

THE CUSTOM HOME

CALL IT A TAG TEAM OR A well-oiled machine. By any name, it's the relationship you need when trying to integrate full-blown lighting control, automation, distributed audio, security, and a pair of theaters in an 8,500-square-foot custom home.

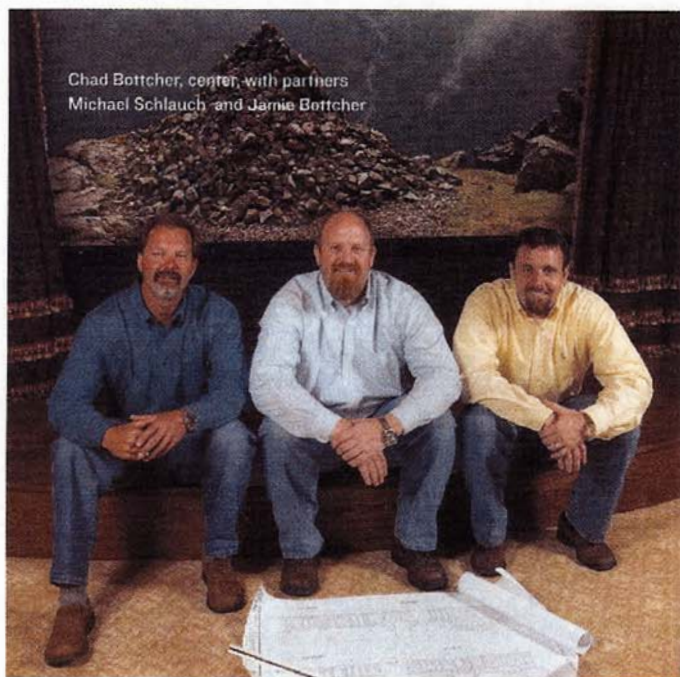
"Electronics play a big role in homes today," says Chad Bottcher, a partner at Schlauch, Bottcher Construction in Bozeman, Mont. "The key is putting together a good group of subcontractors that understand what the other hand is doing throughout the project." That means the electrical contractor and HVAC professional are in constant communication with the electronics integrator from pre-construction through finished project.

"The most important communication is up front," says Bottcher. "Before we put a single wire in, everybody is clued in on who is controlling what pre-construction." In a home of this size, managed by a Vantage control system, each wire, control location, and theater cable needs to be plotted for seamless integration.

"Right from the beginning, we have to make sure we're all on the same page," says Lance Mackay, general manager of Architectural Lighting Consulting. All electronics need to be planned early, he says, because mounting considerations are too expensive to change later.

"A lot of builders say, 'The TV will go here,' but in the custom homes we do, that doesn't cut it," says Mackay. "We need to know whether the TV is going into furniture or mounting on a wall, so we're not cutting a hole for a bracket after the Sheetrock is up, or running wires under a crawl space."

Architectural Lighting handles the full gamut of electronics, from lighting control to the four-line phone system. The challenge, says



Chad Bottcher, center, with partners Michael Schlauch and Jamie Bottcher

Mackay, is establishing a single point of control for the various subsystems. He turns to the Vantage Q system and touchpanel remotes for the task.

"You have to know the strings of codes that go together to make the subsystems talk to the Vantage control system via RS-232," he says. Smart integrators find a formula that works and stick with it.

Hiding the electronics was as important to the homeowner as having single-source control. It's all the more important in a home theater that requires miles of wires. "Constructionwise, a lot of people were involved to make sure all the wires were in place before the walls went up," says Mackay, including the builder, HVAC contractor, electrician, and architect. All audio/video gear is stacked in a dedicated rack at the back of the room, but that still left the speakers.

Architectural Issues

Mackay worked with the architect to mount the front-channel speakers inside of wooden ceiling beams. "The house is rustic, with a lot of

reclaimed timber," says Mackay. To preserve the look, Mackay cut hollows in the 14-by-14-foot beams for the speakers, and architect Jerry Locati fashioned grille cloth out of acoustically transparent drapery that resembles timber. A beam served as the hiding spot for the motor and wires that operate a Lutron curtain in front of the screen. All the plans were drawn up pre-construction, ensuring that the architect's wishes could be met.

Even with the best-laid plans, sometimes adjustments have to be made. In the Old River Farm home, the guest house and a pond were put in before plans were drawn up for the landscape lighting. "That's something we didn't think of pre-construction," says Mackay, "so there was no wiring in place for lighting control." Solution? Vantage has a radio-frequency lighting system that Mackay put in to deliver wireless control from up to 300 feet away.

For Mackay, working with a builder that has a grasp of technology helps ensure the best experience for the homeowner. "The builder has first contact with the homeowner," he says. "The more the builder educates customers about the possibilities, the better they'll be able to understand all that's possible."

How much custom electronics add to the value of the home is up for debate, says Mackay. "Every room has music, and the whole house has heating control, but it's all been custom-tailored to the owner," he says. It's the wiring infrastructure that holds the most long-term value, he says. "Everything is in place to make changes, or do anything anyone wants in the future."

PROJECT AT-A-GLANCE

Old River Farm, Bozeman, Mont.

Builder: Schlauch, Bottcher Construction

Architect: Locati Architects

Integrator: Architectural Lighting Consulting

Home Price: \$5 million+

Gear Highlights:

Vantage Q Processor lighting control system

Lutron Sevoia OED drape control system

Audioaccess PX700 distributed audio system

GE Concord 4 security system

Fujitsu LPF-D711 LCD projector and LG plasma TVs

RCA 25450RE3 four-line phone system