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Fashion designers join computer generation

By Eric A. Taub

For Jodi Brown, computer design manager at clothing firm Tommy Hilfiger, the new millennium is only six months away.

With 12 new apparel lines each year, Brown and her staff are already designing the New York-based company's summer 1999 collection, evaluating 1,000 variations on that season's colors, fabrics and prints. Without the assistance of a Macintosh-based CAD system, the task would not be possible, she said.

"With our volume, we'd never be able to make a line without computers," Brown said. "We're not doing the same amount of work in less time — we're doing more work in the same amount of time."

The company's design department alone has gone from three to 15 employees in the past eight years. There are plans to add more Macs and staff to cover the company's various and growing lines.

When Hilfiger first switched to CAD in 1990, Silicon Graphics workstations

were dramatically faster than Macs, but the company was not prepared to spend hundreds of thousands of dollars to create digital work. "Back then, with our three Macs, we could only do stripes and plaids," Brown said. "We were just happy to get some color out of the machine."

By design

Today, designing with 12 PowerMacs with the 601, 604e and G3 chips, the CAD output is more detailed and realistic. "It's the closest thing you can see to an actual piece of clothing on a rack," Brown said.

Traditionally, designers created fabric patterns by hand. Third-party companies would be hired to "marker up" the design, adding color using felt-tip pens. Every requested color variation required a separate markup.

Using Adobe Illustrator and Photoshop, Brown and her staff are now able to create designs and lay them over a computer image of fabric patterns. The



Jodi Brown and her team rely heavily on Macs and CAD to create Tommy Hilfiger designs for the new millennium.

resulting 2-D image is, with the exception of texture, virtually indistinguishable from a real piece of fabric.

With filters, the designers apply different effects to the images, whether photographs or drawings.

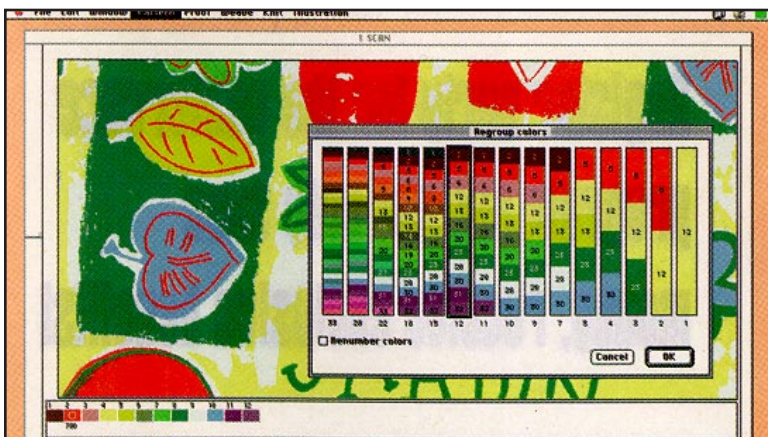
Those images are then exported to Pointcarré textile design from Monarch Design Systems, Glendale, N.Y. The CAD package, which sells for \$10,000 to \$60,000, puts together fabric designs and texture simulations.

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With Pointcarré the fabric can quickly be rendered in different color combinations, known as "colorways." Patterns can be reapplied over representations of fabrics, then repeated at varying lengths. A striped pattern that might have taken two to three hours by hand in one color can now be rendered in just 15 minutes — in not one but multiple color variations.

"You can no longer send out your work to be done by a third party; there's just no time," Brown said. Speed is important not only because of the sheer volume of work, but also because it



In Monarch's Pointcarré, users can regroup colors for color-reducing scans and other images by clicking on the color grouping and image colors.

allows the staff to make suggestions about the material treatment of a design before the company begins the expensive and slow process of producing a sample.

"We're churning things out as if we're a high-volume copy shop," Brown said. "Right now we're producing 680 different stripes, plaids and croquis, each with four to five colorways. "We'll make 3,000 printouts, of which 20 percent will eventually go into production. And you need to see it now to get it out before the competition."

Computerized fabric

Speedy rendering of color treatments presents options that were previously impossible. While working on a seersucker look for a Gordon plaid, Brown "accidentally garbled the Tommy Hilfiger standard blue stripe, and it created the perfect seersucker that I needed," she said.

Textile-simulation software output is so good that New York-based Chopak Mills, manufacturer of fabrics for home furnishings, stopped making sample fabric treatments two years ago and switched to Mac [and Pointcarré]-created representations.

"In the past, we had to weave samples of every treatment," said Carlos Fuentes, Chopak chief information officer. "Every variation would cost \$300 to \$400. Now we spend one hour and print a paper version at no cost."

Ray Murray, director of graphics at Nautica clothing company in New York, agrees. "Everyone [here] would feel lost without computers," he said. Nautica uses 14 Macs [running Pointcarré software], including Quadras and 7100s,

divided between its graphics and CAD departments, and the company is contemplating the purchase of G3 machines. While Murray has used Macs for more than 10 years to make the company's hang tags, labels and logos, computers have been used for the design of fabrics for only the past four years. Nautica is now expanding its use of Macs to help prepare sales presentations and maintain tighter control of designs.

"There's so much 'hands-on' in the design world that computers are still not always used to create fabrics," Murray said. "As a designer, you need to feel the fabric, even if you're using a computer to create it. "That's probably why the textile industry is still way behind others in terms of computer use.

"So much of what a designer does is color and pattern and texture, and that's where computers have a big advantage. "The Mac lets us create myriad permutations of fabrics and colorways very quickly," he said.

Customers love Nautica's branded T-shirts, so the company needed a system that would enable the fastest possible rendering of new designs. Until 10 years ago, T-shirts were conceived and rendered manually. Now Murray and his staff create an image in Photoshop or Illustrator, print design on a color copier, and heat-transfer the copy onto a blank T-shirt for evaluation. By using Macs, the company can produce prototypes in one-third the time.

Visual displays

To help Nautica's sales staff, last December Murray put together a computer-created presentation to show the

company's fall 1998 line in a new way. "Rather than just hold up a product sample and give an inspirational speech, we thought it would be better if we could build something visually," Murray said. He was able to develop presentations that go beyond a simple display of fabric.

Using Macromedia Director, Murray compiled a number of images into a slide show, accompanied by background music, that illustrated the new fall designs along with the origin of their inspiration. The two-minute presentation included scenes of the Adirondack Mountains, autumn leaves and boats, as well as the plaids and other designs that would make up the line.

The presentation was so successful that the sales staffers now want to take it on the road and use their laptops to show store buyers how Nautica's new line was conceived and to motivate local store managers to sell the product.

The company has also created an efficient password-protected system for delivery of images via the Internet to Nautica's various licensees. Traditionally, the company has used courier services to deliver new designs to clients. That occasionally resulted in delivery delays of several weeks. And it was always possible that the images would be incorrectly modified by the client.

Licensees can access new designs via the Internet in read-only files immune to manipulation. The files are updated weekly or daily, and the graphics can be transmitted to Nautica's licensees instantaneously.