Future Projections

Although print and the Web are the glamour girls of digital output, the mainstay of the business world is still the humble corporate presentation. Whether you're designing a presentation for one person or an audience of thousands, it will more than likely be created on the desktop—but when it's time to show it, what are your technology choices?

high definition. We can handle data and video. We have the best sound! They all seem to be selling us on the notion that brightness equals cost, but how do we measure that?

There is no standard in this industry today for determining brightness in projectors, although the most reliable rating is ANSI lumens, which is the most common measurement used. However, the way that manufacturers determine ANSI measurements varies considerably, so this is not always an accurate basis for comparison. In some cases they deliberately attempt to deceive us. Just think about the Mac versus PC gigahertz speed tests and you'll understand what I mean.

The only way to judge brightness in a projection system is to try your presentations on several models—and that's really all you can do, case closed.

Resolution determines the clarity of the picture; a projector's true or "native" resolution is usually classified by the number of pixels it displays:

- VGA (640 x 480)
- SVGA (800 x 600)
- XGA (1024 x 768)
- SXGA (1280 x 1024)

The greater the resolution, the more information or detail you can display on the screen. Almost all projectors will accept lower resolutions (for example, a true-XGA projector can also project VGA or SVGA). Many projectors can also accept resolutions higher than their true resolution and display them in a compressed format.

At the very least, you should choose a projector which match-

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es your presentation size. If you've created a fixed *Director* presentation at 800 x 600 for an average PC screen setting, get a projector that's SVGA or better.

You may need to look for a projector that offers several lens choices, which gives you the flexibility to display on large or small screens without restrictions on projector placement. Rear screen projection is the best way to go, so take this into account—you might not have a lot of room backstage.

Also, there are varying degrees of keystone correction. If your projector is close to the ground and you want to get the picture up over the heads of your audience, you'll need to correct the image, or your picture will look distorted—narrow at the bottom and wide at the top. Some have correction methods built in, others are manual. Digital correction is now being incorporated into many models as a standard feature.

LARGE SCREENS—CRT, LCD, PDP, DLP, D-ILA?

CRT projectors have advanced a long way in ten years. Originally, three cathode ray tube guns were focused into separate lenses for each of the red, green and blue elements of an image, in order to enlarge a picture. This is the kind of projection system still often found in sports bars.

Then CRTs were adapted for computers, which allowed data to be displayed. But while videos looked great on these systems, the fine lines in computer-generated pages unfortunately looked dull. The cause of this was the interlaced NTSC video projector display, but this problem has been eliminated in modern video projectors through the use of filters.

When desktop technologies became the driving force for content creation, data/video projectors were created using LCDs (liquid crystal display). This is still the most common kind of projector used today for computer-based presentations, but it is not the ideal choice for large screen video projection. Using LCDs, you can see the pixels in the image, and the contrast ratio is usually poor. Fast motion in videos is often smeared because of the lag time from the LCDs.

PDP (Plasma Display Panel) is used in next-generation large screen flat panel displays. This technology boasts ultra-slim dimensions, is surprisingly light in weight, and delivers superb picture quality—a combination of features that opens up a host of opportunities in the visual presentation field, especially in the current HDTV/DVD era. As its advantages over conventional CRT and projection-type video displays become increasingly apparent, PDP will become established as a core technology for all kinds of public display and visual communication systems. You'll soon see it in museums, lobbies, stores, board rooms and places where visual advertising is commonly displayed. Often over 50" in size, they can even be mounted on walls.

DLP (digital light processing) projectors are similar to LCD projectors, except that they are usually more expensive. Computer/video capabilities are more evenly balanced in DLP, and this is a good choice if you plan to have a lot of motion video in your presentations. Digital Projection Cinemas use DLP for large screen movie theatres.

D-ILA—which stands for Direct Drive Image Light Amplifier—is the new kid on the block. Invented by JVC, this is the most popular projector for high-end home movie theatres. It combines the best of LCD and DLP technology to deliver great computer pictures at any resolution, without LCD pixel artefacts. The video is crystal sharp, ideal for DVD or Hi-Definition TV.

JVC, the company which created VHS, now wants to establish itself as the leader in Digital Cinema Projection. When it comes to pure picture quality, D-ILA units are exceptional performers which are hard to beat. The film-like output is what makes it the machine of choice for so many discerning videophiles. With an outstanding contrast ratio, it provides a closer black level to CRT than most other digital displays—and the 16.7 million color palette can produce very nice results from a progressive scan DVD player. It's pricey technology—but worth the price.

SO WHICH PROJECTOR IS RIGHT FOR YOU?

If you're on a really tight budget and you're mainly concerned about *PowerPoint* presentations for small corporate boardrooms, go with LCD.

If you're planning to present a large screen video for 200 to 400 people, go to DLP or CRT.

Home theatre enthusiasts or anyone who needs high quality data and video projection for large audiences (such as schools) should look at JVC's D-ILA technology.

Should you buy or rent? Well, it depends on how often you plan to use the projector and how much trust you put in your AV rental company. Some models can be purchased for about $2,500; most rent for $200 to $300 per day.

Personally speaking, I would prefer not to have extra stress on the day of a presentation. I find myself wondering whether the AV company will be on time, or if the equipment will work properly. What if the bulb burns out? What will the picture look like? Will it work on a Macintosh?

I would prefer to check my presentation on the projector during the creation process to see what does or doesn't work, so that the day of the show I can relax, knowing everything is going to work properly the first time.

Prices are dropping fast and the competition is fierce. Maybe the time is right to get that briefcase projector, even if it's only used as a backup.

One final point to remember no matter what projector you choose: if your presentation has sound, don't expect it to sound very good if it comes from the projector.

But that's another article altogether…

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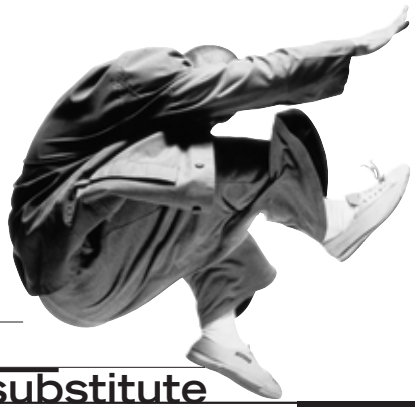

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