

## **Technical Rider**

### ***Clonal Colonies* for ensemble, computer-realized sound, and video (flute, bass clarinet, violin, cello, piano, gongs)**

Revised 27 December 2011  
check BatHatMedia.com for updates

#### **Overview**

The work is comprised of two movements: *Fresh Runners* (6:45) and *Soft Strata* (8:45).

A performance of *Clonal Colonies* involves video projection, playback of the soundtrack to that video, and ensemble playing in synchronization with the soundtrack. That is, it is an “ensemble plus tape” paradigm.

With sufficient rehearsal time, it should be possible for the ensemble to play with the tape part without additional assistance. However, an optional click track is provided for rehearsal and/or performance. A third option would be to use a conductor, who in turn would have the option of using the click track.

#### **Instrumentation**

An octave gong set (middle C to C above middle) is required.

#### **Available Materials**

Full score (paper or PDF)

Parts (paper or PDF)

Rehearsal Sequence: Digital Performer file or MIDI file + OMF file

Performance backing tracks/video: Quicktime video file

#### **Rehearsal Setup**

An audio sequence with markers for the rehearsal letters and a click track is provided. This enables one to easily jump to any point in the piece for rehearsal purposes.

The rehearsal sequences are provided in two formats: a Digital Performer 7.X file and a generic sequencer format.

The generic format is provided in two parts: a standard MIDI file (.mid) containing the tempo, meter map, and markers data, and an OMF file (.omf) pointing to the audio tracks. To make a rehearsal sequence with your sequencer, open the standard MIDI file, copy and paste the conductor track, then open the OMF file in a new sequence, and paste the MIDI data into the conductor track. If required, ask the sequencer to display markers, in order to give you a list of the rehearsal marks.

The sequences contain the stereo backing track and a mono click track. These can then be assigned to your audio interface outputs as appropriate.

The simplest technical setup would be to route the stereo output of the computer to stereo monitors placed behind the ensemble.

### **Performance Setup**

Core technical requirements:

- Computer with Quicktime installed, capable at least of playing back 720p H264-compressed files at 20 Mbps data rate. Most modern multicore computers can do this. Any setup should be carefully checked to ensure frames are not dropped during playback.
- Audio interface providing 2 channels of output (or 3 channels, if using click track). Built-in computer audio outputs are not recommended, due to their tendency to have high noise floors and poor audio quality.
- High quality stereo playback. Subwoofer support is ideal.
- Video projection. Ideally the projector will have a native display capacity matching video format. "High" lumens and contrast ratio desirable.
- Video screen. Note that the image is 16:9 ratio.

The sound setup will depend on the nature of the space:

- A "chamber" setup could involve stereo speakers behind the ensemble.
- Larger or more reverberant spaces might call additionally for stage monitors specifically for the ensemble to ensure they can hear the tape cues clearly.
- The most elaborate setup would involve microphone for each of the ensemble members, mixing with the tape part, and possibly a global reverb aimed to create the most uniform melding of the ensemble and tape parts for the audience.

A separate video is provided for each movement. The video is provided in 720p (1280x720) formats, as Quicktime H264-compressed files.

The video files contain the stereo audio backing tracks as well as a third track — the click track. For computer setups where the outputs can be defined by 5.1 output channels, these tracks are assigned the labels left, right and center. The audio tracks are 16 bit, 48 kHz.

It is important to test the computer, audio interface and projector together to ensure that the setup can play the video without dropping frames.

**Additional**

Standard definition DVD playback is not provided, since SD DVD does not provide sufficient image quality.

BluRay format backing video will be investigated but is not currently available.

The video was authored in 1080p, but due to the extreme density of detail and movement in parts of these videos, 1080p Quicktime playback is not reliable given current computer speeds.