

SpectraScan II™ System Software Lasershow Designer For Windows

The performance of the SpectraScan II™ graphics system while containing essential state-of-the-art components such as PCAOM color control crystals and high speed Cambridge scanners, depends on the *Lasershow Designer for Windows* software for its world-leading brilliance. This is an introduction to its superior qualities. Please also see the “Features and Specifications” brochure for more exacting details.

It is not just software it's a custom Laser-Computer!:

As a key feature, *LD/Win* includes the *QuadMod32* laser computer. This card plugs into a full-length standard ISA (AT-type) PC bus slot. The *QM32* features a Motorola 68030 microprocessor (the same one used in the Amiga 3000 and many Macintosh computers) running at 40 MHz. It includes multiple 16-bit D-A converters and IO logic lines. The board also includes 4 or 16 megabytes of memory, which are used for laser frame storage.

You get the power of a 40 MHz computer whose only purpose is generating complex laser graphics. Having an independent laser computer is especially vital since much of the power of the host PC computer is already taken up in servicing Windows.

This is why *Lasershow Designer* can run at up to 50,000 (50K) points per second. The intelligent *QuadMod32* outperforms PC systems with simple digital-to-analog converters that require computers with lots of memory to do even simple scenes. You don't have to use the fastest or newest PC computer. If it runs Windows well, it runs LD well.

Works with any projector:

LD is designed to work with any type or make of laser projector, and any kind of color system, including the new PCAOM crystals. You are not tied to one company's product or one type of projector. You can run Cambridge or General Scanning galvos.

LD is completely over the rainbow in color capability; it can control up to six PCAOM wavelengths. This gives purer colors such as deep violets and crisp yellows, that no RGB system can ever get, and more colors — over 280 trillion combinations.

For multi-projector control, *LDPro* lets you add more *QM32* slave boards. Up to four complete scanner heads can be run from a single computer.

Drawing and editing are a snap:

The new Windows interface software keeps the innovative features of the world's best-selling Amiga-based *Lasershow Designer* while adding support for new capabilities.

One of LD's strongest features has always been in creating, editing and animating frames. This capability is even more advanced in *LD for Windows*.

There are separate Control and Drawing Windows. These can be on a single monitor, or you can use a third-party video board such as Colorgraphics' *Dual Lightning*

Accelerator. With dual monitors, controls are on one screen while drawing is done on the other.

Quickly create logos, drawings and abstracts with tools such as single point, freehand, line, rectangle, circle, and polygon. All laser frames can be rotated in 3D perspective.

Editing and special effects are a snap, with features such as 3-D extrusion, spin (lathe), renumber, shape wrap (e.g., spheres, cubes, black holes, etc.), and gridding. To type words and phrases, pick from 25 different fonts.

When it comes time to save your work, you're not locked into one proprietary format. *LD* loads and saves frames and animations as ILDA and DEC files, as well as in *LD/Amiga* and *LD for Windows* formats. (Some systems only save in a single format — their own non-standard one.)

Bring outside artwork into the computer:

It's simple to trace existing artwork. Use a flatbed or hand scanner to bring it into the computer as a Windows bitmap (.BMP format) file. Then let *LD's* new AutoTrace feature do the work. You don't need separate, expensive raster-to-vector (RTV) conversion programs. AutoTrace is built right in.

To convert video, use a genlock such as Digital Vision's *TelevEyes Pro* to hand-trace over video input. For example, rotoscope any video animation by using a VCR or videodisk with freeze-frame capability.

Built-in abstracts for classic shows:

LDPro includes a complete abstract generator, like the ones used in the original laser planetarium shows. You can easily make traditional patterns such as pulsating flowers and dense spirals, using nine digital oscillators, two modulators, and color cycling.

The familiar sine, triangle, square and ramp waveforms are available, plus, any frame can be a waveform. So not only can abstracts pulsate and dance, but so can logos and other graphics. All images — abstracts, graphics or mixed — are in 3D, letting you create completely new effects.

Finally, because the entire system is digitally generated there is absolutely no frequency drift. Patterns will never speed up or slow down, as analog oscillators inevitably do.

Includes future-oriented features:

LDPro lets you work with two of the newest laser features, Beam Brush and vector-oriented frames.

Beam Brush: This varies the width of the beam as it draws. For the first time in laser, you are not restricted to a single-width beam. *LDPro* can create such soft-edged images as clouds, or the blush on a woman's cheek.

(This requires a separate Beam Brush hardware device on your projector. Such devices have recently been developed and, we believe, will become increasingly popular on top-end projectors.)

Vector-oriented frames: Traditionally, frames have been point-oriented — like a

connect-the-points drawing. Now, *LDPro* also lets you use vector-oriented frames — like CAD drawings.

Vector frames give significant advantages. They save space by storing only the endpoints of lines. At playback time, the computer can recreate the frame so it looks best on your particular scanners. Lines look very smooth. When you rotate a vector frame, lines don't get brighter as they shorten; this gives a more natural appearance. And you can infinitely zoom and pan around a vector frame, since points don't "stretch" and get dim.

Previously, vector frames were available only on European systems costing tens of thousands of dollars. *LDPro* lets you work with this important advance, at significantly less cost.

Color Raster-Projected Frames: This amazing new feature is unique to LD of all the laser entertainment software systems available. By importing a .bmp file, you can create a video like raster representation of an image. A whole new look to employ to pump-up your laser presentations.

Scripting

Once you have your professional-looking 2D and 3D frames and animations, there are two ways to put together your shows: scripting or icon-based.

With scripting, you write out instructions in Microsoft's designated macro language, *Visual Basic*. The advantage of scripting is that anything the computer can do, you can do in laser. There are no limits. Here's a typical script that calls up a frame from the center and rotates it three times while it grows to full size:

```
DisplayFrame 1           'Shows frame #1
For v = 0 to 100
  DisplayScale v, v, v   'Changes size in X, Y and Z axes
  DisplayAngle 0, v*3, 0 'Rotates around Y axis
  DisplayUpdate         'Updates laser display
Next
```

LD/Amiga users already know the benefits of scripting. They have scripted both simple and complex shows, plus special applications such as a custom controller for discos, a laser video game for an international corporation and a unique 360° system that projects on all four walls of a theater.

Creating a specialized Windows laser application is as simple as drawing a few button boxes and attaching a few lines of *LD* commands. For Walt Disney World, a completely custom beam controller was done in less than a day, thanks to *LD's* tight integration with Windows graphic programming.

SHOWTIME!!:

One of the most eagerly awaited laser entertainment program modules is now out of beta--ShowTime allows simple or complex show modules to be designed via drag-and-drop methods using both your entire store of frames and animations and a gallery of

effects, both preconstructed and custom-designed. All of this is on a timeline that can be synchronized with SMPTE cues or CD's. And you can layer effects and layer multi-track projections. To help you there are tips and wizards and detailed pop-up toolbars. This is one of the greatest time saving creation tools ever made for laser entertainment.

Whether you use scripting or icon-based show programming, you save significantly with *Lasershow Designer's* realtime system. It saves space, with a 30:1 compression ratio over older methods which store immense blocks of frames on the hard drive. And, it saves time — you can change a show in seconds, just by changing the timing or transition parameters.

Comprehensive help and support:

Using *LD* is easy. A 20-page booklet gets you started. All other documentation is at your fingertips on-line. This is in the form of five Windows hypertext help files — click on a highlighted word, and you're instantly taken to more information.

The help files describe the main *LD* program, the scripting commands, and how to connect the *QM32* to any type of projector. In addition, you get an introductory guide to laser graphics, ILDA's tuning standards and the complete ILDA Laser Glossary.

If you still have questions, phone support from Holo-Spectra and Pangolin Software is free. You'll find us easy to reach — even during “laserist's hours” after midnight. This is especially reassuring when you're on a deadline or at a show.

There is an extensive network of *LD* users, including the independent Pangolin Users Group, which publishes a newsletter and holds an all-day meeting each year. (The November 1993 meeting in Orlando brought together 40 users from the U.S., Canada, Spain, Holland, Denmark and Germany.) Frames and shows are bought, sold, and traded.

The best in the business:

With over 20 years of experience with laser entertainment, laser system design, and ion laser repair — Holo-Spectra gives you the best in the business. We know what it takes to be the truly stand-out software product. This is why the *LD* series is the choice of laser experts, used by one out of every three ILDA members. And, this is why *LD* is the world's most popular professional 3D software, with over 175 customers in 16 countries!