



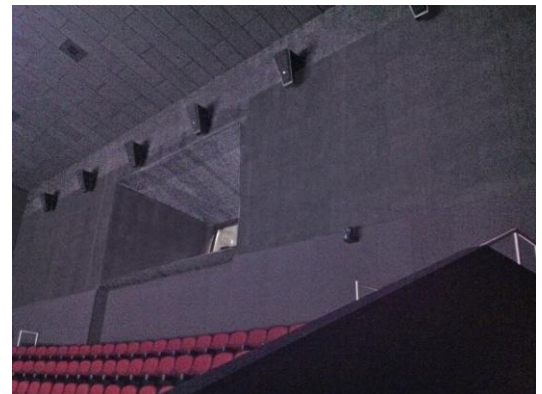
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## ***Legacy Audio Advances Theater Sound***

### ***At Ultra-High-Definition Giant Screen Digital Theater***

(Springfield, IL) [Legacy Audio](#) introduces the new doubleHelix audio system for state-of-the-art cinemas and large screen theaters. The system was recently installed at the [Peoria Riverfront Museum](#) in Peoria, Illinois. Evolving cinema technologies from studios such as Dreamworks® and Pixar® are raising the expectations of theater sound. Reacting to this challenge, companies such as Legacy Audio are now providing systems with more channels of playback and more convincing immersion experience. "The theater represents a unique opportunity to pull out all the stops in the audio and video presentation," says Aaron McArdle, CEO of [ZDI, Inc®](#), system design integrator for the museum.



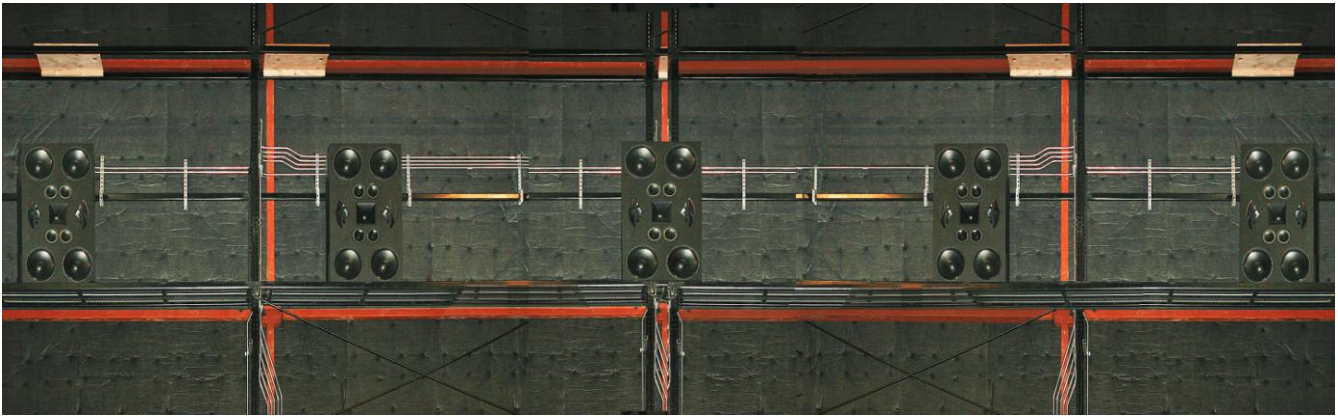
The Peoria Riverfront Museum's two-hundred seat Giant Screen Digital Theater boasts a 70 x 52 ft screen. According to [Global Immersion](#), the UK designer and integrator of the Giant Screen theater's projection and media server/management system, "The GSX™ Giant Screen Cinema solution is an integrated system featuring two 4K digital cinema projectors. The system is capable of playing DCI (2K: 2048x1080 and 4K: 4096x2160 letterbox/1.85:1 aspect ratio) and Giant Screen (4096 x 3072 resolution/4:3 aspect ratio). The system is also 3D-capable. It is the world's highest brightness 3D digital cinema system, and the world's highest resolution digital cinema system."

The audio system reaches beyond conventional theaters, and is designed by sound engineer [Bill Dudleston](#) of Legacy Audio. It will provide up to 20 steerable sound locations and will be powered by 42 channels of amplification offering 14,000 watts. The system will utilize [Dirac](#) room compensating software hosted by the [Datasat](#) AP20 digital processor, which compensates for room reflections and provides system crossover and equalization.

The [doubleHelix](#) technology was first utilized in a custom system built for legendary record producer [LA Reid](#) of Epic Records, X-Factor, Arista, UMG fame. The loudspeaker system is unique to this theater installation. It features five 3 x 5 x 1.5 ft Legacy doubleHelix splayed along the seventy foot long platform, located some 30 feet above the floor. The Giant Screen Digital Theater will also exploit 14 surround loudspeakers and an overhead loudspeaker in the shape of an inverted,

truncated pyramid that projects sound to all viewers. This speaker will provide continuity in ambience and add drama to flyover effects.





According to Legacy Audio President and Chief Designer, Bill Dudleston, “The doubleHelix is unique in that it offers wideband directivity control. The large cabinets are dipolar in nature (open to the sides) which helps to focus the lower midrange and upper bass range, and provide a longer acoustic throw. This improves intelligibility and allows the off-center seated listener to hear the more distant channels adequately. The special driver array also reduces undesirable bass droning and overhang.”

Each of the five doubleHelix in the front of the theater employs four internal 500 watt [ICEpower®](#) amplifiers to drive the digitally steered channels. Included in the system are fourteen identical side and rear channel speakers and an exclusive centrally located overhead channel. The overhead speaker is in the shape of a truncated inverted pyramid with separate speaker components on each of the facets. Total system power in the Peoria Riverfront Museum exceeds 14 kilowatts and meets stringent efficiency requirements.



### **About the Peoria Riverfront Museum**

You’ll find the industrious city of Peoria amidst the prairies of central Illinois – about 150 miles north of where the majestic Illinois and Missouri rivers converge on the great Mississippi. The riverfront city is the international home of Caterpillar Inc., a significant contributor to the P.R.M. project, which broke ground in September of 2010.



### **About LEGACY Audio**

For three decades, LEGACY Audio has handcrafted some of the finest loudspeakers available. The quality standard is the same for our flagship commercial doubleHELIX system as our Studio HD bookshelf system. Our speakers are renowned for establishing reference level performance in home theater and audiophile settings. For further information, please visit our website: [www.legacyaudio.com](http://www.legacyaudio.com) or contact Victoria Dudleston at [info@legacyaudio.com](mailto:info@legacyaudio.com). Legacy is a registered trademark of Acoustic Avenue, Inc. All companies aforementioned operate independently with all rights reserved. Legacy Audio 3023 E. Sangamon Avenue Springfield, IL 62702 (800) 283-4644