

Giving the Opera a New Voice

This application shows how creating the right look and feel for a product for a detail-oriented audience is as important as the specific function of the end product.



The opera gives its fans great music, timeless stories, and unmatched spectacle. Figaro Systems of Santa Fe, New Mexico gives them something that many have never had: access to the language. And Protomold Inc. of Maple Plain, Minnesota has been instrumental in helping Figaro bring modern technology to this most traditional of art forms.

Like much that is literary or poetic, opera tends to suffer in translation. For that reason, works from Aida to Die Zauberflöte are rarely presented in any language but the one in which they were originally written. That's fine for native speakers or those who are thoroughly familiar with the works, but the understanding, if not the enjoyment of these great works has been hampered for millions of opera fans who do not speak the languages in which they are written. It's still beautiful to see and hear," says Geoff Webb of Figaro Systems, but for all the

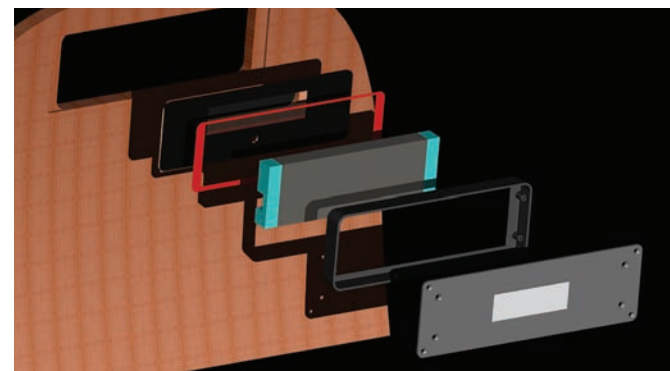
viewer knows they could be singing about potato chips."

Beginning in the early 1970, a handful of opera houses took steps toward filling this gap by offering "supertitles" – translations projected onto a screen above the stage. While some fans welcomed the real-time translations, others were incensed. Some claimed that the titles were distracting. Some objected that only one or two language options were being offered. And, ironically, those least well served by a screen above the stage were those in the best seats in the house; they had to crane their necks from orchestra seats to read the titles positioned high above their heads.

The Latest System Technology

Figaro addresses all of these concerns with its Simultext system offering individual, three-line readouts at each seat in the house. Much like an automobile's instrument panel, individual screens are positioned to let users read up to 100 characters at a glance without losing track of action on the stage. The system lets each audience member choose from among up to seven languages, and the OLED display is clear, readable, and unobtrusive. Characters appear to float against a black background with no ambient glow to distract nearby members. For those who do not want to use the system at all, individual screens can be turned off or on by patrons. However, according to Webb, vice president of design engineering at Figaro, 95 percent of patrons actually use the system during performances.

"Simultext can present translations in any written language," says Webb. "I don't know that our system



has been used to present simultaneous translations into Klingon, but it could." Individual translations are created by skilled librettists who write line-by-line translations of the works. Up to seven separate translations can be loaded into the system at once and individually displayed. During the performance, a titlist cues each line as it is being sung and the appropriate translated line instantly appears on each audience member's display in the language he or she has selected. In use, the translation can be so unobtrusive that audience members aren't actively aware of reading them.

According to Webb, new translations of classic operas are being written all the time. Fans can get into heated arguments regarding the pros and cons of their favorite translations. "This business is filled with large personalities," says Webb. "But then, you can't have opera without a little drama."

Installations Around the World

The Figaro system has been installed at some of the best-known venues in the world including Teatro alla Scala in Milan, the Royal Opera House in London, the Brooklyn Academy of Music, the Gran Teatre del Liceu in Barcelona, and the Wiener Staatsoper in Wien, Austria. One of the challenges of working in such notable venues is the need to satisfy architects, company directors, historic preservationists, and even city officials who must approve the installation.

"We did an installation in Milan, at a new theater being temporarily occupied by the company of La Scala," says Webb. "The Italian public loved it, even with Italian language operas. They insisted that the same system be installed at La Scala. We often hear misgivings about the idea of a system like ours, but once the public gets to use the system, they like it."

Creating the Right Look

"To keep everyone happy, the appearance and installation of the system has to fit the venue," he continues. "Opera-goers and companies are very protective of their theaters, and integrating a piece of modern equipment with classical architecture isn't always easy. We need models they can look at and hold in their hands, and that's where Protomold comes in."

"Working with Protomold is like having our own virtual injection molding shop. We use Ashlar-Vellum's Cobalt 3D CAD program to develop designs for a

particular installation. Once we've got something that the client likes "on paper," we have Protomold make prototypes we can hand around for approval and comment. That's where we get feedback on the external appearance and a chance to check and make sure that all the wiring and components fit properly inside."

"Because the prototypes are injection molded, they are exact representations of production parts made from the same resin. That's important because our clients can be very detail-conscious. If we need changes, either for appearance or function, we can get new prototypes from Protomold without delay. Once we get approvals, we can go right into production. Protomold's aluminum tooling is perfect for us. It's good for a production run of thousands of pieces, the turnaround is very fast, and the whole process gives us high quality parts at an affordable price."

Webb first discovered Protomold in a design engineering publication. With no experience in mold design, he had to quickly learn concepts like material distribution and draft. "Once you understand the principles, it's remarkably easy," he says. "Protomold's web site and online design analysis are both very helpful, and Protomold is very good at what they do."

Figaro has been in business since 1995, when Webb and a friend began sketching the initial concept, literally, on a napkin. Soon after developing and patenting the system, they began installations at some of the premier venues in the world. Most installations are permanently wired into the backs of seats or the tops of parapets, but the company also makes wireless devices. These are mostly for use by the hearing impaired in venues that do not have permanently installed Simultext systems.

Webb came to opera by a circuitous path. His began a career in architecture in his native Australia. "But," he says, "I was seduced by theater and went into the production side, building scenery." Then, after some time working in Australia's movie industry and a return to graduate school, he found himself working at New York's Metropolitan Opera as a design engineer. "I had seen a few operas, but didn't really understand or care for it. But, with continual exposure, it grew on me. Now I find it fascinating. If there's anything more spectacular than a 150-piece orchestra, a 50-voice chorus, and a star like Pavarotti or Domingo, I haven't heard of it. I get to combine technical skills with an art form I've come to love. It's a highly specialized business. In fact, I can't think of anything more obscure than what we do, but it's very rewarding."

For More Information:

Protomold Home: <http://www.protomold.com/>

Figaro Systems Home: <http://www.figarosystems.com/>

Figaro Installations: <http://www.figarosystems.com/installations.php>

Ashlar-Vellum Home: <http://www.ashlar.com/>