

Zero Input Mixing Workshop



Day and Date : Saturday
September 6, 2014

Time : 10:00 AM to 12:00 PM

Event : Electro Music 2014

Type of meeting:

Hands On Workshop

Facilitators:

Bill Manganaro / Dale Parson

Where:

Greenkill Retreat Center in Huguenot, New
York, September 5 - 7, 2014

Suggested Reading:

<http://electro-music.com/wiki/pmwiki.php?n=Articles.FeedbackOrNoInputMixing>

<http://electro-music.com/forum/topic-51548.html>

http://en.wikipedia.org/wiki/Barkhausen_Criterion

http://en.wikipedia.org/wiki/Noise_music

<http://artsites.ucsc.edu/ems/music/equipment/mixers/mixers.html>

http://en.wikipedia.org/wiki/Matrix_mixer

Suggested Videos:

<http://www.youtube.com/watch?v=YvTeqxLEfOQ>

http://www.youtube.com/watch?v=QKcs8_rLAc

<http://www.youtube.com/watch?v=FLVkJmJvXTw>

<http://www.youtube.com/watch?v=MxM98JI44OQ>

Please Bring:

1. A portable audio mixer.

2. Headphones. This will be a lab-based workshop. There is no limit on number of participants. There will be a lot of uncorrelated sounds during experimental stages. You will want to hear what you are doing.

3. A way to limit / compress your signal so you do not get runaway feedback that damages your hearing or, later, the sound system in the room.

ZIM works by feeding at least one mono or stereo channel from mixer output(s) to mixer input(s). Some mixers include per-channel limiters or compressors. Those that don't often go immediately from zero signal to maximum, saturated signal, with no fine control.

NOTE: If you are new to this, start off by putting your headphones on the table rather than on your head, and then bringing up the main mixer volume. Make sure that it is not going to blow out your eardrums before you put on the headphones. If you are using speakers, keep the volume very low until you test out the feedback control.

4. FX to put into the feedback path. Some mixers have built-in effects. The mixer's EQ provides the basic control for feedback pitch. Electric guitar stomp boxes, DIY circuits, delays and sustains, basically any kind of effect can go into the feedback path. The Korg Kaoss & Quad FX pads work very well for feedback FX with ZIM.

5. One or two 1/4 inch cables so you can plug into the sound system when we begin working as an ensemble. If we have a lot of participants, we may have to go to a single mono feed from each performer on Sunday.

ZIM Workshop Syllabus

<u>Title</u>	<u>Facilitators</u>	<u>Approximate Time</u>
Personal Introductions	Bill Manganaro / Dale Parson	3 minutes
Workshop Objective	Bill Manganaro	3 Minutes
History	Bill Manganaro	5 Minutes
Theory of Oscillation and Feedback	Bill Manganaro	7 Minutes
ZIM using Mixers & Hardware Effects	Bill Manganaro	9 Minutes
Cautions when using feedback	Bill Manganaro	3 Minutes
Participant Setup / Hands On / Interactive With Q&A	All	60 Minutes
Software In the Feedback Path	Dale Parson	15 Minutes
ZIM Orchestra Performance and Plan	Dale Parson	15 Minutes