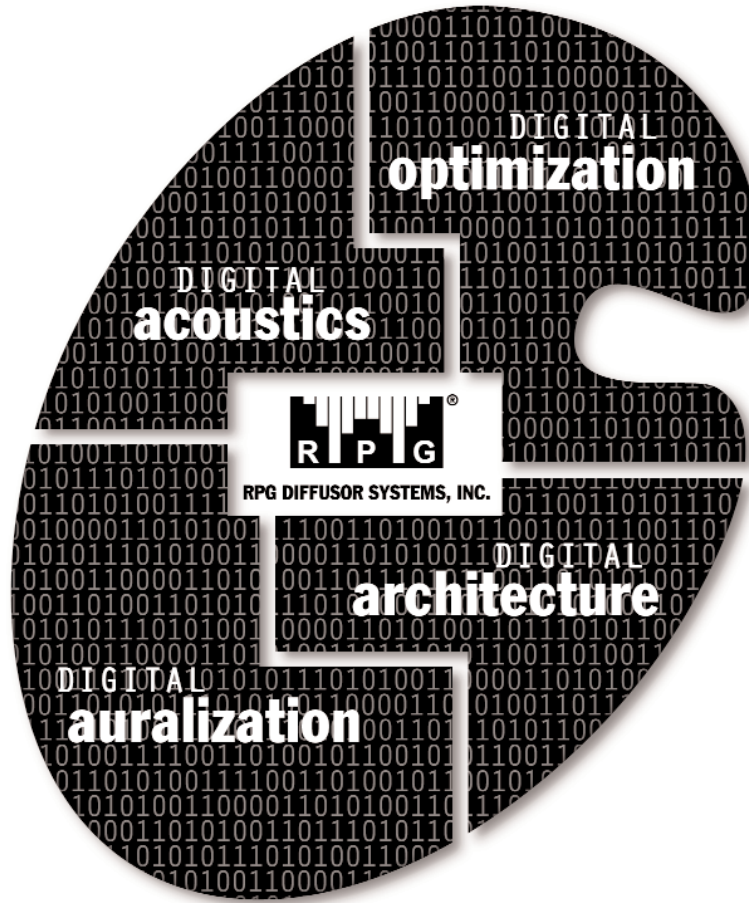


RPG Advantage

The RPG Advantage



*The First Complete Acoustical Palette
From The Acoustical Industry's Leading Innovator*

Digital technology has made an impact in almost every aspect of our lives. Acoustical surface treatments, however, have traditionally used analog technology, as in the fabric wrapped panel. In 1983, RPG® pioneered the development of passive Digital Acoustics, incorporating digital number theory technology, boundary element analysis, and shape optimization. These advances have allowed the architectural acoustics industry to reach its full potential. In addition, RPG's modern CNC cutting, drilling, punching, shaping, laser cutting, and molding capability provide the tools to manufacture the industry's widest range of products, in almost any desired material. The RPG® Diffusor and Absorber systems offer architects and acousticians the next generation of architectural acoustics.



The Sound of Innovation™

Reasons to choose RPG

The Complete Acoustical Palette

RPG® offers the widest range of Digital Acoustic, Digital Optimization, Digital Simulation / Auralization, and Digital Architecture products in the industry. These products form an integrated and complementary system to address many of the acoustician's design needs. One stop shopping saves time and money.

Digital Acoustics

RPG® offers the widest range of passive and active acoustical products. These include analog absorbers, optimized planar and curved digital diffusors, abffusors, and difforsors, and optimized curved, fractal, and stepped diffusors. RPG® offers optimized acoustical shells, overhead stage and audience canopies, and side / rear wall surfaces. RPG® also offers below 100 Hz bass management systems and optimized commodity products such as pyramids, optillipses, as well as any fiber reinforced gypsum molded shape.

Digital Optimization (CHAOS)

RPG® offers acoustical consultants a boundary element, surface shape evaluation, and optimization service, as part of its Collaborative Holistic Acoustical Optimization System (CHAOS). This system allows RPG® to interact with the design team to develop customized Arcousthetic™ surfaces tailored for each project to meet the requirements of the architect, the acoustician, and the client. CHAOS helps bridge the gap between architecture and acoustics and provides contemporary surfaces to complement contemporary architecture the way surface relief ornamentation and statuary complimented classic architecture.

Digital Simulation / Auralization

RPG® realizes the importance of design software and simulation tools in the creation of successful acoustical designs. To advance this art and science, RPG® is collaborating with CATT to measure and incorporate sound scattering coefficients for architectural acoustic surfaces into geometrical computer modeling programs. RPG® is also distributing CATT Acoustics prediction and auralization software.

Digital Architecture

As our society moves from dedicated single purpose facilities, like Opera Houses, Symphony Halls, etc. to multi-purpose facilities, passive and active variable acoustics becomes a necessity. When passive variable acoustics is cost prohibitive, RPG® offers an electro-acoustic solution. The Systems for Improved Acoustical Performance (SIAP) processor digitally processes incoming sound from stage microphones and temporally and spatially distributes this sound to a large number of loudspeakers located strategically throughout the venue to electronically simulate and fill in missing natural reflections. This is all done digitally, using no feedback and time-constant decorrelation.

Research

The architectural acoustics industry recently celebrated the 100th anniversary of its founding by W.C. Sabine. During this time, the acoustics industry has developed ways to characterize and standardize sound absorption surfaces. The study of sound scattering surfaces is still in its infancy. However, over the past 20 years, RPG® has developed and published methods to design, measure, characterize, predict, optimize, and standardize sound diffusing surfaces. This body of work is helping acousticians understand how to evaluate potential scattering surfaces, as well as how, where, and when to specify and apply them in their designs. RPG also offers free testing to the acoustical and architectural communities, using our rev room, large and small impedance tubes. RPG also provides scattering and diffusion coefficient determination.

Commitment to Information Technology

RPG® is committed to information technology. Our Web site is considered one of the most informative sites in the industry. RPG® is committed to providing complete product, profile, application, and distribution information on this site for access whenever it is needed. RPG®'s monthly effusor Memo informs acoustical consultants where to find important developments to save them time and keep them up to date.

Cost-Effective Prices

In addition to its research commitment, RPG® is committed to excellence and efficiency in its manufacturing. RPG® is constantly researching new renewable materials to meet Life Safety and LEED requirements, as well as developing new molding and manufacturing techniques to lower cost. RPG® has also established manufacturing locations in the Europe and Asia.

Proven Track Record

RPG® is an enduring company that has established a reputation for quality products, continuous acoustical innovation, and a long list of satisfied customers. This means RPG® has provided excellence in the past, in the present, and will be there for you in the future. RPG® has demonstrated sustaining power, so you can rest assured that your reputation will be enhanced by specifying RPG® products. RPG® clients span the spectrum of music production and music reproduction facilities and are its most prized accomplishment.

The RPG Acoustical Palette consists of:

1. Digital Acoustics

RPG® offers the widest acoustical palette of passive, digital acoustic, Arcousthetic™ AcousticTools® in the industry. These include optimized digital number theory reflection phase gratings, planar and curved optimized binary amplitude gratings with any surface reflectivity, and optimized curved, stepped, or fractal surfaces. These surfaces compliment contemporary architecture the way columns, coffered ceilings, and surface relief ornamentation complimented classic architecture.

2. Digital Optimization

RPG® offers a range of digital optimization software. This includes commercial Room Optimizer™ loudspeaker / listener placement software and Room Sizer™ room dimensioning software for rectangular rooms, proprietary Shape Optimizer™ Boundary Element/ Multi-dimensional Optimization customized shape software, and Boundary Element shape evaluation software.

3. Digital Simulation/Auralization

RPG® offers CATT Acoustics geometrical acoustics software to predict and auralize virtual rooms. Room surfaces are characterized by absorption and diffusion coefficients, any number of sources are characterized by a Dynamic Link Library Directivity Interface (DDI) for variable resolution, near / far field directivity balloons, and any number of receivers are characterized by Head Related Transfer Functions (HRTF) for binaural audition. Stereo, mono, 5.1, and Ambisonic auralization is also possible.

4. Digital Architecture

RPG® offers the Systems for Improved Acoustical Performance (SIAP) variable acoustics electronic architecture system, which electronically modifies a room to meet different acoustical requirements without any physical architectural changes. The SIAP processor distributes digitally processed sound from inconspicuous overhead stage microphones to a large number of concealed loudspeakers located at strategic positions in the venue, to provide a suitable sound reflection pattern.