

# Optimizing Home Theaters for Video Gamers

While parents with junior-high and high-school children are a primary market for “gaming” theaters, don’t overlook adult gamers as potential customers.

By Joe Gillio



Just ask Jim Dickey, a 44-year-old video-game enthusiast, about the difference between playing video games on a small television screen versus playing with a full-blown projection system: “The first time you play on a screen that big, it’s almost overwhelming because you feel like you’re literally inside the game.”

Dickey is the owner of one of Casio’s SuperSlim portable projectors, which is ceiling-mounted in a spare room that’s equipped with a 10-foot-wide projection

screen and a full surround-sound system. His experience is similar to other gamers, according to some of Casio’s focus groups. Most gaming enthusiasts who never have

“gamed” with a projector say they wouldn’t buy one for gaming purposes. But let them try out a large-screen system and ask them again—and they’re sold.

**BIG SCREENS AND BIG SOUND**

Designing a video gaming system in a home theater environment is different than installing a media room—from the sound components to the switchers and the set-up.

To start, consider installing any of the three top consoles—Sony’s PlayStation 3, Microsoft’s Xbox 360 and Nintendo’s Wii—plus a personal computer. If your clients want the ability to play all their favorite games and those of their friends, you’ll need to install one of each.

Next, the ultimate gaming systems deserve big-screen televisions and great sound—so forget about putting a flat-panel display in Johnnie’s room. “I have friends who have spent a lot of money on large flat-screen TVs for a better gaming experience,” Dickey says, “but when they come to my place and see what I have, they say, ‘I’ll never buy another TV.’”

The optimum screen size for a single-screen game is, for most people, probably the same as for a movie. Multi-player gamers, however, play in multi-player mode—they split the screen into two to four windows, which means each player is using half or one-fourth of the screen. It’s a given that the image will be smaller in this mode, so when determining screen size you may want to round up instead of down.

A great gaming room also deserves a high-def image. The Wii, the best-selling game console on the market, offers a 480p resolution, but current Xbox models output 1080i, and PlayStation offers 1080p. “[Surround-sound] definitely makes Guitar Hero



Casio’s Green Slim projector, with its LED/laser hybrid light source, offers 20,000 hours of projected life.

twice as much fun,” Dickey says. “You want real rock-concert volume levels as well.”

In terms of sound, Eric Wolfram, a principal at Chicago-based installation firm Integrisys, suggests tying all three consoles into a higher-end residential receiver and using HDMI to handle the video and audio for the Xbox and PlayStation. (The Wii, however, doesn’t have an HDMI output and only provides stereo sound, so you’ll need a component input. If the client’s receiver will support that, the Wii can output Dolby Pro Logic II for 5-channel simulated surround sound.)

**INTERNET SPEED AND LAMP LIFE**

Many popular video games are designed for multiple players. Thus, a strong Internet connection is a must. “To me, it’s almost like a social network—like MySpace and Facebook,” Dickey says, “because [when] you go online with your friends you talk to them while you play.” To that end, a very fast Internet connection—at least 1 Mbps up and down—is required to accommodate several video gamers.

The most important issue with gaming, however, isn’t bandwidth—it’s latency (or long, round-trip network communications times). High latency or any packet-loss issue can give players a noticeable disadvantage. For that reason a good Internet service provider is a must, as well as a good hard-wired router with Cat5e cable or better. A Wi-Fi connection is not recommended.

Lamp life can also be a problem. Dickey says he averages about two hours of play time every day with his Xbox, while many teenagers can play four or five hours in one sitting. A home theater designed for video gaming will be used more frequently than one designed exclusively for movie-watching, so projector selection is important to ensure uninterrupted play.

To that end, select any of the new projectors that are equipped with a LED/laser light source instead of a projection lamp. Casio estimates that the light source in its Green Slim projector lasts for 20,000 hours, or about 10 times the life of a projection lamp. Specifying this type of projector will significantly reduce the client’s maintenance costs—and eliminate potential conflict between the client and his little gamers. In addition, the Green Slim is equipped with a 2:1 zoom lens so it can be positioned close enough to the screen to eliminate the sight line problems when players cross the light path.

By the way, image quality really isn’t affected when using a hybrid light source projector for movie-watching. Casio’s Green Slim light source produces a color and contrast that’s just as good as conventional mercury-lamp projectors. In addition, there’s not a fall-off in bright-



The Xbox Arcade Elite (left) and Microsoft’s Project Natal motion sensor (foreground), which will debut in December



Sony PlayStation 3 and its PS3 wireless controller

ness and changes in color temps, which are typical with mercury lamps.

**SEATING VS. STAND-UP SPACE**

One potential problem that occurs when a gaming system is incorporated into a home theater is player positioning—or where they stand when they play. With motion-controlled games—such as Wii Sports, Guitar Hero and Rock Band, or even Wii Fitness—gamers need to be able stand up and move their arms, and sometimes their entire body, freely. (By December 2010, Sony and Microsoft will offer motion controls as accessories, which can be plugged into the console via a USB cable.)

“This can be a real problem in a large home theater,” Wolfram says. “If the projector is in the back of the theater with a long-throw lens, standing players will cast a shadow on the screen no matter where they’re standing.” Wolfram prefers to use short-throw lenses, especially in rooms with higher ceilings. “If we’re doing a full design, we’ll definitely create drawings with standing [players] to show the projection path,” he says. “Even if [a client] isn’t planning to include video gaming [in the theater], you don’t want people to block the screen when they stand up to get a snack.” Rear projection, of course, eliminates that problem completely, and is worth considering if stand-up video games are important to the client.

According to Wolfram, the front of the theater is best place to play stand-up games. “With the Wii, you need to position a sensor bar where it can read the controller,” he says. “With the Xbox and the PlayStation, some sort of camera has to be up front and center.”

To accommodate the necessary gaming

space in a home theater, consider installing movable theater seating rather than fixed chairs. This set-up allows for a clear projection path, and provides eight to 10 feet of space in front of the first row of seating.

Another alternative, of course, is to create a secondary video gaming area in another part of the house. Wolfram has devised multiple playing areas in his own house by tying his Xbox into a video distribution system so he can carry his wireless controllers with him, wherever he wants to play. If the client wants to install separate consoles or PCs in each playing area, family members can “game” with each other from room-to-room. Just be sure that each console has a reliable hard-wired Internet connection.

**GAMERS SIT DIFFERENTLY THAN MOVIE-WATCHERS**

Most video-gamers sit differently than movie-watchers. “I find that I like to sit on the front edge of my seat and lean forward so I feel like I’m in more control,” Dickey says. “Big, comfy seats aren’t a negative, but you usually end up sitting forward on them.” Talk to your client about how they sit while gaming before purchasing the seating. If you install proper home theater chairs, consider adding two or more armless seats to the mix.

Wolfram finished a project recently that had to accommodate up to 11 grandkids. “It wasn’t practical to provide that many fixed seats in this space, so we used big beanbags that they could move, slide out of the way, or bring in as needed,” he says. Beanbags, in fact, are preferred by many gamers (some companies—such as Ace Bayou and SumoLounge—sell beanbags designed specifically for gaming).

**CONSIDER WHO’S SITTING BEHIND THE CONSOLE**

All three major gaming consoles are available with wireless controls, although some gamers prefer third-party controllers or specialized controls for specific games (such as Logitech’s Cordless Precision Controller and its Wireless Guitar, or racing wheels for PlayStation or Xbox). As such, Wolfram recommends confirming the range of your client’s preferred wireless controllers, especially if the consoles are installed in an equipment rack located in another room. While he’s never experienced a range issue—even while playing on the third floor of his own house, with the console in a basement rack—he still recommends confirming the to eliminate connectivity issues.

Wolfram also suggests running USB extenders into the theater, or secondary playing area, from each console. “We like to give our clients extra options in case they decide to try something different,” he explains. Dance mats, for example, plug in with a 10-foot USB cord; Xbox and Sony motion controller sensors also connect with USB cables, so an USB extender is needed.

The gaming market is bigger than the home-theater market, and playing video games on large-screen systems is extremely appealing to those who have tried it. So take advantage of this under-tapped market and grow your business. ●



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