



Send & Receive

A project by Markus Jones

Introduction

Questioning what kind of sound could possibly be heard when sending an e-mail, whilst on a journey across a network and whether the sound differs when you receive an e-mail or when any form of data is being transferred across a Network.

A New Musical Environment



Fig. 1 Network Server Room

The opportunity presented itself when an IT friend and I were having a conversation about his place of work and invited me to pop along and record the potential sounds. Not wanting to miss the possibility of investigating further, I spent the next few days, equipped with a number of recording tools sitting in an enormous network server room (see fig.1). My initial thought was that of complete astonishment! I couldn't quite get over how noisy the space was! I perhaps ignorantly always

imagined that it was going to be a very tranquil space, with just the discreet sound of a small fan and the occasional bleep. The vast amount of noise was mainly due to the number of cooling fans required to prevent the servers from over heating. Never really wanting to capture the sounds of cooling fans (perhaps I'll save that for another project) I started focusing on the light sources from the many LED lights, using a number of different photocells, and to capture the actual sounds being transferred across the network I constructed an audio/ network cable that allowed me to connect to both the server and my laptop (see fig.2) using *Plogue Bidule* and writing a MSP patch that recorded to one soundcard when data was being sent and to another soundcard when the data was being received. This method allowed me the option of manipulating in real-time either sound source whilst the data was been transmitted.



Fig. 2 Connections from Soundcard to Server

The Sound

Seemingly a collection of simultaneous granular sounds, altering in frequency, tone and timbre, and with very little uniformity. A signal is received from the unpolished and altering sound. Once captured, it was then expanded through forming sequences of a coarse sonic progression and with the aid of Bidule (see fig. 3) it was possible within real-time to manipulate and begin to structure.

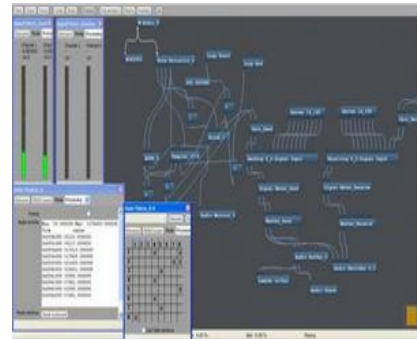


Fig. 3 Bidule Platform for data collection from network server.

The Completed Work



Fig. 4 All 16 Network Servers

The final piece is comprised from 16 different servers (see fig. 4) and from 1200 different ports, collecting close to 16,000 sounds. The first section of the piece is the sounds heard when the data is being 'Sent' and the second half of the piece is the perceived sound of the data being 'Received'.

Source material collected and recorded between November 2008 and February 2009.

Biography

Designer of sound and phonographer, educated at the RNCM and the University of York, in both composition and electroacoustics.

Largely focusing on site- specific and installation work by simply offsetting our normal perceptions. Given that the aim is to replicate a subjective experience of the surrounding sonic environment, collecting sound based on its original origin before twisting it into an interpretation of the original source.

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