

Earn as You Churn: Minimizing Outlays for Corporate Layouts

Can automation, modularity, and re-usability provide logistical and budgetary relief?

By C.C. Sullivan, Associate Editor

Gary Freiberger has it down to a science.

After a calendar year of "relentless churn" at the 1901 Market Street headquarters of Independence Blue Cross, Philadelphia, where he is senior director of Facilities Management, Freiberger has come to terms with constant relocation and reconfiguration. In conjunction with manufacturers,

designers, and the trades, his department has upgraded to flexible and fast-moving interiors that keep pace with today's business environment.

Even with his Facilities Management Department thinly stretched, Freiberger can continue at the current breakneck pace. "We are now prepared. We can do moves without hiring anybody or buying anything." "And it's working," adds Janet

Struckle of Ballinger Architects, Philadelphia, the company that designed the original interior fit-out and computerized the documentation and standards.

Corporate standardization is the key component for coping with change. "It's efficient, and every project isn't like a new project," Freiberger explains. Key processes are streamlined, breaking down financial, logistical, and even psychological barriers.

Psychological? Like others in the field, Freiberger feels that standard specifications built into computer-aided facilities management (CAFM) and computer-aided design (CAD) systems help ease the stress of churn. "We are about as automated as we can be. We have a fairly limited menu, but hopefully there's something for every need." To illustrate, Freiberger cites an employee in an 8- by 8-foot workstation who required more file drawers than standard (four): "We locate filing, say, just outside the workstation, so that the integrity of the workstation is maintained [in square footage and componentry.]"

Typical dimensions, finishes, and components reduce workload up front and give workspaces an inherent fairness relative to the corporate hierarchy. "There's a certain democracy in that," he concludes, and employees know what they are getting. The next question is: When will they get it?

To accelerate the process, Freiberger and others in his department researched features that save time during installation and reconfiguration. The department's general conclusion was that efficient churn hinges on three parameters: modularity, re-usability, and availability.

"We use carpet tile throughout,"

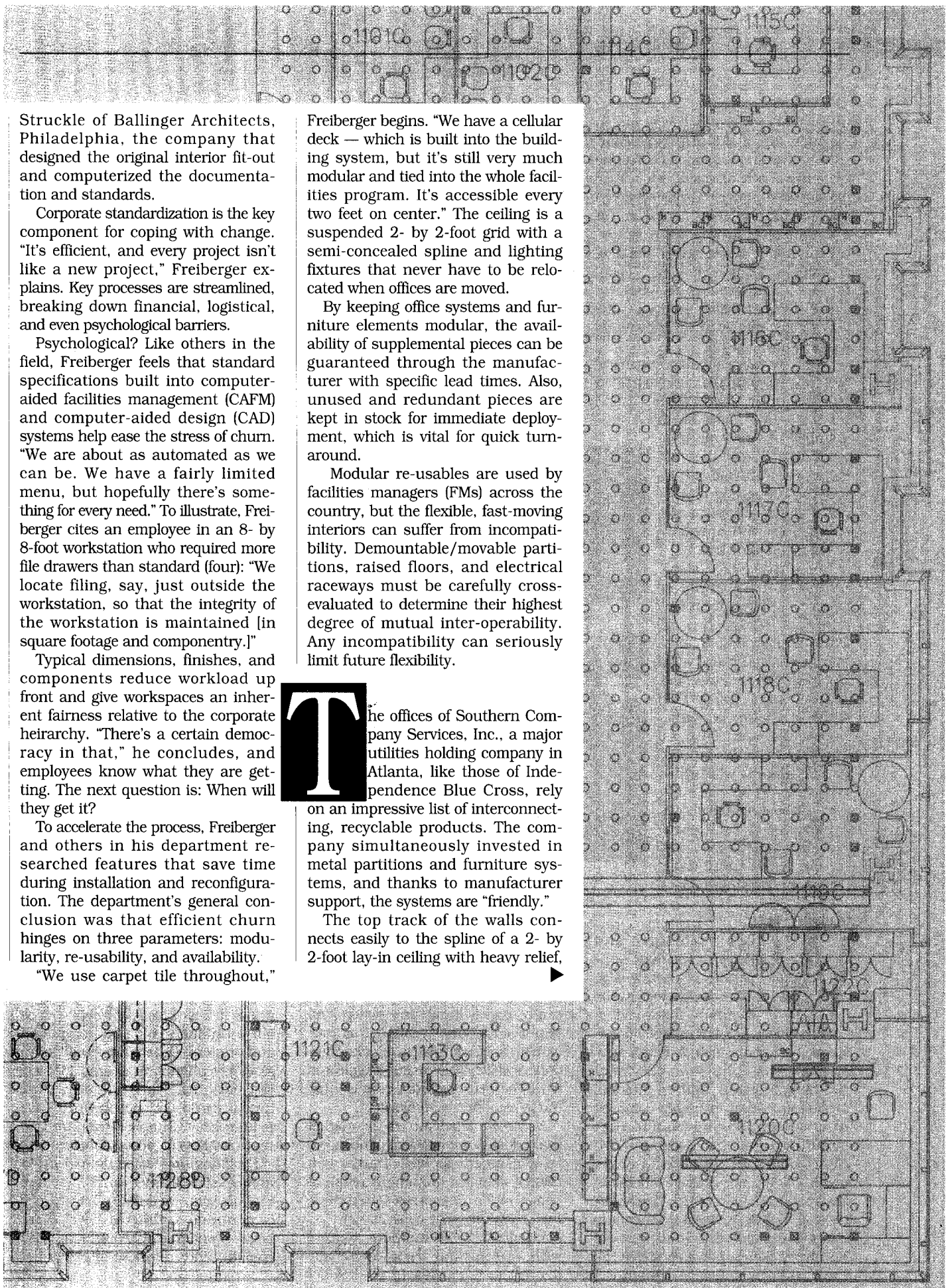
Freiberger begins. "We have a cellular deck — which is built into the building system, but it's still very much modular and tied into the whole facilities program. It's accessible every two feet on center." The ceiling is a suspended 2- by 2-foot grid with a semi-concealed spline and lighting fixtures that never have to be relocated when offices are moved.

By keeping office systems and furniture elements modular, the availability of supplemental pieces can be guaranteed through the manufacturer with specific lead times. Also, unused and redundant pieces are kept in stock for immediate deployment, which is vital for quick turn-around.

Modular re-usables are used by facilities managers (FMs) across the country, but the flexible, fast-moving interiors can suffer from incompatibility. Demountable/movable partitions, raised floors, and electrical raceways must be carefully cross-evaluated to determine their highest degree of mutual inter-operability. Any incompatibility can seriously limit future flexibility.

The offices of Southern Company Services, Inc., a major utilities holding company in Atlanta, like those of Independence Blue Cross, rely on an impressive list of interconnecting, recyclable products. The company simultaneously invested in metal partitions and furniture systems, and thanks to manufacturer support, the systems are "friendly."

The top track of the walls connects easily to the spline of a 2- by 2-foot lay-in ceiling with heavy relief, ▶



and "grippers" hold the walls in place on top of the carpet-tile floor. Office furniture was modified slightly to connect with the metal walls. "We developed a small custom-designed adaptor bracket that would be put into the spline at wall panel joints," explains Mike Huey, senior building coordinator for the company. "Then, in turn, that bracket is what received the furniture products. It's very strong and clean." What's more, it's re-usable.

"We also use a modular electrical system offered by the metal partition manufacturer," adds Huey. "I can buy it locally, but I'm buying it installed. It costs me less to do it that way than to have my electrician put it in." The connecting blocks of the electrical system are compatible with brackets in the metal partitions.

Not only is electrical installation virtually a snap-together process, explains Huey, but it leaves a finish that is "nice and clean, and flush with the base. We do our communications ports the same way. It's the same knock-out size." Outlets and ports can essentially be relocated at will, without expensive outside support. Also, three telephone cables run to each port, providing ample connectivity for voice and data devices in one plug-in block.

While Freiburger and Huey are ardent supporters of cutting-edge office technologies, the switch to fast-moving, flexible offices has not escaped opposition. Detractors include detail-driven designers (who shun the "one-size-fits-all" image), and an interiors marketplace that is highly competitive, with opposing claims that befuddle even the seasoned FM. Also, some executives will always prefer traditional, built-in offices. In a corporate version of the "Three Little Pigs," these professionals believe that without millwork detailing, hefty furniture, and immovable sheetrock walls, offices project a transitory,

cut-rate, and unsafe image.

Simply not the case, contend proponents: Some new products turn owners' heads because of inherent beauty that goes beyond mere flexibility. Walls and partitions are a prime example: They can be found in literally hundreds of styles for a variety of applications that provide different levels of flexibility. Most of them do not look or feel movable, and many offer excellent acoustic properties.

Raised floor systems are indistinguishable from conventional floors, and can conceal variations in the subflooring, as well as wiring, HVAC



ductwork, and air-filtration devices. Cable management systems permit significant re-wiring without re-engineering. Dropped ceilings are compatible with walls and lighting systems, and come in a variety of colors, patterns, and finishes. Most significantly, all of the above systems can be moved to new locations, or they can be sold or held in stock. Supporters of life-cycle costing are pleased with the returns from researching the latest office technologies.

New techniques are on the market that address the problem of occupied refurbishment as well. Barbara H. Blama, manager of Administration at Organization Resources Counselors, Inc., New York City consultancy, has catalogued these methods to deal with upgrades at their "extremely dense" headquarters in Rockefeller

Center. Blama's motivation is no mystery: Modernization during the workday costs 50 percent less than comparable overtime projects.

"People here are used to work going on during the day," observes Blama, "and they are aware that the added costs of weekend work cut into our profit-sharing compensation." In searching for techniques that minimize costs and employee downtime, Blama has analyzed numerous solutions for furniture reconfiguration, carpet replacement, and efficient re-wiring. The keys to such problem-solving are flexible furniture systems, wall- and partition-mounted storage, wiring trenches — and a high degree of employee involvement.

A recent carpet replacement was a real success story, according to Blama. Using a patented jacking system, 150 square yards of carpet tile were glued down per night, allowing the entire phased project to be completed in 21 days. Employees in areas of activity were notified 24 to 48 hours beforehand, so valuables could be stashed and heavy bookshelves emptied. Surprisingly, no employees complained of significant setbacks to their work schedules, and no glue odor was noted. The result: an attractive, consistent

finish throughout, combined with substantial labor and productivity savings.

FMs like Blama, Huey, and Freiburger recognize the need to incorporate all techniques with profit-enhancing potential. Some are simple: Strive for energy efficiency in all office products such as computers and printers. Others are creative: Install pay phones in shared lobbies. But most, as Blama will attest, are fundamental, yet perplexing: They require heavy supplier input and in-depth analysis for adequate resolution.

Facilities professionals can profit from lessons learned in other building interiors. Modularity has helped owners and architects develop in-house standards based on long-term compatibility. Re-usability has cut

cost and waste, making reconfigurable interior elements (by definition) environmentally friendly. Lifecycle costing, championed by accountants and environmental advocates alike, provides plain proof of the advantages of extended use and favorable tax treatment.

Automation is yet another big boost for any FM department, providing paperless logistical organization. CAFM and CAD systems simultaneously and automatically keep tabs

on inventory, scheduling, space planning, and record keeping.

With technology changing the way building owners and facility managers conduct business, one wonders where it will all end. Is the virtual office of the future around the corner? Will telecommuting and portability render traditional offices a quaint anachronism? Probably not. But mobile communications, laptop computers, and disk storage have made office space redundant for

many professionals. The results: hoteling, shared desks, and in some severe instances, *no offices at all*.

But until cellular phones and laptop computers change life as we know it, corporate America will rely on interiors that can handle brisk transformations. To some degree, these interiors will be modular, reusable, automated — and available immediately. □

Hardwired, Automated Interior Planning Affords Ample Opportunity for Saving Time and Making Money

The availability of new technologies has an interesting yet contradictory effect on the facilities manager (FM): They create work while promising less work; and they incur expense while promising future savings. While striving for innovation, time and money are invested that can add significantly to the estimated payback period. In the end, is it worth the gamble?

Market forces encourage FMs to analyze new products and processes for cost effectiveness and competitive advantage. Case studies reported in *BUILDINGS* confirm the value of analyzing new commodities for creative implementations. Skilled, thoughtful "business process re-engineering" can lead to subsequent palpable returns.

The use of computer-aided facilities management (CAFM) systems is a good example. Early in its development, many FMs feared that rapid industry-wide advances would soon render existing technologies obsolete. Instead, CAFM software and hardware were found to be inherently malleable, adapting and growing with user needs. In the cases where thoughtful, prescient CAFM product selections were made, companies benefited from a payback in the form of productivity boosts and better planning. Today, CAFM systems are virtually synonymous with occupancy planning, inventory management, and in-house design.

Mike Huey and Gary Freiberger have long been CAFM aficionados. "All the engineering documents are on CAD, the electrical, HVAC, fire protection," says Huey. Freiberger relies on computer assistance "for documentation, space planning, and square footage calculations. We even have a relationship with a furniture dealer who uses another modified CAD program to do take-offs and inventory control for us." Drawings and data can be sent via modem or floppy disk to take advantage of the outsourced support.

CAD-compatible programs from manufacturers and consultants appear to be the rage of the future. Originally used as a marketing tool, the CAD add-ons now include diverse applications such as specification systems, lighting programs, inventory analyses, detail development, and manufacturer-produced management aids. It is not uncommon to find facilities managers, multi-site owners, and staff designers with extensive libraries of the digital design aids.

Capital expenditures such as those for CAFM automation can be justified only when the system adds value to facility management. This requires diligent research on the part of the facilities manager as well as intelligible, common-sense advice from the vendor. Such complementary groundwork is essential for ensuring that computer technology and innovative software will successfully optimize building performance. □