**Music for Septet and Computer    by Cort Lippe    Tech Rider**

From a sound engineering point of view, without dealing with Max/MSP, the setup is fairly simple.

**MICROPHONES & AMPLIFICATION**
Each instrument should be amplified with a cardioid or super-cardioid microphone. (All the microphones are used for instrument amplification.)

Two of the instruments, piano and percussion, should use two microphones, while the rest of the instruments only need one. (Depending on the percussion layout, a third microphone can be used as well.)

Instruments can be balanced and EQ'ed based on the qualities of the hall and the taste/ears of the engineer.

The instrument amplification can be panned slightly for each instrument to reflect their location on stage. (See the informational page in the score)

Depending on the hall, reverb should be added to the instruments as needed. (Only one reverb unit for all instruments is required.) Reverb should be non-localized in the hall, so panning of the reverb output is up to the ears of the engineer. (Reverb sends from each instrument should be post-fader).

**COMPUTER AUDIO**
All the instrument microphones are summed as a MONO pre-fader aux send which is the input to the computer (without reverb, of course).
The pre-fader aux send is input to the computer on the first ADC channel of the audio interface being used. (Make sure the audio interface is not in "through" mode.)

The output of the computer is stereo, on DAC1 and DAC2, hard-panned left/right on the mixer.

**MAX/MSP**
All information concerning running the patch can be found in the patch itself. There is a README patcher on the front panel, as well as two sub-patchers in the README for details on the instrument amplification/microphones (which you have just read above in this document). There is also a sub-patcher which describes a way to use an internal reverb in the patch for the hall reverb, if it is not possible to have a reverb external to the patch. A reverb external to the patch is highly recommended in order to have more control over sends from each instrument individually.

**DOWNLOADS**
The score, parts, program notes, general tech notes, Max/MSP versions of the patch for the piece, and this tech rider can be downloaded at:
http://www.acsu.buffalo.edu/~lippe/music4/septet/