



Sitech Systems NZ Ltd: Technical Tip (November 2010)

What is the best data projector solution for the classroom: XGA or SVGA?

Our philosophy on projectors stems from our focus and commitment to you - the classroom teacher. As a result, we promise to provide only high performance, easy-to-use, and affordable projectors with responsive customer support.

The Basics of Choosing a Data Projector

Resolution

The sharpness and clarity of the picture on the screen is determined by a projector's resolution. Resolution is simply the number of pixels (or "picture elements") the projector uses to create the image. The more pixels it uses, the "higher" the resolution.

Resolution is usually quoted in two numbers, such as "800 x 600," where the first number refers to the number of pixels from side to side across the screen, and the second number refers to the number of pixels vertically from top to bottom.

True Resolution/Native Resolution

When speaking of a projector's resolution, it is common to refer to "true" or "native" resolution. If a projector's native resolution is 1024 x 768 (XGA), that means that the actual number of physical pixels on the display device is 1024 x 768. In some projector models, specifications show compatibility with higher resolutions. This is achieved through the use of compression technology. Compression technology displays a degraded image that is not matched pixel for pixel from computer to projector to screen.

Advantage of Higher Resolution

High resolution projectors are able to show more picture details than low resolution projectors. Also, since there are more pixels used to make the image, each individual pixel is smaller, so the pixels themselves become less visible on the screen.

Resolution Options

Your basic choices for native, or true resolution are the following:

- SVGA, or "800 x 600" - This is a very popular resolution today for home and entertainment use, XGA, or "1,024 x 768" - XGA projectors are generally a little more expensive but are popular solution for teaching spaces

Which Resolution is Right for You?

There are two key factors in choosing the right resolution.

- 1) What is your typical application?

If your primary use of the system is for "Powerpoint" style graphics, pie charts, graphs, and general

business-style presentation, you don't need to pay extra for high resolution equipment. SVGA resolution is perfect for this kind of work, and the best solution for the money. However in the classroom, the majority of time small type font is used e.g. viewing a webpage, pdf or word document or working with an interactive whiteboard or equivalent. In this case, you will need XGA resolution. By using SVGA in the classroom you will find that text or data is actually missing.

2) Matching your computer to your projector

Keep in mind that the best resolution for your projector is the resolution of the computer you intend to use with it. If you typically use a notebook computer with SVGA resolution, you will want a projector with the same native SVGA resolution in order to get the sharpest and cleanest image. Similarly, if you normally use a computer with XGA output, you will get the best picture from a projector that has XGA as its native resolution. TELA laptops are higher than XGA.

Projectors are capable of projecting input signals other than their native resolutions. For example, you can usually hook up an XGA computer to an SVGA projector. The projector will automatically convert the incoming 1,024 x 768 signal to its native 800 x 600 output. However, there is always a loss of sharpness and detail in the process, so you will end up with a picture that is not quite as sharp as if the incoming signal had been the same format as the projector's native resolution.

Future proofing

Your school may also have some higher than XGA resolution computers, in which case you will best be served by going XGA, as some of the higher resolutions out there are beyond the reach of SVGA, or even if they can handle the signal, the compressed image degrades enough to be poor or unusable.

For more advice on purchasing the most appropriate data projector for your needs contact one of our sales team.

Contact Sitech Systems NZ Ltd: phone 0800 100607 or email sales@sitech.co.nz
Order or get quotes online at www.sitech.co.nz