

# ***EIS-FOH* Audio Engineer/ System Designer**

By: Enson Zhou

What is EIS?

E.I.S ( Electro-Acoustical Improvisation Summit)

-Music Improvisation with the use of Interactive  
Computer Systems



# Responsibilities

- Accessing Current System
- Design new system with new components added
- Assist Crew with Pulling and Testing Equipment
- Create a Front Of House Mix
- Troubleshoot if needed



# Resources

- Access to School Equipment
- Crew Members from Elliot's Technical Production Crew
- Access to Voorhees Theater



# Timeline

02/27/24- 1st Production Meeting

03/14/24- Evaluation of Current System

03/19/24- Join Production Meeting

04/1/24- 04/5/24- Create New Block Diagram

04/9/24- 2nd Production Meeting

04/16/24- Prep Equipment Needs

05/02/24- Sound Check

05/03/24- Tech Rehearsal and Show

05/07/24- Final Production Meeting

05/09/24- Poster and Presentation

Total Duration: 3 Months

# Work Breakdown Structure

## 1.Planning/Outline

1.1- Production Meeting With Technical Advisor

1.2- Evaluate system

1.3- Join Production Meeting for Tech List

1.4- Sketch New Equipment Needs

1.5- Production meeting with Technical Advisor

## 2.Pre-Production

2.1- Prep New Equipment

2.2- Line Check

# Work Breakdown Cont.

## 3. Production

3.1- Tech Rehearsal

3.2- Show Time!

## 4. Post Production

4.1- Strike All Added Components

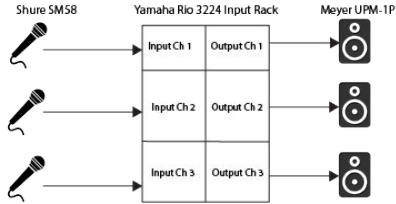
4.2- Post Production Meeting with Technical Advisor

# Added Components System Block Diagram

## EIS 2024 Block Diagram And Tech Needs

System Designer and FOH Mixer: Enson Zhou

### Group 1

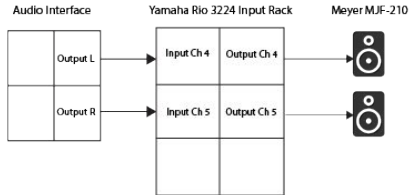


Tech Notes:  
- 3 Individual Mixes to each monitor

**GROUP DROPPED**

Equipment List  
(3) SMS8 Microphone  
(3) Meyer UPM-1P Speakers  
(6) 25' XLR Cable  
(3) Powercon Cable  
(3) Mic Stands With Clips  
(1) 50" Edison Cable  
(1) Power Strip

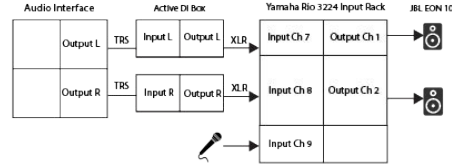
### Group 2



Tech Notes:  
- Power Source is needed for act

Equipment List  
(2) 25' XLR Cables  
(2) 50' XLR Cables  
(2) Powercon Cable  
(2) Meyer MJF-210 Speakers  
(2) 50' Edison Cable  
(1) Power Strip  
(1) Quad Box

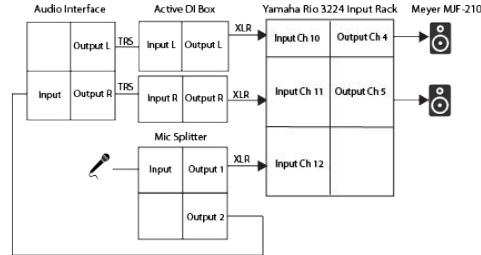
### Group 3



Tech Notes:  
- Monitors will be moved from previous group  
- IF NO 2 Channel Active DI Boxes are Available, Replace with 2 Regular Active DI Boxes

Equipment List  
(2) 25' XLR Cable  
(2) 5' TRS Cable  
(1) 2 Channel Active DI Box

### Group 4



Tech Notes:  
- IF NO 2 Channel Active DI Boxes are Available, Replace with 2 Regular Active DI Boxes  
- Power source is needed for act  
- Monitors will be moved from previous group

Equipment List  
(2) 25' XLR Cables  
(1) 10' XLR Cable  
(1) 2 Channel Active DI Box  
(1) Active DI Box  
(1) SMS8 Microphone  
(1) Mic Stand with Clip  
(1) 25' Edison Cable  
(1) Power Strip



# Prep Equipment

- Assist Elliot's Tech Production Crew
  - Pulled Equipment
  - Layout of equipment and cables



# Show Day Tech Rehearsals

- Group 1 Dropped
- Line Check
- Troubleshooting
- Assist Deck Crew with Setup



# Showtime

- Provide FOH mix for audience
- Provide Monitor Mix for performers

Show Was A Success!!!!



# Troubleshooting

# Issue 1: No Signal To One Monitor

## Method of Troubleshooting

- Ensure desired channel is being sent to monitor
- Check Physical Patch of cables to Input Rack.
- Check Dante Patch on Board

## Solution:

Ensure Channel is in Pre-Fader and Not Post Fader.

## Issue 2: Monitors

Problem: Monitors were not convenient to move across multiple acts on stage.  
Cable management would be messy.

Solution:

Use another set of monitors for one of the groups

# Issue 3

Problem: Gain Difference between Two Monitors in stereo

Path to Solution:

- Ensure Desired Channel is being sent to monitors
- Ensure same amount of signal is sent to both monitors
- Test each Monitor Individually

Solution:

Possibly an Issue with Audio Interface from performer. Set the gain of each monitor by ear.

# Conclusion

The Show Was a Success barring some minor troubleshooting. However, It would not have been possible without the help of Faculty Members and Fellow Students. This project was not easy, it was definitely a challenge and I am glad it turned out a success.



# Acknowledgments

- Prof. Elliot Yokum (Technical Advisor)
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- Prof. John Robinson (Faculty Advisor)
- Coralie Monamy (Deck Crew)
- Jess Desjardins (Deck Crew)
- Nicole Fuzaylov (Deck Crew)
- Audio/Projection Tech Production Crew
- CLTS