

## CASE STUDY

## MULTIMEDIA PROJECTORS

### Ivanhoe Grammar School

Established in 1915, Ivanhoe Grammar School is a multi-campus, co-educational independent Anglican school with a proud tradition of academic, sporting and personal success. One of the school's strengths is that it takes full advantage of modern technology - with an emphasis on wireless - for teaching and learning applications. Playing a major role in this is the increasing use of wireless-enabled Epson projectors.

For Chris Ross, the school's Information Communications & Technology Administrator, wireless networking is often the only way to bring technology on line. "We have very large campus areas," he says. "The logistics and costs of campus-wide access in a strictly hardwired network environment would be absolutely prohibitive.

"All of our students in Years 5 through to 12 have notebook computers, which they use right across the entire curriculum. Whether they are in a class or in the grounds, they have the ability to log on wirelessly to the network and access resources such as the Internet and the school's intranet."

#### Flexible and secure networking

With projectors being used extensively throughout the school, Ross set out to identify the best possible projector model that would fit into the school's hardwired and wireless network mix. "Flexibility and security were two of the main features I was looking for in the new model's network support," he says. "With 1200 students using wireless-enabled notebooks, security becomes very important."

#### Reliability crucial to confidence

In order to encourage the use of technology in education, Ross points out that technology *reliability* is a crucial factor. "If things don't work properly, the teachers will simply lose confidence and be less inclined to use it in their classes," he says. "We've already seen this with some of our third-party projectors, where the build up of heat was so great that the projectors would shut themselves down."

#### SOLUTION

Following an evaluation of wireless-enabled projectors from various vendors, Ross opted to purchase Epson EMP-835 projectors.

"One of the features I particularly liked about the EMP-835s when I evaluated them was their use of solid state 3LCD technologies - so, no moving parts - as opposed to the more mechanical DLP projectors," he says. "This meant there would be less heat and less components that could break down."

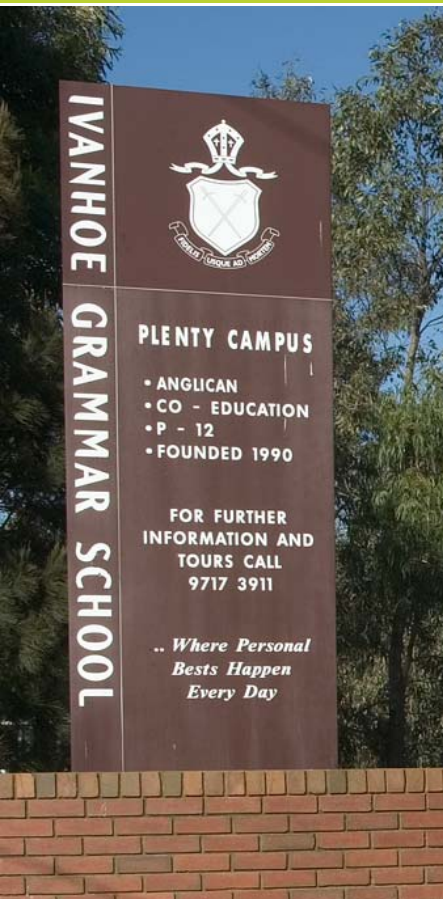
#### Best fit for wireless networked environments

With constant growth of the school's wireless network, the ability to configure the EMP-835 for either hardwired or wireless networking is ensuring high levels of flexibility. While the projectors are normally configured for networking via the built-in RJ45 Ethernet port, their high speed standard 802.11g wireless capabilities are set to be instrumental in promoting education *and* the school's international reputation.

"Later this year [2005], we're hosting an education conference with around 500 delegates attending from all around the world," Ross says. "Rather than going through the hassle - and expense - of laying cables for the two projectors we'll be using, I'll simply be plugging in wireless network cards and controlling them via my notebook."

During the conference Ross will also be taking advantage of one of the EMP-835's Epson EasyMP technologies providing simultaneous wireless connection of up to four projectors. With this, Ross will broadcast a single file out to multiple projectors located around the auditorium. Supporting the high image quality in this wireless environment is the EMP-835's Epson NS Connection software; data compression and decompression for computer to projector applications.

At an administration level, the advanced networking technologies of the EMP-835



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have significantly reduced the time and effort Ross would normally spend in problem identification and resolution. "Each of the EMP-835s is configured for automatic e-mail notification if a problem occurs," he says. "With this, rather than a teacher reporting that 'something' has gone wrong with a projector, the projector sends an e-mail with full details of the problem. The result - much quicker problem resolution and less impact on the class."

### Multi-level security

In an education environment where students are actively encouraged to exploit the full potential of the on-hand technology, there will inevitably arise situations where security represents a tempting challenge. Even though there are strict policies within the school against any form of 'hacking', security best-practices - particularly in a wireless environment - are a constant requirement.

"When our students attend a class where they will be using their notebooks to control a projector, the teacher provides them with a password for *that* lesson," Ross says. "At the end of the lesson, the projector is turned off and that password becomes invalid, with a new one generated randomly by the EMP-835 when it's next turned on."

That application of password protection is achieved by utilising the Power On Protect function, one of three password protect functions built in to the EMP-835 projector.

Given the ever-present possibility of a projector being accidentally left on after a lesson, Ross is able to safeguard the projectors by taking advantage

of another password protect function - Timer Protect. "With Timer Protect, it's a simple operation to set each projector to generate a new password after a specified amount of time has elapsed," he says. "Added to this, is that I can access each of the projectors over the wireless network and remotely shut them down if I know they're not in use."

### Cutting through ambient light

When Ross evaluated the EMP-835, he paid particular attention to features such as brightness and screen size. "Ambient light is always an issue when it comes to projectors in our school," he says. "The last thing the teachers or students want is to have to get up and close curtains every time they use a projector. With a 3000 ANSI Lumens rating, the EMP-835s literally cut through the ambient light [sunlight and overhead lights] and deliver a very clear image."

Adding even further to the EMP-835's suitability for the school is its project screen capabilities, which can go as high as 300-inches. "In most of our installations, we have the projectors set for a 120-inch screen," Ross says. "To do this, we have them set a fair way back, so this is another area in which their brightness is of particular benefit.

"When you combine distance *and* ambient lighting, it takes a powerful projector to deliver the best image quality."

"We have a policy that if we're happy with the technology we use, we won't change unless absolutely necessary. So for us, Epson appears to be the way forward."

