



The Newseum master control room.

The museum of news, called the Newseum, near the White House in Washington, DC, is one of the most technologically advanced museums in the world, featuring 250,000 square feet of hands-on exhibits, theaters and studios. The new facility combines 500 years of news history with the latest in news-gathering capabilities. The task of designing, integrating and installing the wide array of broadcasting and audio-visual equipment making up much of the museum experience was handled by Communications Engineering Inc. (CEI) of Newington, Va. One of the key challenges was the need to install the systems while the 643,000-square-foot, seven-story building -- which includes a conference center, offices, a restaurant and apartments -- was under construction.

CEI's role in the Newseum project included designing and building several production control rooms, installing audio and video equipment in the Newseum theaters and studios, installing network equipment connected to interactive areas throughout the museum, and building the sophisticated master control room.

The master control room was especially challenging because it not only acts as the control center for managing all aspects of the Newseum systems, it also is a primary attraction for visitors. A large glass

wall in the room faces the huge atrium area of the facility, allowing visitors to watch the operators in action. So, the room needed to be very functional as well as aesthetically suitable for the museum.

From here, operators can control the video and audio that is displayed throughout the Newseum, including the content on more than 160 touch screens in interactive kiosks. CEI supplied hundreds of PCs and worked with Evertz to build a special bi-directional fiber optic device that could handle 1920x1200 resolution, RS232, USB and audio for managing the kiosks.

A main focal point of the Newseum is a 22x40-foot Barco high-resolution modular LED display, which dominates the atrium of the facility. It is mounted on a lift that allows it to be raised or lowered 30 feet depending on the type of event taking place. Images displayed on the screen are played out from the master control room.

CEI also built two identical high-definition production control rooms with adjoining audio control rooms for two broadcast studios. The Newseum TV Studio will be used for public affairs and news programs by major television networks. A second, smaller studio features a backdrop of the U.S. Capitol.

One of the facility's 14 theaters is the Big Screen Theater, which features a 10x90-foot screen displaying images provided by five blended Christie XGA projectors.

CEI also built four Avid HD edit rooms plus a multi-purpose room that serves as an Avid suite, screening room and audio post-production room. A central equipment room contains servers for the 12 SD & 36 HD channels of content being played back throughout the Newseum, and an ingest room enables the intake of content in a variety of formats.



One of the two Newseum HD production control rooms.