PROJECTING
CONFIDENCE

By Greg Clare

Not so long ago, putting your business presentation up on the big screen was the domain of light-controlled boardrooms, generally with large and expensive projectors requiring permanent installation.

MODERN BUSINESS PROJECTORS offer compactness and portability, more connection options, improved picture quality, and sufficient brightness to cater to typical office lighting levels. Perhaps more importantly, projectors are now more affordable. With businesses looking to trim costs, even the most cost-conscious operations can now project their presentations to a larger audience.

For this roundup we were provided with business grade projectors by four of the major brands. The models reviewed provide a range of the latest features now available, giving you plenty of flexibility for delivering your presentations effectively.

LCD technology is utilised by three of the models, while one uses DLP. In brief, LCD projectors use three LCD panels, each panel passing a primary colour that is then combined into a single image.

DLP uses a single micro-mirror device to sequentially reflect each primary colour from a spinning colour wheel. There are various pros and cons with both LCD and DLP technology, but we'll leave those for another feature.

The review units were evaluated using a typical 80-inch projected screen size, at a variety of ambient light levels, including daylight.

With the continuing evolution of digital projection technology, it was perhaps not surprising that the projected image quality across all of the models was found to be of a high standard. The projectors all provided very good edge-to-edge focus and brightness uniformity, sharp and clear images, and brightness levels well suited to business or educational needs. In evaluating the projectors we therefore focused on the key features of each model we found to be most useful. ▶▶

EPSON EB-1735W
MULTIMEDIA PROJECTOR

9.0

THE EPSON 1735W is one of a new breed of widescreen ultra-portable LCD projectors. Out of the box it comes with an array of advanced features that make it well matched to mobile presentation requirements and modern widescreen notebooks. It promises all the goods for serious business presentations on the run.

Immediately obvious is the projector's portability; with a sub-A4 footprint and weight of 1.8kg it is the most compact of the reviewed models. Direct video connections provide a choice between standard composite and S-video inputs, or you can connect component video via an optional cable (using the VGA port).

The real surprise is when you start to explore the projector's USB and wireless connectivity. You can connect your Windows 2000 (or above) PC via the supplied USB lead, as an alternative to VGA. This does require a one-off software installation, but this is straightforward as the installer pops-up on a virtual USB drive. Plugging a USB drive or camera into the USB host connector allows you to run a slideshow of images. This allows for simple presentations without a computer.

Less obvious is the built in wireless network capability and the bundled "Quick Wireless Connection" USB key, which is almost hidden in a small pouch inside the carrying case. To use it you simply insert it into the projector's USB connector momentarily to update the network information. You then plug it into your PC and perform a quick install similar to the wired USB connection, and you're up and running with a fully wireless PC presentation solution. Epson also supports the Windows Network Projector feature (available in Vista and 7).

Despite its compact size, the Epson 1735W illuminates the screen with a bright 3,000 lumens, making it very capable in the typical light levels found in most meeting rooms and boardrooms. The image is visible even under high ambient light, but as expected video playback does benefit from darker conditions. The native WXGA 1,280 x 800 resolution is a great match for today's common 16:10 aspect ratio widescreen notebooks. If not using the native resolution, the projector will automatically accept an array of resolutions including the common 1,024 x 768.

To support its clearly intended use as a portable projector; a welcome feature is Epson's "Instant Off Technology". This allows the projector to be turned off and immediately unplugged, without the usual lamp cool down waiting period. A handy feature if you need to pack-up and vacate a meeting room quickly at the end of your presentation.

All the regular features expected of a portable business projector at this level are present, including inbuilt lens cover, manual zoom and focus controls, adjustable feet and digital keystone correction. Remote mouse functions are also available via the USB connection. The 3,000 hour lamp life (4,000 hours in low power mode) is noteworthy, providing a good stretch between bulb replacements.

In summary, the Epson EB-1735W delivers. Particularly impressive are its portability, network connectivity, and modern 16:10 widescreen capability.

EPSON EB-1735W
RRP incl GST: $3,249
Contact: epson.co.nz
A very capable projector for today's mobile business presentation needs.

DELL 1510X VALUE
SERIES PROJECTOR

8.0

THE DELL 1510X is the only DLP projector in this roundup. Reflecting Dell's "Value Series" projector class, the 1510X also has the lowest entry price amongst our review units.

Whilst compact and portable, with an A4 footprint and 2.36Kg weight, the 1510X is more at home in a permanent installation. DLP projectors generally have a longer throw distance than LCD, the 1510X requiring a 2.6m minimum distance to throw an 80-inch image, compared with between 1.92m and 2.36m for the LCD models.

Connectivity includes the standard composite and s-video inputs, along with dual VGA inputs, VGA output (pass-through), and component video via an optional cable (using a VGA port). USB and wired network connections are available, and also the bonus of an HDMI input.

The USB port connects to your PC to provide remote mouse and also firmware update capability. Connecting the projector to a LAN allows remote management from your web browser.

The HDMI input is a unique bonus on a business projector at this price level, further justifying its "Value Series" label. A digital HDMI display connection will always provide optimal image quality, avoiding the quality losses associated with VGA analogue-to-digital conversion. Although older computers and notebooks will not have HDMI outputs, this is a feature now found on newer desktop and notebook PCs, and is a requirement for connecting digital HD video sources.

The HDMI input supports both PC and HD video sources, providing HDMI 1.3 and HDCP compatibility to allow the connection of virtually any HDMI source. A wide range of resolutions for both PC and HD video sources are supported, all the way up to HD 1080p, including 24fps support (the Blu-ray standard). Although Full HD 1080p sources will be downscaled to the native XGA resolution, this provides excellent input compatibility for today's HD devices.

The Dell 1510X doesn't cease to surprise with its added 3D support. DLP 3D capability is only briefly covered in the manual, and this unique feature was not fully tested for this review due to lack of the required 3D glasses. However, by connecting a 120Hz PC display source, 3D options did appear on the setup menu ready to support the appropriate 3D hardware. There is plenty of hype that 2010 will be the year 3D emerges as a mainstream display option. This may hold some interest for those eager to explore advanced 3D presentation or educational possibilities.

A detachable lens cover, manual zoom and focus controls, adjustable feet and digital keystone correction are all available as standard features. As with the Epson EB1735W, lamp life is a respectable 3,000 hours (4,000 hours in low power mode). A low power (less than one watt) standby mode is also a desirable eco feature for permanent installations.

In summary, the Dell 1510X represents a great value option for a 3,000 lumen XGA grade business projector. While more at home in a permanent installation, it still offers the option of portability. The HDMI input is a great bonus, with 3D possibilities for more advanced use. ▶▶

DELL 1510X
RRP incl GST: $1,949
Contact: dell.co.nz
Great value for an advanced feature set.

SONY VPL-DX15 DESKTOP PROJECTOR

THE SONY VPL-DX15 is from Sony's "Desktop" LCD series. However, don't be fooled by the desktop designation: this is a very portable projector. Weighing in at only 2.2Kg with a sub-A4 footprint, it's only slightly larger than the Epson EB-1735W.

A bright 3,000 lumens is appropriate for the typical light levels found in most meeting rooms. The native XGA resolution provides a traditional 4:3 aspect ratio at 1,024 x 768 pixels, well suited to displaying the most commonly optimised PowerPoint presentation size.

Direct video connection choices include standard composite and S-video inputs, with component video capability via an optional cable (using the VGA port). Further exploring the back panel reveals additional connectivity via a wired network connector, and a single USB host connector. In addition the VPL-DX15 features built in wireless networking.

Although direct connection of a PC via USB is not offered, Sony does up the ante with some surprising USB drive and network capabilities. Plugging in a USB drive allows you to display the expected photo slideshows, but also supported is the direct display of PowerPoint, Excel, and video files.

As you might expect, there are some limitations to this capability. Only legacy Office 97 – 2003 PowerPoint (.ppt) and Excel (.xls) file formats are supported, there are limited fonts available, and some effects and graphics in PowerPoint and Excel files may not be displayed properly. Video support is for Windows Media (.wmv), with restrictions on resolution, frame rate and so on.

For this review a sample of PowerPoint and Excel files were tested. For simple presentations this proved to be a convenient option to display without a computer. Larger presentations do load slowly, and care is needed with font selection to avoid text not displaying as intended.

Connection to a network provides support for Windows Network Projector (available in Windows Vista and 7) – the ability to display files located on shared network folders (similar to USB) – and Windows Remote Desktop capability.

Perhaps the most unusual feature is the inbuilt Remote Desktop support. To use this feature you need a USB hub to plug into the projector, plus a USB keyboard and mouse. You then connect from the projector to any Windows PC on your network configured to accept Remote Desktop connections. While this feature may invoke curiosity amongst IT professionals, most users would question the concept of plugging a keyboard and mouse into their projector.

Sony's quick pack-up support for portable projection is called "Off & Go". The typical projector power down sequence of a flashing light and continued fan operation was noted, however the manual insists that it is safe to immediately disconnect power. Sony does, however, suggest cooling down the projector before storing in its carry case.

An inbuilt lens cover, manual zoom and focus, adjustable feet and digital keystone correction are all available as standard features. Lamp life is 2,000 hours (3,000 hours in low power mode).

In summary, the Sony VPL-DX15 is a portable XGA projector with some unique features. If these features are what you are looking for then this projector may be just what you need. For basic XGA projection, the lower price Sony VPL-DX11 is available without the USB and network capability. ▶▶

7.0

SONY VPL-DX15

RRP incl GST: $2,995
Contact: sony.co.nz
Offers some unique but fairly specialised presentation options.

PANASONIC PT-LB90NT
PRESENTATION PROJECTOR

8.5

THE PANASONIC PT-LB90NT projector is the brightest projector in this round-up, at 3,500 lumens. Combined with Panasonic's *Daylight View 4* circuit, this allows for clear images even in rooms with bright lighting.

Compared to the other reviewed projectors, the LB90NT is a little larger and heavier, weighing in at just under 3kg. It is still portable and like all of the projectors reviewed, includes a carry case as a standard accessory. However, many of its features are more suited to a permanent installation in either the boardroom or the classroom.

As with both the Dell and Sony models, the projected image is a native 1,024 x 768 XGA resolution (4:3 aspect ratio), well suited to business and educational presentations.

A feature of the LB90NT is the carefully engineered dust-free design, which includes a completely sealed light engine, integrated lens cover, touch sensor controls (no button gaps), and a clip-on cover even conceals access to the lens zoom and focus controls. Anyone who has experienced annoying dust shadows on a projected image will understand the value of this feature.

Other features ideal for permanent installations include the supplied mains cable secure lock and very eco-friendly 0.9w standby power consumption.

The back panel reveals the standard composite and S-video inputs, along with dual VGA inputs, with component video input also being provided for via the VGA ports (additional cable required). Both audio input and output allow connection of the projector to an external audio system. Whilst no USB port is provided, a legacy RS232 port allows basic control functions from a PC connected via a serial cable. As denoted by the NT model suffix, network connectivity is also available via both wired and wireless LAN support.

Connecting the projector to your local network allows setup and control from your web browser. However, to unleash the full network capabilities of the LB90NT, the supplied Wireless Manager software is required. Installation is supported on Windows 2000 SP4 and above, and Mac OS/X 10.4 and above. An installation-free option is supported for Windows, to allow directly running from CD-ROM (or other media).

Connection to the projector via the Wireless Manager is straightforward, using either wireless or wired LAN. Up to 16 PCs can connect to a single projector at once, or you can use your PC to connect and display your presentation on up to 8 projectors simultaneously. This connectivity provides convenient presentation capabilities in the boardroom, classroom, or for multiple-screen environments.

A typical business scenario might have multiple meeting attendees equipped with their own notebooks, easily switching between their individual presentations during the course of a meeting. Or, in a classroom environment, each student could in turn present their work to the class directly from their own notebook.

Also noteworthy are the Whiteboard and Blackboard display modes, which automatically adjust the image to optimise projecting onto these surfaces in the absence of a projection screen. Lamp life is specified as 3,000 hours.

In summary, the Panasonic LB90NT provides solid performance, well suited to permanent installation. The very bright 3,500 lumens and Wireless Manager networking capabilities make it a strong contender for traditional presentation needs together with practical multiple-user connectivity.

PANASONIC PT-LB90NT

RRP incl GST: $3,099 (available without wireless for $2,799)
Contact: panasonic.co.nz
A solid offering with practical multi-user network features.

CONCLUSION

SELECTING THE BUSINESS projector for your needs was previously a case of finding a model that would provide good image quality, constrained by the lighting levels and mounting options of its intended location.

Delivering clear and bright images, whilst providing portability, are now standard features of the modern business projector. For permanent installations, smaller and lighter projectors also offer increased mounting flexibility (reinforcing your office ceiling is no longer a prerequisite to installing a projector).

Today the purchase decision is more about which projector has the feature set that will best assist you in delivering your presentations conveniently and effectively.

There are an array of connectivity options available, some of which will be more useful to your specific situation than others. We suggest that you consider which of the features provided by the various models actually fulfil a need, or provide a practical solution for your intended use. Otherwise, you risk paying a premium for features that will ultimately go unused.

Projection distance constraints may also dictate the choice between LCD and DLP. The Epson EB-1735W LCD projector offers the shortest throw distance, enabling you to project large images in the smallest of meeting rooms. Conversely, the Dell 1510X DLP projector requires a location somewhat further back from the screen. Also remember, LCD and DLP technologies both have their pros and cons. If you are concerned with brightness and image quality, our advice is to arrange a viewing and see which technology works best for you.

Of the four models reviewed we found the Epson EB-1735W to be an excellent all-round choice with a practical feature set optimised for portability. For permanent installations, the Panasonic PT-LB90NT impressed with its added brightness and no-nonsense feature set. Both the Sony VPL-DX15 and the Dell 1510X offered some unique features, which may be perfect in certain situations but overkill for the average user. **PCW**

		Rating	Type	Resolution (Aspect Ratio)	Brightness	80" Projection Distance	Lamp Life	Dimensions	Weight	Power Consumption (Standby)	RRP incl GST
BUSINESS PROJECTORS SPECS & PERFORMANCE											
EPSON EB-1735W		9.0	LCD	1280 x 800 (16:10)	3000 lumens	1.92m - 2.35m	3000 hours	284 x 202 x 65mm	1.8Kg	230W (5.5W)	$3,249
DELL 1510X		8.0	DLP	1024 x 768 (4:3)	3000 lumens	2.6m - 3.12m	3000 hours	297 x 202 x 88mm	2.36Kg	275W (<1W)	$1,949
SONY VPL-DX15		7.0	LCD	1024 x 768 (4:3)	3000 lumens	2.36m - 2.72m	2000 hours	295 x 204 x 74mm	2.2Kg	320W (3W)	$2,995
PANASONIC PT-LB90NT		8.5	LCD	1024 x 768 (4:3)	3500 lumens	2.3m - 2.8m	3000 hours	368 x 233 x 88mm	2.96Kg	300W (0.9W)	$3,099