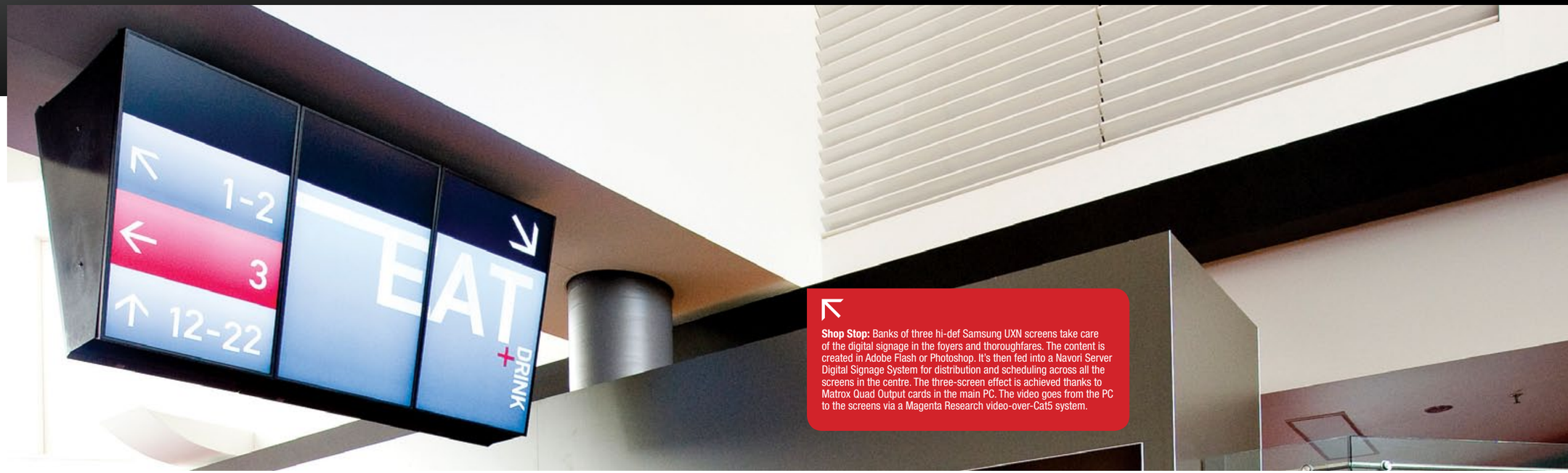
THAT'S ENTER-TAIN-MENT!

Adelaide Entertainment Centre's $52m facelift packs a super-smart signage solution.

Story: Graeme Hague



Shop Stop: Banks of three hi-def Samsung UXN screens take care of the digital signage in the foyers and thoroughfares. The content is created in Adobe Flash or Photoshop. It's then fed into a Navori Server Digital Signage System for distribution and scheduling across all the screens in the centre. The three-screen effect is achieved thanks to Matrox Quad Output cards in the main PC. The video goes from the PC to the screens via a Magenta Research video-over-Cat5 system.

The Adelaide Entertainment Centre was originally opened in 1991 and faithfully served the Adelaide community to the point of reaching a record-breaking 378,000 patrons through its doors in 2008. At that time it was announced that a $52m facelift was commissioned with the intention of taking the AEC at least another 30 years into the 21st century. Part of the refit involved an unprecedented level of digital content distribution. Exciting stuff!

Now in 2010 the job's done – and it's safe to say it's been come up pretty darned well. For a start, the interior of the complex has a wealth of new digital signage (79 Samsung screens in total), focused mostly on marketing and promotions but of course some displays are dedicated to more functional tasks like show relay and bar or café information. Outside, on the front façade things get impressive, too. A massive new electronic sign has been installed measuring a whopping 67 metres long and 2.4 metres high. It was at the time of completion – and probably still is – the largest sign of its kind in the southern hemisphere.

Not surprisingly the comprehensive internal digital signage and the monster LED array are the kind of big-budget contracts that pique our curiosity. However, when I started digging around for the background story an unexpected fact about the projects came to light. Both systems had been developed, designed and installed by Harvey Norman Commercial.

SEAMLESS DISPLAY

The showcase of the interior digital signage system is an array of 16 Samsung 46-inch UT displays – the UT model having the thinner bezels that create an almost seamless look. Otherwise most of the digital signage in the foyers and thoroughfares is displayed in banks of three Samsung UXN screens with each producing 1920 x 1080 pictures. The effect is achieved thanks to Matrox Quad Output cards in the main PC. Exceptions are 65-inch Panasonic plasmas installed in the kiosk area – let's not have any misunderstandings about the beer prices shall we? Data signals to the entire digital signage network is achieved with a Magenta Research infrastructure that uses UTP cabling terminating with one of Magenta's own baluns at each screen. A Crestron system is used to distribute the digital signal across the network. Content is created in Adobe Flash or Photoshop, with Flash getting the nod most of the time (for both the internal signage and the large LED display). It's then fed into a Navori Server Digital Signage System for distribution and scheduling across all the screens in the centre as required – again including material destined for the front of the building.

That impressive outdoor LED array chewed up around half of the $4m budget. It's made up of 126 Ledavision P10 panels which were custom-built to 1600mm x 800mm each (normal they're 1280mm x 960mm) and assembled in a grid of 42 panels long and three panels deep. From there, the panels were segregated into four sections. The entire sign has its own video processing and again a Crestron control system with a thermostat installed for each of the four parts. Temperature control is a crucial element to the sign's performance and maintenance and with Adelaide capable of weather extremes it was more than a simple fail-safe function. The physical installation of the modules required a custom protective flashing, designed to improve air flow for cooling. The thermostat data was linked and is compared with the AEC's building management system as a kind of double-check of the conditions. Temperature readings are also used to configure the brightness of the sign with an obvious correlation being made with heat equating to daytime and sunlight – although in Adelaide you never know. The sign's brightness caused the only real problem of the entire project. The Adelaide City Council soon requested that the output be dialled down to around 20% at night, otherwise the nearby automatic streetlights got confused and wouldn't switch on. Data to the signage is sent via a Crestron Digital Media 8 X 8 DVI matrix to four fibre optic send and receive processors providing 24-bit HD colour. In the main 'comms' room four 21-inch preview screens let programmers ensure no unfortunate errors are displayed in all its 67m-wide splendour.

SMART, CENTRALISED & INTEGRATED

Which finally brings us to the only understated aspect of the Adelaide Entertainment Centre's new digital signage. We're already starting to take these kinds of things for granted, but the strength of this system is the successful management (from a single point) of displays varying from something the size of three buses lined up end-to-end to a small video screen telling you the price of the popcorn. It's all thanks to the professional, technical contribution from Matt Vawser's team at Harvey Norman Commercial and no doubt the crews at Samsung and Hills SVL helped out, too. It's a great example of a digital signage network working solidly in the background, providing up-to-date information inside, while it's also lighting up the streets outside.

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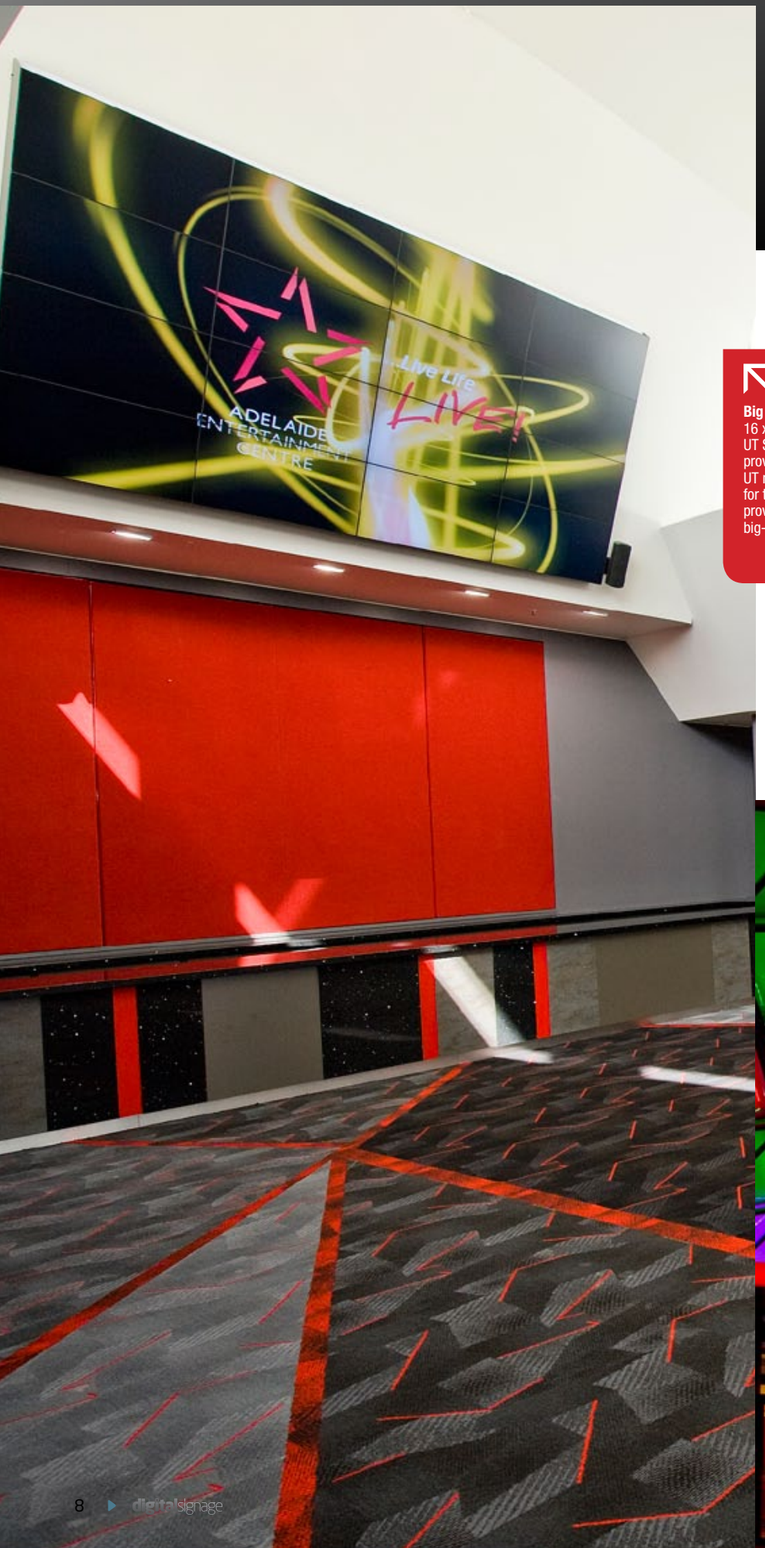

Big Welcome: A bank of 16 x Samsung 46-inch UT Series displays provide a big splash. The UT models were selected for their ultra-thin bezel, providing a seamless big-screen impact.

GO HARVEY

Most people will associate the name Harvey Norman only with the giant white goods and electronics retailer. Hearing of the existence of its Harvey Norman Commercial (HNC) division usually raises a few eyebrows, before it's assumed that HNC is some kind of bulk-buy organisation for the trade industries to take advantage of Harvey Norman's considerable buying power – and they'd be almost right. Harvey Norman Commercial has branches in all the states of Australia except Tasmania and in the words of Matt Vawser, Franchisee of the South Australian HNC, these are 'box moving entities'. While all the best expertise and customer service is always provided, HNC is still basically a sales outlet. The staff will stand at the door and cheerfully wave you goodbye as you drive away with a truck filled with goodies.

Except in Adelaide where things are different. Matt Vawser is a qualified network engineer with a long background in installing integrated systems using C-Bus, Crestron and AMX equipment to name but a few. He had a vision for HNC in South Australia to become a leading supplier of control networks and take the Harvey Norman Commercial business he provided beyond just supplying pallet-loads of televisions at a time. Matt decided to combine his engineering talents with the HNC brand and with the blessing off the Harvey Norman management was encouraged to give it a go.

He started off in the tough sector of servicing system networks in the pubs and clubs of Adelaide and over several years earned a solid reputation. So it was no fluke that HNC Adelaide made a successful bid to supply and install over $4m worth of audio visual and digital signage as part of the Adelaide Entertainment Centre refit.

As mentioned above, HNC provided no less than 79 Samsung digital signage screens throughout the complex. Normally you'd call that a big network for Australia where large-scale digital signage is only just really getting established. Except that HNC can top that – and at the same time make the point that the AEC wasn't a one-off project – because HNC is currently finishing another significant project; the installation of AV screens at the Morphetville Race course involving a network of 11 x 103-inch plasma screens and some 460 smaller commercial plasma screens.

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