

Strand Theatre Shelbyville, Inc.

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Strand Theatre Weekly Newsletter: December 22, 2017

Written by David on December, 22 2017

Dear Strand Fan,

We have a winner! The only person to respond last week was Strand Fan Rod M. He gets a free drink for knowing we referenced Indiana composer Cole Porter.

The weekend we bring an end to our 2017 season. Saturday night we welcome the reunion concert of FENNS STATION. This group has not performed together in over 15 years. They will bring back fond memories of the past and reminded us of the great talent we have here in Shelby County. They will be joined in their Strand debut performance by BLUE RIDGE BANNED. The concert starts at 8pm and tickets are still available.

We finish the year with two services by First Christian Church. We are their Christmas Eve home while their church is under renovation. Everyone is welcome to attend. There will be a 10:00am worship service followed by a 6:30pm Candlelight Service.

When we announced our schedule from the stage last weekend our performer, Donnie Baker, commented he couldn't believe he was followed by a church service! He reminded us of the unusual nature of our facility by being open to all. This is allowed because of our forward thinking and unusual financial management. Whether comedy (of the Donnie Baker variety) or services by FCC, we are there.

We are working on our upcoming renovation plans.

(warning, tech talk ahead) and we mean it!

We are taking a major step forward by upgrading our equipment and how we control our stage lighting. DMX is the protocol we use (as does just about everyone) for the control of our lighting.

It's a digital signal, not much different than old serial type computer connections. DMX is broken into groups called "universes". Typically, one XLR (microphone type) connection is used per universe. Originally these connectors used 5 pins, but more recently more manufacturers are using 3 pin. The newer 3 pin are widely available, since sound equipment (primarily microphones) use the same connector. In one universe, there are 512 channels.

On each DMX link, the current values for each channel are constantly sent out over the DMX line repeatedly. This allows for new devices to get the channel information as soon as they are connected. Light fades are accomplished by each data packet being sent out having a slightly less value. Fades appear smooth, thanks to packets being sent out about 44 times per second. DMX was originally specified in 1986, with more specific revisions in 1990. However after that, it has stayed more or less the same, at least at a basic level, allowing new equipment to still work with older dimmers (like in our case).

In basic systems, one channel usually equates to one dimmer, although it is possible to assign more than one dimmer per channel. Each channel can have a value of 0 to 255, the higher the number, the brighter the fixture on that channel. A DMX cable is then routed from the control board/device to the dimmer rack.

Effects lights are a little different. They will typically use multiple channels to allow for more functions. For example, one of our LED fixtures, use 5 separate channels to control all the functions. Channel 1 controls the overall brightness of the light. Channels 2, 3, 4 control how much Red, Green, & Blue there is. Using these three colors in different amounts allow for virtually any color to be mixed. Channel 5 on our LED fixtures controls strobe speed, but on different fixtures, different functions may exist.

High dollar effect lights (i.e remote moving lights that alas we cannot afford), can use upwards of 30 channels per each light, hence the need for multiple universes in some cases. Fixtures of this style are usually assigned different groups of channels so they can operate independent of each other, however you can assign more than one fixture to a group of

channels as well, they just will not be able to be controlled independently.

Effect lights are usually daisy-chained together with DMX cables to get the signal to each light. Only so many fixtures can be connected in a chain before the signal degrades. Usually 32 or so is the theoretical limit, but we usually like to limit closer to 16.

Through the use of DMX optosplitters, additional isolated lines can be added, each with their own separate device limit. This is thanks to the optosplitter isolating each split line electrically. We use several of these.

New protocols exist out there, namely Art-Net, but at its heart it is not really a new protocol, but more a new way delivery (using an IP network), using the same basic communication protocols. One big advantage being a single art-net link can carry multiple "universes".

Whew...now you know. This is also a little peek into the expertise we have within our Strand organization to tackle these needs. Strand Board member Cody V. is one of several DMX gurus that will get this system up and running.

Hanukkah ended this week and Christmas is around the corner. We hope whatever holiday you celebrate, the spirit of peace and joy will fill you during this season. The next time we send out our Weekly Email the 2017 Season will be in the books. It has been a wonderful year and that is because of you! Thank you for the support. See you at the Strand.

Images on this post:

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