Day 1 – AV Cables

Learned about shielded Ethernet cables which have each twisted wiring in the cable have a shielded casing to reduce noise. Learned the location of each cable at the department and distributed appropriate cables to other departments on the day of and throughout the internship.

Day 2 & 3 – Audio

Explored all the audio equipment available in the audio department. Tested incoming equipment from previous jobs by plugging microphones and making sure audio ouput was heard, removed the batteries to be replaced with new ones later, and checked for wireless setup if there is one.

Day 4 & 5 – Video

Reviewed a Package System (Type A in the company) that was For-A 1ME 3G/HD Switcher with 32 by 32 Router System Rack. It contained openGear3, Aja FS2, Trimaster EL, Harris Videotech, Sierravideo, Hanami G star, Middle Atlantic Keyboard, BrightEye 57, Tally Ho! Systems – Tally Routing System, For. 8 Hanabi, and a Middle Atlantic UPS (Uninterrupted Power Suppy). The openGear3 is connected to an SDI Patch Panel in the back for easy access.

Day 6 – LED

Quadrant is the front of an LED Tiles. These quadrants are four sections of a tiles. LED stands for Light Emitting Diode. The diode has three conductor connections on each side. One side (left while facing it) is for power while the other side is for color. These diodes usually emit the three RGB colors: Red, Green, and Blue. Together they, also emit a white color.

The LED Tiles used in Worldstage are: U3, U39, U6, and the Roe.

The Creative Clamp is for attaching from the LED tile wall to the Ladder. You take the tiles away by sliding the corner into the slot of the road case.

Testing for LED Tiles at Worldstage is done by NovaStar equipment. NovaPro HD, Unilumen LED Display Controller, and the DPT Dead Pixel Tester. Together color and patterns are displayed on a 10 daisy-chained LED tiles and checked for any dead pixels after a few minutes of playing.

Day 7 – LED continued

Cat5 and Cat6 are used for LED tiles but Ethernet cable must be shielded. For testing you allow for burn time. Best way WorldStage to clean the LED tiles is through cloth fibers. It's possible to remove the cover of a quadrant to reveal the circuitry in some models. In others, access to the circuitry can only be throught the back. The LED tiles at Worldstage contain chips that have 16 conductor connections. In each quadrant there is a a chip. The chips in a LED tile

are daisy chained from one to the other. Each connection is for the right color and power and it is important not to mix them up.

Day 8 – Projection

For today I helped focus projectors to go out on a job. Board siding adjusts how the lense sits in the projector. Board side lock screws contain springs that adjust the lense by loosing or tighting. Lock screws for Board Siding needs a ¼" turn to loose. To re-focus turn a whole turn for each Board Side screw until focused. Board Siding needs a hex key.

For adjusting the lens with Board Side screws a Grid test pattern was used. Sometimes you can focus by completely loosening one Board Side screw and sharpening the other two.

Day 9 – Projection continued

Had a walkthrough with David in the department throughout the whole shop for meet and greet with other departments. David talked about freelance and field work as David often goes out on site to install projectors. Talked about that it was important to test and focus projectors at shop first as projectors are difficult to place and install.

Day 10 – Convergence

Helped build a rack for a job. Helped department members get approriate cable for patching as well as rack components. Was explained the purpose of the matrix and how components had to be connected through for monitor operation.

Day 11 – Engineering/Integration

Learning programming media servers with Alex in the department. Setup was Inter 360 RX to a switch. Switch was connected to Avoncenb by Ethernet cable and then connected to a monitor through DVI. Used Display Identifcation Device Data to see what the monitor was connected to and was done through the graphics card.

Tested for the new watchout 1.6.1.4 from the previous 1.6.1.2 to check for any issues. Alex checks each input on the Matrix to see if everything is being sent correctly. Used Ensemble Desings switcher boxes, NAB, and Apantac MV.

Day 12 – Engineering/Integration (continued)

Helped Sandy build breakout rack boxes. Took AV panels and punched out new openings for AV connectors. Screwed AV connectors on the panel and attached the entire panel to the rack. Checked for block diagram to connect everything to appropriate locations.

Continued testing with Alex who used QBoxes to test the audio in the rack. Tech table rack was connected on a 12 strand NTP fiber cable.

Day 13 – Field Work

Worked ona simulation of field work by helping set up the annual conference at the shop. Helped bring up pipes and drape, focus the lights on the genie, run power and cabling throughtout the area, and set up rear projection. All under supervision and mentorship.

Day 14 – Drafting

Used the: Stage on Vectorworks drafting software.

Drew out stage deck, trusses, and soft goods. Included Video screens with projector. Done through tools from the tools sets.

Move tool can also be the array tool.

Previsualization allows for 3D model viewing of what's drafted.

Control/Command K kills a plug-in.

Day 15 – Drafting (Systems)

Mentored by Julian Chaves.

For every Watchout you need DA & CIM. A KVM user station. MIDI for show control through lighting. MIDI splitter is used for two MOTUS since theres a backup.

Julian uses ConnectCAD for Vectorworks. MV is re-plugged to matrix for being able to sent to stream for remote control. ConnectCAD has device builder tool to replace Vectorworks symbols. Device builder tool can accept text files to include different signals and connector. Racks have RU or rack units for height.

Watchout output goes to DA to duplicate signal for CIM to remote view it.

CMD/Ctrl 2 to just undo a connection in ConnectCAD.

System with Julian contained Apantac DE-R Multiviewer, Cisco SG300-10 switcher, showsage i7-4ru, Avocent_HMIQSHDI Computer Interface Module, Lightware MX-FR-17 matrix, and Gefen 1:2 Dual Link DVI.

Day 16 – Convergence

Working on prepping roadcases to go out for jobs. Each job has a number to be assosciated with as well as a color for each department. The date out and return date are also written. Then the client, item, and description. All written info can be erased as it's written on whiteboard.

Day 17 – Freebie

Worked on setting up a video system with lighting console to control video cueing. Talked to Staff who were interesting in giving suggestions. Ran MIDI to Watchout media server.