

Vari-Lite, Inc.

The Automated Lighting Company

John Offord went to their Dallas HQ and talked to Rusty Brutsché, president and chief executive.

Since its inception, the Vari*Lite automated lighting system has been a sort of 'un-hidden secret' of the entertainment lighting industry. The big boys with the big budgets and the big shows have always known about Vari*Lite and how the rental 'system' works. The rest of the industry has always known about Vari*Lite too - but from a distance. To them it has been a kind of dream machine.

Times are changing. Vari-Lite, Inc. are coming out-front, and giving their famed system some real active promotion. The company has grown fast, overseas bases have been set up - with more to come - and there is the obvious prompting from competition as more and more remote and colour change systems come on to the market.

Vari-Lite had their first-ever exhibition stand at Lighting Dimensions International 88 at the Infomart in Dallas in November (see L+SI cover picture, December), and I took the opportunity of visiting their HQ in Regal Row, just a few miles away from the exhibition halls.



Rusty Brutsché, president and chief executive officer, Vari-Lite, Inc.

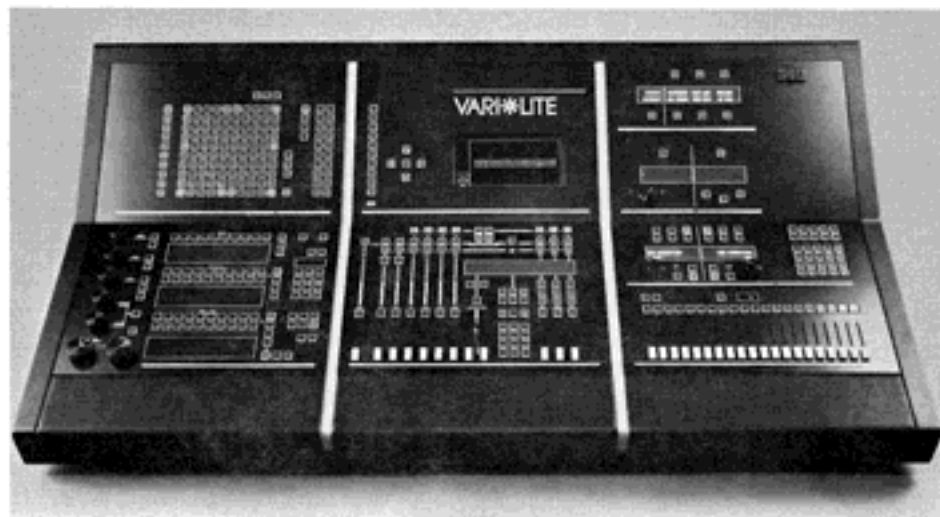
Vari-Lite, Inc. was founded in 1981 by Rusty Brutsché, Jack Maxson and Jim Clark, principals of Showco, Inc., the major sound hire operation based in Dallas, together with members of the British music group Genesis. And the company was established to design, build and lease automated lighting systems that would overcome the limitations inherent in conventional lighting equipment. To say they succeeded is something of an under-statement, with Vari*Lite now an established part of the entertainment lighting repertoire world-wide.

The Vari*Lite Series 100 system, comprised of a control console and automated spot luminaires, was first introduced in 1981. Rusty Brutsché's team included Jim Bornhorst, an electrical engineer, and John Covington, an analog circuit designer, who were given the task of designing the luminaire. Tom Walsh, an expert in digital and micro-processor design, and Brooks Taylor, a systems/software engineer, designed and programmed the control console. They created an automated lighting system



Two scenes from the 1987 all-Vari*Lite Genesis world tour, lighting designer Allen Branton.

all show photography: Lewis Lee.



The Artisan control console, Series 200.

that allows the lighting designer to automatically control pan and tilt, colour, beam size, and intensity, and with its dichroic filters and arc lamp source, the system's ability to vary colour, saturation, and intensity provides a range of looks not possible with conventional gels.

Rusty Brutsché told me about the first-ever use of the system: "The Vari-Lite Series 100 automated lighting system made its debut at the first performance of Genesis' 1981 world tour. Held in a bull ring in Barcelona, that show marked the first time that a truly automated lighting system - one in which all major functions are under the real-time control of a remote console - was put into practical use.

"Many attempts at automation had been made before, but the Series 100 was the first to combine all the important features: high speed, reliable mechanisms, and control of pan, tilt, beam size, intensity and colour. It did so with a dichroic filter colour-changing system, a compact arc source and a custom-designed control console, and this winning combination made it possible to produce stunning lighting effects never before seen," explained Rusty Brutsché.

Working hand-in-hand with Genesis and other clients, Vari-Lite progressively

evaluated and improved upon the Series 100. In 1986 this effort resulted in the Vari-Lite Series 200 system, boasting a new wash luminaire and advanced electronics throughout.

"Genesis' 1986/87 world tour was the showcase for the Vari-Lite Series 200 system, the second generation of Vari-Lite equipment, which comprises the VL2 spot luminaire, the VL3 wash luminaire and the Artisan control console," explained Rusty Brutsché. "The Genesis rig - 150 VL2's and 150 VL3's - contained no conventional lighting fixtures, making it the first totally automated high-speed lighting system under real-time computer control.

"Because each parameter of a Vari-Lite luminaire can be programmed from a single remote console, both systems gave Genesis lighting designers previously unheard of power to create dynamic pre-programmed lighting effects. They also made it possible to achieve an almost infinite number of traditional lighting scenes, and do so with fewer lights."

I asked Rusty Brutsché how lighting designers reacted to and accepted the new system in its early days.

"The touring and television industries have readily accepted Vari-Lite's technology

The VARI-LITE® Series 200™ system.

SYSTEM FEATURES

- Total digital control of any combination of up to 1000 VL 2, VL 3 and VLD
- Luminaires report operational status to the control console display through a two-way digital communication link with self-diagnostics
- Operates on any line voltage worldwide
- Total digital design provides high degree of reliability
- VLD dimmer interface operates any conventional analog device
- Low operating noise level

VL 2™ SPOT LUMINAIRE

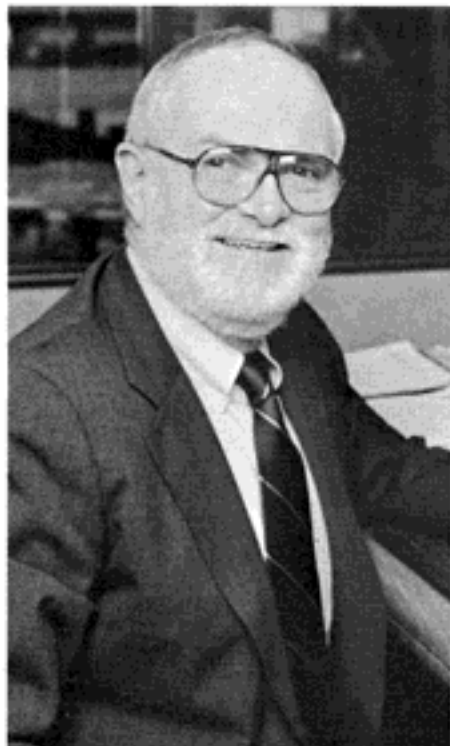
- Dichro-Wheel™ color changing system produces 120 dichroic colors from light pastels to rich saturated hues in a fraction of a second
- Consistent color from one luminaire to the next
- OSRAM HTI source with consistent 5600°K color temperature rated at 250 hours
- Produces 1000 foot-candles at 20 feet
- 9 Vacu-Dep™ reflective coated gobos that are user interchangeable, with custom design available
- 270 degree tilt and 360 degree pan
- Continuously variable beam diameter
- Hard and soft edge beam
- Full field intensity dimming

VL 3™ WASH LUMINAIRE

- Dichro-Tune™ tunable color system produces over 1000 dichroic colors from light pastels to rich saturated hues at variable speed
- Consistent color from one luminaire to the next
- Continuous color crossfades
- 475 watt, 53v tungsten source (3200°K) custom design by Venture Lighting International
- Low voltage efficiency produces 1000 foot-candles at 20 feet, comparable to a 1000 watt PAR lamp
- Low voltage dimmer in each luminaire
- Variable beam size from broad wash to narrow beam
- Soft edge beam
- 270 degree tilt and 360 degree pan

ARTISAN™ CONTROL CONSOLE

- Stores 1000 cues
- Selective disc storage of all programmed cues and console functions
- Individual programmable crossfade times for color, pan and tilt, and intensity for each luminaire in any cue, in any submaster
- Instant access to 1000 individual instruments and 80 group presets
- Built-in touch sensitive display screen
- Variable speed control
- 80 focus reference presets allowing streamlined focus updates
- Manual control of all lamp functions
- 2 direct cue recall submasters
- Manual crossfade submaster
- 2 chase submasters allowing recall of 200 sequences
- 240 preset colors



Jim Clark, director, Vari-Lite, Inc.



Jack Maxson, director, Vari-Lite, Inc.



Jim Bornhorst, vice-president, engineering and development, Vari-Lite, Inc.

because it gives them a broad new range of artistic capabilities," he explained. "Automated systems do, however, require re-thinking some traditional concepts. For example, dichroic colour mechanisms produce not only most of the colours that are available with gels, but many others that are not.

"Dichroic filters do not burn or fade, colour change can either be instantaneous, as in the VL2 spot, or of variable speed to enable colour crossfades, as in the VL3 wash. There are no dichroic colour swatch books for designers to refer to when designing a show. Although several hundred specific dichroic colours can be programmed into the Artisan console and recalled with an identifying number, experience using dichroic colours is required to understand how they correspond to gel colours.

"The control of an automated system also challenges designers to re-think old ways: instead of having to control a single parameter per luminaire (intensity), an automated system must control ten to twelve parameters per light, which is vastly more complex. Vari-Lite's philosophy has been to custom design a control console specifically for automated lights, rather than try to adapt conventional consoles to them. This philosophy requires a lighting designer to use an unfamiliar controller, one that did not evolve in the context of conventional lighting.

"Some users have resisted the change, but the company believes that to achieve precision control of large numbers of automated lights, a fresh approach was required. We know that any revolutionary technology is usually greeted with some apprehension and scepticism, but most designers who have made the switch say they find the new control system far superior.

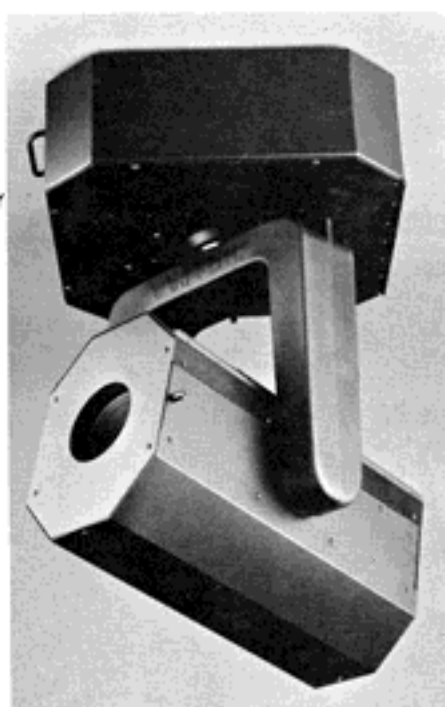
"Vari-Lite's objective has always been to design a totally automated lighting system, one that would meet the needs of designers in all fields of lighting. We developed the Series 100 system, then immediately began working with our customers to adapt and perfect it. Using knowledge gained from the first system, we spent three years developing the Series 200. We are continuing to develop new products that will enable automated lighting to flourish in all segments of the lighting industry."

British lighting designer Jonathan Smeeton has regularly worked with Vari-Lite systems, and the first time he used them was in 1983 for the Peter Gabriel tour. "I seem to recall using 24 VL's. I'd never seen them used until then. I went to look at the equipment in situ at Wembley on the David Bowie show, but I deliberately didn't go and see the show itself because I didn't want to have any preconceived ideas of what I should do.

"I adopted a 'virgin' approach, as opposed to having anybody else's ideas already installed before I'd actually managed to learn the system. I had an excellent operator on the desk, and Peter Gabriel was a really good person to work with as well because he's so theatrical.

"Technically, the system is now very advanced, and as it has developed, the control system has now taken on all sorts of other abilities. It can manage conventional lighting, programme smoke machines, and so on, and it is much easier to handle the finesses and subtleties that the designer requires.

"It's future is open-ended," continued Jonathan Smeeton. "It's endless. Vari-Lite have taken things one step further, and it's now not only computerised moving lights,



The VL2 spot luminaire, Series 200.

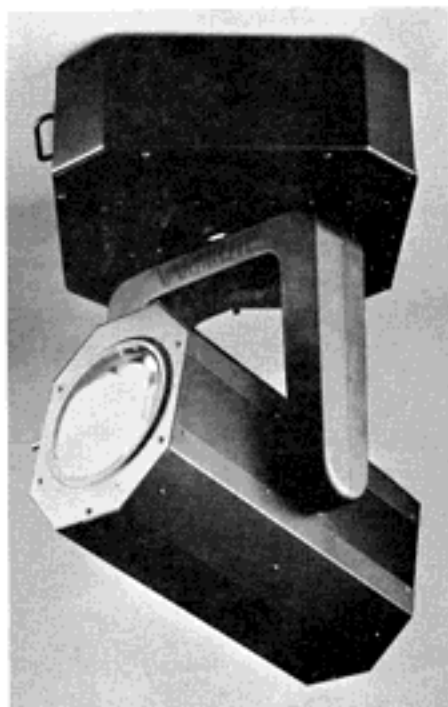
but computerised light control. I do think people have yet to realise its true potential. The desk is a master and phenomenally able. It works very well, and it's not difficult to master, or to understand the concept.

"I like to use Vari-Lites all the time, and have them on all the time - doing something. I think they should also develop long and short range remote follow spots, and I see this sort of development in the very near future.

"One of the very big pluses that doesn't show to the audience, and is definitely one of the reasons why they are so successful is that they have phenomenal back-up facilities. They are as near instantaneous as they can possibly be - anywhere in the world. The equipment is very, very reliable. The crews are extremely technical and able, and the company has a very strong corporate structure. The man at the top - Rusty Brutsché - is just brilliant. And brilliant at organising people to be very positive. This is a big plus for Vari-Lite and the user."

Jonathan Smeeton admitted Vari-Lite systems were his favourite subject, but however much you may like them, you can't buy them. I asked Rusty Brutsché why the company has a 'lease only' policy.

"Automated lighting is in a state of rapid development. Vari-Lite is leading this development, investing huge sums in research and development," he said. "Each time an advance is made, we up-grade our



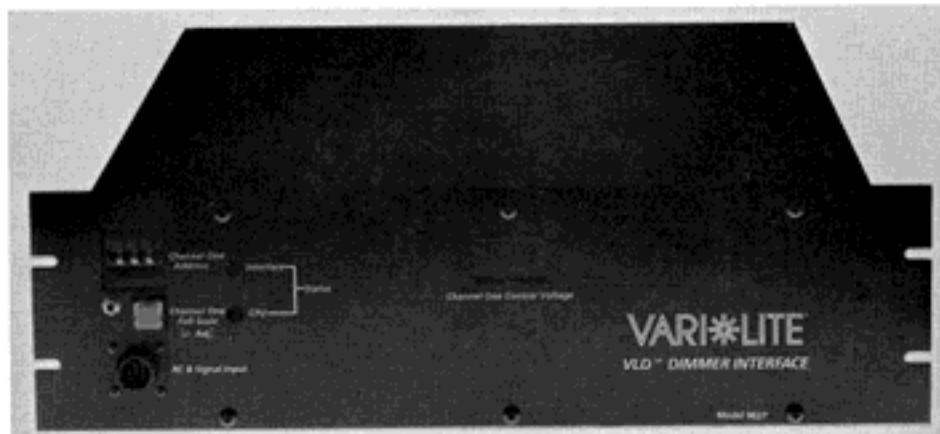
The VL3 wash luminaire, Series 200.

entire world-wide rental inventory. That way our customers have the benefit of state-of-the-art equipment. Such flexibility would not be possible if we sold our systems outright. We therefore feel that this 'lease-only' policy enables us to best serve the needs of our customers. We do, however, offer special financing arrangements for long-term leases in fixed installations."

I had to ask the obvious follow-up: "Why do Vari-Lite systems have to come complete with technical operators?"

"Vari-Lite is a service-oriented company, and our highly trained operators are the key to the service we provide. For this reason, our customers almost always contract for Vari-Lite personnel to operate and maintain their systems. We are actively training freelance designers, however, and upon request will train any customer to operate a Vari-Lite system. We also train the employees of long-term lease customers in the operation and maintenance of Vari-Lite equipment," explained Rusty Brutsché.

Continuing to develop new products, Vari-Lite introduced the VLD dimmer interface in late 1987. This device allows the Artisan console to control conventional equipment, thereby serving as the 'missing link' between the Series 200 system and all other devices typically controlled by a conventional lighting board (as mentioned by Jonathan Smeeton earlier in this article). In 1989 they will be introducing a new luminaire and con-



The newly-introduced VLD dimmer interface.

trol console.

"These products will represent a breakthrough in terms of added features, increased brightness, low cost, light weight, and compact size," continued Rusty Brutsché. "Automated lighting has a place in many lighting markets: television, film, music video, trade shows and theatre. We have a large research and development department committed to creating automated products to address the needs of these diverse markets."

To meet the growing demand for automation in the various fields of lighting, Vari-Lite is developing a world-wide distribution network.

"We have distributors in London, Sydney, Tokyo and Toronto, and our London distributor, Samuelson Vari-Lite Europe Limited, has recently established operations in both Paris and Madrid. In the United States, we opened a Los Angeles office in April 1988 and we have just appointed authorised representatives in New York and Orlando."

For the final word I spoke to Daryl Vaughan, head of promotions for Vari-Lite Europe Limited, based in London.

"The key to the successful development of our European market lies in the need to make the Vari*Lite system as widely available and as easily accessible as possible to potential clients.

"To this end, as you know, we've recently opened offices in Paris and Madrid with full complements of equipment, qualified personnel and skilled operators. Over the coming year we anticipate setting up further operations in Germany and Italy.

"In addition to regional expansion we're beginning to promote Vari*Lite into other areas than live music productions, and in particular to events such as trade shows, exhibitions, conferences, product launches, and the like. They present us with very significant opportunities. Also, rental to both BBC and ITV companies is increasing all the time and I'm confident that television business in general will continue to grow."

The de-mystification of the Vari*Lite has begun . . .

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Vari*Lite close-up - the Genesis world tour.



The corporate headquarters of Vari-Lite, Inc., located in Dallas, Texas, is the centre of research and development, design, and manufacturing.



Lighting consultant Arthur Smith (right), based in Dallas, pictured during technician training.



Checking Vari*Lite luminaires at Dallas.



Genesis in close-up.



Genesis and Vari-Lites on tour. Photographs were taken at various locations during their latest (1987) world tour.





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