

Every integrator has them – those favorite products they can't live without – that simplify their jobs and help them deliver cost-effective AV solutions. Whether they're durable, versatile, multi-functional, or super reliable, the greatest value products aren't necessarily the cheapest. According to a handful of industry veterans, the following 10 products strike the perfect balance between price and performance.

TOP AV VALUES

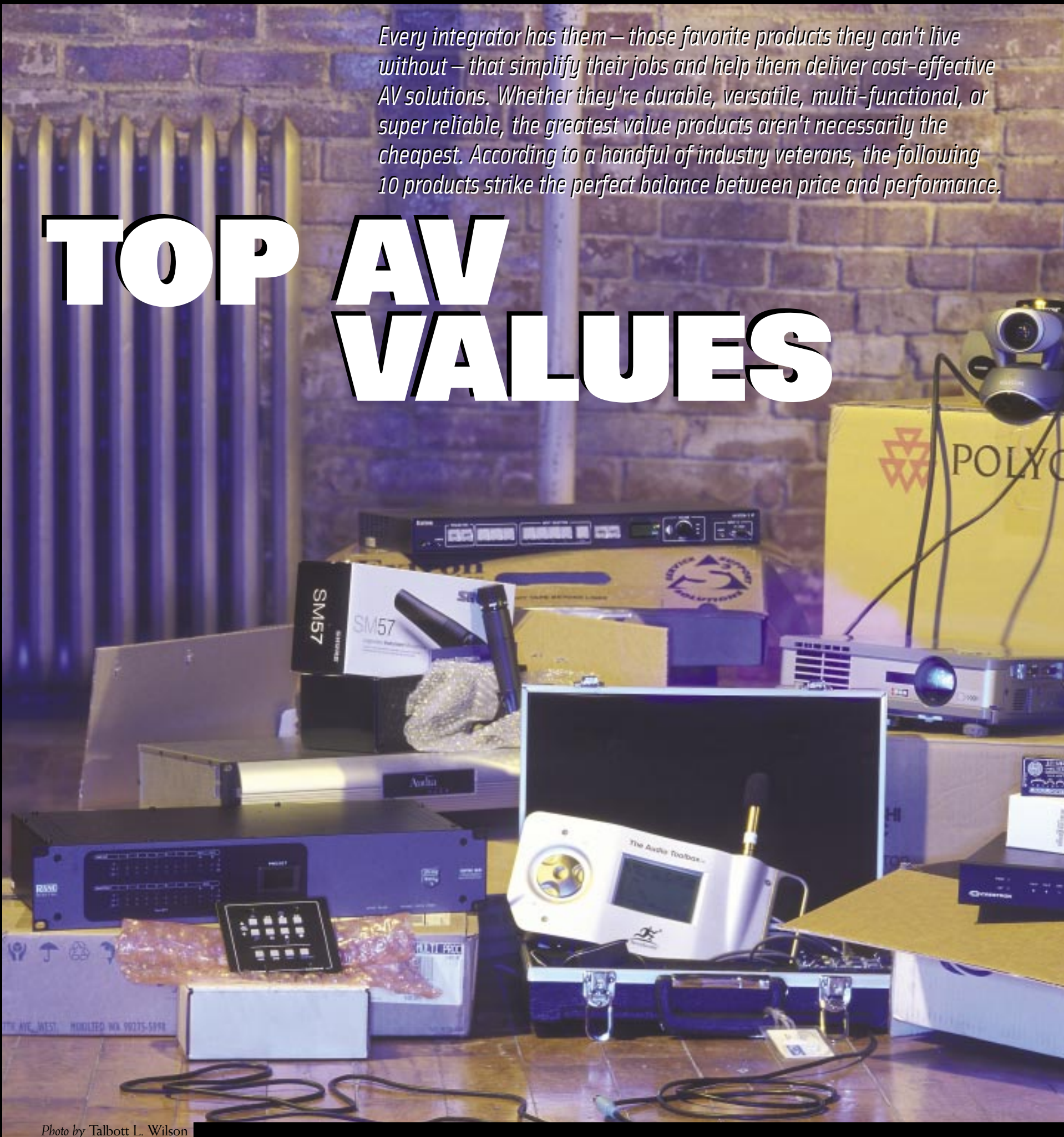


Photo by Talbott L. Wilson



As the demand for more complex (but also user-friendly) AV technology solutions grows, the search is on for products that deliver precise functionality at a reasonable price. With competition for business up and client budgets still lean, products that have a true value proposition are worth their weight in gold. Whether it's a sign that the heady days of "bells and whistles at any cost" are over, or that the industry and technology are maturing, there's no doubt the word "value" continues to seep into the lexicon of pro AV equipment suppliers, systems integrators, and consultants.

"For most applications today, I'd say it's getting easier to find the exact product for your needs," says Ian Wolfe, a co-founder and principal of Acoustical Design Group, a Mission, KS-based AV and acoustical consulting firm. "Without question, you can get more for your money these days, largely because of the proliferation of more DSP-based products that deliver a lot more horsepower for a smaller amount of money. There's more choice and more products that work better than there's ever been."

But while exciting, that business is also challenging, especially when it comes to finding that perfect piece of equipment from a multitude of products — all of which promise a combination of versatility, flexibility, performance, and price. So what makes a great value product in this industry? According to Wolfe and a handful of consultants and systems integrators, it all comes down to tools they can't live without — the ones that simplify their jobs and help them to develop highly functional and cost-effective AV solutions for clients. Following are 10 products they feel epitomize an AV bargain.

TerraSonde Audio ToolBox Plus

In his 23 years in the AV industry, Wolfe has logged his share of time analyzing acoustical environments. "In the course of providing extensive sound system commissioning services, we've gone out with a lot of acoustical testing and analysis equipment in our test kit," Wolfe says. "We still bring a lot of equipment, but we can lighten that load a bit now that we have the Toolbox Plus."

Incorporating numerous analysis tools, troubleshooting functions, and analog audio test capabilities, the product packs a lot into a small package, and does so economically, at a list price of \$1,899. "No one has a product quite like this; others that are out there aren't of the caliber of this one," he says. "From a value standpoint this is great, because traditional analyzers can cost thousands more."

The ToolBox Plus packs even more functions than its famous predecessor, the ATB1. It's common to use just a third or so of its capabilities on a typical job, but it's comforting to have so many in one product. Contractors' firmware, a calibrated measurement mic, a full suite of analysis functions, serial interface cables, and an AC adapter are just some of the features.

"We own two of them, and it's ideal for what we do," Wolfe says. "It's compact and lightweight, which is another component of its value."

At press time, TerraSonde was preparing to announce that the Audio Toolbox Plus was to be replaced by the new Audio Toolbox "Trinity" series. Initially, the Trinity series will include two models — the ATB3 and the ATB3C. At a price point of \$1,999, the ATB3 is considered the direct replacement of the Audio Toolbox Plus, with the added features like a built-in USB pre-amp for high-resolution digital audio streaming, which makes it an even greater value than its predecessor.

Mitsubishi SL4U

With superior picture quality, easy setup, and a mix of features unique to the ultra-portable class, this recent Mitsubishi projector has made life simpler for AVMAN Presentation Systems.

Jay Jones, founder and president of the 10-year-old Springfield, MO-based systems integration firm that specializes in the church and education markets, says this product epitomizes the value proposition that's missing in too many AV products today. Mitsubishi, he says, appears to have listened to integrators like him before it engineered the SL4U.

"The SL4U can easily outperform other models that cost twice as much," he says. "Compared to more expensive models, we've been amazed at the image quality. And with its short-throw lens and manual focus, it's easy to set up. There's not



by Tom Zind

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another projector on the market I could recommend as highly."

Jones likes two features on this unit in particular. With an estimated street price of \$1,495, the SL4U uses the sRGB color profile to color correct the images to ensure a standard and uniform video reproduction. And, when the low-lamp mode is engaged, brightness can be easily adjusted for home theater applications.

Since it came out, AVMAN has used the SL4U as a lead product on sales calls. "It works great in a classroom, church sanctuary, or training room setting, but also can work in a home theater setup," he says. "It's a value because of its versatility and its ability to cover a wide range of needs with high performance."

Polycom ViewStation 4000

If videoconferencing is to take firmer root, advanced products like the Polycom VS4000 are going to serve as an essential part of the medium, says Tom Corbett, a principal with Charles M. Salter Associates, a San Francisco-based acoustical and AV consultancy. A 20-year industry veteran who specializes in designing technology solutions for fast-growing collaborative environment installations, Corbett gives the VS4000 a glowing review.

"It's very user-friendly, its audio algorithms work well, and its remote control is understandable and effective," he says. "When this product is installed in rooms there's no major learning curve needed. Its controls are very straightforward."

Ease of use is important, because if a user has to wrestle with any product its effective value diminishes. Corbett, who counts a leading computer manufacturer among his list of many VS4000 installs, likes the unit's IP, network, and phone connectivity, its accommodation of up to four cameras, its ability to communicate with both desktop and room-based VC systems, its image quality, and frame rate.

"This size codec provides connections so that a room's speech reinforcement system becomes your audio connection," he says. "The room speech reinforcement system reproduces both local and distant off-

site speech. This enhances system transparency, and eliminates the distraction of localizing to audio from separate loudspeakers."

With value-priced and highly capable installation grade systems like the VS4000, which has an MSRP starting at \$14,999, Corbett sees videoconferencing growing in acceptance. "Installation-grade codecs like the VS4000 have much greater input and output capability than the roll-about and desktop units," he says. "The user interface and learning-related issues have been largely resolved and because the controls for the small roll-about and the installation grade units are consistent, the user has functional portability."

Radio Design Labs ST-UBA2

Proof that good things come in small packages is provided by this handy gadget that serves as an unbalanced-to-balanced amplifier. "Physically it's very tiny, but it becomes ideal for a lot of audio solutions in which we have to design a mono sound system around stereo source equipment, such as cassettes, computers, CDs, and DVDs," Wolfe says.

He rates this product a valuable, relatively inexpensive tool because more sound jobs today demand a ready method of converting unbalanced consumer format signals to balanced outputs. "It's a very handy thing to have around, and saves a channel on the mixing console when we go into the mono house system," he says.

While admittedly low-tech, the RDL product provides a quick fix for many sound system designs. Wolfe says it's proven its value in churches and performing arts centers — anywhere a patch panel is used. Best of all, it's very inexpensive with a retail price of \$161.

"The entire RDL 'stick-on' product line has proven to be a cost-effective solution, and some of their product invariably winds up on almost every project we design," he says.

Extron System 5 IP

IP-based control represents one of the great recent advancements in switching/controlling technology, says Corbett. So it's not surprising that the 20-year industry pro likes this new IP-based product from Extron. Network-connectivity elevates control to a new level, without breaking the bank. In the last year, Corbett has specified many System 5 IPs.

"The System 5 IP is a network-enhanced outgrowth from the System 5Cr, which was a nicely versatile small switcher with display control," he says.

His verdict: The network connected products offer a stiff challenge to traditional control systems, chiefly because they use the existing installed and PC-connected network, as do other products that feature Extron's IP Link Ethernet control technology.



"It really challenges existing control protocols," Corbett says. "Instead of relying on proprietary controls, the user and the technician are talking to devices by way of a network browser. Programming is the hidden nemesis in a lot of digital control gear, because if you can't

program any new device, it's no good at all. These smaller IP devices may not have all the bells and whistles of competing control products, but others often have too much pre-selected and unused capability operating with proprietary software. This product allows both installers and users do to a lot of the same control functions, but with far less investment."

From a value standpoint, the System 5 IP, which lists for \$2,695 (with front panel control) and \$2,395 (without front panel control), is a clear winner in Corbett's book.

"The combination of price and performance is there; it allows a person to rather inexpensively centralize both control and system management," he says. "Both control and system diagnostics can be performed from a host PC for a local system or campus-wide. There's also a lot of flexibility in terms of the number of devices and control versatility with which networking can be used."

Shure SM-57 microphone

Just because a product is old or established doesn't mean it fades away in the AV industry. Instead, some become even more revered,

especially in the eyes of industry veterans who've seen so many products come and go. Such is the case with the Shure SM-57 mic. Frank Ostrander, senior engineer with Altel Systems, Brewster, NY, says the mic is still proving its worth in any number of projects he's overseen for the systems integration company. He believes its value lies primarily in its versatility and its ability to fit into budget-minded client solutions.

"It's a general workhorse, and everyone is familiar with it," he says. "Those who do live sound know that it's an especially great

instrument mic, but it's also developed a solid reputation in speech reinforcement. It may not be the best podium mic, but it does work reliably for that use. And, while I wouldn't recommend it as a recording mic, I have even used it in that role in a pinch."

While more application-specific mics have proliferated in recent years, the SM-57 still fills an important role. "When clients have limited budgets, this is a good solution," he says. "Many clients often end up spending more money on more specialized mics than perhaps they need to. If you only had SM-57s for your sound system, you wouldn't have great difficulty doing whatever work came along."

In addition to reproducing high-quality sound, the rugged SM-57, which lists for \$158, is also easy to use (it's quite literally "plug and play") and offers many intangible features.

Biamp Systems AudiaFLEX

As sound systems grow more complex, the days of a limited range of inputs and outputs are history. That's why consultant Don Bailey, a principal with Technology Design Resources, an AV consultancy in Kensington, MD, rates Biamp Systems' AudiaFLEX



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digital signal processing box a great value.

This second-generation product in Biamp's Audia digital audio platform line provides signal processing, EQ, dynamics, and speaker processing like preceding products. But it offers a valuable new twist.



"With most other products in that classification, you're limited to 'x' inputs by 'y' outputs," Bailey says. "With the AudiaFLEX's 24 input/output slot design, you could conceivably make it a two-input, 22-output, or vice versa, product. Competing products are fixed I/O. With a typical 12-by-8 product, for instance, if you need 13 inputs you have to buy two of them."

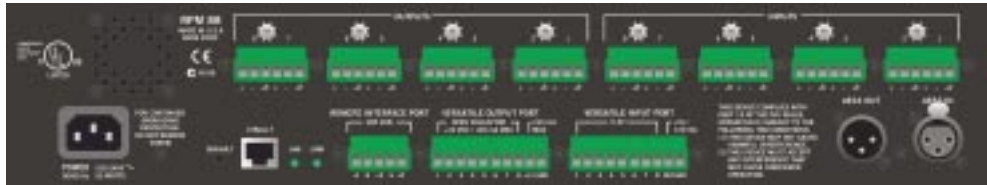
In addition to potentially saving installers money on additional processing equipment to handle more inputs and outputs, the AudiaFLEX is priced competitively at an MSRP of just under \$3,000 to more than \$10,000 depending on configuration. "Given the fact that you often need more or fewer I/Os, it's a good value," he says. "A particular example we've run into is where we've needed 14 mics and the max on another product has been 12. In that case, you'd have to buy another product, and then be stuck with unused capacity. That flexibility of the AudiaFLEX is a real selling point."

Rane RPM-88 audio processor

Working with DSP-based processing/control units is nothing new for 30-year industry veteran Ostrander. But a recent addition to the roster of such products available to the audio professional – the Rane RPM-88 configurable DSP-based audio processor – has rekindled his admiration for the technology.

"There are a bunch of DSP units on the market now that you can do so many things with – electronic crossovers, delays for time alignment, room-combining, and auto mic mixing to name a few – but in my experience the Rane unit lets you do so at a lower cost than competing units," he says. "You may not be able to build quite as big a system with it as you can with other units, but it's still very versatile, and you can tailor it to the kind of audio system you need."

Ostrander has designed several projects using the RPM-88, which lists for \$3,499, including a recent job at the U.S. Military Academy at West Point. As with other applications, the Rane sits at the heart of a multiple-



source background music and video distribution system for one of the campus facilities. Paired with Rane's SR 3 Smart Remote units deployed in multiple rooms, the RPM-88 gave the client a cost-effective way to manage a complex audio system.

"The SR-3 is a microprocessor-based remote control with an LCD screen, that can control source selection, volume and mixing functions," Ostrander says.

Crestron MP2E

With multi-tasking a growing part of the value proposition in modern AV products, it's no wonder Crestron's new processor/control system is a favorite of Bailey. A specialist in the educational AV market with more than 30 years of experience as an integrator and a consultant with the two-year-old firm, Bailey has found the combination Ethernet-based controller and AV switcher ideal for the budget and application needs of that increasingly AV-intensive environment.

"The fact that it's a control system and small video switcher integrated into one box is unusual, making it a space-saving product with a price point that's very competitive for the small classroom environment," Bailey says.



A built-in web server and proprietary e-Control 2 XPanel technology allow users the flexibility to manage a system remotely from a LAN or WAN. "Everything in this area seems to be moving toward being IP-based, but what's unique about the MP2E is that it can be controlled from dedicated control devices as well as a web browser. Other products have web-only interfaces, so to control three products you would have three screens," he says. Crestron's MP2E has an MSRP of \$1,275.

Mediatech ButtonMate

With control becoming a more sought-after function in AV systems, any product that makes that process

WHAT MAKES A GREAT AV VALUE?

In these days of commodity products, the biggest challenge for manufacturers is to hit a competitive price point while differentiating a product from its competitors. Most of those that succeed are designed with significant input from end-users to solve specific real-world problems, using reliable technology. While most are designed for very specific applications, a true "value" product can also find multiple applications. Experts interviewed for this article used the following criteria for selecting their top picks.

- The product is not necessarily the cheapest, but has the best value.
- The product does what you need it to do, it does what the manufacturer claims it does, and is reliable over a reasonable period of time.
- The product might be extremely versatile and multi-functional.
- The product might be super-reliable – while not cheap, it's bullet-proof and lasts forever.
- The product might be so cheap that it's virtually disposable.

easier is on Ostrander's radar screen.

For that reason, the 30-year AV industry veteran likes the looks of a product from Mediatech: the ButtonMate 32, a control product that's being touted as an easy-to-configure, inexpensive alternative to more complex control systems.

Ostrander says the ButtonMate is a clever solution for controlling the functions of any RS232 input device, such as VCRs, DVD players, document readers, or projectors. Designed to be mounted on a table, wall, podium or lectern, the ButtonMate can be configured to recall up to 32 commands or a series of commands with eight function buttons controlling up to four selectable devices.

"This is a good value product that enables you to do things right out of the box that would have required a more elaborate control system," he says.



"It's also an interesting product from the standpoint of doing simple control functions without having to invest in an outside programmer. If you have limited device control needs, this self-contained product could easily address them."

The MT-32-BM ButtonMate lists for \$695, while the larger MT-36-BM ButtonMate, which expands the capability to include additional RS232, infrared, and contact closure ports for complete room control, lists for \$995. **AV**