



The building Chris Allain bought was in good condition, but needed extensive renovation to become an efficient video facility.

THIS OLD STUDIO

Building 8,000 square feet of production paradise. By Chris Allain

Almost everyone wants a larger or better-designed work space. It's especially true in our business, where productivity is affected by the edit suite, sound stage, machine room, and tape library. Any of us could improve our facilities given unlimited resources. The challenge is determining how to get the most bang for the buck with the reality of limited resources.

This article chronicles my quest to secure and build a new studio for my production business, Vidox Image & Data. After 21 years of operation, we'd come of age and needed a bigger facility. I suppose I've worked toward a new studio from

the beginning, but about 8 years ago, a bigger space began to look both necessary and possible.

I was well on my way toward paying off the note on the modest, 1,400-square-foot building in which we operated. For more than two decades at Vidox, we've tried to acquire the best technology our market could support so we would have the best creative options to offer our clients.

We were early adopters of Avid nonlinear edit systems, Digital Betacam, and 24p digital acquisition. Today we do mostly commercial production on film and video, but we also create animation, industrials, and multimedia. With a staff of six as well as an

extraordinary amount of equipment (and junk), we were tripping over each other.

The production folks in the back played dueling thermostats with everyone else, and when clients spent any sustained time in editing, we had to shut down other production. Parking was a problem, and we couldn't shoot even tabletop setups without moving furniture. Our location was convenient and the building did offer a certain charm, but it was well worn and really presented the wrong image.

Besides needing more general office space, we wanted a large general production area, a dedicated machine room with climate and sound control, a larger and more comfortable edit room, and a shooting area.

We considered numerous possibilities over the past several years. My digital photo library contains thousands of pictures of the 20 or 30 new properties I considered. I even produced 3D models of the renovations I envisioned for several. But persistence and patience do pay.



Allain spent endless hours designing the first-floor plan for Vidox's new home before any work began.

I'm very pleased with what we've built. For us, it's a two-story, 8,000-square-foot production paradise. Although ours is not a mind-blowing, multimillion-dollar edifice, many production companies would find our facility just right for their operations.

In the end, our plan resulted in two moves, 6 months of living out of boxes, and a major amount of distraction from revenue-producing work. I still don't know how we filled up an entire floor with the contents of a space less than half that size.

The building's previous occupants had no lobby. Allain replaced most of one wall with a frameless glass door and panels to provide a more inviting entry. Renderings in 3D created before construction were not intended to be photorealistic, but rather to serve as a design tool.

Past Digital Video Magazine facility build-out articles have focused on wiring and on the specific needs of specific rooms, but this article talks about more general remodeling issues.

When to upgrade

Deciding when to upgrade a facility depends on several factors. It's obvious, but still needs to be said: consider financial readiness first. You must generate an adequate income over a sustained period, and building equity in a solid investment like real estate can help. Be conservative and vigilant here; don't become overly optimistic with the numbers. Stretch, but not too far.

Next determine what you need and what your market can justify. Vidox operates in Lafayette, LA. It is a great city, but it is not Los Angeles or New York. I often base upgrades on gut feeling, but I never count on the expected revenue from that upgrade to pay for it. I know I can cover the cost even if it doesn't pan out. The bottom line

is that you must determine what a new space will do for your productivity and marketability.

The question for us was not "Were we ready?" but "Why did we wait so long?" During the 8 years I shopped casually and the 4 or 5 of those years that I shopped intensely, I continued to save and build equity. The right building had to have a substantial presence and be low maintenance, so I preferred a brick exterior.

I wanted a building between 5,000 and 10,000 square feet that was half office and half warehouse; we planned to convert the warehouse to a sound stage and a workshop. But all prospects involved compromises. I carefully considered new construction. I looked at several lots and designed about a dozen different structures.

I often considered leasing space, but I've always had a bias toward ownership. Owning real estate is not the only path, but I knew it was the only way



I'd be satisfied. As sort of an amateur architect and furniture maker, I enjoy designing and optimizing spaces. This takes a ton of time and energy, though, and I didn't want to make that investment in a leased space that I might occupy for only a few years.

I eventually settled on a traditional office building with enough land so I could later add the sound stage and workshop I needed. Maybe I waited too long. I've had more than a few arguments with my inner voices on the issue. Sometimes I worry that I let the perfect become the enemy of the good. But, as we say here in the heart of Cajun country, "C'est la vie"—that's life! In the end, I'm delighted with the outcome.

In examining the need for a new facility, I also considered client's impressions. Will our new space make clients and potential clients more inclined to do business with us? Will they be willing to pay for additional services we can now offer? It's early yet, but I think the new building has had the effect we wanted. Our clients seem supportive of and excited for us.

The move has also had an impact on employee attitudes. I have suspected over the years that many prospective employees didn't see a place for themselves in the old building. It's hard to divorce what a business looks like on the outside from what it's capable of producing. Current employees see the progress and feel they're a part of something exciting. Adequate parking and a more comfortable work space improves morale. An editor or animator might logically think, "This business is succeeding; ergo, I can succeed with this business."

Finally, consider the effect a move will have on you, the owner. You probably know the old saw, "What doesn't kill you will make you stronger." Well, I'm

not sure I buy it. I pulverized more than a few brain cells and fingers in this process. I gave up more than a little quality time with my family. If you get the impression I've been a bit obsessed with this project, you'd be right. It has taken tremendous energy and focus—too much, really. Am I satisfied now? Sure I am. Would I do it again? Probably. But, one thing is certain: if you attempt a project like this, you'd better really want it.

**WILL OUR NEW SPACE
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WITH US? WILL THEY BE
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Construction

In late 2003, we found a buyer for our old building and we needed to find a new space quickly. We had plans drawn for a structure on a lot we were thinking about buying, but about the same time, a large office building became available. At 8,000 square feet, it was too large and the layout wasn't ideal, but we developed a renovation plan that worked surprisingly well. It was decision time: Own or rent? Buy or build? (See "The Economics of Studio Real Estate" sidebar.)

We decided to buy. Our plan was to move into the new building's second floor and camp out there until we completed renovations to the 4,000-square-foot first floor. We also planned to rent out the second floor until we needed the space.

Having been involved in several construction projects, and as a general contractor on a couple of them, I decided to take on the renovation of our new building. I had been stuck with several unqualified subcontractors before and didn't want that situation with this project.

I hired a project supervisor with extensive commercial experience. He employed a couple of carpenters. Their work was generally decent, but changes to my plans caused by the city's permitting authority, Metro Code, forced us into a cost-plus relationship. The costs exceeded what I think they should have, and the supervisor had a problem with conflict resolution. Small disagreements became major blowouts.

With the majority of the carpentry completed, I let them go and took on much of the remaining carpentry myself. I hired additional labor when I could, but I worked plenty of 12-hour days and 7-day weeks.

My luck with the other subs varied. The glass installers were about 9 weeks late with our lobby door and twice attempted to install an improperly sized door. The painters did only a fair job, but their managers were highly professional. The electricians and flooring subs were great. The interior designer I hired gave me very little attention and didn't return calls. All of them charged more than they first quoted; some much more. I got about as much grief as I've come to expect from construction. The only good thing about construction is that it eventually ends.

Building code authority

When you work without an architect or general contractor, you are responsible for meeting building codes and securing permits. I have an architect as a close friend, so I thought I had permitting under control. This was my biggest mistake of the project.





the second floor joists, I'd have to remove all drop ceilings, all AC duct work, all ceiling lights, and much of the electrical wiring.

This news was devastating. The project came to a standstill for weeks as I tried to get the ruling altered. I hired a code consultant, who discovered that new codes, which were coming into force in a couple of weeks, did not require the tenant separation. Unfortunately, demigods do not suffer progress gladly. The inspector became furious on the phone and hung up on my consultant. After an extended wait in the Metro Code lobby and profuse apologies and groveling, we reached a compromise: I'd do exactly what he wanted and he'd let me buy a permit. I didn't like it, but I owned a large, costly, empty building that was not being renovated. Time is money, so I had to move forward.

This was when my budget reeled out of control. We removed nearly 60 2 x 4-foot



(top) The new facility's production and computer graphics room comfortably accommodates five to seven artists.

(bottom, left to right) While designing the main edit suite, Allain used a 3D application to visualize monitor support techniques and angles. The advance planning resulted in an efficient and practical monitor wall that stands between the edit suite and the machine room. Slotted cable conduit, above the monitor wall and door, keeps wiring clean.

(far right) Aluminum shelving suspended from Peg Board creates economical and extremely dense tape storage solution. The thin aluminum shelves do not require finishing.

jurisdiction." AHJs, as the industry calls them, engender fear and loathing in developers and builders. Their decrees can have staggering financial implications and perplex the most competent professionals.

Before the final purchase, I supplied drawings to the fire marshal. He asked for a couple of minor accommodations, and signed off on the plans. I closed my deal, assuming that this approval was adequate. Bad assumption.

Shortly thereafter, I contacted Metro Code, the local permitting authority. I received shocking news. Because I intended to lease the second floor, a fact I disclosed to the fire marshal, Metro Code required a tenant separation, a barrier that would protect one level from a fire on another for one hour.

Metro Code, the AHJ in this case, said sheet rock installed to the bottom of the second floor assembly would create the required rating. To attach sheet rock to

fluorescent fixtures and stored them for reinstallation. Removal and reinstallation threatened spiraling labor costs. I would have to replace many of the materials, and we discarded perfectly good ceilings.

We stored huge quantities of materials in our work area. When we had to move them from one room to another, we faced more delays, more labor, more cleanup, and more damage to the materials themselves. The ceiling installer didn't want to use the salvaged materials and might have blamed the materials for every defect in the job. In the end, we discarded most of what we attempted to reuse.

Because the ceilings were coming down, I decided to do other upgrades that then became practical. For instance, one half of the first floor had 8-foot ceilings, so I raised these to 9 feet to match the other side. I added a second layer of

sheet rock to decrease sound transmission between floors.

We completely rewired for phone, data, and security. We installed an average of four Ethernet drops in each room and nearly as many phone runs. The sheet rock between floors quieted the building and the 9-foot ceilings looked great; but in the end, these code requirements, combined with the upgrades, increased my budget around \$30,000 to \$40,000.

Designing the renovations

A production studio presents several unique design problems. Don't expect an architect to really understand these problems unless he or she specializes in designing video studios. Unless you have ample design experience, you should search for and hire a local professional with that specialty.

My situation is a little different. Since I was a kid, I've built furniture as a hobby.

not have had client visitors because they had no lobby. The main entry opened right into an inhospitable hall and stairway.

Between the entry hall and what would become our lobby, a blank, windowless wall held a wooden door with a small, vertical window. I decided to replace these with a frameless glass door and glass side panels that span most of that wall. This increased the narrow entryway by a few inches, added light to the lobby, and made both spaces feel larger and more open.

I decided to add an architectural detail I call the eyebrow over the lobby door. Its only purpose is to accent the door. This doorway became an expensive feature. The door and side lights alone cost \$3,300 and their use created several construction problems that consumed time and money. In the eyebrow, I installed three mini recessed spotlights, one centered over each of the glass panels, to illuminate the doorway and

a small, etched Vidox sign we plan to add to the glass panel next to the door.

In the 14 x 15-foot lobby, I added wall-paper opposite the glass doors as an accent. Two large windows with wooden blinds dominate the exterior wall, and the opposite blank wall awaits an artful Vidox sign, which is designed but not yet built. A custom desk, display case for awards, and two leather client chairs will complete the lobby. Most of the other design issues are more

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Years ago, I began using 3D CAD software to design my furniture projects. I've designed and contracted major home renovations and produced floor plans and exteriors for countless earlier buildings that didn't happen. I've collaborated on several projects with an architect buddy, so I figured I'd get by with a little help from my friend. I'm very pleased with the plans I developed.

Early on, I had to decide how drastically I was going to alter the existing office floor plan. Too much customizing would cost more and would hurt future resale value. It's fairly unlikely, if I ever decide to sell, that I'll find another video production company to buy. On balance, this resulted in no major compromises.

One of the first problems I tackled was creating a suitable entry and lobby. The previous building tenant was an insurance claims management company that must





During the renovation, Allain tapped his experience building furniture to perform some of the finish carpentry himself.

about function than sex appeal, but the lobby needs to deliver the right impression.

The edit, production, and machine rooms form the heart of a production company like ours. In all of the designs I created for our facility over the past several years, one design theme has survived: I've always placed the machine room between the main production area and our primary edit suite. Our production room houses several designers and editors, and their main workstations. It connects to the machine room via a wooden pocket door with a sound-proof double-glass window. The production staff can see the front of the racks in the machine room from their chairs and keep an eye on dubs, monitors, and such.

Over the past several years, the number of devices and wires populating our machine room has noticeably decreased. Due to online NLEs, we've simply stopped

The Economics of Studio Real Estate

I have always preferred owning a building instead of leasing. Owning offers greater control over my destiny and provides some financial diversification—a valuable thing in an industry where expensive equipment depreciates faster than you can revise your financial statement. But owning isn't always the right solution. It depends on your circumstances and on the real estate market in which you operate.

Leasing a 4,000-square-foot office in Lafayette, LA, might cost \$40,000 to \$60,000

a year. Rates in an average building cost about \$10 to \$15 per foot, per year, including all operational expenses. If you have space customized to your needs, you will pay those renovation costs one way or another. You might pay for the upgrades yourself and be granted a lower lease rate, or you might have your landlord pay for it and pay a higher lease rate.

In Lafayette, buying an existing office building that's around 5,000 to 10,000 square feet will probably cost \$50 to \$100 per square foot. Building a new building will cost between \$100 and \$150 per square foot. Lease costs are fairly easy to figure out, so to compare ownership and leasing, you must develop an accurate breakdown of acquisition and operation costs.

For round numbers, let's look at the costs associated with a \$500,000 property. To get financing, you'll have to have \$100,000 in cash, so you'll finance \$400,000. With a 15-year note, at today's low interest rates, debt service will run about \$3,500 per month or \$42,000 per year.

Property managers in Lafayette estimate operating costs at \$4 to \$5 per foot, per year; so figure about \$30,000 per year. Operating costs include utilities, janitorial, maintenance, property taxes, insurance, and lawn service. Of course, you can save money by doing some of this yourself, but that depends on the value of your time.

When comparing owning and renting, don't include expenses that are unchanged



working with linear solutions. We keep a small component analog production switcher around mainly for routing and occasional use. We've talked about replacing it with a small digital production switcher, but we're not sure we need it. Our racks now contain many flavors of VTRs, routing and distribution gear, video monitors, scopes, a bit of audio gear, and a modest bank of duplicators.

Accessing the back of racks for cabling usually eats up a fair amount of square footage. A 5 x 10-foot access area uses 50 square feet. At a building cost of \$100 per foot, that space is worth \$5,000. To avoid wasting this space, I installed large double doors in the wall between the

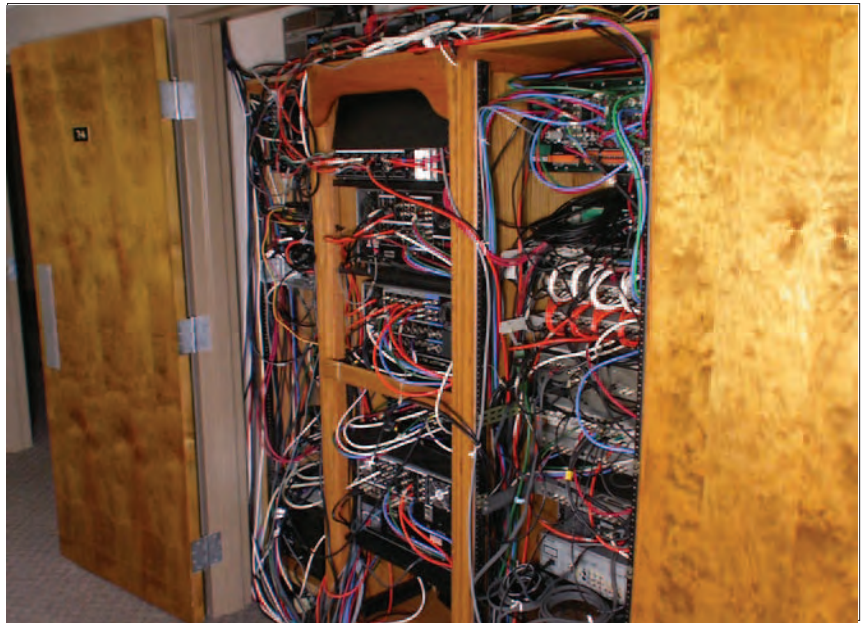
Recessing video and audio monitors into the wall in the Edit 1 suite freed up space on the suite's main desk. Panels at the bottom of the wall provide rear access from the machine room to the equipment under the desk.

Accessing the rear of the machine-room racks from the neighboring hallway rather than in the room itself saves valuable square footage.

corridor and the machine room, and backed the racks up to that door opening. The doors give us convenient access to four racks, and when we're done cabling, they close to hide any mess.

This approach could create an overheating problem, so if you borrow it for your facility, remember to provide adequate ventilation. We have a working solution, but we're building a more complete cooling and dehumidification system. In Lafayette, we never need to add humidity.

Another wooden pocket door with a double-glazed window connects the machine room with our main edit room. Again, an editor can see the front of the racks from his or her chair. Because the edit room shares a common wall with the machine room, we were able to build what we call a monitor wall. Between the two



in either scenario, such as phone and data, advertising, and payroll. These affect what you can pay overall, but they don't change the comparison.

Of course, these are all approximate numbers, but here's how it might break down. Expect ownership to cost you more in the short run. For a leased, 4,000-square-foot space, you're looking at \$40,000 to \$60,000 a year. Owning the same space might cost \$10,000 to \$20,000 more. But we're not done yet.

You also lose the use of that \$100,000 down payment. Depending on how well you invest, that's worth about \$6,000 per year. So you could easily see a scenario where you'd spend an extra \$20,000 to \$30,000, per year, to own. But

you'll probably build equity at about that same rate to offset the extra expenses.

In the end, it isn't a given that ownership is the better financial decision. Leasing and owning could cost about the same, or owning could cost more. Ownership starts to make sense when you can get into a property for less than the going rate or when you can reduce costs by leasing out some of your space. You might get some psychological benefit from ownership, but be careful not to get emotionally involved—this is business.

Buy or build?

If you decide to buy, you will need to decide if you want an existing space or will build

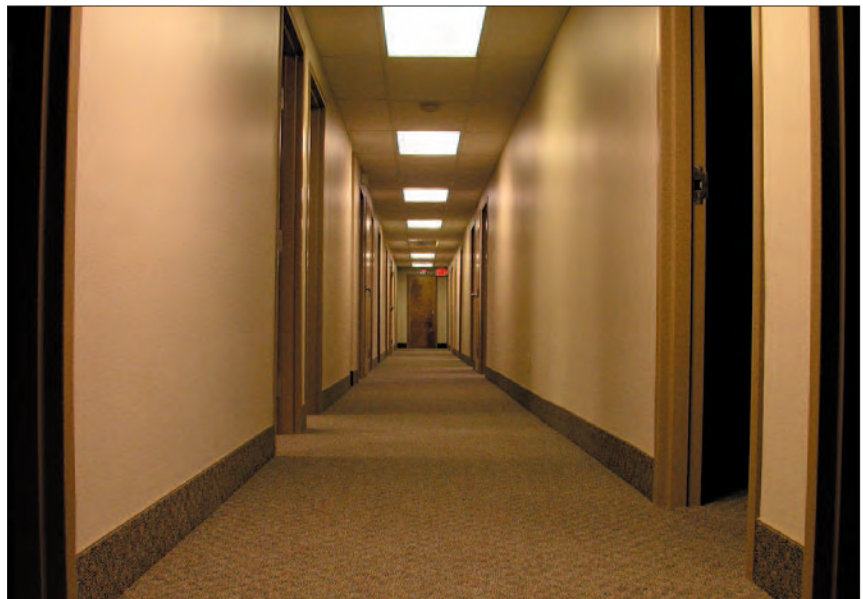
your own. New construction usually costs more, at least in our market. On the other hand, new construction lets you better predict costs.

At 8,000 square feet, my building new could have cost well over a million dollars. I invested a good deal less. In my case, I simply could not have justified comparable new construction. Buying and renovating an existing building reduced my per-square-foot price. It also afforded me the luxury of easy expansion to the second-floor space and rental revenue in the interim. As soon as I see the revenue from actual tenants, I'll be convinced I made a good investment.

rooms sits a series of framed plywood panels with cut-outs for audio and video monitors. The cabling and heat move to the machine room, while the monitors angle subtly into the edit room.

The back of the edit table can be accessed from the machine room through a removable panel, saving space and creating a neat installation. But moving the table against the wall created a new problem. The two large Avid CRT monitors that formerly protruded over the rear of table had to be moved forward. This created an uncomfortable viewing distance and crowded the keyboard and mouse, so we decided to replace the large monitors with much shallower LCD displays. We were surprised by how little heat the LCD monitors generated, and how much more comfortable the edit room became.

The nearly 100-foot hall of the finished first floor needs art on the walls, but is otherwise finished.



FEATURE This Old Studio

For the walls of the edit room, we chose an acoustic wall covering. You've probably seen this stuff in theaters. It looks like a cross between corduroy and carpet. It is attractive, durable, comfortable, and of course it quiets the room. This stuff is a bit expensive, but worth it in an area as important as the main edit suite.

Behind the editor, we created three levels of seating. Immediately behind and nearly adjacent, we have two office chairs for producers working closely with the editor. A bit farther back, a leather couch lets the client be a bit less involved or just take a break. In the rear of the room, we built a riser 15 inches high. Single stairs on both sides of the couch lets clients step up to the elevated position. A desk atop the riser equipped with phone, electric outlet, and Ethernet provides a work space for clients who need to hook up a laptop or spread out a script.

For edit room lighting, we added two recessed lights over the edit table and two centered between the couch and the riser desk. We keep the room very dark, so the lights create a bit of glare. I'm experimenting with different lamps in the recessed fixture and with adding a longer baffle or snoot to the lights that restricts the beam to a narrow downward pattern.

In the production and a few other rooms, I replaced the standard lights with parabolic fluorescent fixtures that minimize glare. Each three-tube fixture can light one, two, or three tubes, providing a range of lighting levels. My staff generally prefers less light than a typical office and likes this solution.

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We've dedicated a large room for our studio shoots. A larger sound stage and workshop adjacent to the main building may be a few years away, so we're doing what we can to make this space usable now. I already installed a drop-ceiling grid to hold the AC vents and the fluorescent lights, but I intend to leave several tiles out to add a bit of working height. The grid is at 9 feet and the ceiling, which I sprayed with an acoustic material, is at 10. The room measures about 15 x 24 feet, and by shooting through a doorway from an adjacent storage room, we can get about 30 feet from the opposite wall. We plan to add curtain hangers with curved corners on three walls to hold backdrops. It's not a huge sound stage, but it will suffice nicely for the time being.

The adjacent storage room that opens into the studio holds field production gear and part of our tape library. Storing our field gear adjacent to the studio provides convenient access during a studio shoot.

Other spaces include an ample conference room, three large executive offices, a full kitchen, and a spacious owner's office. When we're ready to expand to the second floor, we have 15 offices upstairs waiting for us. We can now enjoy considerable growth before we run out of space.

As of this writing, we're still not finished; our punch list is still punching back. We're looking forward to putting away the hammers and drills and returning to our day jobs. The Sunday real estate section has lost its appeal, and I no longer drive by lots that aren't on my way home. The studio is ready. The excuses are gone. It's time to get back to work.

Chris Allain has operated Vidox Image & Data (www.vidox.com) since 1982 and is a longtime contributor to industry journals. He co-organized the Open Studio Round Tables and Developer's Conference and hasn't missed an NAB exhibit since 1980.
