fire started on some grasslands near a farm and the local fire brigade was called to put out the fire, but the fire was more than the crew could handle. Someone suggested that a nearby volunteer group be called. The volunteers arrived in a dilapidated old fire truck, rumbled straight towards the fire, drove right into the middle of the flames and stopped! The firemen jumped off the truck and frantically started spraying water in all directions. Soon they had doused the centre of the fire, breaking the blaze into two easily-controlled parts. Watching all this, the farmer was so impressed and so grateful his farm had been spared that he presented the volunteers with a cheque for \$1,000. A local news reporter asked the volunteer fire chief what the station planned to do with the funds. "That ought to be obvious" he responded, wiping ashes off his coat. "The first thing we're going to do is fix the darned brakes on that truck!"

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Pertronic Panels Protect Party Central For Rugby World Cup

The redevelopment of Auckland's Queens Wharf as 'Party Central' for Rugby World Cup 2011 has been the subject of considerable debate in the media. The final plan, agreed between central and local government, involved repairs to the Queens Wharf structure, construction of "The Cloud" and the redevelopment of the adjacent Shed 10, which has been assigned Historic Places Trust protection. As the country's biggest fan zone during the Rugby World Cup, Queens Wharf will be capable of holding up to 15,000 people, including 2,000 in Shed 10 and 6,000 in The Cloud. Shed 10 will be the heart of the fan zone, screening all 48 matches live on big screens and expanding into the Cloud for the biggest matches, with The Cloud also hosting a series of events showcasing New Zealand business and industry innovation. The giant rugby ball which has toured the world promoting Rugby World Cup 2011 will be mounted at the entry to Queens Wharf.

Pertronic fire alarm systems protect both structures. In The Cloud a F100A analogue addressable control panel supports seven Vesda Laser Plus aspirating detectors installed along the length of the complex, with their sampling tubes attached to the curved ribs supporting the roof membrane structure. COPTIR multi-criteria detectors are installed throughout the hospitality areas at the northern end of The Cloud to suppress nuisance alarms during a diverse range of activities and events. Separate interfaces operate smoke curtains, shut down audio-visual systems and turn on all lighting in the event of an alarm.

An F100A analogue addressable control panel is also installed in Shed 10, supporting over 60 PTIR multi-criteria detectors (which use Photoelectric, Thermal and Infra Red sensors for accurate alarm detection and false alarm suppression). Both F100 panels are interfaced to a Pertronic F16E control panel installed as a sector mimic at the Quay St entry to the wharf.

