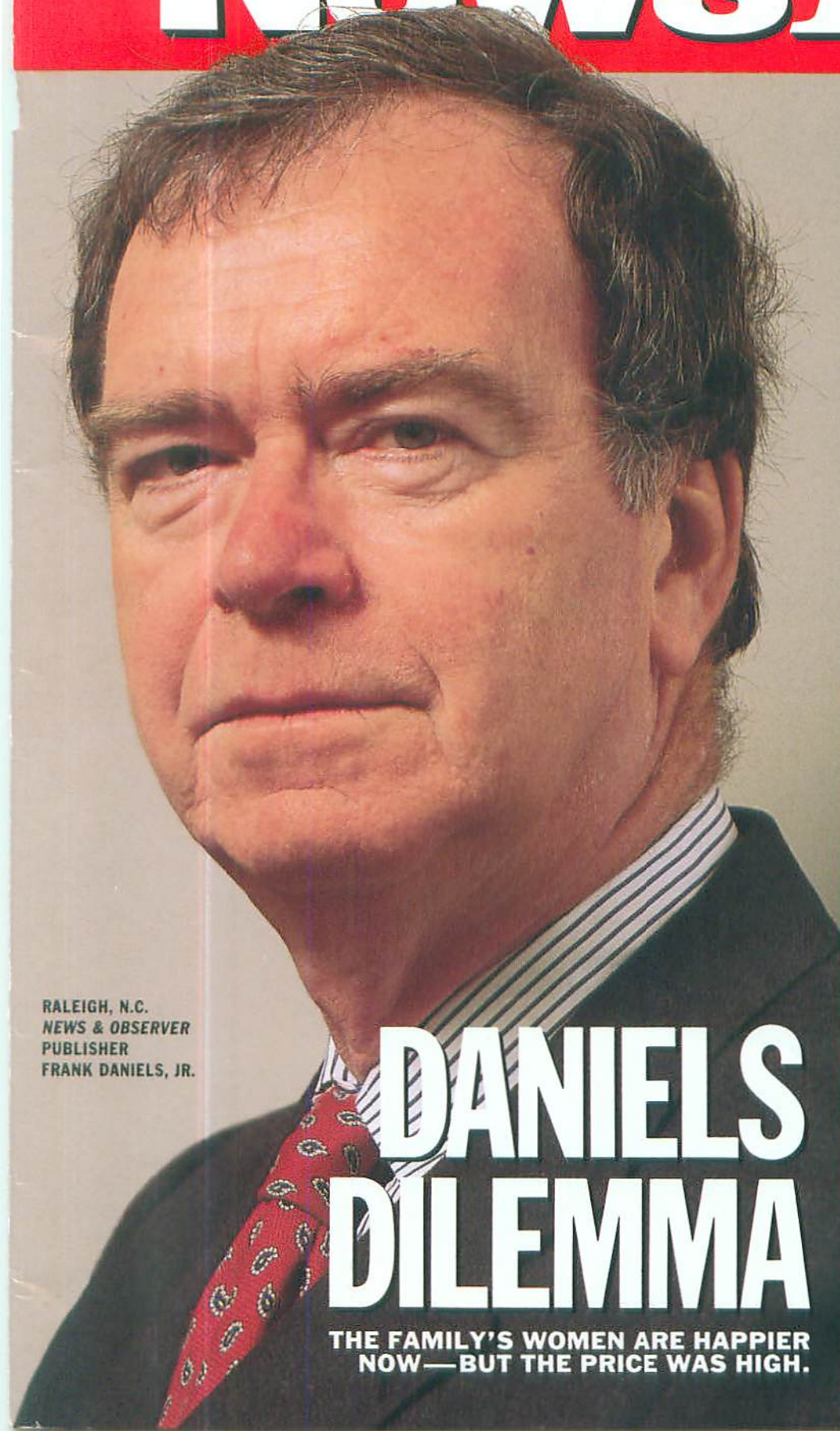


# News Inc.



RALEIGH, N.C.  
NEWS & OBSERVER  
PUBLISHER  
FRANK DANIELS, JR.

## DANIELS DILEMMA

THE FAMILY'S WOMEN ARE HAPPIER  
NOW—BUT THE PRICE WAS HIGH.

▼  
SPECIAL REPORT:

## ANPA•TEC PREVIEW

▼  
FUTURE  
IMPERFECT

The search for the  
automated newspaper  
goes on, but there are  
real solutions out  
there right now.

▼  
FOUNDING  
FATHERS

Four who were there  
at the beginning offer  
their thoughts on  
where we're  
going.

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# F Founding

**Once upon a time, they shared a dream: Where type never got lost and graphics were crisp and colorful; where no one got dirty and the paper came out on time. Here's where they think we're headed now.**

**BY MEG CAMPBELL**

**DOUG DRANE**  
COFOUNDER  
ATEX

**Just hearing the clackety-clack of an** AteX keyboard at the other end of the telephone gets Doug Drane excited. "We worked so hard on that keyboard. The one-stroke-per-function, the insert functions, insert lock, fast scroll, search, H and J—it was all new stuff. It was done for editors, not computer people. And the whole

thing was *invented* by newsmen." The words tumble out at the dizzying clip Drane is famous for, a trait he cultivated at college "to ask questions faster."

"I've always been fascinated by the media," says Drane, a cofounder (with Charlie and Richard Ying) of AteX. He talks enthusiastically about his first-born firm, even though he is now an "active" investor in 11 different high-technology companies. "When I started out I studied ten industries that could use minicomputers with video display terminals and disks in an interactive transaction environment," he says. "Media looked the most exciting, and also the most complex, which I thought would keep the big companies out."

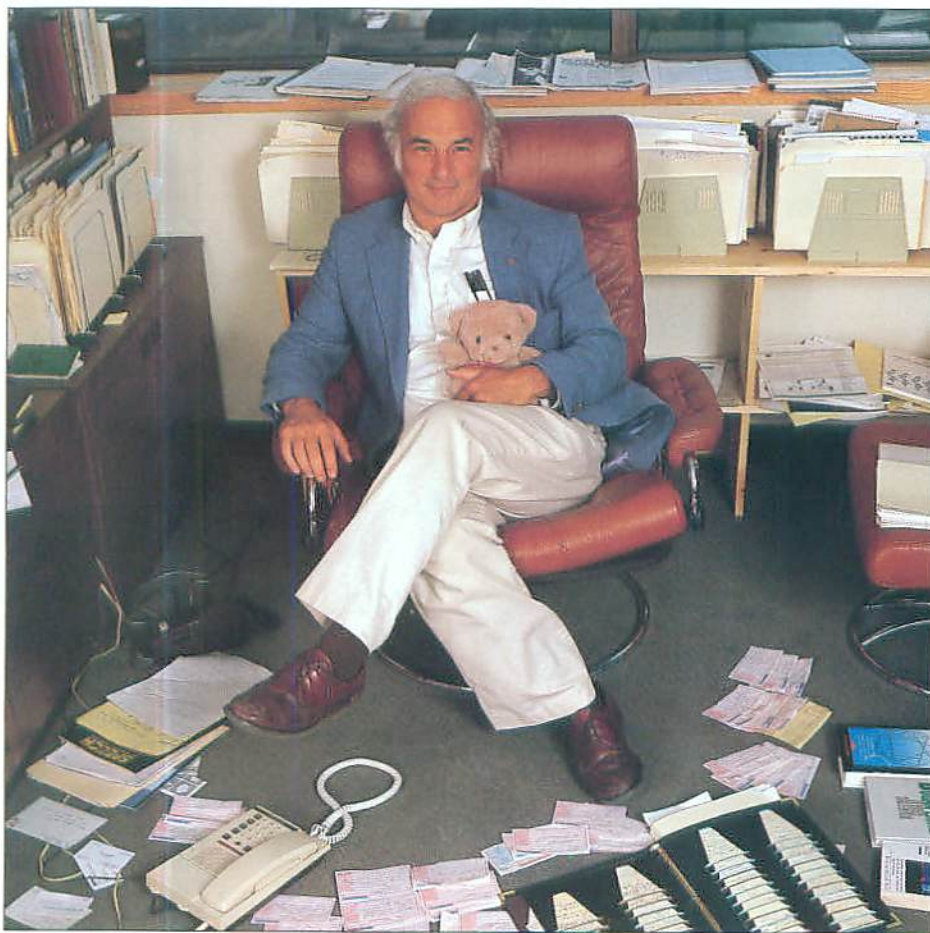
Drane laughs as he reminisces about the early days at AteX in 1973, when he worked with the Yings in a Lexington, Massachusetts, loft. There were glitches in the system prototype; the H & J (hyphenation and justification) just wouldn't work; the programmers froze at their desks in the Yings' unheated attic; and money got so tight that they had to pay for components with their credit cards.

"We went up to Massachusetts to look at their equipment," *Newsday* vice president Stanley Asimov says. "Doug took us to Pewter Pot for lunch, but we picked up the tab because he didn't have the money."

*Newsday* bought a lot more than lunch. When the Long Island daily signed on with AteX back in November 1974, it was the fledgling company's first major newspaper account. Working in the *Newsday* newsroom gave Drane and the Ying brothers the opportunity to build a bigger system, work out the kinks with real editors, and perfect the keyboard Drane raves about.

AteX critics have often suggested that

# Fathers



Drane's vision for a system built for the user has resulted in overdependence on proprietary hardware. But Jim Lennane, founder of rival System Integrators, points out that when he and Drane started up, there was no such thing as standard hardware. "It was

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every man for himself. There was no UNIX, there weren't even PDP/2s," says Lennane. "We had to make computers perform unnatural acts to satisfy customer demand, and we did it. And now it's the successful products that are being called proprietary."

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Although friends swear he's slowed down since selling Atex to Eastman Kodak in 1981, the 49-year-old Drane still has all 10 fingers in an assortment of high-tech pies. Working out of an office in Nashua, New Hampshire, he has investments in four graphic arts businesses and in companies developing systems for voice recognition, natural language recognition, artificial intelligence, and retail and banking networks.

In the sweet spare time that comes to an entrepreneur who's sold his firm for a bundle, Drane hikes, travels, and peruses the latest literature on neural nets. He's intrigued by such topics as spirituality and psychic phenomena. And he has a passion for systems: Neurological systems, training systems, personality systems, learning systems.

Drane foresees a surge in fax-distributed papers in the near future and heightened competition from the telephone companies and from local printers with high-quality color presses who can do mailings by zip codes. "But that continued pressure is exciting," he says. "It makes papers more effective in getting and disseminating information." Several of the graphic arts companies that he's involved with are seeking ways to improve speed and quality of newspaper color, which Drane feels is needed to help the newspaper industry meet this competition. "We want to give the media more access to color, so they can maintain the edge in quality color. Newspapers must increase their ability to provide color to the marketplace—and in a faster manner—if they're going to compete."

"In ten years," says the man who helped create what is now the industry standard in text-editing systems, "the new media will be here, color will be here, and pagination will be here. And I'll retire." ■

# EFI ARAZI

COFOUNDER  
SCITEX

**"Audacity was the name of the game."**

Efi Arazi is talking about the big-budget projects he worked on at NASA during the space race, but the motto applies to every step of the man's career. It took audacity to get into MIT without applying. It was audacity that got him the money to start Scitex in 1970 and to build it into a multi-million-dollar company. And it is this same boldness that makes him believe his year-old company, Electronics for Imaging (EFI), will control the color desktop imaging market.

This latest venture has the Israeli entrepreneur knocking heads with such industrial giants as DuPont and Kodak, but if anyone can do it, he can, says Scitex America president George Carlisle. "If you can tell a man's future by his past, you can expect great things from Efi."

Arazi sports ventless suits and soft leather shoes, spends a good deal of time in his native country, and is described in the same breath as charming and arrogant. He has the interests of a Renaissance man and has cultivated expertise in areas ranging from cartography to astronomy. He has little patience with that which does not interest him: He dropped out of high school and spent eight years getting his degree at MIT because he was always busy pursuing his own projects.

As much a businessman as a techno wizard, Arazi has capitalized on his ability to recognize and sell cutting-edge technology. "I love to do marketing and R and D back to back," he explains. He took digital image-processing out of the military complex and into commercial markets, first as a design mechanism for textiles, and later as a publishing tool. He led Scitex to the fore-

front of the computerized color-prepress industry by hitting the market with manageable image-processing technology just as publishers started

working with color. Today Scitex controls nearly a third of the color-prepress market.

Now at EFI, his privately-held company in San Bruno, California, he is working on "lay tech" color-processing technology. With EFI's technology, Arazi explains, nontechnicians will be able to do color processing on desktop PCs. The technology speeds up processing through the deletion

of high-end desktop. And I asked myself, what role could I play in adding color to desktop? Scitex will lead for many more years at the high end. But we see ourselves coming in with much lighter, more flexible, and less expensive equipment."

What this means for newspapers, Arazi says, is the opportunity to combine design and production functions. "We will allow a night editor to drop a picture in place, crop it, couple it with its caption and other graphic elements, scan it into the computer without any high-level graphic arts technician or craftsman, and send it to the printing press, so it will appear perfect without the usual chain of craftsmen."

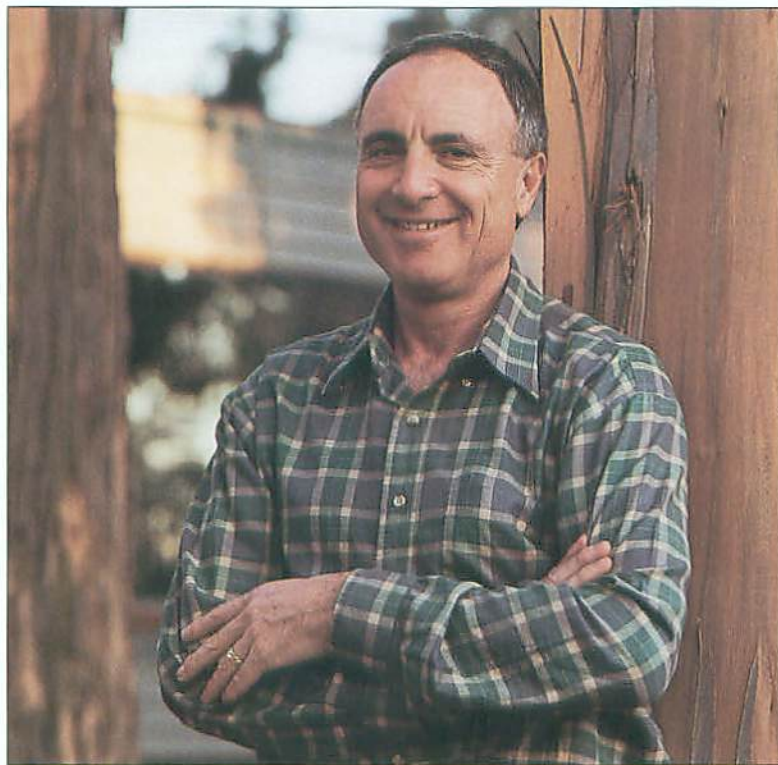
"The technology at EFI is interesting," says Gary Moore, a vice president at Atex

and a former Scitex executive. "And Efi is a visionary bar none. The question is whether it's too big for him. The competition is formidable." Many companies, such as Adobe, AGFA, Linotype, Siemens, 3M, and Fuji are working on similar projects, Moore says, and it will be hard to persuade giants like Kodak and DuPont to drop their own research and use EFI's standard.

Arazi is not worried by the threat. "We haven't seen any competition so far," he says confidently, and adds with a smile, "My wife once found a quote that said 'people are vision-

aries for what they don't see.'"

The '90s, Arazi says, will be the decade for desktop color, and he is determined to dominate the decade and set the standard. That's Arazi, says Gary Moore: Do it my way or take the highway. ■



**"I ASKED MYSELF, 'WHAT ROLE COULD I PLAY IN ADDING COLOR TO DESKTOP PUBLISHING?'"**

of redundant data; it also promises that on-screen reproduction and ultimate output product will be identical and true to the original.

"I was absolutely fascinated by the success of the desktop industry," Arazi says. "What really caught my eye was the thirteen billion dollars in sales in the first years

**Steuart Dewar is the only founding father** in this group who has not left the company he founded in search of a new entrepreneurial adventure. The 42-year-old classical pianist cum computer programmer heads up the oldest front-end company still owned by its founder, and he has no intention of selling what has taken him 15 years to build.

"You have to decide when you start a company: Is it an investment or an institution," says Dewar. "In my case, it's definitely the latter. I can't even imagine starting a new company."

Dewar, whose faint accent still reveals his British origins, has been in the newspaper industry since 1970, when he designed his first—and one of the first—text-editing systems. Since then he has built his private company, Dewar Information Systems Corp. (DISC), from a home-based operation to a firm with 75 employees and 250 newspaper and commercial accounts, representing some 20 per cent of the country's mid-size dailies.

The Westchester, Illinois-based company was one of the first to install local area networks, systems with multiple processors that communicate interactively and also offer the advantages of an individual work station. In 1988 DISC was number 115 on *Inc.* magazine's list of the 500 fastest-growing private companies in America.

Today the company, on the rebound from the desktop revolution that traumatized all the front-end firms in the mid-'80s, continues to grow at an impressive

rate. "Our sales for last year were ten million dollars, and right now we're booking new orders at more than double that rate," says Dewar. The company's current system, System IV, runs on standard hardware—386 IBM-compatible PCs—and, according to Dewar, has all the pieces in place for total pagination, including editorial text-editing, classified front-end, display-ad makeup, display-ad dummying, editorial layout, classified pagination, and handling line art and half-tone graphics. All of the pieces are ready

more as electronic darkrooms go on-line and photographers start using digital cameras.

"It's not a technology issue," Dewar insists. "The technology's out there. It must be cost-effective, too, and right now pagination just isn't easy to cost justify." The first candidates for pagination will not be large metro dailies, he says, but mid-size papers that don't have as many complications. The logistics in a smaller paper are easier to work out, Dewar says, and there isn't the same need for simultaneous access to page elements found in large dailies.

Dewar built his first system, called Draft-8, for the Lafayette (Ind.) *Journal & Courier* (37,050 circulation), while at a small computer company called Datalogic. It took him four months to write the software and assemble the hardware, and he remembers worrying that his boss would "chew him out" for finishing a month late. Instead, the boss was stunned by the complexity of the task and amazed that it had only taken Dewar four months to build. The *Journal*, delighted with the result, paid \$10,000 for the software and is still a loyal DISC customer. (When Dewar left Datalogic to start DISC, he took the newspaper accounts with him.)

"The system's been real good," says production director Bob Yost, who was at the *Journal* when the original Draft-8 was installed. "It's user friendly, the maintenance is low, and the price is good, better than most."

New Jersey *Law Journal's* system manager, Peter Arthur, is less enthused with the system, citing difficulties with support services, but concedes that the system is still the best for the price. Dewar calls Ar-

CONTINUED ON PAGE 30

# STEUART DEWAR

FOUNDER  
DEWAR SYSTEMS



**"PAGINATION WILL COME IN WITH A WHIMPER, NOT A BANG. IT'S GOING TO BE GRADUAL."**

and integrated, Dewar says.

As for the future of the industry's quest for pagination, Dewar predicts that "pagination will come in with a whimper, not a bang. It's going to be gradual." Several papers are already setting one or two pages on a regular basis with DISC's System IV, he says, and will be able to do

▶ CONTINUED FROM PAGE 29

thur's case an exception: "We've got about two hundred and fifty clients," he says. "Peter Arthur would be one of a dozen."

Although he took both his undergraduate and graduate degrees in music, studying piano, Dewar was destined for keyboards of another sort. He stumbled into computers while working as a biochemist when he was 22. Using manuals, he taught himself programming at night while working in a hospital, where he designed a computerized blood analyzer. He has been hooked on computers ever since.

Computer prowess, he points out, runs in the family. His father, Michael J. S. Dewar, is an organic chemist who has won armfuls of awards for his computer models of chemical structures; his brother Robert is a professor of computer science at New York University and an authority on programming. "All of us were always good at mathematics," Dewar shrugs. "People who are good at math are typically good at computers too."

DISC's administrative demands don't leave Dewar much time for the technical work these days, though he manages to keep a hand in by designing in-house office systems. He's busy gearing DISC up for upcoming projects, anticipating a surge of sales in the mid-size newspaper market, and then a good deal of business from the commercial publishing market.

Dewar sees newspapers coming up against intense competition in the years to come, competition they haven't prepared for. Faxed publications, he says, will become increasingly popular and will effectively remove the economic barrier of an expensive press system. This crumbling wall will make it much easier to produce and distribute a newspaper, creating fierce competition for advertising. "What newspapers have really got to do," Dewar advises, "is work on developing comprehensive local news organizations. Local coverage will save the local paper."

What, in Dewar's own opinion, makes him a founding father of newspaper technology? What has he pioneered that counts him as a visionary? "We built the first system that worked," Dewar answers simply. "We took a theory, made it cost-effective, and got a good ROI. You see lots of neat things in a trade show, but how many of them work? The key is to combine theory and practice. You've got to be able to do things efficiently." ■

## JIM LENNANE

FOUNDER  
SII

**Dressed in a nightshirt and cap, Jim Lennane** took the stage at the Seybold seminar in March and flashed a slide reading: BIFURCATED SCHIZOIDS FROM HELL. The founder of System Integrators, Inc., then crisscrossed the stage, carrying on two different conversations with an imaginary pair named William and Billy.

"Half the audience just sat there and stared at Lennane like he was crazy," says newspaper technology consultant David Cole. "The people who got it were rolling in the aisles." The stunt was Lennane's poke at Microsoft whiz kid Bill Gates for waffling over a new operating system.

Jim Lennane is legendary in the newspaper industry for his eccentric exploits: his penchant for Lear jets and plaid pants; his naming of SII's Coyote terminal after his fur coat; the full-page good-bye he ran in nine newspapers nationwide when he stepped down as benevolent dictator at SII.

At his home in Naples, Florida, the 50-year-old Lennane is busy enjoying the \$46 million he got when he left the publishing systems company he founded in 1974. He tacked that on to the \$47 million he made while with the company. "I complained a lot about the industry, but

I really enjoyed it," Lennane admits. "There were so many great people. I miss it."

Lennane started SII after several years with IBM, where newspaper assignments led him to text editing. "I just stumbled upon an opportunity without a business plan and successfully extrapolated it into \$93 million." It may sound cavalier, he says, but that's how it happened. "I had no business background. I'm a technical strategist." Success, he says, came

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**"PAGINATION IS PROBABLY THE MOST ILL-DEFINED TERM IN THE BUSINESS."**

from endless hours of work. "We used to work so many hours that my eyes would get burned by the fluorescent lights."

The product of the exhaustive work was System/55, "a remarkable system that

