**Pro AV Case Study**

**Featured:** Booker T. Washington High School Performing and Visual Arts Schools. BTW is a Dallas Independent School District Arts Magnet School located in the Arts District of downtown Dallas, Texas.

**By:** Designed and professionally installed by Digital Resources, Inc. located in Southlake, TX

During 2017, the trustees of Booker T Washington (BTW) embarked on a campaign to raise funds, plan and design a state-of-the-art video and audio recording system to capture performances that happen throughout the school of 1,000 plus students. These recordings could then be used for critique and student resumes for acceptance into college programs. This was to be funded via private donations. At the end of 2018, the funding was obtained and during the Summer of 2019 the construction and installation commenced.

Scope development was completed with faculty and staff that denoted the following criteria for the systems to be installed.

1- High end audio recording would be needed to capture performances by the numerous bands and ensembles in a small studio space and throughout the facility. This would have to accommodate and meet the expectations of numerous high-end recording celebrities that visit and teach at the school.

2- Due to limited space, the control room would have to house audio and video control components.

3- Video and audio would have to be flexible and mobile so recordings could continue at the various venues in the school while the recording studio was in use. It also had to be scalable so additional venues in the facility could be added as funding was obtained.

2107 Greenbriar Drive, Suite B., Southlake, TX 76092
Phone: 817-481-9300 Fax: 817-488-0595
www.digitalresources.com
The facility footprint was laid out and designed by Russ Berger Design Group (RBDG). RBDG also provided all the specialty construction details to provide optimum cooling and sound isolation. Digital Resources, Inc. Design Engineers, Tim Davis, Jason Levert, and Mark Lauffer engineered the areas consisting of a large Audio/Video control room, recording studio and training/conference room. Remote recording locations were to initially be in the auditorium and movement studio areas.

**Remote Cart System:**
A remote system on a cart was designed and built using a Big Foot custom cart system that has camera and audio connections via fiber back to the control room. The cart has audio and video monitoring, as well as mixing and recording so the system can be used independently of the main control room. The cart also has a Panasonic AW-HE40 PTZ camera that is placed on a Vinten tripod. There is a Panasonic AWRP50NJ PTZ control located on the cart and one in the control room to provide camera control and adjustment. Shure ULXD4Q wireless microphone system is used for wireless mics and the cart also has several wired mic inputs. An AJA KiPro Ultra HD is mounted in the cart for image and audio capture.

**Audio Mixing and DAW Control:**

The main audio mixing console and heart of the audio system is a Solid State Logic 24ch. Super Analogue™ Console with SSL delta and DAW Control. This console was chosen to meet the high-end requirements developed in the design scope.

**Audio recording, post mixing and editing**

For recording and sweetening, 2 Avid ProTools HDX systems with AVID Artist Mix were installed and commissioned.
Audio capture devices:

A wide range of high-quality microphones from multiple manufacturer’s such as Neumann, Earthworks, Audio Technica, AKG, RODE, Electrovoice and Shure where put into inventory to assure that multiple instruments and performers could be professionally captured.

Video Production:

To perform video switching and mixing a 1 M/E ROSS Video Carbonite switcher and single channel Xpression CG were utilized. These systems were installed and setup in a small area in the rear of the control area.

Audio monitoring:

Genelec speakers where installed to provide accurate audio monitoring. Utilizing several proprietary technologies from Genelec, the speaker systems where quickly and easily setup to match the control room acoustics and produce audio accurate reference.

Headphone Monitoring:

Unanimously agreed upon and installed systems were the Aviom D-800 dante system using the Aviom A-320 personal mixing stations.