Cort Lippe
Program Notes

Music for Contrabass and Computer (1995) was written for the American bassist Robert Black, commissioned by the Festival El Callejon del Ruido Competition of Guanajuato, Mexico, and premiered there in 1996. The electronic part was originally created at the Hiller Computer Music Studios of the University at Buffalo, New York, using the IRCAM Signal Processing Workstation and the software *Max*, which was developed by Miller Puckette, whose technical support helped make this piece possible.

The computer tracks parameters of the bass, such as pitch, amplitude, continuous pitch change, rests, articulation, timbre, tempi, etc., and uses this information to continuously control and influence all the electronic sounds via compositional and digital synthesis algorithms. Time-stretching, granular sampling, and FFT-based cross-synthesis, as well as more standard signal processing such as harmonizing, phasing, spatialization, etc., are employed. The intent is to create a certain degree of interactivity between the performer and the computer in which the performer influences the computer output based on aspects of the musical expressivity of his/her interpretation of the score. Much like chamber music playing, in which individual expressivity has a fundamental influence on the entire ensemble; the feedback loop between the performer and the computer should have a positive influence on the final musical result.

Some of the sounds in the electronic part come directly from the composed bass part, and are transformed by the computer in real time during the piece. Sound material from other than the bass part is also manipulated. Thus, in certain cases, the musical and sound materials for the instrumental and electronic parts are one and the same, while at other times the parts differ. This instrument/machine relationship moves constantly on a continuum between the poles of an extended solo and a duo. Musically, the computer part is sometimes not separate from the bass part, but serves rather to amplify the bass in multiple dimensions and directions; while at the other extreme of the continuum, the computer part has its own independent musical voice.

Music for Contrabass and Computer is recorded by Irina-Kalina Goudeva on IKG Editions (Denmark). Duration: 13 minutes.